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COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

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ADOPTED

BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

38 October 15, 2019

CELIA ZAVALA
EXECUTIVE OFFICER

October 15, 2019

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, California 90012

Dear Supervisors:

PUBLIC BUILDINGS CORE SERVICE AREA
OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN
CERTIFY THE FINAL ENVIRONMENTAL IMPACT REPORT
ADOPT THE MITIGATION MONITORING AND REPORTING PROGRAM AND ENVIRONMENTAL FINDINGS AND STATEMENT OF OVERRIDING CONSIDERATIONS
ADOPT THE CAMPUS MASTER PLAN
(SUPERVISORIAL DISTRICTS 3 AND 5)
(3 VOTES)

SUBJECT

Public Works is seeking Board approval of the recommended actions to certify the Final Environmental Impact Report, adopt related environmental documentation, and approve and adopt the Olive View-UCLA Medical Center Campus Master Plan as a guiding document.

IT IS RECOMMENDED THAT THE BOARD:

1. Certify that the Final Environmental Impact Report for the Olive View-UCLA Medical Center Campus Master Plan project has been completed in accordance with the California Environmental Quality Act and reflects the independent judgment and analysis of the County of Los Angeles; find that the Board has reviewed and considered the information contained in the Final Environmental Impact Report prior to approving the proposed Master Plan project; adopt the Mitigation Monitoring and Reporting Program finding that the Mitigation Monitoring and Reporting Program is adequately designed to ensure compliance with the mitigation measures during project implementation; and determine that the significant adverse effects of the project have either been reduced to an acceptable level or are outweighed by the specific overriding considerations of the project as outlined in the Environmental Findings of Fact and Statement of Overriding Considerations, which

Findings and Statement are adopted and incorporated by reference.

2. Approve and adopt the Olive View-UCLA Medical Center Campus Master Plan described as the proposed project in the Final Environmental Impact Report as a policy document that will serve as a "guideline" for future development of facilities and services at the Olive View-UCLA Medical Center.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

Approval of recommended actions will certify the Final Environmental Impact Report (EIR), adopt related environmental Findings and Statement of Overriding Considerations and documentation under the California Environmental Quality Act (CEQA), and approve and adopt the proposed Olive View-UCLA Medical Center (OV-UCLA MC) Campus Master Plan project.

Background

On December 24, 2013, a consultant services agreement was awarded to Smith Group JJR to provide executive campus planning services for development of the proposed project. Following meetings with stakeholders, community leaders, residents, and businesses surrounding the OV-UCLA MC campus, the planning services for the proposed project were completed in June 2015. In accordance with CEQA, an environmental document is required to be completed prior to adoption by the Board of the proposed OV-UCLA MC Master Plan.

On November 17, 2015, the Board awarded a consultant services agreement to ICF Jones & Stokes, Inc., to prepare an EIR for the proposed project. The proposed project is anticipated to be implemented over a period of time with Tier I implementation estimated at approximately 20 years and Tier II continuing beyond that time period. The OV-UCLA MC Master Plan would guide future development on the campus and influence the delivery of healthcare services and health-related community programs. Development under the proposed project would include the construction of new or renovation of existing space for medical uses, Recuperative Care and Residential Treatment programs, Mental Health Urgent Care and outpatient facilities, and facilities to be used by the local community. New open space, recreational trails, and parking facilities would also be provided. To accommodate new development, demolition of some existing buildings and structures may be required. New development under the proposed project could result in a total of approximately 1.3 million square feet of development throughout the campus.

The proposed project is divided into two Tiers. Tier I covers near-term projects that are better defined and could be constructed subject to securing the necessary approvals and funding, this includes development that could occur over the next 20 years. Tier I includes the Recuperative Care Center, Residential Treatment Programs, Mental Health Wellness Center, Mental Health Urgent Care Center, Ambulatory Care Center, Administration Services Building, East and West Central Utility Plants, Parking Structure, Materials Management and Supply Services Building, and Community Center. Tier II development is anticipated to occur beyond the year 2035 and is being analyzed at a programmatic level but could include the construction of a replacement inpatient hospital, long-term care facility, support services building, retail space, County department buildings, and the renovation and reuse of the existing inpatient hospital for other purposes.

Within the overall framework of the two Tiers, open space areas are organized throughout the campus to embrace the concept of community and improve the overall health and well-being of anyone using the site. Features of the proposed plan include the integration of natural settings of the campus into the design, including outdoor healing gardens, courtyard gardens, equestrian areas,

and gathering spaces.

Implementation of Strategic Plan Goals

The County Strategic Plan directs the provision of Strategy II.1, Drive Economic and Workforce Development in the County; Strategy II.2, Support the Wellness of our Communities; and Strategy III.3, Pursue Operational Effectiveness, Fiscal Responsibility, and Accountability. The recommended actions support the Strategic Plan by supporting the wellness of our communities and enhancing the delivery of comprehensive and seamless healthcare services to the residents of the County seeking healthcare assistance that will in turn benefit the common good by driving the development of the workforce and economic development of the County.

FISCAL IMPACT/FINANCING

There will be no fiscal impact on the County General Fund at this time. We will return to the Board for approval of specific projects under the proposed plan, which will include the details of the future projects and funding sources.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

Not required for the proposed recommendations.

ENVIRONMENTAL DOCUMENTATION

Initial Study and Notice of Preparation

An Initial Study was prepared for the proposed project in compliance with CEQA. The Initial Study concluded that there is substantial evidence that the proposed project has the potential for a significant impact on the environment in the following areas: air quality, biological resources, cultural resources, geology/soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, geology and soils, noise, utilities, and transportation and traffic. The Initial Study determined that an EIR would be required.

On March 28, 2016, the County filed a Notice of Preparation (NOP) for a draft EIR with the State Clearinghouse in the Office of Planning and Research and released the NOP to the public and to applicable Federal, State, regional, and local government agencies and interested parties for a 30-day review period. The NOP advertised a public scoping meeting for the interested parties to receive information on the proposed project and the related CEQA process, as well as provided an opportunity for the submission of scoping comments. The County held the public scoping meeting on April 14, 2016, at the OV–UCLA MC. Issues raised at the meeting included concerns about the adequacy of fire protection services serving the surrounding community and the impact of future Medical Center development on those services. A total of nine public agencies, in addition to the State Clearinghouse, and four interested parties, submitted comments in response to the NOP and Initial Study. Several individuals also submitted comment cards at the public scoping meeting. All comments related to environmental issues received during the public review and scoping meeting were considered in the preparation of the draft EIR.

Environmental Impact Report

The draft EIR was completed and distributed to the State Clearinghouse and other various agencies

and organizations on May 22, 2019, for a 45-day public review period. Upon the community's request for extension, the review period was further extended 11 days and ended on July 29, 2019. A Notice of Availability of the draft EIR was mailed directly to approximately 1,080 individuals, public agencies, and other interested parties, and was published in the Los Angeles Daily News, San Fernando Business Journal and San Fernando Sun/El Sol newspapers on May 22, 2019, pursuant to Public Resources Code Section 21092 and posted pursuant to Section 21092.3. The Notice of Availability and a notification of the extended public review period were mailed to approximately 29,645 addresses on June 20, 2019. In addition, copies of the draft EIR and technical appendices were made available at the Chief Executive Office, the OV-UCLA MC, and several libraries surrounding the OV-UCLA MC. The draft EIR was also available for viewing on the internet. The notices advertised public meetings for the interested parties to receive information on the proposed project and the related CEQA process, as well as provided an opportunity for the submission of comments.

The County held two public meetings related to the draft EIR on June 6, 2019, at the OV-UCLA MC, and on July 13, 2019, at the Los Angeles Mission College, Culinary Arts Institute Building Conference Center. A total of 34 comment letters were received in response to the draft EIR, 7 responses were received from the public and 7 from public agencies. The most frequently raised concerns among the comments both at meetings and within the comments received by the County are (1) concern for adequate fire protection services and the potential increased demand the eventual build-out of the proposed project may pose to existing services; (2) safety of the neighboring communities around the Hospital based on the perception that the Restorative Care Village component of the proposed project may bring "homeless" or substance abuse populations to the area; and (3) dust disturbing construction activities may add to the area particulate matter in the air.

The draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services including fire, police, and emergency medical services. However, the Final EIR concluded that the impacts to fire protection services would not be significant. In addition, the City of Los Angeles Fire Department that provides fire and emergency medical services of the campus and adjacent Sylmar community responded to the County's inquiries that no new fire stations are required at this time. Additionally, the OV-UCLA MC has a security plan that is assessed and updated annually to meet new security needs. As for the dust disturbing activities, a dust control management plan will be submitted to South Coast Air Quality Management District per Rule 43 for approval prior to construction, and construction activities will follow mitigation measures listed in the Final EIR.

All written comments received and responses to the comments are included in the Final EIR (Enclosure A). In addition, responses to comments received from public agencies were sent to those agencies pursuant to Public Resources Code Section 21092.5. All comments have been reviewed and found to present no new substantial environmental issues and all issues raised in the comments have been adequately addressed in the draft EIR and/or in the Responses to Comments, Mitigation Monitoring and Reporting Program (MMRP) and Revisions, Clarifications, and Corrections to the draft EIR. The MMRP will be incorporated into the construction documents to ensure compliance with mitigation measures.

Evaluation of Alternatives

The proposed project was evaluated along with various alternatives. In addition to the proposed project, two other alternatives, including the no project alternative as required by CEQA, were

evaluated in the draft EIR for their ability to avoid or reduce potentially significant environmental impacts and to meet the objectives of the proposed project. The alternatives considered were determined to represent a reasonable range of alternatives to the proposed project and included two scenarios under the no project Alternative (Alternative A), and one under the Reduced Development Alternative (Alternative B). After review of the scenarios under each of the alternative categories (Alternatives A and B), the proposed project is recommended as the preferred alternative because the Final EIR determined that the proposed project meets all of the project objectives, and there is no feasible alternative that would substantially lessen the significant and unavoidable impacts of the proposed project which are air quality (only Tier II, during construction activities), greenhouse gas emissions (Tier I and Tier II, during construction and operational activities), noise and vibration (Tier I and Tier II, during construction activities), and utilities and service systems (Tier I and Tier II only during operation) and which is capable of meeting most of the objectives of the proposed project.

In addition, all tribal cultural resources consultation requirements of CEQA have been met and documented. The Fernando Tataviam Band of Mission Indians Tribe requested consultation under the provisions of AB 52, Public Resources Code Section 21080.3.1. The consultation was concluded through agreed upon mitigation measures that included cultural resources monitoring of ground disturbing activities within native soils conducted by qualified archaeologists familiar with the types of cultural and tribal cultural resources, and Native American Tribal monitoring representing the Tribes interest if intact prehistoric cultural resource deposits are identified during ground disturbing activities within native soils. If cultural or tribal cultural resources are encountered during ground disturbing activities, mitigation standards and treatment plan shall be prepared pursuant to 14 C.C.R 15126.4 (b) and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation and reviewed by the Tribe prior to implementation. A monitoring compliance report will be prepared within three months of the end of the project construction activities by a qualified archaeologist and will include documentation and interpretation of resources identified or recovered. The final report will be filed at the South-Central Coastal Information Center at California State University, Fullerton, with a copy to the Tribe.

Final Environmental Impact Report

The Final EIR includes the draft EIR dated May 2019 including technical appendices; comment letters from the public, public agencies, and others; responses to the comments; and Clarifications document dated September 2019. Except for unavoidable significant impacts in the areas of air quality (only Tier II, during construction activities), greenhouse gas emissions (Tier I and Tier II, during construction and operational activities), noise and vibration (Tier I and Tier II, during construction activities) and utilities (Tier I and Tier II, only during operation), all identified significant environmental effects of the project can be avoided or reduced to a level of insignificance through the implementation of the mitigation measures identified in the Final EIR. As stated in the Final EIR and attached Findings of Fact and Statement of Overriding Considerations (Enclosure B), the project will result in unavoidable significant impacts after mitigation to direct levels of air quality (Tier II), noise and vibration (Tiers I and II), traffic (Tier II), utilities (water and solid waste-Tier II), and unavoidable significant cumulative impact to air quality (Tier II), greenhouse gas emissions (Tiers I and II), traffic (Tiers I and II), and utilities (Tiers I and II). However, such impacts have been reduced to the extent feasible, and the benefits of the project, which include:

1. Implementation of the proposed project will best meet the County's anticipated needs at the OV-UCLA MC campus.

2. Implementation of the proposed project will provide the facilities and campus infrastructure

necessary to meet the community's increasing health needs and demands, optimize the quality of care, and improve operational effectiveness, including reducing administrative, operational, and maintenance costs.

3. Implementation of the proposed project will result in the development of urgently needed facilities and supportive services to the County's most vulnerable populations, such as those suffering from mental illness, addiction, or physical disabilities, to ensure a seamless transition upon discharge to home or other housing options and help patients avoid cycling in and out of emergency interventions, while reducing morbidity and costs.

4. Adherence to the Master Plan's building, landscaping, lighting, and signage design guidelines during development of projects under the Master Plan will improve the visual appearance of the campus, improve wayfinding for visitors and employees, and will make the campus more accessible to the surrounding community.

5. Implementation of the proposed project will provide new recreational and open space areas on the campus, including pedestrian and equestrian trails, which would benefit on-campus employees, visitors, and members of the surrounding community.

6. Implementation of the proposed project will replace buildings and underused space with new buildings and space that would meet seismic and fire safety requirements while also achieving sustainability initiatives.

7. Implementation of the proposed project will demonstrate sustainable design and development programs to enhance the long-term social value of the campus by designing for pragmatic long-term operations, promote efficient energy and water use, and implement LEED and CAL Green Program goals.

8. Construction of new development and campus infrastructure improvements under the project will result in new construction jobs, and buildout of the proposed Master Plan would result in an increase in the number of employees on the campus. Increased short-term and long-term employment opportunities would provide economic benefits to the surrounding community and the region.

The above-mentioned benefits will outweigh these unavoidable adverse impacts.

Mitigation Monitoring and Reporting Program

A Mitigation Monitoring and Reporting Program is enclosed (Enclosure C), which is adequately designed to ensure compliance with the mitigation measures during project implementation.

The location and custodian of the documents and other materials constituting the record of proceedings upon which the Board of Supervisors' decision is based in this matter is with the Section Head at the County of Los Angeles, Public Works, Project Management Division I, 900 South Fremont Avenue, Alhambra, California, 91803.

The proposed project is not exempt from payment of a fee to the California Department of Fish and Wildlife pursuant to Section 711.4 of the Fish and Game Code to defray the costs of fish and wildlife protection and management incurred by the California Department of Fish and Wildlife.

Upon the Board's certification of the Final EIR, Public Works will file a Notice of Determination and in

accordance with Section 21152(a) of the California Public Resources Code will pay the required filing and processing fees with the Registrar Recorder/County Clerk in the amount of $3,346.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

There will be no impact on current County services or projects during the performance of the recommended actions.

CONCLUSION

Please return one adopted copy of this Board letter to Public Works, Project Management Division I.

Respectfully submitted,

MARK PESTRELLA

Director

MP:AKM:cgEnclosures

c: Auditor Controller
Chief Executive Office (Capital Programs Division)
County Counsel
Executive Office
Department of Health Services (Capital Projects Division)
Department of Mental Health

Enclosure A

FINAL ENVIRONMENTAL IMPACT REPORT

SCH# 2016031090

OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN

PREPARED FOR:

County of Los Angeles
900 South Fremont Avenue
Alhambra, California 91803

PREPARED BY:

ICF

SEPTEMBER 2019

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Acronyms and Abbreviations

°C	Celsius
µg/m^3	micrograms per cubic meter
µPa	microPascals
2016 RTP/SCS or Plan	2016–2040 Regional Transportation Plan/ Sustainable Communities Strategy
2018 Plan	2018 Strategic Fire Plan for California
2035 General Plan	Los Angeles County 2035 General Plan
AB	Assembly Bill
AB 1327	California Solid Waste Reuse and Recycling Access Act of 1991
ACA	Affordable Care Act
ACMs	asbestos containing materials
ADT	average daily traffic
AERMOD	American Meteorological Society/Environmental Protection Agency Regulator Model
AMI	Advanced Metering Infrastructure
amsl	above mean sea level
AQMP	Air Quality Management Plan
ATCS	Adaptive Traffic Control System
ATSAC	Automated Traffic Surveillance and Control
AVR	average vehicle ridership
BACT	Best Available Control Technology
Basin	South Coast Air Basin
Bcf	billion cubic feet
BLM	Bureau of Land Management
BMPs	best management practices
BOS	Bureau of Sanitation
BP	Before Present
Bureau of Engineering	Department of Public Works, Bureau of Engineering
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards

CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Cal-EPA	California Environmental Protection Agency
CALGreen	2010 California Green Building Standards
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CA-MUTCD	California Manual on Traffic Control Devices
CARB	California Air Resources Board
CBC	California Building Code
CBSC	California Building Standards Code
CCA	California Coastal Act
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CEC	California Energy Commission
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CGS	California Geological Survey
CH_4	methane
CHMIRS	California Hazardous Material Incident Report System
CIWMP	Los Angeles County Integrated Waste Management Plan
CMA	Critical Movement Analysis
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO Plan	Federal Attainment Plan for Carbon Monoxide
CO_2	carbon dioxide

CO_2e	carbon dioxide equivalent
COHb	carboxyhemoglobin
Commission	California Building Standards Commission
County	County of Los Angeles
County Flood Control	Los Angeles County Flood Control District
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRMMP	Cultural Resource Monitoring and Mitigation Plan
CSE	Countywide Siting Element
CUP	Central Utility Plant
CUPA	Certified Unified Program Agency
CW	cold water
CWA	Clean Water Act
CWCG	California Wildland Fire Coordinating Group
CWPP	Community Wildfire Protection Plans
CWS	California Water Service
DCTWRP	Donald C. Tillman Water Reclamation Plant
DDTs	dichlorodiphenyltrichloroethane
DOT	Department of Transportation
DPFs	Diesel Particulate Filters
DPM	diesel exhaust particulate matter
Draft EIR	draft environmental impact report
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EE	energy efficiency
EFZs	Earthquake Fault Zones
EG	electric generation
EIR	environmental impact report
EMI	Emissions Inventory Data
EMS	Emergency Medical Services
EOO	Emergency Operations Organization

EOR	enhanced oil recovery
EOs	Executive Orders
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESA	Environmental Sensitive Area
ESA	Environmental Site Assessment
EUI	energy usage intensity
EV	electric vehicle
EWS	emergency water supply
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zones
FINDS	Facility Index System/Facility Registry System
Fire Code	City of Los Angeles Fire Code
Framework	City of Los Angeles General Plan Framework Element
FRAP	Fire and Resources Assessment Program
GHG	greenhouse gas
gsf	gross square feet
GWP	global warming potential
HAZNET	Facility and Manifest Data
HBMS	Hazardous Building Materials Survey
HCM	Historic-Cultural Monuments
HCM	Highway Capacity Manual
HCM	Historic-Cultural Monument
HFC	hydrofluorocarbon
HHMP	Habitat Mitigation Monitoring Plan
HMA	Hazardous Materials Assessment
HMAs	Hillside Management Areas
HMP	Hazard Mitigation Plan
HOT	High-occupancy toll
HRA	health risk assessment
HSC	Health and Safety Code

HTP	Hyperion Treatment Plant
HVAC	heating, ventilation and air conditioning
Hz	Hertz
I	Interstate
I-210	Foothill Freeway
I-5	Golden State Freeway
IPCC	Intergovernmental Panel on Climate Change
IPM	Integrated Pest Management
IRPs	integrated resource plans
IRWMP	Integrated Regional Water Management Plan
IWRP	Integrated Water Resources Plan
kBtu/sf-yr	British Thermal Units per square foot per year
kHz	kilohertz
LACFCD	Los Angeles County Flood Control District
LACFD	County of Los Angeles Fire Department
LACM	Los Angeles County Museum of Natural History
LACOE	Los Angeles County Office of Education
LACPRD	Los Angeles County Parks and Recreation Department
LACPWD	Los Angeles County Department of Public Works
LADOT's	Los Angeles Department of Transportation's
LADRP	City of Los Angeles Department of Recreation and Parks
LADWP	Los Angeles Department of Water and Power
LAFD	Los Angeles Fire Department
LAMC	Los Angeles Municipal Code
LAPL	Los Angeles Public Library
LASD	Los Angeles County Sheriff's Department
LAUSD	Los Angeles Unified School District
LBP	lead based paint
LCFS	low carbon fuel standard
LCSFVRS	La Cienega San Fernando Valley Relief Sewer
LDVs	Light Duty Vehicles

LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent sound level
LID	low impact development
LOS	levels of service
Los Angeles County HMS	Los Angeles County Industrial Waste and Underground Storage Tank Sites
LRA	Local Responsibility Area
LST	localized significance threshold
LUST	Leaking Underground Storage Tanks
Master Plan	Olive View-UCLA Medical Center Campus Master Plan
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
mgd	million gallons per day
MLD	most likely descendant
Mmax	maximum moment magnitude
MMcf/day	million cubic feet per day
MMRP	Mitigation Monitoring and Reporting Plan
$MMTCO_2e$	million metric tons of CO2e
mpg	miles per gallon
MRI	magnetic resonance imaging
MS4	Municipal Separate Storm Sewer System
msl	mean sea level
MT	metric-ton
$MTCO_2e$	metric tons of carbon dioxide-equivalent
MWD	Metropolitan Water District
MWh	million megawatt hours
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCPA	Natural Community Conservation Planning Act
NEIS	East Interceptor Sewer

NFPA	National Fire Protection Association
NHIS	North Hollywood Interceptor System
NO	Nitric oxide
NO_2	nitrogen dioxide
NOI	Notice of Intent
NOP	Notice of Preparation
NOP/IS	notice of preparation/initial study
NOS	North Outfall System
NO_X	nitrogen oxides
NPC	Nonstructural performance category
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRC	noise reduction coefficient
NRHP	National Register of Historic Places
O&M	Operations and Maintenance
O_2	oxygen
O_3	ozone
OA	Operational Area
OAERP	Operational Area Emergency Response Plan
OEM	Office of Emergency Management
OHP	Office of Historic Preservation
OS	open space
OSHA	Occupational Safety and Health Administration
OSHPD	Office of Statewide Health Planning and Development
OVMC	Olive View Medical Center
Pb	lead
PBDB	PaleoBiology Database
PEC	Potential Environmental Concern
PF	public facilities
PFCs	perfluorocarbons
PFYC	Potential Fossil Yield Classification

PIRP	Power Integrated Resource Plan
PM	particulate matter
PM10	particulate matter 10 microns or less in diameter
PM2.5	particulate matter 2.5 microns or less in diameter
Porter-Cologne or the Act	Porter-Cologne Water Quality Control Act
ppb	parts per billion
PPV	peak particle velocity
PRC	Public Resources Code
proposed project	Olive View-UCLA Medical Center Campus Master Plan Project
proposed project or Master Plan	Olive View-UCLA Medical Center Campus Master Plan Project
RAP	Recreation and Parks
RCNM	Roadway Construction Noise Model
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act of 1976
RCRA-LQG	Resource Conservation and Recovery Act Large Quantity Generator
RECs	Recognized Environmental Concerns
RP	Recommended Practice
RPS	Renewables Portfolio Standard
RTP	Residential Treatment Program
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCA	Southern California Association of Governments
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCS	sustainable communities strategies
SDWA	Safe Drinking Water Act
SF_6	sulfur hexafluoride
SFM	State Fire Marshal
SHPO	State Historic Preservation Officer

SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP	Short-Lived Climate Pollutant
SMMC	Santa Monica Mountains Conservancy
SO_2	sulfur dioxide
SoCalGas	Southern California Gas Company
SPC	structural performance category
SPL	sound pressure level
SR-	State Route
SRA	Source Receptor Area
SRA	State Responsibility Area
SSOs	Sanitary Sewer Overflows
STC	sound transmission class
Summary Plan	Waste Management Summary Plan
SurveyLA	Los Angeles Historic Resources Survey
SWEEPS UST	Statewide Environmental Evaluation and Planning System
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
Sylmar Basin	Sylmar Groundwater Basin
TAC	Toxic air contaminants
TCRs	Tribal Cultural Resources
TDM	Transportation Demand Management
the Board	Board of Forestry and Fire Protection
TIA	traffic impact analysis
TMDL	Total Maximum Daily Load
TMN	Traffic Noise Model
tpd	tons per day
TSS	Total suspended solids
UBC	Uniform Building Code
UCMP	University of California Museum of Paleontology

ULARA	Upper Los Angeles River Area
Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
US AIRS AFS	Aerometric Information Retrieval System Facility Subsystem
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGBC	United States Green Building Council
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
V/C	volume-to-capacity
VH FHSZ	Very High Fire Hazard Severity Zones
VMT	vehicle miles traveled
VOC	volatile organic compounds
WDRs	waste discharge requirements
WRCC's	Western Regional Climate Center's
WSA	Water Supply Assessment
ZEV	Zero Emission Vehicle

Appendix A

NOP/Comments

Appendix A1

NOP

Appendix A2

NOP/IS

Appendix A3

NOP/IS Public Comments and Responses to Comments

Appendix B

Master Plan

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Appendix F

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Appendix F1

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Appendix G

Hazardous Material Assessment

Appendix H

Hydrology Report

Appendix H1

Hydrology Technical Memorandum

Appendix H2

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Appendix I

Noise Analysis

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Traffic Study Analysis

Appendix K

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Fire Response, OVMC Fire Manual, and OVMC Safety Plan

Executive Summary

ES1.1 Introduction and Background

This Draft Environmental Impact Report (EIR) evaluates potential environmental impacts that could result from implementation of the proposed Olive View–UCLA Medical Center Campus Master Plan project (proposed project) in the city of Los Angeles, California. The proposed Master Plan envisions and will guide development of a series of improvements to the medical center campus over the coming decades.

The Olive View–UCLA Medical Center is the only County-sponsored hospital option in northern Los Angeles County and currently serves the residents in the San Fernando and Santa Clarita Valleys. It has played an active and integral role in the health of Los Angeles County since the mid-1900s, increasing its presence and services as the need for quality health care grew with the county's population.

The anticipated increased demand for health care services and resulting challenges facing the campus, as well as other county hospitals, will be even greater than private-sector hospitals because of the Olive View–UCLA Medical Center's role as a safety-net hospital.

In January 2014, the County of Los Angeles (County) began preparing the Olive View–UCLA Medical Center Campus Master Plan Report (Master Plan), which summarized the research, findings, observations, and proposals for master planning options at the Olive View–UCLA Medical Center and identified seven principles to determine the quality and effectiveness of the different options. Five Master Plan options were developed, which were based on an evaluation of the existing site, understanding of proposed program development, input from community residents and County stakeholders, and vision for the site. A preferred Master Plan option (the proposed project), the Nature's Edge option, was subsequently selected based on community input. In 2018 and 2019, the Master Plan figures were updated to reflect the inclusion and development of the proposed Restorative Care Village. Please see Chapter 2, *Project Description*, and the Master Plan in Appendix B of this Final EIR for more details.

ES1.2 Proposed Project Summary

ES1.2.1 Project Location

The Olive View–UCLA Medical Center campus is located at 14445 Olive View Drive on several parcels of land owned by the County of Los Angeles. The campus is located within the community of Sylmar, at the north end of the San Fernando Valley, in the city of Los Angeles, California. Specifically, the site is bounded by the Angeles National Forest and Wilson Canyon Debris Basin on the north, Olive View Drive on the south, Los Angeles County Flood Control District facilities and Wilson Canyon Park on the east, and Bucher Avenue to the west. Kennedy Road and Cobalt Street intersect the project site. The site is located east of the I-5 freeway and north of the Foothill Freeway (I-210) freeway.

Figure ES-1, below, depicts the regional location of the proposed project, and Figure ES-2, below, depicts the boundaries of the Master Plan.

ES1.2.2 Proposed Project

The proposed project is intended to guide development of the campus over a period of 20+ years and the delivery of health care services and health related community programs. The Master Plan provides alternate paths for that development and flexibility to allow it to adapt to changes over time. The Master Plan also includes an analysis and assessment of existing campus infrastructure and buildings, future considerations and recommendations for the campus' land use, and a series of design guidelines that guide building placement, form, and materiality. Figure ES-3 provides an overview of the proposed uses that could be developed under the proposed Master Plan.

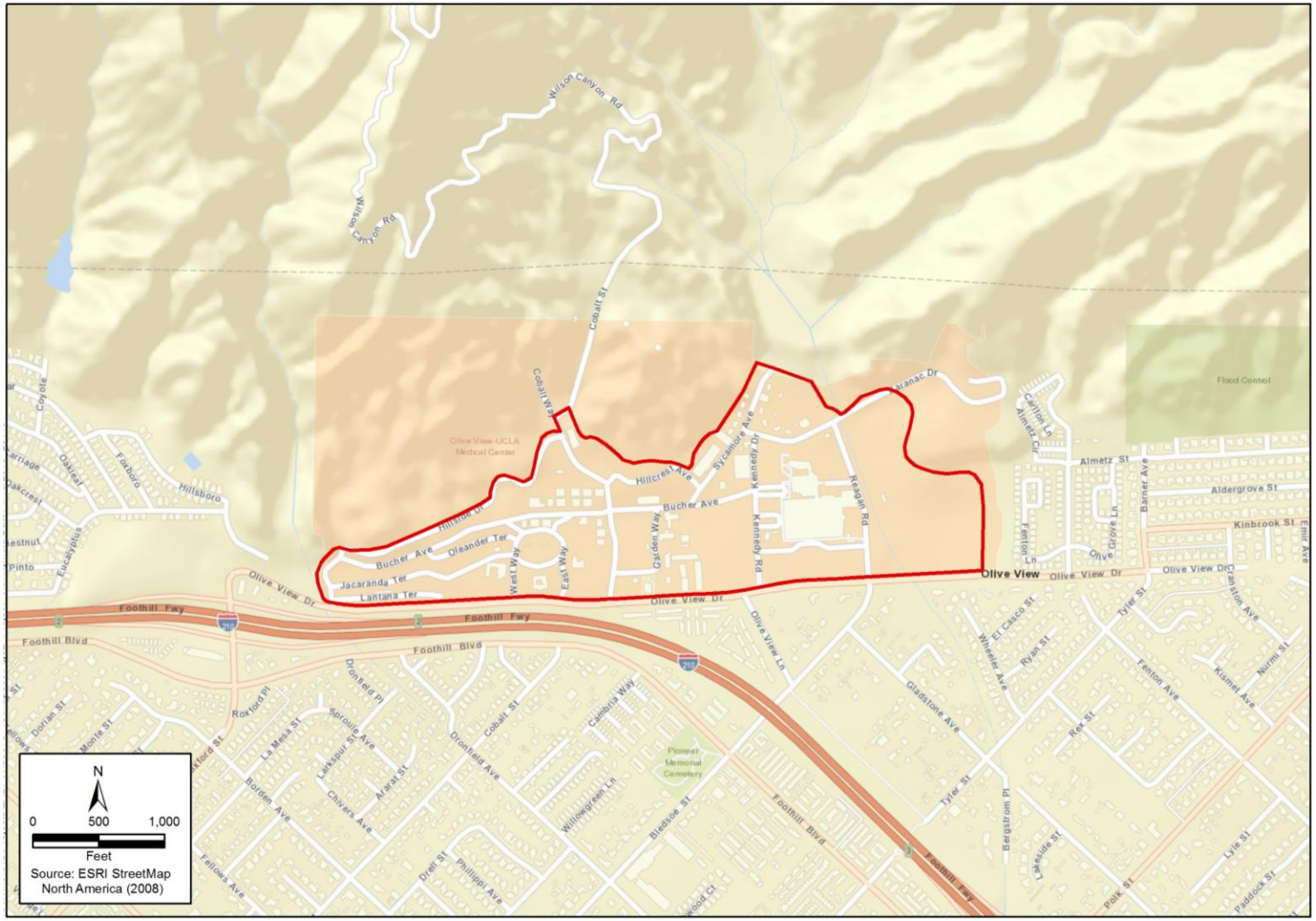
The objectives of the proposed project, which are based on those identified in the Master Plan (see Appendix B of this Final EIR) are to:

1. Provide for development opportunities that are consistent with the goals and policies of the County's General Plan.
2. Reorganize, expand, and integrate outpatient services with the specific goal of meeting the community's health needs, providing patient-centered care, and improving the operational throughput to meet increasing demands.
3. Locate inpatient and outpatient services into dedicated buildings to optimize the quality of care and improve operational effectiveness, while reducing administrative, operational, and maintenance costs.
4. Comply with the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983 (Senate Bill [SB] 1953) required by the Office of Statewide Health Planning and Development in order to ensure that the hospital can maintain its license as an inpatient care facility beyond the year 2030.
5. Identify feasible opportunities to exceed state energy requirements and pursue green building sustainable design to the maximum extent possible.
6. Develop resources that are consistent with the needs of the 2035 planning horizon.
7. Provide new medical facilities, including a new replacement hospital, to meet state standards and code requirements.
8. Provide integrated direct and coordinated care, including physical health, behavioral health, social, and other supportive services to the County's most vulnerable populations, such as those suffering from mental illness, addiction, or physical disabilities, in facilities located in a welcoming campus setting with green spaces to:
    a. ensure a seamless transition upon discharge to home or other housing options, and help patients avoid cycling in and out of emergency interventions and establish a sustainable functional life;
    b. reduce morbidity and costs, while restoring function and dignity; and
    c. improve the quality of life for the people and communities of Los Angeles County.

Figure ES-1. Regional Location Map

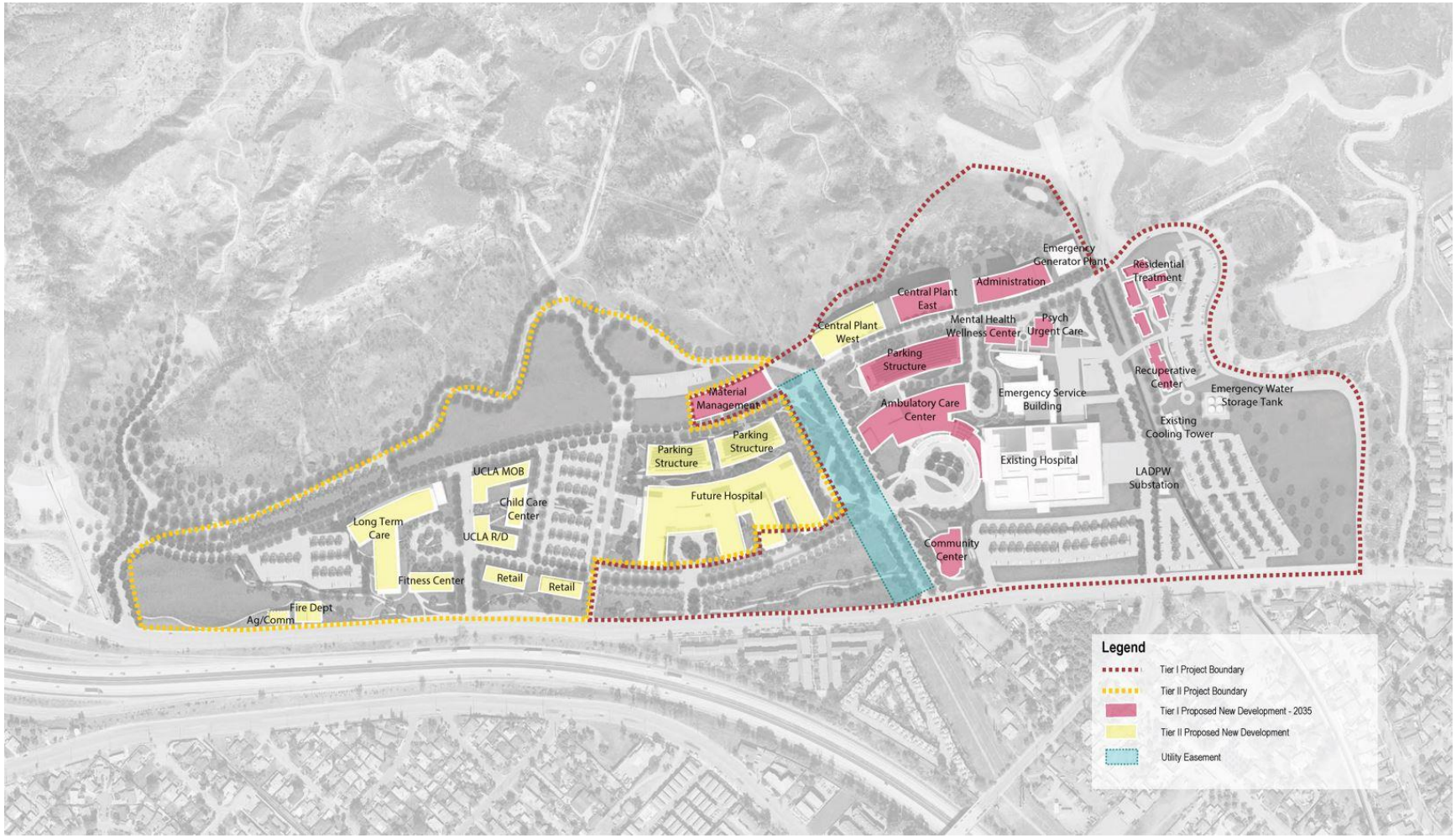
Source: ICF 2016.

Figure ES-2. Project Vicinity Map



Source: ICF 2016.

Figure ES-3. Master Plan Site Plan–Tier I and Tier II Development



Source: Perkins Eastman 2019; SmithGroup JJR 2016.

For the purposes of the Final EIR, two tiers of development have been defined and analyzed. Tier I entails near-term projects that are better defined and could be constructed subject to securing the necessary approvals and funding, as well as other subsequent development that could occur over the next 17 years or through the year 2035. Tier I development, which is described in greater detail below, could include the Restorative Care Village, which is composed of the Recuperative Care Center, the Residential Treatment Program facility, the new Mental Health Urgent Care Center, and the Mental Health Wellness Center; an Ambulatory Care Center; a Community Center; improvements to the existing hospital; new parking facilities; and other campus improvements that would be located predominantly in the eastern half of the current campus. Tier II development would occur beyond 2035 and could include the construction of a new inpatient hospital, support services building, retail space, a long-term care facility, County department buildings, and the renovation and reuse of the existing inpatient hospital for other purposes. Full build-out of the Master Plan could result in a net increase of approximately 1.3 million square feet of development throughout the campus. The Master Plan components described above are represented visually in Figure ES-3 and are described in further detail in Chapter 2, *Project Description*, of this Final EIR.

ES1.2.3 Alternatives Considered

The following alternatives to the proposed project were considered and are evaluated in Chapter 5, *Alternatives Analysis*, of this Final EIR:

Alternative A – No Project: For the purposes of this Final EIR, two no-project scenarios have been defined. Under both scenarios, the Master Plan would not be implemented. However, the first (No Project/No Build) assumes that no new development would occur on the campus in the future (other than projects currently approved but not yet constructed; see Chapter 2, *Project Description*, of this Final EIR, for a list of other related campus projects) and consequently, environmental conditions on the campus would remain largely unchanged. The second no-project scenario considers what is more likely and could reasonably occur in the future if the proposed Master Plan were not approved, i.e., individual projects would be proposed, approved, and implemented on an ad hoc basis similar to how development has occurred on the campus in the past.

Alternative B – Reduced Development (Modified Tier I and Tier II Development): Alternative B would result in reduced development, as compared to the proposed Master Plan. Under this alternative, a number of Tier I and Tier II buildings proposed under the Master Plan would be modified, reduced in size, or eliminated, as further described below. Under Tier I, the administrative services building would be reduced in size, the East and West Central Utility Plants would be consolidate into one consolidated central utility plant, and the New Materials Management/Supply Services Building would be eliminated. Under Tier II, the existing hospital would accommodate several proposed Tier II facilities rather than constructing new buildings in the western half of the campus as would occur under the proposed Master Plan. These Master Plan facilities would include the Long-Term Care facility, UCLA Medical Office and research and development buildings, childcare center, fitness center, and retail uses. Accommodating these facilities and uses in the repurposed existing hospital would reduce the Tier II building square footage by approximately 315,000 square feet. Other Tier II Master Plan improvements, including new community open space and landscaping, parking, vehicular and pedestrian circulation enhancements, and utility infrastructure improvements on the western half of the campus, would also be implemented under this alternative, but potentially to a lesser extent than would occur under the proposed Master Plan.

ES1.3 Issues to Be Resolved

As described in Chapter 2, *Project Description*, of this Final EIR, the proposed project is intended to guide the development of the campus and help shape the delivery of health care services and health-related community programs over a period of 20+ years. As a result, the facilities and improvements proposed under the Master Plan, with the exception of the Restorative Care Village, are conceptual in nature. Therefore, the designs for these facilities and improvements, including the project locations and footprints, will be refined in the future when the individual projects are proposed and have received funding.

ES1.4 Areas of Controversy

During the Draft EIR public scoping meeting and other public meetings held for the proposed project, the public expressed concerns about safety, air quality impacts, and wildfire hazards. These concerns are described in further detail below.

Safety concerns expressed by the public centered on the patients who will receive care at the proposed Restorative Care Village, how and where they would be discharged, and whether the proposed Restorative Care Village, including the subsequent increase in the homeless and indigent patients it would serve at is facilities, would result in an increase in the local community's homeless population.

Public concerns were also expressed about the potential cumulative air quality impacts (specifically dust) that could happen should construction of Master Plan projects occur concurrently with ongoing operations, including trucks hauling sediment and debris to the Sediment Placement site northeast of the campus.

Lastly, the public expressed their concerns about wildfire hazards and the adequacy of the existing level of fire protection in the area and their desire for additional fire protection facilities in the community.

ES1.5 Summary of Environmental Impacts

The proposed project would result in environmental impacts. Table ES-1 provides a summary of the environmental impacts that would occur and the mitigation measures that would be implemented under the proposed project and identifies the level of significance of impacts before and after implementation of proposed mitigation measures.

Table ES-1. Summary of Environmental Impacts of the Proposed Project

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Aesthetics			
Impact AES-1: *Would the Proposed Project Have a Substantial Adverse Effect on Scenic Vistas?* During construction of Master Plan projects, construction materials and activities may be visible from trails within the San Gabriel Mountains and Angeles National Forest that offer sweeping views of greater Los Angeles. New Master Plan buildings would also be visible from these trails and would introduce visual changes to existing viewsheds and scenic vistas. I-210, which is located approximately 300 feet south of the existing campus, is listed as a Designated Scenic Highway in the City's General Plan and is an eligible State Scenic Highway. Despite the proximity of the highway, views of the campus and future construction activities and new buildings under Tiers I and II of the Master Plan would be limited, and, where available, fleeting due to the I-210's below-grade configuration and intervening landforms and development.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Impact AES-2: *Would the Proposed Project Substantially Damage Scenic Resources Including, but not Limited to, Trees, Rock Outcroppings, and Historic Buildings within a State Scenic Highway?* I-210 near the proposed project site is an eligible State Scenic Highway. No off-campus improvements are proposed that could affect scenic resources within the I-210	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
freeway. Most mature trees on the campus would remain; however, some trees may have to be removed to accommodate Master Plan improvements and buildings. New landscaping, including trees and other vegetation, would be provided in accordance with Master Plan landscaping guidelines to improve the appearance of the campus.			
Impact AES-3: *In Non-Urbanized Areas, would the Proposed Project Substantially Degrade the Existing Visual Character or Quality of public views of the Site and Its Surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality?* During construction, the temporary presence of construction-related vehicles, equipment, barricading and cranes, etc., and construction-related excavation and grading, would result in changes to the visual setting. New Master Plan buildings, landscaping, and infrastructure improvements would change the visual setting of the campus. However, new buildings and landscaping would comply with the Master Plan design and landscaping guidelines.	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	None required.	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Impact AES-4: *Would the Proposed Project Create a New Source of Substantial Light or Glare that Would Adversely Affect Day or Nighttime Views in the Area?* Construction activities, which would be temporary, are expected to occur during daytime, consistent with County and city regulations and, therefore, would not introduce substantial new sources of light or glare. New Master Plan buildings and development would introduce new sources of light in an area where there are numerous existing sources of light and glare. However, new development would comply with the Master Plan Lighting Design Guidelines.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Air Quality			
Impact AQ-1: *Would the Proposed Project Conflict or Obstruct Implementation of the Applicable Air Quality Plan?* The proposed project would generally be supportive of the relevant policies in the applicable local and regional plans. Therefore, pursuant to SCAQMD guidelines, because the project would be consistent with the land use designations in the relevant plans and regional planning documents (SCAG RTP/SCS), the proposed project is considered consistent with the region's Air Quality Management Plan (AQMP).	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Impact AQ-2: *Would the Proposed Project Result in a Cumulatively Considerable Net Increase in a Criteria Pollutant for which the Project Region Is a Nonattainment Area for an Applicable Federal or State Ambient Air*	Construction Tier I–Significant impact Tier II–Significant	**Tiers I and II** **MM-AQ-1**: To reduce VOC emissions during construction, the County (or its contractors) will use low-VOC coatings that go beyond the requirements of SCAQMD Rule 1113, and have a VOC content of 25	Construction Tier I–Less than significant impact Tier II–Potentially

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation

Quality Standard?
Construction of the proposed project would generate air pollutant emissions from the use of heavy-duty construction equipment, construction worker vehicle trips, material deliveries, and trips by heavy-duty haul trucks. In addition, earthwork activities would result in fugitive dust emissions, and paving operations would release VOCs from off-gassing. Maximum daily project-related criteria and precursor pollutant emissions would not exceed any SCAQMD regional construction-period thresholds with the exception the VOC standard during the Architectural Coatings phase.
Operation of the proposed project would result in emissions associated with motor vehicle trips; on-site consumption of natural gas for space and water heating; onsite use of solvents and consumer products; and emissions associated with landscaping. However, maximum daily project-related criteria pollutant emissions over existing conditions are not expected to exceed SCAQMD operations-period thresholds for any pollutant under Tier I of the Master Plan. Similarly, maximum daily project-related criteria pollutant emissions over future no-project conditions are not expected to exceed SCAQMD operations-period thresholds for any pollutant.
Because details about Tier II are unknown, emissions associated with operational activities under Tier II have not been quantified. Emissions under Tier II could exceed operational thresholds for regional and localized pollutant emissions depending
	impact
	
	<u>Operational</u>
	Tier I–Less than significant impact
	Tier II–Potentially significant impact
		grams per liter (g/L) or less during construction of Tier I projects.
		MM-AQ-2: To minimize particulate matter and NO_X emissions during construction of Tier I projects, the County (or its contractors) will use off-road equipment that meets or exceeds U.S. Environmental Protection Agency (EPA) Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during construction. Such equipment will be outfitted with Best Available Control Technology (BACT) devices including, but not limited to, CARB-certified Level 3 Diesel Particulate Filter (DPFs) or equivalent.
		
		Tier II
		MM-AQ-3: In the event that construction-period emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following (or more effective) measures to achieve emissions reductions:
		• For exceedances of particulate matter or NO_X regional or localized significance thresholds, the County (or its contractors) will:
		  ○ Use off-road equipment that meets or exceeds EPA Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during all phases of construction;
		  ○ Outfit all off-road equipment with BACT devices, including, but not be limited to, CARB-certified Level DPFs; and
		  ○ Require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year or newer
			significant impact
			
			<u>Operational</u>
			Tier I–Less than significant impact
			Tier II–Potentially significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
on project details.		trucks (e.g., material delivery trucks and soil and aggregate import/export) that meet CARB's 2010 engine emission standards of 0.01 gram per brake horsepower-hour (g/bhp-hr) of PM and 0.20 g/bhp-hr of NO_X emissions or newer, cleaner trucks; and ○ The aforementioned off-road and on-road requirements will be included in the County's applicable bid documents, and the awarded construction contractor must demonstrate the ability to successfully supply compliant equipment prior to commencement of any construction activities. A copy of each equipment unit's certified tier specification and, where applicable, CARB or SCAQMD operating permits, will be made available to the Construction Monitor upon request at the time of mobilization of each applicable unit of equipment. All construction contractors supplying off-road equipment greater than 50 hp to the campus will be encouraged to apply for SCAQMD SOON funds, and SCAQMD's website containing information about the program will be provided to each contractor. • In recognition that the Tier II developments would occur after 2035 and that more effective measures would likely be available at that time to reduce pollution emissions, the County (or its contractors) will implement all other current and feasible mitigation that are readily available for deployment at the time a Tier II project's details are known, which may include, but is not limited to, the use of construction equipment with the latest emission control	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		systems/technologies that would result in emission reductions exceeding those achieved by presently available technologies (e.g., Tier 4 off-road equipment and 2010 model year or newer trucks). Such technologies may include zero-emission or near-zero off-road and on-road equipment that is readily available in the SCAB. To stay abreast of the latest available mitigation, the County will conduct a review of SCAQMD's Air Quality Analysis Handbook website on an annual basis to ensure that recommended mitigation measures by the District are considered for each future discretionary project. **MM-AQ-4**: Prior to issuance of a grading permit for new individual projects occurring under the Tier II development phase that are 1 acre or larger, the County will conduct an air quality analysis of the localized emissions (NO_X, CO, PM_{10}, and $PM_{2.5}$) associated with the maximum daily grading activities for the proposed development. If the localized air quality analysis shows that emissions would exceed SCAQMD's air quality CEQA localized thresholds for those emissions, mitigation identified in **MM-AQ-3** will be implemented and/or the maximum-daily grading activities of the proposed development will be limited to the extent feasible. **MM-AQ-5**: In the event that operational emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following to achieve emissions reductions upon construction: 1. Increase energy efficiency by at least 10 percent beyond the Title 24 standard in place at the time of construction, unless demonstrated to be	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		infeasible. 2. Utilize low VOC coatings (VOC content less than or equal to 25 grams per liter) for periodic painting and facility upkeep. 3. Install solar water heaters. 4. Maximize interior day light and utilize high efficiency lighting. 5. Increase roof/ceiling insulation beyond the American Society of Heating, Refrigeration and Air Conditioning Engineers Standard 90.1-2010. 6. Install weather-based irrigation controllers to reduce outdoor water consumption. 7. Implement travel demand reduction (TDM) measures for employees, including, but not necessarily limited to measures such as: a. Providing bicycle parking for at least five percent of full-time-equivalent campus employees. b. Providing preferential carpool spaces within proposed parking structures on the campus. c. Provide shuttles for visitors and employees from Metrolink and/or Metro Rail stations to reduce vehicle trips. d. Incorporate onsite renewable energy production, including installation of photovoltaic cells or other options. 8. The County will give preference to vendors that use zero-emission and near-zero emission on-road haul trucks in their vehicle fleet as opposed to diesel-powered trucks.	
Impact AQ-3: *Would the Proposed Project Expose Sensitive Receptors to Substantial Pollutant Concentrations?* Construction activities, including the use of	<u>Construction</u> Tier I–Less than significant impact Tier II-Potentially	See **MM-AQ-1** through **MM-AQ-5**, above.	<u>Construction</u> Tier I–Less than significant impact Tier II–Potentially

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
diesel-fueled equipment, haul trucks, and fugitive dust emissions, under Tier I would occur near sensitive receptors. None of the Tier I project elements would exceed localized significance thresholds (LSTs) established to identify potential impacts on receptors near sources of pollutant emissions. Additionally, under Tier I, none of the maximum construction-related health risks would exceed SCAQMD's maximum incremental cancer risk threshold for TACs of 10 in 1 million. As discussed above for Tier I, the implementation of Tier II would result in the generation of air pollutant emissions during construction activities. Such emissions could exceed construction thresholds and expose sensitive receptors to substantial pollutant concentrations, depending on the schedules, equipment used, and material movement required. Operational activities under Tier I would generate pollutant emissions; however, emissions would not exceed the applicable LST for operation, which were established to identify potential impacts on receptors near sources of pollutant emissions. Operation of Tier II would involve emissions of air pollutants from building natural gas use, stationary sources, worker and visitor vehicle trips, and other sources. Because details about Tier II operations are unknown, emissions associated with operational activities under Tier II have not been quantified. Therefore, emissions under Tier II could exceed operational thresholds for regional and localized pollutant	significant impact <u>Operational</u> Tier I–Less than significant impact Tier II-Potentially significant impact		significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Potentially significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
emissions depending on project details.			
Impact AQ-4: *Would the Proposed Project Result In Other Emissions (Such As Those Leading to Odors Adversely Affecting a Substantial Number Of People)?* During the construction period, some limited odors may result from asphalt paving activities, which may be detectable by people immediately adjacent to work sites. However, asphalt paving would occur for a limited time period at each excavation site (less than 1 week), and the locations of paving activities would be distributed over several excavation sites.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Biological Resources			
Impact BIO-1: *Would Implementation of the Proposed Project Have a Substantial Adverse Effect, either Directly or through Habitat Modifications, on Any Species Identified as a Candidate, Sensitive, or Special-status Species in Local or Regional Plans, Policies, or Regulations or by CDFW or USFWS?* The removal or modification of abandoned buildings that provide suitable roosting habitat within the project area may result in impacts on two bat species: pallid bat and Townsend's big-eared bat. Construction activities may also affect other special-status species, including coast horned lizard, silvery legless lizard, and San Diego woodrat; these species occur throughout Southern California. Tier I improvements at the eastern end of the campus that are less clearly defined (e.g., recreational trails and facilities) may result in some permanent loss of suitable	Construction Tier I–Potentially significant impact to bat species; less than significant for other species and habitats Tier II–Potentially significant impact to bat species; less than significant for other species and habitats Operational Tier I–Less than significant impact Tier II–Less than significant impact	**MM-BIO-1**: Prior to the commencement of construction activities, a habitat assessment will be done by a qualified bat biologist to identify buildings within the project area that are suitable roosting habitat for bats. The following measures would apply to structures with bat roost potential, as determined by a qualified biologist: • To avoid impacts to roosting bats, preconstruction surveys will be conducted prior to work occurring within the vicinity of, or removal of, vacant buildings. A qualified bat biologist will be retained to conduct bat and bat roosting site surveys between May 1 and July 30 prior to commencement of construction activities. This pre-construction survey will be conducted at the non-vacant and vacant buildings determined to be potentially suitable for roosting bats. The survey must occur during maternity season to confirm whether Townsend's big-eared bat is present in the vacant buildings, the only locations with	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
California sagebrush habitat that may be used by coastal California gnatcatcher. Lighting, noise, traffic, or other operational impacts from new Master Plan development and activities may affect California gnatcatcher, if present, in the suitable California sagebrush habitat at the eastern end of the campus.		potential for this species. The survey at the buildings will involve exit counts and acoustic surveys to determine whether a structure supports a nursery or roost and by which species. For the non-vacant buildings, a structure inspection will be performed by a bat biologist to look for bat sign (e.g., guano, wall streaking). • Preconstruction bat surveys will include evening emergence surveys performed at dusk using active full spectrum acoustic monitoring. Work will be performed by qualified biologists who have knowledge of the natural history of the bat species that could occur in the project area and experience conducting surveys and using full spectrum acoustic equipment. During surveys, biologists will avoid unnecessary disturbance of occupied roosts. Evening (i.e., dusk) emergence surveys will consist of at least one biologist stationed on at different vantage points from the structure, watching for emerging bats from a half hour before sunset to 1-2 hours after sunset or until visibility is no longer optimal. Full-spectrum acoustic detectors will be used during emergence surveys to assist in species identification. All emergence surveys will be conducted during favorable weather conditions (i.e., calm nights with temperatures conducive to bat activity [55° F and above] and no precipitation predicted). • If roosting sites or bats are not found, a report confirming their absence will be sent to the CDFW, and no further action will be required. • If it is determined that structures in the project area are being used by bats as roost sites, the following protective measures will be	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		implemented: • Disturbance of maternity roosting structures or trees (e.g., structure removal, construction equipment operation near roosts, tree trimming or removal) will not occur between April 15 and the following September 15 (the maternity period) to avoid impacts on reproductively active females and active maternity roosts (whether colonial or solitary). The maternity roost will remain undisturbed from the time it is located until the following September 15 or a qualified biologist has determined the roost is no longer active. No construction work will occur at the roost or within a 100-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) until September 15. • Exclusion devices may be installed outside of the maternity period (i.e., between September 16 and April 14) to preclude bats from occupying buildings during construction. Exclusionary devices will only be installed by or under the supervision of an experienced bat biologist. • A Bat Management Plan (see **MM-BIO-2**) will be developed if a bat maternity roost, including Townsend's big-eared bat, is found in the vacant building(s), no construction work within a 250-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) will occur between April 1 and September 30. **MM-BIO-2**: A Bat Management Plan will be developed to ensure mortality to bats does not occur. The following items will be included in the plan, at a minimum: • For each location confirmed to be occupied by	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		bats, the plan will provide details both in text and graphics where exclusion devices will need to be placed, type(s) of exclusion material to be used, the timing for exclusion work, and the timeline and methodology needed to exclude the bats. • Monitoring activities and schedule will be included, including frequency of monitoring, which structures would need to be monitored, and reporting requirements. • The plan will be reviewed and approved by CDFW.	
Impact BIO-2: *Would Implementation of the Proposed Project Have a Substantial Adverse Effect on State or Federally Protected Wetlands through Direct Removal, Filling, Hydrological Interruption, or Other Means?* Construction activities could affect a small amount of potential jurisdictional waters on the campus, including two blue line concrete box culverts and nine blue line and non-blue line features. These features have limited functions and values and are ephemeral in nature.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	**MM-BIO-3**: Prior to construction of individual Master Plan projects, a jurisdictional delineation will be conducted within the project site for jurisdictional features, including wetlands. If the jurisdictional features are not present, there is no potential for impacts to occur and no further action will be needed. If a jurisdictional feature is found within the project limits, then the following measures would be triggered: • **Full avoidance**: This may be possible if the jurisdictional feature is found in portions of the project site that can be avoided. In this instance, Environmental Sensitive Area (ESA) fencing will be placed between the work area and the location of the features. A biologist will be present during the placement of the fencing. • **Impact**: If avoidance of jurisdictional features is not feasible, permits/agreements will be obtained from appropriate agencies (i.e., RWQCB, USACE, CDFW) prior to work within the features.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Impact BIO-3: *Would Implementation of the Proposed Project Result in Substantial Interference with the Movement of any Native*	Construction Tier I–Potentially significant impact	**MM-BIO-1** and **MM-BIO-2** are proposed to mitigate construction impacts to bat maternity roosts under **Impact BIO-3**.	Construction and Operational Tier I–Less than

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors or Impede the Use of Native Wildlife Nursery Sites? The removal or modification of the buildings that provide suitable roosting habitat within the project site may result in impacts to maternity bat roosts. Construction activities may also result in direct and indirect impacts to nesting birds protected under the Migratory Bird Treaty Act and temporarily cause portions of the site to be inaccessible to bird species in the area.	Tier II–Potentially significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	The following measure is proposed to mitigate construction impacts to nesting birds: **MM-BIO-4**: The nesting season for birds will be avoided or preconstruction nesting bird surveys will be conducted if construction activities are carried out during the nesting season. To ensure compliance with the MBTA and similar provisions under Sections 3503, 3503.5, 3505, 3800, and 3801.6 et seq.of the California Fish and Game Code, the County of Los Angeles, through the general contractor, will conduct all vegetation removal during the non-breeding season, between September 1 and February 14, or implement the following: • If the removal of vegetation, demolition of buildings, or noise-generating construction activities are scheduled between February 15 and August 31, the proponent or construction contractor will retain a qualified biologist experienced with conducting nesting bird surveys who will conduct a nesting bird survey prior to the start of vegetation removal, building demolition, or noise-generating construction activities within any potential nesting habitat (i.e., all vegetation, buildings, etc.). The size of the nesting bird survey area will be determined by a qualified biologist at the time of the survey and include the entire limits of disturbance. It will also include a buffer area if deemed necessary by the biologist. The preconstruction nesting bird survey will be conducted no more than 7 days prior to initiation of vegetation removal, building demolition activities, or noise-generating construction activities. If no active nests are detected during these surveys, no restrictions on project activities will be necessary. • If active nests are not found, then no potential	significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		for impact to nesting birds (or raptors) will occur and no further action will be needed. • If an active nest(s) is observed, then an appropriate buffer (no-construction activity buffer) will be established by the biologist to ensure nest abandonment does not occur due to the construction activities. All no-construction activity buffer areas will be clearly demarcated in the field with stakes and flagging that are visible to construction personnel.	
Impact BIO-4: *Would Implementation of the Proposed Project Conflict with Any Local Policies or Ordinances to Protect Biological Resources, such as a Tree Preservation Policy or Ordinance?* Construction of proposed Master Plan facilities and structures could result in damage to or removal of vegetation on the project site, including native oak trees that have been planted in ornamental areas. These trees are protected under the Los Angeles County Oak Tree Ordinance. Operation of facilities and buildings proposed under the Master Plan would include routine maintenance and pruning of ornamental vegetation and trees.	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	**MM-BIO-5**: Prior to construction of Master Plan projects that could result in tree removal or pruning, a qualified arborist will inventory native oak trees on the project site in support of an oak tree permit, if required. Oak tree permit requests require a property owner to file an application with the Department of Regional Planning and provide a filing fee, an oak tree report, site plans for the property, and maps of the surrounding area. The oak tree report will include information about the protection of oak trees that may be adjacent to construction activities that are to remain. The oak tree report will also include the proposed replanting plan, in accordance with the required replacement ratio, for any oak trees that are to be removed.	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact
Impact BIO-5: *Would the Proposed Project Have a Substantial Adverse Effect on Any Riparian Habitat or Other Sensitive Natural Community Identified in Local or Regional Plans, Policies, or Regulations or by CDFW or USFWS?* Construction may result in temporary minor impacts due to dust or construction debris and may result in permanent loss of sagebrush scrub habitat due to pedestrian	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–Less than significant impact	**MM-BIO-6**: Prior to construction within the eastern portion of the project site that could temporarily affect California sagebrush scrub as identified in Figure 3.3-3 of the Master Plan EIR, a Habitat Mitigation Monitoring Program (HHMP) will be created. The Plan will include, at a minimum, the following requirements: • Vegetation monitoring will be performed in the spring-summer, or as specified in the HMMP, within California sagebrush scrub habitat	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
trails and related small recreational facilities that may be constructed at the eastern end of the campus. In addition, construction may require removal of coast live oak trees.	Tier II–Less than significant impact	proposed for temporary impact. A list of the native species present will be compiled, and the absolute percent cover of each species will be estimated. This information will set the performance standards and success criteria for the HMMP. • The HMMP will provide a map showing the location of each area proposed for impact and the absolute percent cover of each native species within the impact area. • Restoration monitoring for five years or until success criteria are met with monitoring every quarter for the first two years and annually thereafter. • The monitoring will include annual vegetation sampling beginning after the first year. The sampling will occur in the window of March to June, or as specified within the HMMP. The sampling will provide absolute percent cover of native shrubs and forbs/grasses. Also, see **MM-BIO-5** for measure to mitigate impacts to coast live oak trees.	
Impact BIO-6: *Would the Proposed Project Conflict with the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Conservation Plan?* The project site is not encompassed within any adopted habitat conservation plans.	Construction and Operational Tier I–No impact Tier II–No impact	None required.	Construction and Operational Tier I–No impact Tier II–No impact
Cultural Resources			
Impact CR-1: *Would the Proposed Project Cause a Substantial Adverse Change in the Significance of a Historical Resource, Pursuant to Section 15064.5 of the State*	Construction and Operational Tier I–No impact Tier II–No impact	None required.	Construction and Operational Tier I–No impact Tier II–No impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
CEQA Guidelines? There are no known historical resources on the Olive View–UCLA Medical Center campus.			
Impact CR-2: *Would the Proposed Project Cause a Substantial Adverse Change in the Significance of an Archaeological Resource, as Defined in Section 15064.5 of the State CEQA Guidelines?* Based on consultation with a tribal representative of the Fernandeño Tataviam Band of Mission Indians in 2017 (see Section 3.16, *Tribal Cultural Resources*, of this Final EIR), it has been determined that the campus is located within the known use radius of two tribal cultural resources as well within the vicinity of natural springs and mature oak trees. As a consequence and given the campus' location along the foothills of the mountains, there is an increased potential for subsurface tribal cultural resources in the campus vicinity. Therefore, the possibility exists that structural demolition and grading and excavation for new building foundations, new internal roadways, and utility infrastructure, as well as excavation for parking structures, could affect unknown buried archaeological resources. Operation of the Olive View–UCLA Medical Center campus under the proposed Master Plan would not affect archaeological resources.	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–No impact Tier II–No impact	**MM-CR-1**: *Train Construction Personnel.* Prior to any ground disturbance activities, all construction personnel will be trained regarding the recognition of possible buried cultural and tribal cultural resources during construction ground-disturbing activities. Training will inform all construction personnel of the procedures to be followed upon the discovery of cultural and tribal cultural resources, including Native American burials. Training will also inform all construction personnel that unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order and that violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project. **MM CR-2**: *Cultural Resources Monitoring*. Cultural resources monitoring of ground-disturbing activities within undisturbed native soils will be conducted by a qualified archaeologist familiar with the types of cultural and tribal cultural resources that could be encountered within the proposed project area. The monitor will be under the direct supervision of an archaeologist who meets the national standards for archaeology as set by the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation. Ground-disturbing activities include but are not limited to: auguring, excavation, geotechnical investigations, vegetation clearing, ground surface leveling, trenching, and conventional mass grading. A single monitor will be assigned to observe two or more	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–No impact Tier II–No impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		simultaneous ground-disturbing activities that occur less than 50 feet away from each other. Additional monitors will be assigned if two or more simultaneous ground-disturbing activities occur more than 50 feet away from each other. Monitors will complete a daily monitoring activity log. **MM-CR-3:** *Native American Tribal Monitoring*. If intact prehistoric cultural resource deposits, as determined by the project archaeologist, and/or tribal cultural resources, in consultation with the Fernandeño Tataviam Band of Mission Indians and the County, are identified during ground-disturbing activities within native soils, Native American tribal monitoring will be conducted by a Native American monitor from the Fernandeño Tataviam Band of Mission Indians. A single tribal monitor will be assigned to observe two or more simultaneous ground-disturbing activities that occur less than 50 feet away from each other. Additional tribal monitors will be assigned if two or more simultaneous ground-disturbing activities occur more than 50 feet away from each other. The tribal monitors will represent the Tribes' interests and will follow the Native American Heritage Commission's Guidelines for Tribal Monitors, which will include completion of a Native American monitoring daily activity log. **MM-CR-4**: *Discovery of Cultural and Tribal Cultural Resources*. If cultural resources or tribal cultural resources are encountered during ground-disturbing activities, cultural and tribal monitors are empowered to divert ground-disturbing activities within 50 feet of the discovery until a qualified archaeologist can evaluate whether the resource is a unique archaeological resource or historical resource as defined in Public Resources Code Section 21083.2 and/or 14 C.C.R. Section 15064.5,	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		or, in consultation with the Tribe, a tribal cultural resource as defined in Public Resources Code Section 21074. Work may continue in other areas. Tribal monitors will cooperate with the qualified archaeologist to locate all cultural materials exposed during ground-disturbing activities. All cultural resources recovered will be documented on California Department of Parks and Recreation Series 523 Forms. **MM-CR-5**: Treatment of Cultural and Tribal Cultural Resources. If the qualified archaeologist determines that the discovery is a historical resource (as defined in MM CR-4) of an archaeological nature, or, in consultation with the Tribe and the County, a tribal cultural resource, then the mitigation standards of 14 C.C.R 15126.4(b) which specifies that preservation in place will be the preferred manner of mitigation. If preservation in place is not feasible, a cultural and/or tribal cultural resources treatment plan will be prepared pursuant to 14 C.C.R 15126.4(b) and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The treatment plan will include (i) provisions for assessment and treatment of the resources identified; (ii) reporting of results in a timely manner; and (iii) the opportunity for the Tribe to engage in the recovery of material and (iv) to provide comments on the draft report. The Tribe will be afforded the opportunity to review the plan prior to implementation. The plan will be submitted to the Los Angeles County Department of Public Works prior to the treatment of the historical resource, unique archaeological resource, or tribal cultural resource. A preliminary draft monitoring compliance report will be submitted within three months of the end of	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		project construction activity. The report will be prepared by a qualified archaeologist and include documentation and interpretation of resources identified or recovered. Interpretation will include full evaluation of the eligibility of the resources identified for listing on the California Register of Historical Resources (CRHR). All surface and subsurface artifacts and features will be mapped and described in the report. The Tribe will be afforded the opportunity to provide comments for inclusion in the final report. The final report will be filed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. One copy of the final report will be provided to the Tribe. **MM-CR-6**: *Human Remains*. In accordance with California Health and Safety Code Section 7050.5, if human remains are encountered no further disturbance will occur within 50 feet of the find(s) until the Los Angeles County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resource Code Section 5097.98(b) remains will be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Los Angeles County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the most likely descendant(s) (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the County cannot come to an agreement with the MLD, Public Resources Code Section 5097.98(e) requires the County to "reinter the human remains and items associated with Native American human remains with appropriate dignity on the property in a	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		location not subject to further and future subsurface disturbance."	
Impact CR-3: *Would the Proposed Project Disturb Any Human Remains, Including Those Interred Outside of Formal Cemeteries?* Ground-disturbing activities have the potential to unearth human remains. Implementation of the Master Plan and operation of proposed facilities would not affect buried human remains.	Construction Tier I–Potentially significant impact Tier II–Potentially significant impact Operational Tier I–No impact Tier II–No impact	**MM-CR-6** would be implemented, as described above.	Construction Tier I–Less than significant impact Tier II–Less than significant impact Operational Tier I–No impact Tier II–No impact
Energy			
Impact ENERGY-1: *Would the Proposed Project Result in the Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources during Project Construction or Operation?* Construction of the project would require the use of energy resources including natural gas, electricity, and transportation fuels. It is anticipated that construction contractors, to reduce costs, would implement energy conservation practices including using fuel efficient vehicles and equipment to the extent practicable and maintaining construction equipment in accordance with manufacturers' specifications so equipment performance would not be compromised. New and renovated buildings and facilities that may occur under the Master Plan could result in long-term increases in energy consumption. However, the proposed Master Plan includes more energy efficient project elements such as solar electric	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
power, solar thermal and hot water, as well as ground source heating energy for various facilities. In addition, the proposed project would comply with Title 24's energy conservation standards for new construction.			
Impact ENERGY-2: *Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency?* As detailed above, construction activities are not expected to result in wasteful, inefficient, or unnecessary consumption of energy in meaningful amounts. Furthermore, a goal of the proposed project is to identify feasible opportunities to exceed state energy requirements and pursue green building sustainable design to the maximum extent possible, exceed state energy requirements, and to promote efficient energy use. The project would also be compliant with Title 24, Part 6 of the California Code of Regulations and the 2010 California Green Building Standards Code.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Geology/Soils			
Impact GEO-1: *Would the Proposed Project Directly or Indirectly Cause Potential Substantial Adverse Effects, including the Risk of Loss, Injury, or Death, Involving Earthquake Fault Rupture, Seismic Shaking, Ground Failure, or Landslides?* The campus is located within the vicinity of known active earthquake faults, including the Santa Susana Fault less than 0.1 mile from the site, the Northbridge Blind Thrust 0.5 miles from the site, and the Sierra Madre (San Fernando) fault 1.7 miles from the site.	Construction Tier I–Potentially significant impact Tier II–Potentially significant impact Operational Tier I–Potentially significant impact Tier II–Potentially significant impact	**MM-GEO-C1**: All recommendations included in the preliminary Geotechnical Evaluation prepared for the proposed project (see Appendix F.1 of this Final EIR) will be followed. A detailed subsurface geotechnical evaluation will be performed to address site-specific conditions at the locations of the planned improvements and provide detailed recommendations for design and construction. The geotechnical evaluation will include the following measures to mitigate potential fault rupture, seismic ground shaking, ground failure, and liquefaction hazards identified under Impacts **GEO-**	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Moreover, the project site was previously subjected to substantial surface rupture resulting from the 1971 Sylmar Earthquake. Therefore, there is a possibility for seismic surface rupture to occur at the site. Because active faults lay in the project vicinity, the project area could result in strong ground shaking which could affect the project site. The northeastern portion of the project site near the mouth of Wilson Canyon is located within in area that is considered susceptible to liquefaction. Due to the presence of steep hillside areas and a previously mapped earthquake, which induced landslides in the northern portion of the project site, there is potential for landslides, mudflows, or seismic slope instability. Earthquake-induced landslides could also be caused by construction activities, such as grading that undercuts the toe of a slope or induces loading at the top of a slope.		**1** and **GEO-2**. • *Fault Rupture*: Future geologic investigations to evaluate the location and relative activity of potentially active fault splays at the project site and the feasibility of locating future site improvements will be conducted by geologic consultants prior to design of structure locations. Fault investigations will be conducted by a California State Certified Engineering Geologist and reviewed by the CGS. Appropriate building setback zones will be established in locations deemed not feasible for construction of occupied structures. • *Seismic Ground Shaking*: Structural elements of future improvements will be designed to resist or accommodate appropriate site-specific ground motions and conform to the current seismic design standards, including those set forth by the 2013 California Building Code (CBC) and the County of Los Angeles building regulations. • *Ground Failure*: Assessment of liquefaction potential at the project site will be evaluated by subsurface geotechnical exploration prior to detailed design and construction of project improvements and will be incorporated into the design, as appropriate. Structural design will be developed to reduce the potential impacts of liquefaction, including the incorporation of techniques such as structural design, in-situ ground modification, or supporting foundations with piles at depths designed specifically for seismically induced settlement. • *Landslides*: A detailed assessment of the landslide and mudflow potential in areas of project improvements will be performed prior to design and construction of improvements	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		and incorporated into the design, as appropriate. Methods for construction in areas with a potential liquefaction hazard may include excavation of potentially unstable material for a more stable slope configuration; reduction of landslide driving forces by removal of earth materials at the top of the landslide; construction of a buttress and/or stabilization fills; construction of retailing walls, installation of rock bolts on the face of the slope, or installation of protective wire mesh on the slope face; the construction of debris impact walls at the toe of the slope to contain rock fall debris; and/or supporting foundations with piles at depths designed specifically for seismically induced settlement. Graded slopes created for future project site developments will also be designed to reduce the potential for landslides or mudflows. The geotechnical evaluation will include the following measures to mitigate unstable soil impacts identified under Impact **GEO-3**. • *Groundwater*: Excavations for foundations in areas with shallow perched groundwater may need to be cased/shored and/or dewatered to maintain stability of the excavations and adjacent improvements and provide access for construction. All recommendations included in the preliminary geotechnical evaluation pertaining to groundwater will be followed. Onsite infiltration of storm water related to Low Impact Development guidelines will be evaluated during the detailed design phase of the project. Further study, including subsurface exploration, will also be performed during the detailed design phase of planned improvements to evaluate the presence of seepage and/or	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		perched groundwater, and to evaluate the potential for stormwater infiltration at the site, and the potential impacts on design and construction of project improvements. Techniques such as casing, shoring, and/or construction dewatering will be incorporated. • *Collapsible Soils/Settlement*: Assessment of soil settlement will be performed prior to detailed design and construction or project improvements and techniques will be developed, as appropriate, to reduce impacts related to settlement. Surface reconnaissance and subsurface evaluation will be performed. Site-specific geotechnical evaluations will also be performed to assess the settlement potential of onsite natural soils and undocumented fill, which may include drilling of exploratory borings or test pits and laboratory testing of soils, where appropriate, to evaluate site conditions. Examples of possible mitigation measures for soils with the potential for settlement could include removal of the compressible/collapsible soil layers and replacement with compacted fill, surcharging to induce settlement prior to construction of improvements, allowing for a settlement period after or during construction of new fills, and specialized foundation design, including the use of deep foundation systems to support structures. Various in-situ soil improvement techniques are also available, such as dynamic compaction (heaving tamping) or compaction grouting. The geotechnical evaluation will include the following measures to mitigate the expansive and corrosive soils hazards identified under **Impact GEO-4**. • *Expansive Soils*: Assessment of the potential for	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		expansive soils will be performed during the design phase of the project through subsurface exploration and mitigation techniques such as over-excavation and replacement with non-expansive soils, soil treatment, moisture management, and/or specific structural design for expansive soil conditions will be developed, as appropriate, to reduce impacts to expansive soils.	
Impact GEO-2: *Would the Proposed Project Result in Substantial Soil Erosion or the Loss of Topsoil?* During the construction period, excavation, grading, and trenching would occur, creating the potential for erosion. Additionally, portions of the campus are currently undeveloped and subject to potential water and wild soil erosion. Implementation of a Stormwater Pollution Prevention Plan (SWPPP) that incorporates best management practices (BMPs) in compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements would ensure that sediment would be confined to the construction area. During operation of proposed developments, improvements at the project site and incorporation of BMPs would ensure that onsite soil erosion would be minimized.	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	**MM-GEO-C2**: A Storm Water Pollution Prevention Program incorporating BMPs for erosion control will be prepared prior to the start of construction in accordance with governing agencies. Long-term erosion management practices and drainage provisions will also be incorporated into the design and maintenance of the project following development of site improvements. BMPs may include surface drainage measures for erosion due to water, such as the use of erosion prevention mats or geofabrics, silt fencing, sandbags and plastic sheeting, and temporary drainage devices. Positive surface drainage will be accommodated at project construction sites to allow surface runoff to flow away from site improvements or areas susceptible to erosion. Wetting of soil surfaces and/or covering exposed ground areas and soil stockpiles will also be considered during construction operations, as appropriate, to reduce wind-related erosion (see air quality impacts and mitigation measures). Project design will address reducing concentrated run-off conditions that could cause erosion and affect the stability of the project.	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact
Impact GEO-3: *Would the Proposed Project Be Located on a Geologic Unit or Soil that Is Unstable or that Would Become Unstable, Potentially Resulting in an Onsite or Offsite*	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially	See **MM-GEO-C1**, above.	<u>Construction and Operational</u> Tier I–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Landslide, Lateral Spreading, Subsidence, Liquefaction, or Collapse? For a discussion of landslide and liquefaction hazards during construction, see **Impact GEO-1**, above. For both construction and operation, the potential for subsidence on the project site is relatively low. However, groundwater may be encountered during excavation activities, which could cause soil instability. In addition, compressible/collapsible soils at the site would result in differential settlement and may contribute to soil instability.	significant impact <u>Operational</u> Tier I–Potentially significant impact Tier II–Potentially significant impact		Tier II–Less than significant impact
Impact GEO-4: *Would the Proposed Project Be Located on Expansive Soil, as Defined in Table 18-1-B of the UBC (1994), or Corrosive Soils, Creating Substantial Direct or Indirect Risks to Life or Property?* According to the Preliminary Geotechnical Evaluation prepared for the proposed project, the near-surface soils at the project site are predominantly comprised of sandy, coarse-grained materials. These soils typically have a low expansion potential. However, clayey soils may be present in areas of the project site.	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–Potentially significant impact Tier II–Potentially significant impact	See **MM-GEO-C1**, above.	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact
Impact GEO-5: *Would the Proposed Project Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature?* Structural demolition and grading and excavation for new foundations and access routes, as well as excavation for parking structures, have the potential to affect paleontological resources. Surface grading	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–No impact	**MM-GEO-C3**: Due to the moderate paleontological potential of the Pacoima Formation, monitoring will be conducted during all earthmoving activities affecting native sediments of the Pacoima Formation to reduce potential impacts to a less-than-significant level. Excavations will be monitored by a qualified paleontological monitor under the supervision of the qualified paleontologist. Additionally, periodic paleontological spot checks	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–No impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
or shallow excavations in the uppermost few feet of the younger Quaternary alluvium in the proposed project area are unlikely to uncover significant fossil vertebrate remains. However, deeper excavations in the proposed project area that extend down into older sedimentary deposits, as well as any excavations in the Pacoima Formation in the northern portion of the campus may well encounter and consequently, could damage or destroy significant vertebrate fossils. Operation of the Olive View–UCLA Medical Center campus under the proposed Master Plan would not affect paleontological resources.	Tier II–No impact	should initially be conducted when excavation exceeds depths of five feet into areas mapped as Quaternary alluvium to determine if older, paleontologically sensitive sediments are present. If present, full time monitoring will be implemented. Monitoring may be reduced if some of the potentially fossiliferous units described herein are, upon exposure and examination by qualified paleontologic personnel, determined to have a low potential for containing fossil resources. The paleontologic monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor will have authority to temporarily divert grading away from exposed fossils to recover the fossil specimens professionally and efficiently and collect associated data. All efforts to avoid delays in project schedules will be made. To prevent construction delays, paleontological monitors will be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data. This equipment will include handheld global positioning system receivers, digital cameras, and cell phones as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (e.g., awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms will be used to record pertinent geologic data, stratigraphic sections will be measured, and appropriate sediment samples will be collected and submitted for analysis. Fossils collected, if any, will be transported to a paleontological laboratory for processing where they will be prepared to the point of curation, identified by qualified experts, listed in a database	Tier II–No impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		to facilitate analysis, and deposited in a designated paleontological curation facility such as LACM. Following analysis, a Report of Findings with an appended itemized inventory of specimens will be prepared, which, when submitted to the appropriate lead agency. along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will complete the program to mitigate impacts on paleontological resources.	
Greenhouse Gas Emissions			
Impact GHG-1: Would the Proposed Project Generate GHG Emissions, Either Directly or Indirectly, that May Have a Significant Impact on the Environment? Construction of the proposed project would generate emissions of CO2, CH4, and N2O associated with mobile and stationary construction equipment exhaust as well as employee and haul truck vehicle exhaust, which would contribute to cumulative GHG impacts. Operation of the proposed project would generate long-term emissions of CO2, CH4, and N2O associated with area sources, energy consumption, motor vehicles, waste generation, and water consumption, which would contribute to cumulative GHG impacts.	Construction and Operational Tier I–Significant impact Tier II–Significant impact	**MM-GHG-C1**: The County (or its contractors) will implement the following diesel emission-reduction measures during project construction: • All equipment and delivery truck idling times will be limited by shutting down equipment when not in use and reducing the maximum idling time to less than 3 minutes. Clear signage will be installed at all delivery driveways and loading areas regarding the limitation on idling time. • All construction equipment will be maintained and properly tuned in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the County's construction contractors will verify that all vehicles and equipment have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the project site. A report by the certified mechanic of the condition of the construction and operations vehicles and equipment will be submitted to the County prior to their use. • Alternative-fuel (e.g., biodiesel, electric, compressed natural gas) construction vehicles/equipment (comprising at least 15	Construction and Operational Tier I–Significant impact Tier II–Significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation

		percent of the fleet) will be used, to the extent feasible.
		• Renewable diesel fuel will be used for all diesel-powered heavy construction equipment and on-road vehicles to the extent that it is readily available from a local supplier in the Southern California region.
		• Local building materials (at least 10 percent) and recycled products, including cement and concrete made with recycled products, will be used, to the extent feasible.
		• A construction waste management plan will be implemented to divert landfilled waste by requiring the recycling of a minimum of 65 percent of all non-hazardous construction waste.
		MM-GHG-O1: The County will implement the following GHG reduction measures for all new development within the campus:
		• The County (or its contractors) will implement the following water conservation measures, which are in addition to those required by codes and ordinances:
		  ○ Install public bathroom faucet aerators (non-residential & residential over 6 stories) with a flow rate of 0.4 gallons per minute (gpm),
		  ○ Install cooling tower conductivity controllers or cooling tower pH conductivity controllers,
		  ○ Install rotating sprinkler nozzles for landscape irrigation 0.5 to 1.0 gpm,
		  ○ Install drip/subsurface irrigation (i.e., micro-irrigation),
		  ○ Implement proper hydro-zoning (i.e., groups plants with similar water requirements together),
		  ○ Install zoned irrigation,
		  ○ Contour landscaping to minimize	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		precipitation runoff, ○ Install drought tolerant plants in 50 percent of total new landscaping, ○ Install water conserving turf in 100 percent of new turf added to landscaping, and ○ Use recycled water for stationary equipment that requires water cooling, to the extent feasible. • Install a stormwater retention and filtration system. • Pursue a net zero water building design for new campus buildings, to the extent feasible. • Develop a recycled water strategy and implementation plan that increases the campus's use of alternative water sources, such as rainwater, greywater, stormwater, and recycled water. • Achieve a minimum solid waste diversion rate of 85 percent by 2035 by implementing measures including, but not necessarily limited, to: ○ Installing a food waste diversion program at the campus, and ○ Installing an onsite recycling program at the campus. • Incentivize the use of recycled materials in new and renovated campus buildings • Prioritize the use of food vendors with certifications for sustainable agricultural practices related to water and energy use, to the extent feasible. • Provide plant-based menu options at new and existing campus food facilities, to the extent feasible. • Pursue zero waste certification requirements for the campus, to the extent feasible.	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation

		• Install Energy Star-rated appliances.
		• Install electric-only appliances and HVAC (e.g., no natural gas heating or cooling) systems, to the extent feasible. Where natural gas appliances need to be installed, these appliances will meet high-efficiency standards.
		• Establish an energy and water use data collection program to benchmark and report energy and water use at the campus, demonstrating an increase in energy and water efficiency over the lifetime of the project.
		• Implement TDM measures for employees, including, but not necessarily limited to measures such as:
		  ○ Providing bicycle parking for at least 5 percent of full-time-equivalent campus employees; or
		  ○ Providing preferential carpool spaces within proposed parking structures on the campus.
		• Dedicate 5 percent of new parking spaces for clean-air vehicles and equip those spaces with electric vehicle charging equipment.
		• Purchase new zero-emission passenger vehicles for use by the campus.
		• Install a high-efficiency lighting system that takes advantage of natural daylighting, augmented by daylighting controls and occupancy sensors that turn off the lights in unoccupied spaces.
		• Maximize the installation of solar systems on new and renovated buildings to the extent these systems are cost-effective.
		• Install, in proposed new buildings containing more than 10,000 gsf of space, high-performance glazing with a low solar heat gain coefficient value that reduces the amount of solar heat allowed into the building, without compromising natural	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		illumination. • Install cool roofs with an R value (i.e., the measurement of the effectiveness of thermal insulating materials) of 30 or better on proposed new buildings, to the extent feasible. • Implement a net zero carbon building design for all new building developments and building renovations at the campus, to the extent feasible. • Develop an urban heat island mitigation strategy and implementation plan to guide all future development of the campus. • Increase urban tree canopy cover to provide shade to a minimum of 40 percent of the length of sidewalks on all campus streets. • Use electric powered landscaping equipment, rather than fossil-fuel powered landscaping equipment, to the extent feasible. • Focus selection on native plants and trees to provide new, water-wise landscaping that blends the campus with the ecology of the surrounding natural environment. • Provide ongoing sustainability education and training for campus employees.	
Impact GHG-2: *Would the Proposed Project Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing Emissions of GHGs?* The proposed project would not conflict with the County of Los Angeles CCAP, AB 32 and its Scoping Plan, and SB 32 and the 2017 Scoping Plan.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	See **MM-GHG-C1** and **MM-GHG-O1**.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Hazards and Hazardous Materials			
Impact HAZ-1: *Would the Proposed Project Create a Significant Hazard to the Public or the Environment through the Routine*	Construction Tier I–No or less than significant impact	None required.	Construction Tier I–No or less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Transport, Use, or Disposal of Hazardous Materials? During the construction period, routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and fuels would occur. Such transport, use, and disposal must be compliant with applicable regulations such as the regulations outlined in section 3.8.2, *Regulatory Setting*, of this Final EIR, and with construction BMPs implemented in accordance with a site specific SWPPP required as part of the NPDES General Construction Permit. Operation of proposed new facilities could increase the use of hazardous materials, including regulated medical waste; however, it's expected they would use, store, handle, and dispose of hazardous materials in a manner similar to how they're used by existing campus facilities, including the hospital, and their handling and storage would be subject to all hazardous materials laws and regulations already being adhered to.	Tier II–No or less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact		Tier II–No or less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact
Impact HAZ-2: *Would the Proposed Project Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment?* Construction would require the transport, use, and disposal of hazardous materials, which could result in upset or accidents that could release hazardous materials into the environment. Such transport, use, and	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	**MM-HAZ-1**: *Encountering Contaminated Soils*. If odiferous, stained, or discolored soil is encountered near the fire station, USTs, or spray booth a professional environmental consultant specializing in the identification and handling of hazardous materials will be retained by the County to assess the site. Identification of possible hazardous materials would typically involve soil samples and laboratory analysis. The suspect soil will be isolated, covered, and avoided by construction personnel until analytical results are reviewed by qualified	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
disposal must be compliant with applicable regulations such as the regulations discussed in section 3.8.2, *Regulatory Setting*, of the Draft EIR and with construction BMPs implemented in accordance with a site specific SWPPP required as part of the NPDES General Construction Permit. The Los Angeles County Fire Station #04, located within the proposed project footprint, was listed on the LUST database with contaminated soil, which was identified as a Potential Environmental Concern (PEC). The presence of USTs in the hospital loading lock and the presence of a paint and solvent spray booth were also identified as PECs. Demolition of structures built prior to 1980 may result in the exposure of the public and/or the environment to lead based paint (LBP) and/or asbestos containing materials (ACMs) in buildings. Also see the discussion of operational impacts under **Impact HAZ-1** above.		personnel. Soils identified as hazardous or contaminated will be handled, transported, and treated in accordance with all federal, state, and local existing hazardous materials regulations (as mentioned under Section 3.7.2, *Regulatory Setting*, of this Final EIR) and based on the professional environmental consultant's recommendations. Only when the site has been released by the professional environmental consultant and the applicable oversight agencies (such as the Los Angeles County Fire Department's Health Hazardous Materials Division) will construction activities be allowed to continue on the affected site. **MM-HAZ-2**: *Engineering Controls and Best Management Practices During Construction*. To minimize human exposure to potentially contaminated soils during construction, contractors will employ the use of engineering controls and BMPs. Engineering controls and construction BMPs will include, but are not limited to, the following: • Contractor employees working on site handling potentially contaminated media will be certified in the Occupational Health and Safety Administration's 40-hour Hazardous Waste Operations and Emergency Response training; • Contractors will water or mist soil as it is being excavated and stockpiled or loaded onto transportation trucks; and • Contractors will place any stockpiled soil in areas shielded from prevailing winds or cover stockpiles with staked and/or anchored sheeting. **MM-HAZ-3**: *Encountering Asbestos-Containing Materials and Lead Based Paint*. In order to minimize exposure, prior to demolition activities, a Hazardous Building Materials Survey (HBMS) and	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		evaluations for asbestos-containing materials and lead-based paint will be conducted in buildings that are to be demolished or renovated. Abatement measures will be implemented in accordance with the recommendations of these evaluations. Asbestos surveys will be conducted in accordance with SCAQMD Rule 1403, which specifies that all surveys are to be carried out by a California Division of Occupational Safety and Health (Cal/OSHA)-certified asbestos consultant and will follow established survey protocols, notification, and work practice requirements. Lead-based paint surveys will be carried out by California Department of Public Health (CDPH)-certified inspector/assessor. If necessary, a lead abatement plan would be prepared by the CDPH-certified project monitor or supervisor, and demolition activities would be performed by CDPH-certified workers. **MM-HAZ-4**: *Project-Level Hazardous Materials Sites Assessment Prior to Construction Activities*. To avoid exposure of construction workers, the public, or the environment to contaminated media, prior to any ground-disturbing activities, contractors will be required to retain a professional environmental consultant specializing in hazardous materials impact assessment to conduct a project-level analysis to determine if there are existing hazardous materials conditions in the vicinity of the construction site and potential for existing hazardous materials conditions to affect construction. This assessment will consist of a search for environmental-related information present in publicly accessible databases. The information will be reviewed to determine if the construction footprint or adjacent properties are listed in the databases. If the construction footprint or adjacent properties are listed in the databases,	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		the professional environmental consultant will determine the potential risk to construction workers, the public, or the environment from rehabilitation activities and identify all necessary avoidance, abatement, remediation, cleanup, disposal, monitoring, reporting, notifications, and/or other measures to prevent significant impacts. The contractor will implement all measures as directed by the professional environmental consultant.	
Impact HAZ-3: *Would the Proposed Project Emit Hazardous Emissions or Involve Handling Hazardous or Acutely Hazardous Materials, (Which is Hazardous Material Found to be Fatal to Humans in Low Doses), Substances, or Waste within 0.25 Mile of an Existing or Proposed School?* There are no schools within 0.25 mile of the proposed project. The closest existing school is PUC Lakeview Charter High School, approximately 0.60 mile to the southwest of the proposed project site.	<u>Construction and Operational</u> Tier I–No impact Tier II–No impact	None required.	<u>Construction and Operational</u> Tier I–No impact Tier II–No impact
Impact HAZ-4: *Would the Proposed Project Be Located on a Site that Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, as a Result, Create a Significant Hazard to the Public or the Environment?* The Los Angeles County Fire Station #04, which currently contains office and hazardous materials operations, is a PEC within the vicinity of the site and could potentially be disturbed by construction activities. Operation of the proposed project would not create any impacts associated with being	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	See **MM-HAZ-1**, **MM-HAZ-2**, and **MM-HAZ-4**, above.	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
included on list of hazardous materials site.			
Impact HAZ-5: *Would the Proposed Project Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan?* During construction activities, the proposed project would be required to comply with applicable requirements set forth by the Los Angeles County Operational Area Emergency Response Plan, the Los Angeles County Fire Department, and the Los Angeles County Sherriff's Department. Additionally, project construction would be confined within the existing campus boundaries. Therefore, construction of the proposed project would not conflict with an emergency response plan or emergency evacuation plan. Operation of the proposed project would also occur within the campus footprint and would not interfere with emergency response or evacuation in the project vicinity.	Construction Tier I–Less than significant impact Tier II–Less than significant impact Operational Tier I–No or less than significant impact Tier II–No or less than significant impact	None required.	Construction Tier I–Less than significant impact Tier II–Less than significant impact Operational Tier I–Less than significant or no impact Tier II–Less than significant or no impact
Hydrology and Water Quality			
Impact HYD-1: *Would the Proposed Project Violate Any Water Quality Standards or Waste Discharge Requirements or Otherwise Substantially Degrade Surface or Ground Water Quality?* During construction, site grading activities and exposed surfaces could cause erosion, temporarily increasing the amount of suspended solids in sheet flow or runoff, which would enter the storm drain system. However, the proposed project would be	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
required to obtain and comply with the Construction General Permit from the SWRCB. The analysis for the proposed project included a drainage area discharge model which calculated that peak discharge flow rates would decrease with the implementation of the proposed project, for both Tier I and Tier II.			
Impact HYD-2: *Would the Proposed Project Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such that the Project May Impede Sustainable Groundwater Management of the Basin?* It is possible that the groundwater in the project area is shallower than 125 feet, however construction is not expected to encounter groundwater and substantial dewatering is not required. Additionally, any water used during construction would be temporary and limited in quantity. Proposed new development and landscaping would result in an increase in amount of water consumed during operation.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	**MM-HYD-C1**: Where groundwater seepage could occur, permanent monitoring wells will be installed during construction within and around the perimeter of each building to monitor the groundwater level and evaluate the performance of the dewatering system. Before starting dewatering operations, a baseline conditions survey will be made of all adjacent foundations and structures to assess the impact of deep excavation dewatering on adjacent structures. All signs of existing distress will be recorded. **MM-HYD-O1**: Irrigation water demands above existing irrigation demands will be met by alternative supply sources to the maximum extent technically and financially feasible. The use of alternative water supply sources for irrigation will be maximized to reduce the use of potable water for irrigation and approximate existing irrigation demands. Alternative water supply sources include, but are not limited to, gray water and harvested rainwater (stormwater).	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Impact HYD-3: *Would the Proposed Project Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, or Through the Addition of Impervious Surfaces, in a Manner that Would Result in*	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Substantial Erosion or Siltation, Flooding On- or–Offsite, Exceed the Capacity of Existing or Planned Stormwater Drainage Systems, Impede or Redirect Flood Flows? Grading and excavation would be required for building foundations, which could affect drainage on the project site, but standard construction-phase BMPs would decrease the potential for any significant erosion or sedimentation from soil disturbance. During operation, new and improved storm drainage pipes and the installation of LID features (bioretention and permeable pavement) would decrease stormwater discharge rates and sediment loads into local storm drains.			
Impact HYD-4: *Would the Proposed Project be Located in Flood Hazard, Tsunami, or Seiche Zones and Risk Release of Pollutants Due to Project Inundation?* The project site is located approximately 28 miles from the Pacific Ocean, so there is no risk to the site from tsunamis and the project would not exacerbate tsunami hazards. The Pacoima Reservoir, located 4.5 miles east of campus, is unlikely to produce seiches that would affect the project site and the proposed project would not exacerbate seiche hazards at the reservoir. During construction, erosion of surface materials could increase TSS and other pollutants, as mentioned in the discussion under **Impact HYD-1** above. Sedimentation and siltation of runoff during the construction period would be addressed through the implementation of standard	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	None required.	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
construction-phase BMPs and compliance with permit and regulatory requirements			
Impact HYD-5: *Would the Proposed Project Conflict With or Obstruct Implementation of a Water Quality Control Plan or Sustainable Groundwater Management Plan?* The proposed project would include improvements to stormwater quality through the implementation of a campus-wide stormwater management system. The proposed project would be required to adhere to NPDES drainage control requirements during construction and operation as well as to County drainage control requirements.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	**MM-HYD-O2**: An Operations and Management (O&M) Plan will be developed for LID features at the site during the design of the initial development projects and expanded as development progresses and different LID features are added. The plan will consider impacts on water quality and address issues related to Integrated Pest Management (IPM) or organic maintenance practices, including those for hand weeding. **MM-HYD-O3**: For any proposed LID features located within an area of potential liquefaction, structural design modifications should be included to mitigate the potential impacts of liquefaction on the performance and operation of the LID features and to maintain the water quality performance as originally design. The O&M Plan should include provision for inspection, repair, maintenance, and/or reconstruction after liquefaction events for any LID features located within an area of potential liquefaction.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Land Use/Planning			
Impact LU-1: *Would the Proposed Project Conflict with any Applicable Land Use Plan, Policy, or Regulation of an Agency with Jurisdiction over the Project Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect?* The proposed project would be generally supportive of, or consistent with, and therefore, would not conflict with the relevant environmental policies and objectives of the County of Los Angeles General Plan Land Use Element, Mobility Element, and the city of Los Angeles Sylmar	Construction and Operational Tier I–No impact Tier II–No impact	None required.	Construction and Operational Tier I–No impact Tier II–No impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Community Plan. In addition the proposed project would be consistent with the current land use designation of Public Facilities and zoning designation of Public Facilities–PF.			
Noise			
Impact NOI-1: *Would the Proposed Project Generate a Substantial Temporary or Permanent Increase in Ambient Noise Levels in the Vicinity of the Project in Excess of Standards Established in a Local General Plan or Noise Ordinance or Applicable Standards of Other Agencies?* Noise from construction activities could exceed established thresholds and adversely affect noise-sensitive uses residential uses in the vicinity of the campus. If pile driving occurs during construction, the number of offsite noise-sensitive uses adversely affected by construction activities would increase. Project operational noise sources would include traffic on the surrounding streets and onsite noise sources such as mechanical equipment, parking lot activities, deliveries, and activities at proposed outdoor spaces such as trails and gardens. Because the Master Plan is conceptual and programmatic in nature, the final type, location, and configuration of mechanical equipment is unknown and the possibility exists that some onsite mechanical equipment would increase ambient noise levels and exceed the applicable noise standards at offsite sensitive receptors.	<u>Construction and Operational</u> Tier I–Potentially significant impact Tier II–Potentially significant impact	**MM-NOI-C1**: Reduce Construction Noise to the Extent Possible. The County will implement the following noise reduction measures during construction: • Construction activities will be limited to between the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays, and will not occur at any time on Sundays or legal holidays. Construction personnel will not be permitted on the job site, and material or equipment deliveries and collections will not be permitted outside of these hours. • To the fullest extent practicable, the quietest available type of construction equipment will be used. Newer equipment is generally quieter than older equipment. The use of electric powered equipment typically is quieter than diesel or gasoline powered equipment, and hydraulic powered equipment typically isquieter than pneumatic power. • Where possible, impact pile driving will be replaced with other piling techniques, such as vibratory pile driving, or vibration–and percussive-free methods (examples include hydraulic press-in piles or cast-in-drilled-hole piles). • All mobile and fixed noise-producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency will comply with such regulation while	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		in the course of project activity. • All construction equipment will be properly maintained. Poor maintenance of equipment can cause excessive noise levels. • All construction equipment, stationary and mobile, will be equipped with properly operating and maintained mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) will be equipped with shrouds and noise control features that are readily available for that type of equipment. • All noisy equipment will be operated only when necessary, and will be switched off when not in use. • The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only. To the extent practicable, temporary barriers will be employed around the project site and/or around noisy construction equipment. For barriers to be effective they will break the line-of site between the equipment and any noise-sensitive receiver. These barriers may be constructed as follows: • From commercially-available acoustical panels lined with sound absorbing material (the sound absorptive faces of the panels will face the construction equipment). • From common construction materials such as plywood and lined with sound absorptive material (the sound absorptive material will face the construction equipment).	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		• From acoustical blankets hung over or from a supporting frame. The blankets will provide a minimum sound transmission class (STC) rating of 28 and a minimum noise reduction coefficient (NRC) of 0.80 and will be firmly secured to the framework with the sound absorptive side of the blankets oriented toward the construction equipment. The blankets will be overlapped by at least 6" at seams and taped so that no gaps exist. The largest blankets available will be used in order to minimize the number of seams. The blankets will be draped to the ground to eliminate any gaps at the base of the barrier. • Construction contractors will ensure that construction employees are trained in the proper operation and use of the equipment. • Storage, staging, parking, and maintenance areas will be located away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies will be positioned in a manner that will function as a noise barrier to the closest sensitive receivers. • Stationary noise sources such as generators and compressors will be positioned as far away as possible from noise-sensitive areas. • Construction equipment will be stored on the project site while in use. This will eliminate noise associated with repeated transportation of the equipment to and from the site. • To the extent possible haul roads should not be designated through noise-sensitive areas. **MM-NOI-O1**: *Design Project Facilities to Ensure All Mechanical Equipment Complies with Chapter XI of the city of Los Angeles Municipal Code*. During the	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		architectural and engineering design phase of each new facility (building, central plant, etc.) that would introduce new mechanical equipment to the project site, and prior to the issuance of any building permits for the facility, the County will retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that the mechanical equipment complies with Chapter XI of the city of Los Angeles Municipal Code. Such recommendations may include, but are not limited to: changes in equipment locations, upgrades to central plant buildings, rooftop parapet walls, acoustical louvers or screens, or intake and exhaust silencers.	
Impact NOI-2: *Would the Proposed Project Generate Excessive Groundborne Vibration or Groundborne Noise Levels?* Heavy construction equipment has the potential to produce groundborne vibration levels that are perceptible to people in the surrounding area. Estimated groundborne vibration levels due to construction of Master Plan facilities could exceed established thresholds at offsite sensitive residential uses. If pile driving occurs during construction, a greater number of offsite residential uses could be affected. Activities associated with operation of proposed Master Plan facilities are not expected to expose sensitive receptors to excessive groundborne vibration or noise.	Construction Tier I–Potentially significant impact Tier II–Potentially significant impact Operational Tier I–No impact Tier II–No impact	**MM-NOI-C2**: *Reduce Construction-Generated Groundborne Vibration to the Extent Possible*. The County will implement the following vibration reduction measures during construction: Where possible, impact pile driving will be replaced with other piling techniques, such as vibratory pile driving or, preferably, vibration–and percussive-free methods (examples include hydraulic press-in piles or cast-in-drilled-hole piles). To the extent possible, heavy construction equipment will not be operated within 140 feet of onsite or offsite sensitive receptors.	Construction Tier I–Potentially significant impact Tier II–Potentially significant impact Operational Tier I–No impact Tier II–No impact
Impact NOI-3: *Would the Proposed Project be Located in the Vicinity of a Private Airstrip or an Airport Land Use Plan area, or, Where Such a Plan has not Been Adopted, Within Two Miles of a Public Airport or Public Use*	Construction Tier I–No impact Tier II–No impact Operational	None required.	Construction Tier I–No impact Tier II–No impact Operational

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Airport, and Expose People Residing or Working in the Project Area to Excessive Noise Levels? The project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport. The existing helipad on the campus would remain in the same location northeast of the existing hospital and emergency services buildings. Flight paths associated with the helipad are not anticipated to change and the overall number of helipad operations are not expected to increase as a result of the proposed project.	Tier I–No impact Tier II–No impact		Tier I–No impact Tier II–No impact
Population/Housing			
Impact POP-1: *Would the Proposed Project Induce Substantial Population Growth in an Area, either Directly (e.g., by Proposing New Homes and Businesses) or Indirectly (e.g., through the Extension of Roads or Other Infrastructure)?* Because of the highly specialized nature of most construction projects, workers are likely to be employed on the job site only for as long as their skills are needed to complete a particular phase of the construction process. Additionally, the County has a large pool of construction labor from which to draw within commuting distance of the project site. Therefore, most construction workers would not relocate their households to work on proposed Master Plan development and improvement projects. Tier I would include the development of a 48-bed Recuperative Care Center and an 80-	<u>Construction and Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	None required.	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant or no impact Tier II–Less than significant or no impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
bed Residential Treatment Program. Both facilities would provide short-term (less than three months) housing. The grow inducement impacts of this small increase in the residential population would be minor. The SCAG projections anticipate countywide population growth of 19.2 percent by 2035. The increases in the on-campus employee and residential populations that could occur with buildout of the Master Plan would not contribute substantially to any population growth in the area beyond what SCAG has projected in its regional and city forecasts. Additionally, the proposed project does not include the extension of roads or other infrastructure improvements outside the boundaries of the campus that would induce growth in the surrounding area.			
Impact POP-2: *Would the Proposed Project Displace Substantial Numbers of Existing Housing Units, Necessitating the Construction of Replacement Housing Elsewhere?* All development and facilities proposed under the Master Plan would be constructed within the existing boundaries of the medical center campus. There are currently no permanent housing units on campus. Thus, no displacement of existing housing would occur as a result of anticipated development under the Master Plan.	Construction and Operational Tier I–No impact Tier II–No impact	None required.	Construction Tier I–No impact Tier II–No impact
Public Services			
Impact PS-1: *Would the Proposed Project Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Government Facilities, Need for New or Physical Altered Government*	Construction Tier I–Potentially significant impact Tier II–Potentially significant impact	**MM-PS-1**: The Los Angeles County project manager and construction contractor will regularly notify and coordinate with the Los Angeles Fire Department (LAFD), Los Angeles Sheriff's Department (LASD), and Los Angeles Police	Construction and Operational Tier I–Less than significant impact Tier II–Less than

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Facilities, the Construction of Which Could Cause Significant Environmental Impacts, in Order to Maintain Acceptable Services Ratios, Response Times or Other Performance Objectives for Any of the Public Services? Construction could temporary increase demand for fire protection services, but would not result in the need for new or altered fire protection facilities. Emergency access to the project site could be affected by Master Plan construction activities. Temporary lane closures and construction related-traffic could delay or obstruct the movement of emergency vehicles. New development under the Master Plan is not expected to substantially increase the demand for public services and require construction of new or altered facilities to maintain acceptable service ratios.	Operational Tier I–Less than significant impact Tier II–Less than significant impact	Department (LAPD) on project construction design, activities, and scheduling, including any on and off campus street or lane closures related to the proposed developments before construction begins.	significant impact
Recreation			
Impact REC-1: *Would the Proposed Project Increase the Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities such that Substantial Physical Deterioration of the Facility Would Occur or Be Accelerated?* It is unlikely that construction of the proposed project would result in the relocation of a substantial number of construction workers and their families such that the use of existing parks would increase to the point of substantial deterioration. Development of proposed Master Plan facilities would increase the number of employees and campus visitors and would	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
include a new Recuperative Care Center and the Residential Treatment Program facility that would provide treatment in a residential setting for short-term stays. Because local recreational resources are most frequently used by local residents rather than campus employees or visitors or hospital patients, development is not expected to directly result in a substantial increase in use of local parks.			
Impact REC-2: *Would the Proposed Project Include Recreational Facilities or Require the Construction or Expansion of Recreational Facilities that Would Have a Substantial Adverse Physical Effect on the Environment?* Construction of new landscaped open space areas or other passive or recreational spaces on the medical center campus, as proposed under the Master Plan, would be limited to the project site. Staging for construction equipment and activities would not occur within any off-campus parkland or recreational facility. As discussed in **Impact REC-1**, because local recreational resources are most frequently used by local residents rather than campus employees or visitors or hospital patients, operation of proposed Master Plan facilities is not expected to directly result in a substantial increase in use of local parks.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	See air quality and noise mitigation measures above.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Transportation/Traffic			
Impact TRAF-1: *Would the Proposed Project Conflict with a Program Plan, Ordinance, or Policy Addressing the Circulation System, including Transit, Roadway, Bicycle, and Pedestrian Facilities?*	Construction and Operational Tier I–Less than significant impact Tier II–Potentially	**MM-TRAF-1**: The County will develop and implement traffic control measures for Master Plan projects that would result in lane or sidewalk closures, removal of parking, or similar traffic disruptions. Temporary traffic control during	Construction and Operational Tier I–Less than significant impact Tier II–Potentially

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Construction of the proposed project could involve intermittent lane and sidewalk closures, which could impede vehicle, pedestrian, equestrian, and bicycle circulation. However, no long-term closure of offsite roadways, bicycle or equestrian paths, or sidewalks are anticipated. Operation of the proposed project would increase the volume of vehicles and the amount of traffic at intersections, freeway mainlines, and freeway ramps. The proposed project would also result in a minor increase in transit patronage and use of available transit capacity. Proposed new pedestrian paths and sidewalks within the campus and along the north side of Olive View Drive would improve local pedestrian circulation.	significant impact	construction will meet the requirements of the CA-MUTCD. Daytime closures will be covered by the applications shown in Chapter 6 of the manual. Overnight closures, long-term closures, and detours will require a Traffic Control Plan, which will be prepared as part of the project design package according to CA-MUTCD requirements. The Traffic Control Plan may include, but is not limited to, the elements listed below. Note that some of these elements may not be feasible or appropriate in all circumstances. The project-level environmental analysis will identify the appropriate measures for each project as applicable. • Provide a roadway layout that shows the locations of construction activity and surrounding roadways to be used as detour routes, including special signage. • Establish detour routes in coordination with the city of Los Angeles to minimize disturbances to local traffic conditions; review potential detour routes to make sure adequate capacity is available. • Avoid creating additional delay at intersections that are currently operating under congested conditions either by choosing routes that avoid these locations or constructing during non-peak times of day. • Maintain access to existing residences at all times. • Work with LASD, LAFD, and LAPD to coordinate all construction-related plans and minimize disturbances to local EMS providers; ensure that alternative evacuation and emergency routes are designed to maintain response times during construction. • Provide adequate off-street parking areas at	significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
		designated staging areas for construction-related vehicles. • Work with local and regional transit providers to maintain access and circulation routes to existing stops and stations during construction phases and identify appropriate detours to provide traffic rerouting during construction while minimizing disturbance to bus services. • Work with the city of Los Angeles to maintain continuity and operation of existing pedestrian and bicycle facilities during construction.	
Impact TRAF-2: *Would the Proposed Project Substantially Increase Hazards Due to a Geometric Design Feature (e.g., Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farm Equipment)?* The increased mixture of heavy construction vehicles and general purpose traffic during construction can result in safety hazards due to a higher proportion of heavy trucks. These hazards are temporary and intermittent however, and implementation of construction contractor safety plans, best management practices, and proposed mitigation measure MM-TRAF-1 would ensure potential hazards would be minimalized. The Master Plan would improve sidewalks and pedestrian walking paths throughout campus. There will also be improvements to the general orientation of campus facilities, which would improve safety for motorists, pedestrians, and bicyclists as they travel to and around campus.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact	See **MM-TRAF-1**, above.	Construction and Operational Tier I–Less than significant impact Tier II–Less than significant impact
Impact TRAF-4: *Would the Proposed Project Result in Inadequate Emergency Access?*	Construction Tier I–Potentially	See **MM-TRAF-1**, above.	Construction and Operational

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Construction could require temporary road or lane closures, which could affect emergency vehicle access. However emergency vehicle access will be maintained. Impacts however will be less than significant with coordination with EMS providers that serve the campus and surrounding communities as described in MM-TRF-1. Operations of the proposed facilities will not substantially affect emergency access to the campus and surround community.	significant Tier II–Potentially significant <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact		Tier I–Less than significant impact Tier II–Less than significant impact
Tribal Cultural Resources			
Impact TCR-1: *Would the Proposed Project Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource, Defined in Public Resources Code Section 21074 as Either a Site, Feature, Place, Cultural Landscape That is Geographically Defined in Terms of the Size and Scope of The Landscape, Sacred Place, or Object With Cultural Value to a California Native American Tribe, and That Is:* *i. Listed or Eligible for Listing in The California Register Of Historical Resources, or in a Local Register of Historical Resources as Defined in Public Resources Code Section 5020.1(K); or ii. A Resource Determined by the Lead Agency, in Its Discretion and Supported by Substantial Evidence, to be Significant Pursuant to Criteria Set Forth in Subdivision (C) of Public Resources Code Section 5024.1. In Applying the Criteria Set Forth in Subdivision (C) of Public Resource Code Section 5024.1, will the Lead Agency Consider the Significance of the Resource to a*	<u>Construction</u> Tier I–Potentially significant Tier II–Potentially significant <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	**MM-CR-1** through **MM-CR-6**, described above under Cultural Resources would be implemented.	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
California Native American Tribe? The proposed project has a moderate potential to affect tribal cultural resources (TCRs) in areas on the campus not previously disturbed because there are three TCRs, including two villages in the vicinity of the campus.			
Utilities and Service Systems			
Impact UTL-1: *Would the Proposed Project Require or Result in the Relocation or Construction of New or Expanded Water or Wastewater Treatment or Stormwater Drainage, Electric Power, Natural Gas, or Telecommunications Facilities, the Construction or Relocation of Which Could Cause Significant Environmental Effects?* During construction of individual projects implemented under the Master Plan, water would be consumed by construction workers and activities, e.g., cement mixing and dust suppression, wastewater would be generated by construction workers, and electricity and fuels would be consumed. However, the incremental increase in the consumption of utilities or generation of wastewater during construction would not be permanent and it is not expected that new utility infrastructure would be required to meet this incremental increase in demand. Construction of new development and facilities under Tier I would require new on-campus infrastructure to accommodate that development, including new water or sewer lines to new on-campus buildings. If construction of new water lines occurs at	<u>Construction</u> Tier I–Potentially significant impact Tier II–Potentially significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Potentially significant impact	See measures **MM-CR-1** through **MM-CR-6** and **MM-GEO-C3**, identified above, to mitigate potential impacts to archaeological and paleontological resources during construction of new underground water or sewer lines. **MM-UTL-1**: Prior to issuance of a building permit for any future development project under the Master Plan that could result in an increase in wastewater generation, the County will coordinate with the city of Los Angeles Bureau of Sanitation to conduct further detailed gauging and evaluation to identify a specific sewer connection point with sufficient capacity. If the public sewer has insufficient capacity, then the County will be required to build a sewer line to a point in the sewer system with sufficient capacity. **MM-UTL-2**: In conjunction with preparation of a subsequent CEQA environmental document for any future individual development project under the Master Plan that is proposed in the year 2040 or beyond that is defined as a "water-demand project" in Section 15155 of the CEQA Guidelines, the County will request, pursuant to Section 15155, that the water provider determine whether the projected water demand associated with the project was included in the most recently adopted urban water management plan. If required pursuant to Section 15155 and SB 610, the County will request that	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Potentially significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
depths where undisturbed native soils would be encountered, the potential exists that unknown buried archaeological or paleontological resources could be encountered and damaged or destroyed (see Section 3.4, *Cultural Resources*, and Section 3.5, *Geology/Soils*, of this Final EIR, for a detailed discussion of impacts to archaeological resources and paleontological resources, respectively). The development and operation of proposed Master Plan facilities would increase the consumption of utilities. Future water supplies, based on a Water Supply Assessment prepared for the proposed project, are expected to be adequate and can accommodate future demand under the Master Plan. However, the increase in water supply consumption for projects that could be developed far into the future under Tier II of the Master Plan is not accounted for in the Urban Water Management Plan projections, which end in 2040. When future projects (i.e., Tier II development projects that would occur beyond the year 2040), are proposed and building plans are developed, LACDPW will be required to coordinate with the water provider, LADWP, to confirm that adequate water supplies exist to serve these future Master Plan projects. It is anticipated that the sewer system should be able to accommodate the total flow that would occur under the proposed project. However, if public sewer lines serving the campus have insufficient capacity, then the County will be required to build sewer lines to a point in the sewer		LADWP prepare a water assessment for the proposed project. The County will determine, pursuant to Section 15155, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.	

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. If BOS determines that there is insufficient capacity in the local sewer lines that would serve an individual future project, then the impact would be considered to be significant. The amount of impervious cover would decrease and landscaped areas would increase as a result of proposed Master Plan improvements. As a result, new off-campus stormwater drainage facilities or expansion of existing facilities would not be required. Increased electricity, natural gas, and telecommunications due to the development and operation of proposed new Master Plan facilities is not expected to require new or expanded offsite electrical or natural gas infrastructure to meet the increased demand.			
Impact UTL-2: *Would the Proposed Project Have Sufficient Water Supplies Available to Serve the Proposed Project and Reasonably Foreseeable Future Development During Normal, Dry and Multiple Dry Years?* Construction under the proposed project would use water for various purposes; however, the incremental increase in water use would be temporary and not substantial, therefore existing water supplies would be sufficient. The potential increase in consumption due to development under the Master Plan would be consistent with the Los Angeles Department of Water and Power's Urban Water Management Plan (UWMP). However,	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Potentially significant impact	See **MM-UTL-2**, above.	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Potentially significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
UWMP projections end in 2040, while the Master Plan provides a framework for development beyond 2040. Therefore, water supply impacts for projects constructed beyond the year 2040 could be potentially significant. Accordingly, when future projects (i.e., Tier II development projects that would occur beyond the year 2040), are proposed and building plans are developed, LACDPW will be required to coordinate with the water provider, LADWP, to confirm that adequate water supplies exist to serve these future Master Plan projects.			
Impact UTL-3: *Would the Proposed Project Result in a Determination by the Wastewater Treatment Provider that Serves or May Serve the Project that it Does Not Have Adequate Capacity to Serve the Project's Projected Demand in Addition to the Provider's Existing Commitments?* Construction would generate a minor incremental increase in wastewater flows to the city's wastewater system. The city of Los Angeles BOS has conducted a preliminary evaluation of potential impacts of the proposed project and concluded that the sewer system might be able to accommodate total flow of the proposed project, but that further detail gauging and evaluation may be needed as part of the permit process for individual projects to identify a specific sewer connection point. Operation of facilities proposed under the Master Plan would result in increased wastewater flows. All wastewater generated on the campus would ultimately be conveyed	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Potentially significant impact Tier II–Potentially significant impact	See **MM-UTL-2**, above.	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
to the Hyperion Treatment Plant, which has sufficient capacity to accommodate the project as well as existing commitments.			
Impact UTL-4: *Would the Proposed Project Generate Solid Waste in Excess of State or Local Standards, or in Excess of the Capacity of Local Infrastructure, or Otherwise Impair the Attainment of Solid Waste Reduction Goals?* Given demolition debris and solid waste generated by construction activities would be finite and limited to the construction periods, the proposed project would not generate waste in excess of state or local standards or in excess of capacity of local infrastructure. During Tier I operation of the proposed project, it is expected that the project site would be served by a landfill that has sufficient permitted capacity to accommodate the project's solid waste disposal needs. Since Tier II development would include those projects proposed far in the future, beyond the year 2035, it's not possible to determine whether landfills serving the project site would have sufficient remaining capacity that far in the future. Therefore, solid waste impacts for Tier II projects could be potentially significant.	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Potentially significant impact	None required.	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant Tier II–Potentially significant impact
Impact UTL-5: *Would the Proposed Project Comply with Federal, State, and Local Management and Reduction Statutes and Regulations Related to Solid Waste?* Development under the Olive View–UCLA Medical Center Master Plan would be	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact	None required.	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
subject to and comply with AB 939 and other solid waste regulations such as the Industrial Waste Control Ordinance of the Los Angeles Municipal Code, the city of Los Angeles Sewer Allocation (Ordinance No. 166060), and the California Solid Waste Reuse and Recycling Access Act, which governs building permits that oversee the transfer, receipt, storage, and loading of recyclable materials.	Operational Tier I–Less than significant impact Tier II–Less than significant impact		Operational Tier I–Less than significant impact Tier II–Less than significant impact
Wildfire Hazards			
Impact WF-1: *Would the Proposed Project Substantially Impair an Adopted Emergency Response Plan or Emergency Evacuation Plan?* Construction is not expected to result in any substantial traffic queuing or temporary or permanent closure of roadways that would interfere with emergency response or evacuation. However, during construction, emergency access to facilities within the campus could be temporarily affected. Temporary lane closures and construction related-traffic within the campus could delay or obstruct the movement of emergency vehicles. Operations would not result in structures or activities that would substantially obstruct or interfere with emergency vehicles or impair emergency response or evacuation plans.	Construction Tier I–Potentially significant Tier II–Potentially significant Operational Tier I–Less than significant impact Tier II–Less than significant impact	**MM-PS-1**, described above under Public Services, would be implemented	Construction Tier I–Less than significant impact Tier II–Less than significant impact Operational Tier I–Less than significant impact Tier II–Less than significant impact
Impact WF-2: *Would the Proposed Project due to Slope, Prevailing Winds, and Other Factors, Exacerbate Wildfire Risks of, and thereby Expose Project Occupants to, Pollutant Concentrations from a Wildfire or*	Construction Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
the Uncontrolled Spread of a Wildfire? Construction equipment would require the use of flammable fuels and solvents and operation of construction equipment that could result in sparks, thereby increasing fire risks. However, implementation of best management practices during construction and adherence to County and City regulations and requirements would reduce potential risks. Under existing conditions, the project site includes many potential fire issues. However, implementation of the proposed Master Plan would result in conversion of existing ignitable fuels to maintained landscapes and would include new ignition-resistant development. In addition, construction would adhere to building codes and improve accessibility within the campus.	<u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact		<u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact
Impact WF-3: *Would the Proposed Project Require the Installation or Maintenance of Associated Infrastructure (such as Roads, Fuel Breaks, Emergency Water Sources, Power Lines, or Other Utilities) that May Exacerbate Fire Risk or that May Result in Temporary or Ongoing Impacts on the Environment.* Implementation of the proposed Master Plan would reduce the potential flammability of the existing campus landscape by converting existing undeveloped vacant spaces containing ignitable fuels to maintained landscapes and replacing older buildings with new buildings constructed to current codes. All	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact	None required.	<u>Construction</u> Tier I–Less than significant impact Tier II–Less than significant impact <u>Operational</u> Tier I–Less than significant impact Tier II–Less than significant impact

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
development would be limited to the confines of the existing campus.			
Impact WF-4: *Would the Proposed Project Expose People or Structures to Significant Risks, Including Downslope or Downstream Flooding or Landslides, as a Result of Runoff, Post-Fire Slope Instability, or Drainage Changes?* The proposed project would not substantially exacerbate or expose people to significant new wildfire risks or hazards and could reduce the risk of on-campus fires by converting existing undeveloped vacant spaces containing ignitable fuels to maintained landscapes and replacing older buildings with new buildings constructed to current codes.	Construction Tier I–Less than significant impact Tier II–Less than significant impact Operational Tier I–Less than significant impact Tier II–Less than significant impact	None required.	Construction Tier I–Less than significant impact Tier II–Less than significant impact Operational Tier I–Less than significant impact Tier II–Less than significant impact

Source: ICF 2019.

Chapter 1
Introduction

This Final environmental impact report (EIR) has been prepared by the County of Los Angeles (County) to assess the potential environmental impacts that could result from the implementation of the proposed Olive View–UCLA Medical Center Campus Master Plan project (proposed project or Master Plan) in Sylmar, California. The County is the lead agency for the proposed project, pursuant to the California Environmental Quality Act (CEQA).

For the purposes of this Final EIR, the development that could occur under the proposed Master Plan has been divided into two tiers, which are described in greater detail in Chapter 2, Project Description of this Final EIR. Tier I includes the more near-term development and campus improvements that could occur over the next 10 to 15 years or through the year 2035. Potential Tier I development includes a new Restorative Care Village that would consist of a Recuperative Care Center, Residential Treatment Program facility, Mental Health Urgent Care Center, and Mental Health Wellness Center; ambulatory care center; renovations to the existing hospital; community center; central utility expansion; materials management building; administrative services building; community open space and landscaping improvements;, and appurtenant parking facilities.

Tier II development under the proposed project could include the construction of a new inpatient hospital, research and development buildings, long-term care facility, supply services building, County department buildings, senior center, fitness center, child care center, retail space, parking facilities, and community open space and landscaping improvements. Tier II development and improvement projects are expected to occur much further in the future or beyond the year 2035.

Since Tier II components of the proposed project would likely occur far in the future, they're less well defined, and have therefore been discussed at a programmatic level in the EIR, as permitted under Section 15168 of state CEQA Guidelines. Once detailed future development plans for Tier II components are known, the individual projects will be examined, consistent with CEQA guidelines, in light of the program EIR analysis to determine whether additional environmental document(s) must be prepared.

As such, this Final EIR provides a dual-level analysis for the proposed project. A project-level analysis has been prepared for Tier I, and a program-level analysis has been conducted for Tier II.

1.1 Background

The Olive View–UCLA Medical Center was originally established as a tuberculosis sanitarium in 1920, and later converted to an acute care hospital in 1970. After suffering severe damage in the 1971 San Fernando Earthquake, also known as the Sylmar earthquake, the hospital was rebuilt and reopened in 1987. Changes in medical delivery, outpatient care, infrastructure demands, and community and patient expectations are some of the factors driving the need for a Master Plan.

The Olive View–UCLA Medical Center Campus, which serves the residents in the San Fernando, Santa Clarita, and Antelope valleys, is an acute care hospital that provides a full range of medical-surgical inpatient and outpatient services. It is currently the only County-sponsored hospital option

in the northern Los Angeles County region. The Master Plan addresses projected growth in the region that will place additional pressure on individual programs and the hospital as a whole.

The campus has experienced sporadic development since the 1900s, which is reflected in its fragmented appearance. The natural setting has been lost, and thus the Master Plan envisions the re-capture of nature in a design that incorporates the Angeles National Forest and the San Gabriel Mountains.

In January, 2014, the County began preparing the Olive View–UCLA Medical Center Campus Master Plan. One of the County's primary goals for the Master Plan is to redevelop the Olive View–UCLA Medical Center Campus to provide an integrated healthcare delivery model in the County's San Fernando Valley Cluster/Valley Care Area. The campus master planning focused on creating a more community-based and patient-centered campus that reclaims nature and provides opportunities for open space. The proposed Master Plan summarized the research, findings, observations, and proposals for master planning options at the Olive View–UCLA Medical Center Campus.

Five Master Plan options were developed during the planning process and were based on an evaluation of the existing site, understanding of proposed program development, input from stakeholders, contributions from community residents and businesses, and a vision for the site. The five options were presented at community outreach meetings, and a preferred Master Plan option was subsequently selected (see Chapter 2, *Project Description*, of this Final EIR for a description of the preferred Master Plan).

1.2 Overview of the CEQA EIR Process

The California Environmental Quality Act (CEQA) was adopted in 1970 so that the significant environmental effects of proposed actions would be disclosed to decision-makers and the public. CEQA applies to all discretionary activities proposed to be carried out or approved by California public agencies. Approval of the proposed project is a discretionary act by a public agency, in this case the Los Angeles County Board of Supervisors (Board), acting on behalf of the County of Los Angeles as the lead agency for the project. Therefore, compliance with CEQA is required.

An environmental impact report (EIR) is the informational document prepared in compliance with CEQA that describes the proposed project's significant environmental effects, measures to mitigate those effects, and alternatives for avoiding or minimizing the effects. The lead agency under CEQA for this Final EIR for the proposed Master Plan is the County of Los Angeles. The major steps that have been and will be taken by the County in preparing and processing the EIR in compliance with CEQA regulations are described below.

1.2.1 Notice of Preparation and Scoping Period

The County, in accordance with CEQA, prepared a Notice of Preparation (NOP), which was released to the public and filed with the State Clearinghouse (SCH No. 2016031090) in the Office of Planning and Research on March 28, 2016. The NOP provided notice to the public and public agencies that an EIR would be prepared, described the proposed project that would be evaluated in detail in the EIR, listed the probable environmental effects of the proposed project, and identified the date, time, and location for a scoping meeting, which was held on April 14, 2016, at the Olive View–UCLA Medical Center Campus.

The NOP was distributed to involved public agencies and interested parties for a 30-day public review period, which began on March 28, 2016, and ended on May 2, 2016.

A copy of the NOP is included in Appendix A of this Final EIR, along with comments provided by the public and public agencies in response to the NOP. Comments received in response to the NOP during the scoping period were considered in preparing this Final EIR.

1.2.2 Draft EIR Public Review and Comment Period

The Draft EIR was distributed and made available to the public and interested or affected agencies for review and comment from May 23 through July 29, 2019. During that timeframe, members of the public and public agencies were asked to review the Draft EIR and provide comments on the document, as well as the adequacy of the impact analyses.

The Draft EIR was available for review on the County's website (ftp://dpwftp.co.la.ca.us/pub/pmd/OVMC/), and copies of the Draft EIR were made available for general public review at the following locations:

Olive View–UCLA Medical Center Hospital First Floor Room 1C-114 (Right side of Lobby Information Desk) 14445 Olive View Drive Sylmar, CA 91342 (747) 210-3001 Open 10 a.m. to 3 p.m. (Monday–Friday)	Sylmar Branch Library 14561 Polk Street Sylmar, CA 91342 (818) 367-6102 Open 10 a.m.–8 p.m. (Monday, Wednesday) 12 p.m. to 8 p.m. (Tuesday, Thursday), 9:30 a.m.–5:30 p.m. (Saturday, Sunday)	Los Angeles Mission College Library 13356 Eldridge Avenue Sylmar, CA 91342 (818) 364-7600 ext. 7105 Open 8 a.m. to 8 p.m. (Monday–Thursday); 10 a.m. to 2 p.m. (Saturday)	County of Los Angeles Public Information Office Room 358, Kenneth Hahn Hall of Administration 500 W. Temple Street Los Angeles 90012 (213) 974-1234 Open 8 a.m.–to 5p.m. (Monday–Friday)

Any individuals or parties could provide written comments on the Draft EIR. Written comments on the Draft EIR were required to be postmarked by Monday, July 29, 2019 and addressed to:

Hoda El Sokkary
Project Manager County of Los Angeles Department of Public Works
Senior Capital Projects Manager
900 S. Fremont Ave. Project Management Division 1, 5th Floor
Alhambra, CA 91803-1331
E-mail: OVMCEIR@dpw.lacounty.gov

Public notice of the availability of the Draft EIR was provided in the following publications:

- *Los Angeles Daily News*
- *San Fernando Business Journal*
- *San Fernando Sun/El Sol*

1.2.3 Preparation of the Final EIR and Project Approval

With completion of the Draft EIR public review period, this Final EIR has been prepared. It includes comments on the Draft EIR received during the formal public review period, as well as written responses to those comments. This Final EIR also contains corrections to the text of the Draft EIR, as needed. The Draft EIR and this final EIR compose the EIR for the proposed project.

If the decision-making body of the lead agency (here, the Los Angeles County Board of Supervisors [Board]) approves the proposed project, CEQA requires the Board adopt findings with respect to each significant effect identified in the EIR (Public Resources Code Section 21081, state CEQA Guidelines Section 15091). For each significant effect, CEQA requires the approving agency to make one or more of the following findings:

- Changes or alterations have been required for, or incorporated into, the project that avoid or substantially lessen the significant environmental effect, as identified in the Final EIR.
- Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency.
- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the Final EIR.

In the event that the County, as the lead agency, concludes that the proposed project would result in significant effects that would not be lessened substantially or avoided by feasible mitigation measures and alternatives, the County must adopt a statement of overriding considerations (Public Resources Code Section 21081, subd. (b); state CEQA Guidelines Section 15093). Under CEQA, such statements are intended to provide a written means by which the lead agency balances the benefits of the proposed project and any significant and unavoidable environmental impacts arising from its implementation. Where the lead agency concludes that the economic, legal, social, technological, or other benefits outweigh the unavoidable significant environmental impacts, the lead agency may find such impacts acceptable and approve the project. In addition, pursuant to Section 21081.6 of the Public Resources Code, public agencies, when approving a project, must also adopt a program for monitoring or reporting the changes that were incorporated into the project or made a condition of project approval, for mitigating or avoiding significant effects on the environment. The purpose of the monitoring and reporting program is to ensure mitigation measures and project revisions identified in the EIR are implemented. The program, which will be referred to as the Mitigation Monitoring and Reporting Plan (MMRP) for the proposed project, will be recommended for adoption by the Board at the time it considers its project approval.

1.3 About this Final EIR

1.3.1 Program EIR

This Final EIR for the proposed project is a program EIR. A program EIR is described in Section 15168 of the state CEQA Guidelines as an EIR that

> may be prepared on a series of actions that can be characterized as one large project and are related either geographically, as logical parts in the chain of contemplated actions, [or] in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program.

Because the proposed project consists of a Master Plan with components that would be implemented over a period of years, the County determined that a program EIR would be the

appropriate document for the proposed project. However, Tier I has been evaluated at a project level: additional environmental documents are not anticipated to be necessary under Tier I.

According to the state CEQA Guidelines, a program EIR can provide the following advantages:

- Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action;
- Ensure consideration of cumulative impacts that may be slighted on a case-by-case basis;
- Avoid duplicative reconsideration of basic policy considerations;
- Allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an earlier time, when the agency has greater flexibility to deal with basic problems or cumulative impacts; and
- Allow a reduction in paperwork.

Subsequent activities (or projects) in the program or plan requiring further discretionary approvals would be examined in light of the program EIR to determine whether an additional environmental document should be prepared, as well as the appropriate format for the documentation. If the lead agency finds that the subsequent activity or project would not result in new effects or require new mitigation measures, the lead agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. If an EIR is required for a subsequent activity, the subsequent EIR can focus solely on new effects that were not considered in the program EIR.

1.3.2 Organization and Content of This Final EIR

The Draft EIR and this Final EIR conform to the content requirements of the state CEQA Guidelines. A list of the chapters and a brief description of their content is provided here to assist the reader in locating information.

Executive Summary: Provides a brief description of the proposed project, including an overview of the impact analysis, recommended mitigation measures, and net residual impact; summary information regarding the proposed project and key conclusions is also provided.

Chapter 1: Introduction: Provides a general orientation regarding the purpose of CEQA, as well as this Final EIR, and includes information on the CEQA EIR process.

Chapter 2. Project Description: Presents a statement of the proposed project objectives, a description of the location and setting for the project, a detailed description of the proposed project's components, and related information regarding implementation.

Chapter 3. CEQA Environmental Impact Analysis: Analyzes potential impacts under CEQA that could occur as the result of approval and implementation of the proposed project. The impact discussion is organized into 18 topical issues that have the potential to result in impacts on the environment. This chapter also addresses cumulative impacts from the project and related projects.

Chapter 4. Other Analysis Required by CEQA: Discusses other topics required by CEQA, including a listing of impacts found not to be significant, growth-inducing impacts, and irreversible changes that might occur as a result of the project.

Chapter 5. Alternatives Analysis: Discusses proposed alternatives to the proposed project and the comparative merits of each, in accordance with state CEQA Guidelines Section 15126.6. The chapter also discusses alternatives that were considered, but rejected as infeasible, and identifies the environmentally superior alternative.

Chapter 6. List of Preparers: Lists persons who contributed directly to the preparation of this Final EIR.

Chapter 7. References: Lists the sources of information that were referenced for the analyses contained within this Final EIR.

Chapter 8. Responses to Comments: Includes public comments on the Draft EIR and responses to those comments.

This Final EIR also includes a number of appendices, including copies of the Notice of Preparation (NOP), public responses to the NOP, and the technical analyses that were the basis for the evaluation of project impacts presented in Chapter 3, *CEQA Environmental Impact Assessment*, of this Final EIR.

1.4 Clarifications and Modifications to the Draft EIR

1.4.1 Overview

This section provides clarifications and modifications to the draft EIR. Any corrections to the Draft EIR text, tables, and figures generated either from responses to comments or independently by the County are included in this section of the Final EIR.

These Draft EIR revisions are provided to clarify, refine, and provide supplemental information. Changes may be corrections or clarifications to the text and tables of the draft EIR. Other changes to the Draft EIR clarify the analysis therein based upon the information and concerns raised by comments during the public review period. None of the information contained in these Draft EIR revisions constitutes significant new information or changes to the analysis or conclusions of the Draft EIR that require recirculation of the Draft EIR.

The EIR modifications contained in the following pages are in the same order as the information appears in the Draft EIR. Please see the Final EIR for the text corrections and additions.

1.4.2 Modifications to the Draft EIR

Executive Summary

- Air quality mitigation measures were revised in response SCAQMD comments. Please refer to pages ES-12 through ES-16.
- Geology mitigation measure **MM-GEO-C3** has been revised. Please refer to page ES-35.
- The level of significance of traffic impact TRAF-1 has been corrected. Please refer to page ES-57.

Section 3.2 Air Quality

The air quality impacts discussion has been revised in response to SCAQMD comments. Please refer to pages 3.2-4, 3.2-14, and 3.2-23 through 3.12-38.

Section 3.6 Geology and Soils

Geology mitigation measure **MM-GEO-C3** has been revised. Please refer to page 3.6-24.

Section 3.7 Greenhouse Gas Emissions

The greenhouse gas emissions impacts discussion has been revised in response to SCAQMD comments. Please refer to pages 3.7-16 through 3.7-19.

Sections 3.17 Utilities

The water supply discussion has been revised in response to LADWP comments. Please refer to pages 3.17-8 through 3.17-9.

Chapter 2
Project Description

2.1 Introduction

This chapter describes the proposed Olive View–UCLA Medical Center Campus Master Plan Project (proposed project). It includes a description of the project location and an overview of the existing environmental setting and discusses the project objectives, project elements, and construction schedule. A list of related projects is also provided.

2.2 Project Location and Environmental Setting Overview

The Olive View–UCLA Medical Center Campus is located at 14445 Olive View Drive on several parcels of land owned by the County of Los Angeles. The campus is located within the community of Sylmar, at the north end of the San Fernando Valley, in the city of Los Angeles, California. Specifically, the site is bounded by the Angeles National Forest and Wilson Canyon Debris Basin on the north, Olive View Drive on the south, Los Angeles County Flood Control District facilities and Wilson Canyon Park on the east, and Bucher Avenue to the west. Kennedy Road and Cobalt Street intersect the project site. The site is located east of the I-5 freeway and north of the I-210 freeway. Figure 2-1 depicts the regional location of the proposed project, and Figure 2-2 depicts the boundaries of the Master Plan.

2.2.1 Surrounding Land Uses

The 230-acre Olive View–UCLA Medical Center Campus abuts the foothills of the San Gabriel Mountains, which are a part of the Angeles National Forest. Horse trails and hiking trails run along the northern edge of the campus. Predominantly single-family residential neighborhoods are located approximately 200 feet east of the campus. A mix of single-family residences (including ranch-style homes with equestrian facilities), multifamily residences, and some commercial uses are located approximately 100 feet south of the campus across Olive View Drive. Residential uses are also located approximately 900 feet west of the campus, north of the I-210 freeway. Sylmar Leadership Academy (K–8), which is the closest school to the campus, is located approximately 0.4 miles south of the campus.

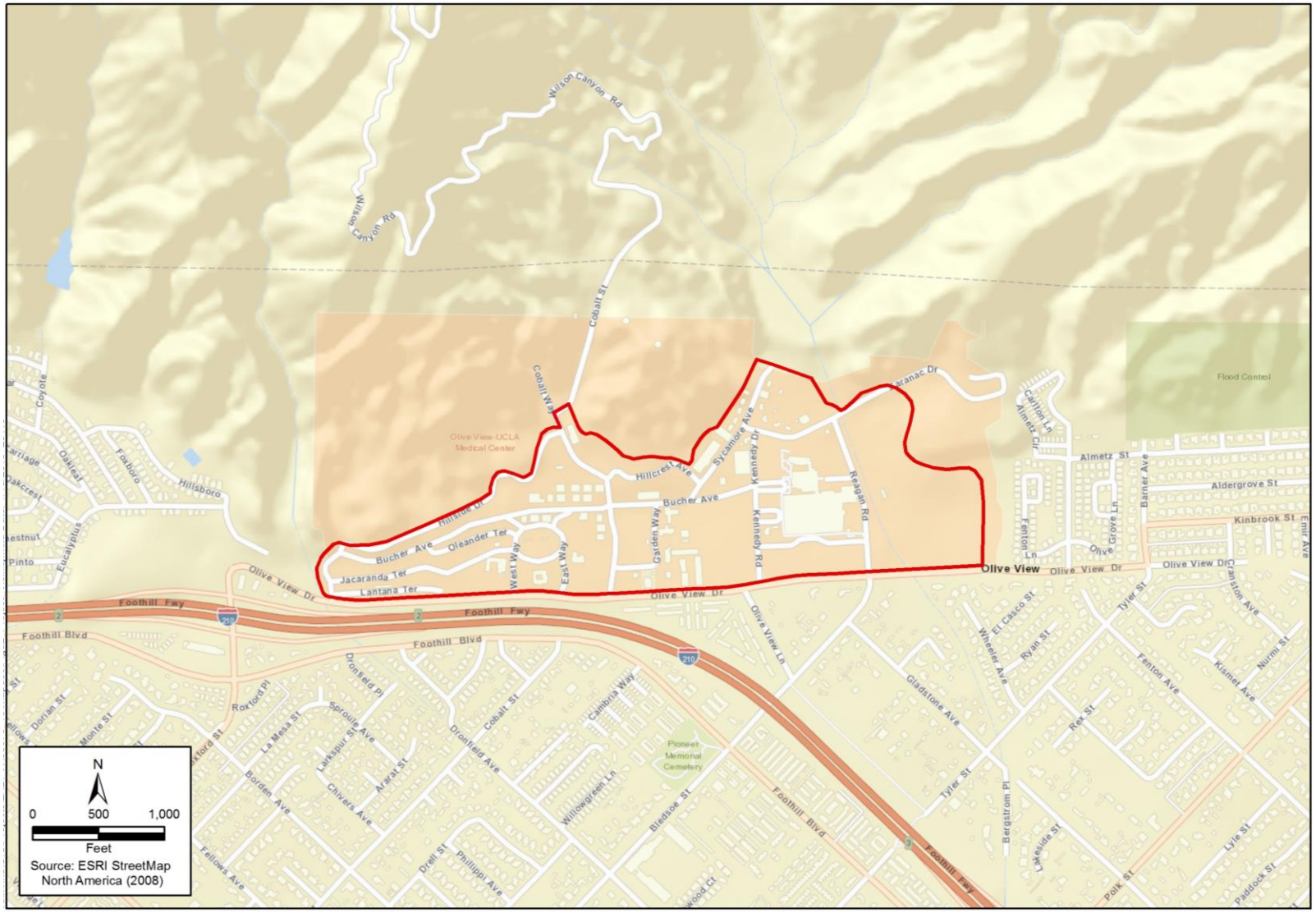
2.2.2 Existing General Plan and Zoning

The proposed site is located within the Sylmar Community Plan (Sylmar Plan) planning area; the Sylmar Plan is a part of the city of Los Angeles's Citywide General Plan (City General Plan). The properties that compose the Olive View–UCLA Medical Center Campus are zoned for public facilities (PF), with the portion that is Wilson Canyon Channel zoned for open space (OS) by the city of Los Angeles; however, it should be noted that the County is immune from the city's zoning regulations and requirements under sovereign immunity. The areas to the west and east of the campus are designated for single-family uses.

Figure 2-1. Regional Location Map

Source: ICF International 2016.

Figure 2-2. Project Vicinity Map



Source: ICF International 2016.

2.3 Overview of Existing Campus Facilities

The Olive View–UCLA Medical Center, which is the largest public facility in Sylmar, was historically established as a tuberculosis sanitarium in October 1920, and was later converted to an acute care hospital in 1970. The San Fernando Earthquake of 1971, also known as the Sylmar Earthquake, damaged the hospital beyond repair, prompting the construction of the current hospital in the 1980s. In 1992, the medical center incorporated UCLA into its name, representing the collaboration with the David Geffen School of Medicine at UCLA. In 2008, the Sayre fire damaged more than 40 buildings on the campus, including the childcare center, which was destroyed.

The campus currently consists of 31 permanent buildings and 29 trailers and other modular structures. The buildings range in age from 5 to 80 years, and therefore exhibit a wide range of architectural styles. The oldest buildings, particularly the bungalows on the north side of the campus, have been repurposed for campus support uses. The modular structures and trailers, which provide office space and additional storage, are scattered throughout the campus. Most of the buildings on the campus were identified by the Master Plan as candidates for eventual demolition. The exception is the existing hospital, which would remain; if a new hospital is built, the existing hospital would be repurposed.

Completed in 1987, the hospital is the dominant structure on the campus. Its main six-story tower, located in the eastern third of the campus, houses inpatient and outpatient services. Emergency services, which are provided 24 hours a day, seven days a week, are housed directly north of the main tower; the imaging center is to the west. Directly attached to the emergency services building is the isolation unit, which serves as a regional treatment center for tuberculosis. These buildings are connected to facilitate functional collaboration between the related programs. This cluster of buildings is located east of Kennedy Road and is surrounded by surface parking lots.

Buildings west of Kennedy Road mostly house campus support, administration, storage, and materials management services. There are also various parking lots and trailers in the western portion of campus. A new childcare center has been built on East Way and is licensed for 68 children. The community mental health building, constructed in 2011, is at the far west end of the site, adjacent to West Way. This one-story building serves as a psychiatric urgent care center.

As evidenced by the medical center's name, the Olive View–UCLA Medical Center is a major affiliate of the David Geffen School of Medicine at UCLA. The hospital operates post-graduate residency training programs in 22 medical specialties, sponsored either directly or by UCLA. The medical center also operates an on-campus School of Nursing.

2.4 Proposed Project

The proposed project is intended to guide development of the campus over a period of more than 20 years, including the expansion of health care delivery services and health related community programs. The Master Plan (see Appendix B for a copy of the draft 2015 Master Plan and the 2019 update) provides alternate paths for that development and flexibility to allow the Master Plan to adapt to changes over time. The Master Plan also includes an analysis and assessment of existing

campus infrastructure and buildings, future considerations and recommendations for the campus's land use, and a series of design criteria that guide building placement, form, and materials.

The purpose of this Environmental Impact Report (EIR) is to analyze impacts to the environment, in compliance with the requirements of the California Environmental Quality Act (CEQA), that could occur if the Master Plan is approved by the Los Angeles County Board of Supervisors (the Board) and the development and other campus improvements identified and envisioned in the Master Plan are constructed and operated in the future.

For the purposes of the EIR, two tiers of development have been defined and analyzed. Tier I entails near-term projects that are better defined and could be constructed subject to securing the necessary approvals and funding, as well as other subsequent development that could occur over the next 17 years, through the year 2035. Tier I development, which is described in greater detail below, could include the Restorative Care Village, which is composed of the Recuperative Care Center, Residential Treatment Program facility, Mental Health Wellness Center, and the new Mental Health Urgent Care Center, as well as the Ambulatory Care Center, Community Center, improvements to the existing hospital, new parking facilities, and other campus improvements that would be located predominantly in the eastern half of the current campus. Tier II development would occur beyond 2035 and could include the construction of a new inpatient hospital, Long-Term Care facility, support services building, retail space, County department buildings, and the renovation and reuse of the existing inpatient hospital for other purposes. If build-out of the campus occurs as envisioned under the Master Plan, the net increase in building square footage would be approximately 1.3 million square feet, which would occur throughout the campus.

The environmental impacts of Tier I development are analyzed in detail at a project level in Chapter 3 of this Final EIR; it is anticipated that no additional environmental documentation will be required, pursuant to CEQA, unless there are substantial changes as defined in Section 15162 of the CEQA Guidelines. Because Tier II projects are more speculative, due to the fact that they would occur much further in the future, and it is likely that the County's program needs will evolve and change over time, the environmental impacts of the Tier II development projects are analyzed at a programmatic level and are described qualitatively in Chapter 3 of this Final EIR. As a consequence, subsequent environmental documents may need to be prepared, in compliance with CEQA regulations, for individual Tier II projects when they are proposed and better defined.

2.4.1 Master Plan Objectives

The objectives of the proposed project, which are based on those identified in the Master Plan (see Appendix B) are to:

1. Provide for development opportunities that are consistent with the goals and policies of the County's General Plan.
2. Reorganize, expand, and integrate outpatient services with the specific goal of meeting the community's health needs, providing patient-centered care, and improving the operational throughput to meet increasing demands.
3. Locate inpatient and outpatient services into dedicated buildings to optimize the quality of care and improve operational effectiveness, while reducing administrative, operational, and maintenance costs.

4. Comply with the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983 (Senate Bill [SB] 1953) required by the Office of Statewide Health Planning and Development in order to ensure that the hospital can maintain its license as an inpatient care facility beyond the year 2030.
5. Identify feasible opportunities to exceed state energy requirements and pursue green building sustainable design to the maximum extent possible.
6. Develop resources that are consistent with the needs of the 2035 planning horizon.
7. Provide new medical facilities, including a new replacement hospital, to meet state standards and code requirements.
8. Provide integrated direct and coordinated care, including physical health, behavioral health, social, and other supportive services to the County's most vulnerable populations, such as those suffering from mental illness, addiction, or physical disabilities, in facilities located in a welcoming campus setting with green spaces to:
    a. Ensure a seamless transition upon discharge to home or other housing options, and help patients avoid cycling in and out of emergency interventions and establish a sustainable functional life;
    b. Reduce morbidity and costs, while restoring function and dignity; and
    c. Improve the quality of life for the people and communities of Los Angeles County.

2.4.2 Elements of the Master Plan

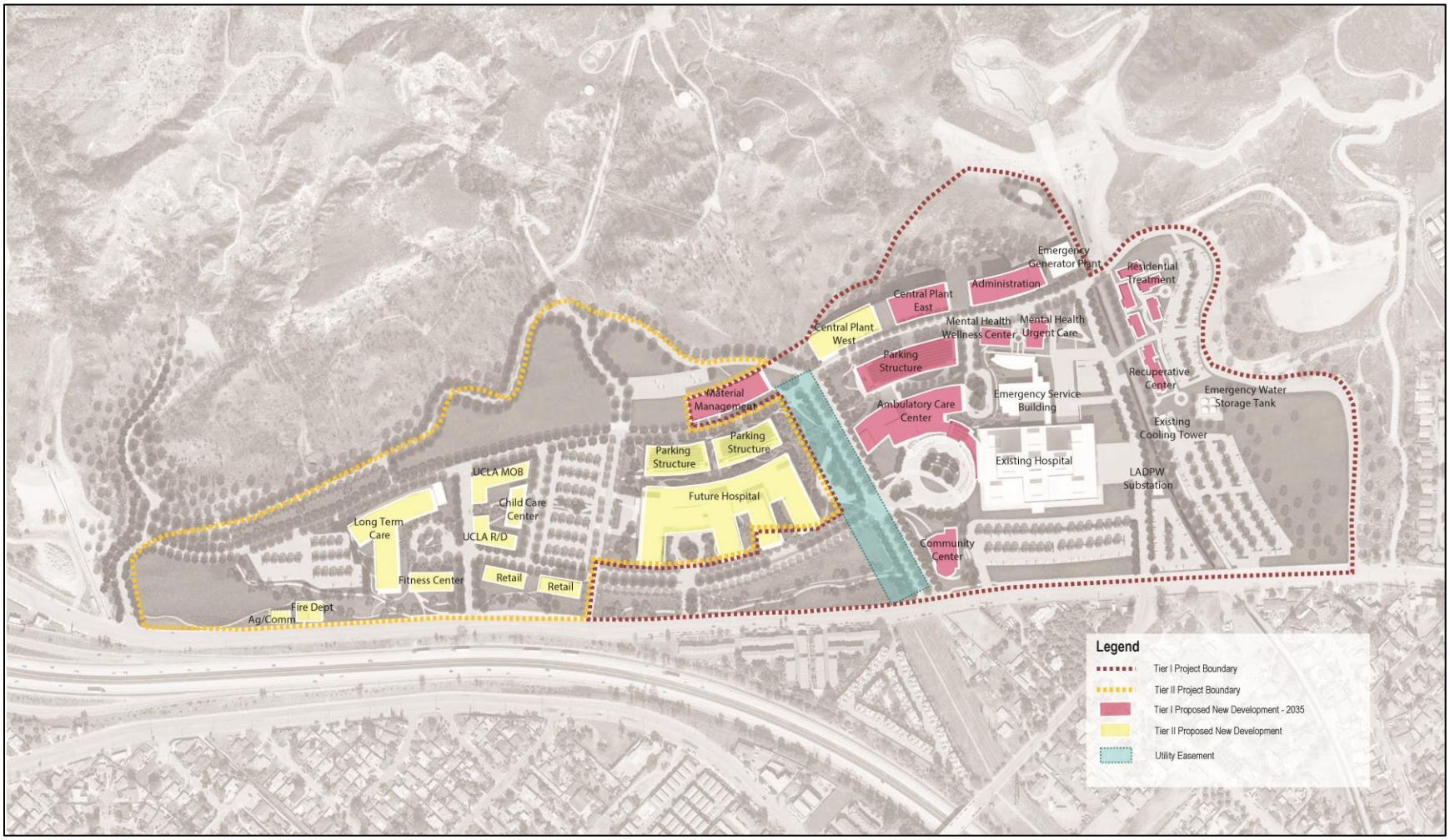
As identified above, for the purposes of this Final EIR, development under the Master Plan is described as occurring in two tiers, Tier I and Tier II. The primary elements of the Master Plan that could occur under each of the development tiers are described below. Figures 2-3 and 2-4 present an illustrative vision or concept of the campus upon completion of Tier I and Tier II development and improvement projects. Table 2-1 provides a summary of proposed Master Plan land uses.

2.4.2.1 Tier I Development

Restorative Care Village

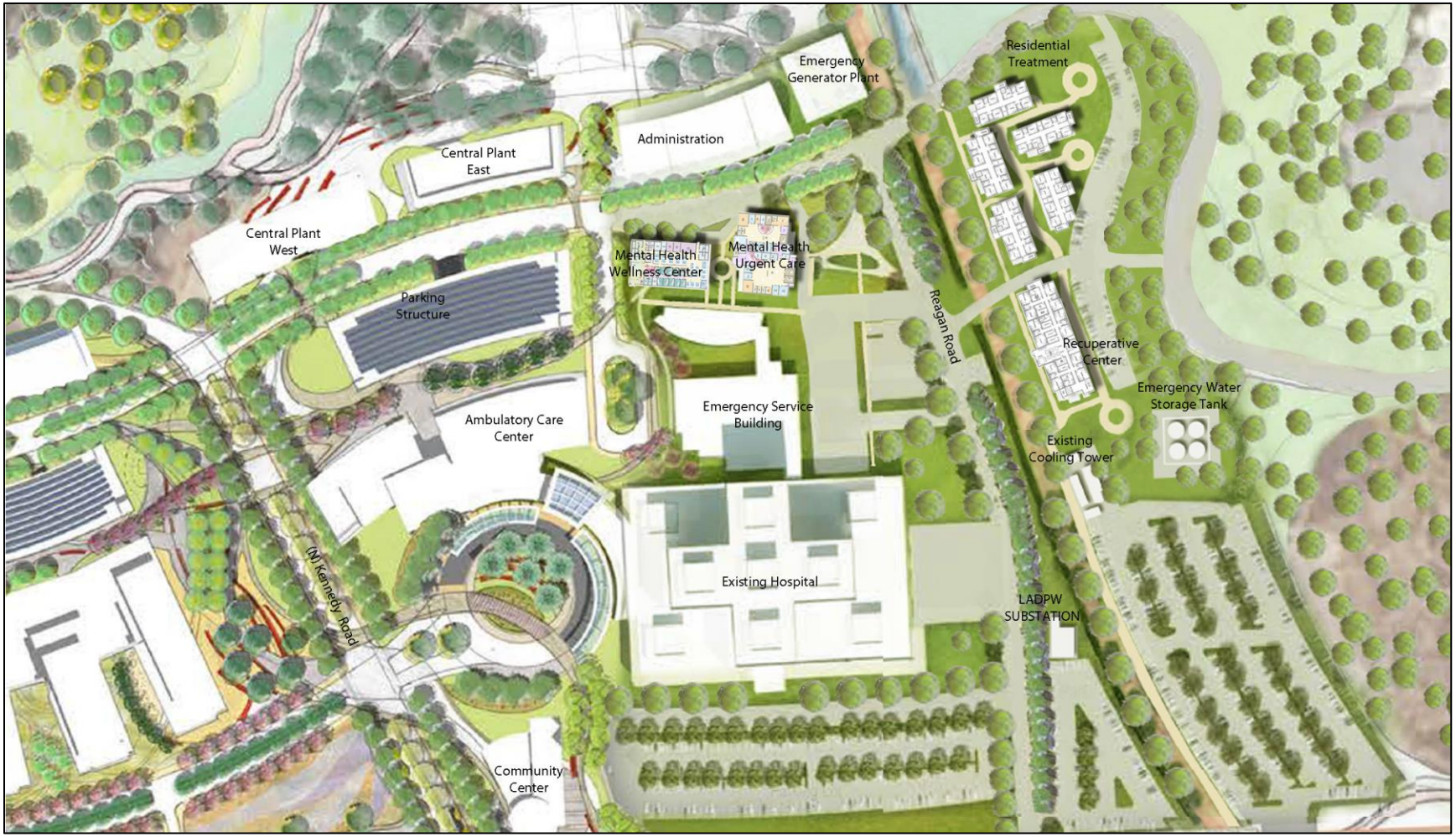
The Restorative Care Village (see Figure 2-4) would be constructed under Tier I on mostly undeveloped lots located north and east of the existing emergency services and main hospital buildings. The Restorative Care Village would be composed of the Recuperative Care Center, Residential Treatment Program (RTP) facility, Mental Health Wellness Center, and the new Mental Health Urgent Care Center. Each of the facilities would be built within close proximity to one another and would collectively provide a continuum of care for clients. A description of each facility, based on preliminary conceptual plans that may be further refined, as well as each of their anticipated activities, is provided below. Development of Restorative Care Village facilities would also include new landscaping, utility improvements (water, sewer, electrical, etc., lines necessary to serve the facilities), and surface parking lots.

Figure 2-3. Master Plan Site Plan – Tier I and Tier II Development



Source: Perkins Eastman 2019; SmithGroup JJR 2016.

Figure 2-4. Restorative Care Village Site Plan



Source: Perkins Eastman 2019.

Table 2-1. Summary of Proposed Master Plan Land Uses

Building Program	Existing	Tier I (2035) Proposed Demolition	Tier I (2035) Proposed New Development	Tier II (beyond 2035) Proposed Demolition	Tier II (beyond 2035) Proposed New Development
Recuperative Care Center	–	–	16,356	–	–
Residential Treatment Program facility	–	–	47,035	–	–
Mental Health Urgent Care Center	–	–	10,000	–	–
Mental Health Wellness Center	–	–	10,000	–	–
Ambulatory Care Center	–	–	296,000	–	–
Inpatient hospital	534,300	4,300	–	–	600,000
Community Center	9,300[1]	–	20,000	9,300	20,000[3]
Central Utility Plant East Central Utility Plant West	51,000	51,000	77,000	–	77,000
Materials Management/ Supply Services	32,500	32,500	68,100	–	–
Administration[2]	108,000	52,300	96,000	55,700	–
Support services buildings	16,800	16,800	–	–	–
Research and development	–	–	–	–	120,000
Long-Term Care facility	–	–	–	–	135,000
Retail	–	–	–	–	40,000
Mental health	11,000	–	–	11,000	–
Storage trailers (vacant during survey)	61,000	–	–	61,000	–
Total Building Square Feet	**823,900**	**156,900**	**640,491**	**137,000**	**992,000**
Parking Facilities	**Existing**	**Tier I**		**Tier I + II**	
Surface stalls	2,672	1,369		1,400	
Stalls in structure	0	674		1,584	
Surface square footage	1,256,000	643,400		658,000	

Notes:
[1] Existing, recently built childcare center.
[2] Administration square footage to be demolished includes finance building and bungalow square footage.
[3] Includes new childcare center, fitness center, and senior center.
Source: ICF, Walker Consultants, County of Los Angeles 2019; SmithGroup JJR 2016.

Recuperative Care Center

Under Tier I, the two-story, 16,356-square-foot Recuperative Care Center would be constructed just north of the hospital cooling towers and Lot G (see Figure 2-4). The center would provide short-term care for individuals recovering from an acute illness or injury who no longer require inpatient hospital care. Recuperative care offers an environment for individuals to further recuperate and heal, which helps free up hospital inpatient acute care resources. Services would include medical monitoring, meals, case management, access to supportive housing for those that need it, and

transportation. The facility clients could stay up to 3 months, with an anticipated average length of stay of 30 to 45 days. The proposed facility would provide 48 beds in 24 bedrooms, shared space for clients and staff, staff rooms, a reception area, and facility support spaces.

Residential Treatment Program Facility

The RTP facility would provide ongoing inpatient mental health care to patients in need, until they are able to recover and become self-sufficient. Care coordination and discharge planning from dedicated support staff would help ensure seamless transition of care to their home or other housing options. RTP services are designed to resolve the immediate crisis and improve the functioning level of the individuals to allow them to return to less intensive community living. Stays at County RTP facilities are voluntary and generally do not exceed 30 days.

The proposed RTP facility on the Olive View–UCLA Medical Center Campus would consist of five two-story, 9,407-square-foot buildings (47,035 square feet total). Each 9,407-square-foot building would contain a maximum of 16 beds, a total of 80 beds in 40 rooms (2 beds per room), for the entire facility. In addition, each building would provide shared space for clients and staff, staff rooms, a nurse's office, and support space. The RTP facility would be located immediately north of the proposed recuperative care center (see Figure 2-4).

Mental Health Urgent Care Center

The Mental Health Urgent Care Center, which currently exists on the campus, would be relocated closer to the hospital to enhance access to 24/7 mental health services. The continued focus is to stabilize patients and provide them with a discharge plan that would include housing and ongoing care coordination/case management. The center would serve as an intermediary level of service between psychiatric emergency rooms, psychiatric hospitals, and the network of community mental health providers.

The center would occupy a proposed new one-story, 10,000-square-foot structure. The main components of the facility would include rooms for patients and group therapy and nurse stations. The facility would include a 16-bed stabilization unit (capable of providing involuntary psychiatric services for up to 23 hours). In addition, the facility would include a reception area, waiting room, restrooms, and other amenities.

The Mental Health Urgent Care Center would be located near the eastern end of the campus, within an existing parking lot, immediately north of the existing emergency services building, and adjacent to the proposed Mental Health Wellness Center facility. Figure 2-4 depicts the approximate footprint and location of the center. The existing mental health urgent care center on the west end of the campus would be reused for other purposes once the new center is constructed.

Mental Health Wellness Center

The Mental Health Wellness Center would provide patients with an array of outpatient mental health and supportive services. The proposed facility would be a one-story, 10,000-square-foot structure. The main components of the facility would include rooms for patients, staff, and conferences. In addition, the facility would include a reception area, waiting room, restrooms, and other amenities.

The proposed Mental Health Wellness Center would be located near the eastern end of the campus, within an existing parking lot, immediately north of the existing emergency services building, and

adjacent to the proposed Mental Health Urgent Care Center. Figure 2-4 depicts the approximate footprint and location of the facility.

Ambulatory Care Center

Upgrading outpatient services has been identified as one of the top priorities and objectives for the campus. As a consequence, the new Ambulatory Care Center is proposed to accommodate the increased demand for outpatient services up to the 2035 planning horizon. Services provided in the proposed new 296,000-square-foot facility, which would be located east of Kennedy Road (see Figure 2-3), would range from primary care practice to outpatient surgery. Construction of the center will allow for the vacating of an estimated 71,500 square feet of space in the existing hospital, which would be reused for inpatient service improvements.

Inpatient Services (Existing Hospital)

Once the ambulatory care center is completed, improvements to inpatient services within the existing hospital would begin under Tier I. One of the main objectives for inpatient services is the complete renovation of the existing 534,300-square-foot hospital building or construction of a new building by the deadline to meet non-structural performance category (NPC) 4D and 5[1] rating requirements by January 1, 2030. Under the proposed Master Plan, the existing hospital building would be dedicated to inpatient services. Four options (described below and numbered 1 through 4) have been proposed for inpatient renovation, ranging from minimal renovation (under Tier I) to complete replacement (see discussion Tier II discussion below).

1. Minimal renovation would include the renovation of areas identified for SB1953 NPC 4D and 5 compliance upgrades and would maintain the existing semi-private/private bed accommodations in the current hospital.
2. Partial renovation would involve selectively identifying areas to renovate in addition to pending upgrade to SB1953 NPC 4D and 5 compliance, prioritizing areas found to be operationally or space constrained, reusing available space with minimal intervention, and potentially using the space as an “empty chair.”
3. Complete renovation would involve renovating the entire existing hospital to house updated inpatient services, which would include taking advantage of all the areas made available by the decanting of outpatient services, providing a higher standard of care with private rooms, and investing capital into extending the useful life of the existing building.
4. Complete replacement (see Tier II discussion below).

[1] In terms of NPC ratings, Olive View has performed the renovation and upgrade work to meet the criteria to comply with NPC 2 and 3 requirements. NPC 4D is a new performance category that will allow hospitals to explore the possibilities of upgrading some current SPC-1 and SPC-2 buildings to a new performance level that is not as rigorous as the current requirement to upgrade to SPC-5. to meet NPC 5 criteria, onsite supplies of water and holding tanks for sewage and liquid waste, sufficient to support 72 hours of emergency operations integrated into the building plumbing system, onsite electrical emergency system incorporated into the building electrical system for critical care areas, and radiological service and an onsite fuel supply for 72 hours of acute care operation, must all be provided by January 1, 2030 (see Appendix B, *Master Plan*, of this Final EIR).

Community Center

Under Tier I, development of the Community Center is proposed, which would be approximately 20,000 square feet in size and located along Olive View Drive, south of the Ambulatory Care Center (see Figure 2-3).

Central Utility Expansion

Additional infrastructure would be provided to support future development proposed under the Master Plan. The existing central plant does not have sufficient capacity to support long-term planned growth on the campus. The existing plant houses the gas turbine generators, heat recovery systems, chillers, heat exchangers, steam generators, fuel-oil systems, compressors, reverse osmosis units, distribution pumps, and miscellaneous equipment.

Under the Master Plan, two central utility plants would be built: Central Utility Plant East (under Tier I of the Master Plan) and Central Utility Plant West (under Tier II of the Master Plan). These two utility plants would allow for an increase in central plant capacity and additional space to support the central plant equipment required for full buildout of the Master Plan. Under Tier I, Central Utility Plant East, which would be approximately 77,000 square feet and would be located north of the existing hospital (Figure 2-4), would be constructed. Once Central Utility Plant East is completed under Tier I, the existing central utility plant would be demolished.

Materials Management/Supply Services Building

The 68,100-square-foot Materials Management/Supply Services Building is proposed under Tier I to consolidate related functions to increase efficiency and promote sustainable practices on the campus. The building would contain offices, maintenance shops, and storage facilities and would be located northwest of the new hospital and co-located with a new Central Utility Plant East and Central Utility Plant West to potentially share a large delivery truck tarmac and dock facilities (see Figure 2-3). Linen, food, and pharmacy supplies would be delivered to this building and then stored or sent out to other locations on campus. A loading dock, which will allow for trucks to easily load and unload campus supplies, would include hydraulic dock levelers, roll-up dock doors, dock bumpers, dock lights, and truck restraints. The building would also contain a waste management center for general (solid) waste and regulated medical waste (RMW, sometimes referred to as biomedical or red bag waste). Major equipment anticipated at the waste management center would consist of an RMW sterilization system, general waste and RMW self-contained compactor/container unit, recycled waste self-contained compactor/container unit, and cardboard waste self-contained compactor/container unit.

Administrative Services

Most current administrative services are housed in the existing hospital, with the remainder dispersed at locations throughout the campus. The Master Plan proposes to consolidate and right size the fragmented administrative program into a single building to reduce operational and maintenance costs and maximize operational effectiveness. The proposed 96,000-square-foot administrative building, which would allow for growth and flexibility in the future, would be located directly north of the existing hospital (Figure 2-4). Financial services, employee health, environmental health and safety, and other clerical services would be accommodated within this building.

Community Open Space and Landscaping

The landscaping improvements under the Master Plan would integrate the natural setting of the campus into its design. Proposed landscaping designs will take sustainability and water conservation, resiliency to fire and flood, and viability into account. Plantings and landscaping would also be provided to help easily identify building entrances and assist in wayfinding, as well as provide shade and hierarchy throughout the site. Outdoor healing gardens, courtyard gardens, and gathering spaces would be developed. Landscaping would also be used to create screens and buffers for parking areas, storage areas, and trash and recycle enclosures, and provide separation between uses or activities. Proper lighting in surrounding trails and campus would facilitate wayfinding throughout the project site.

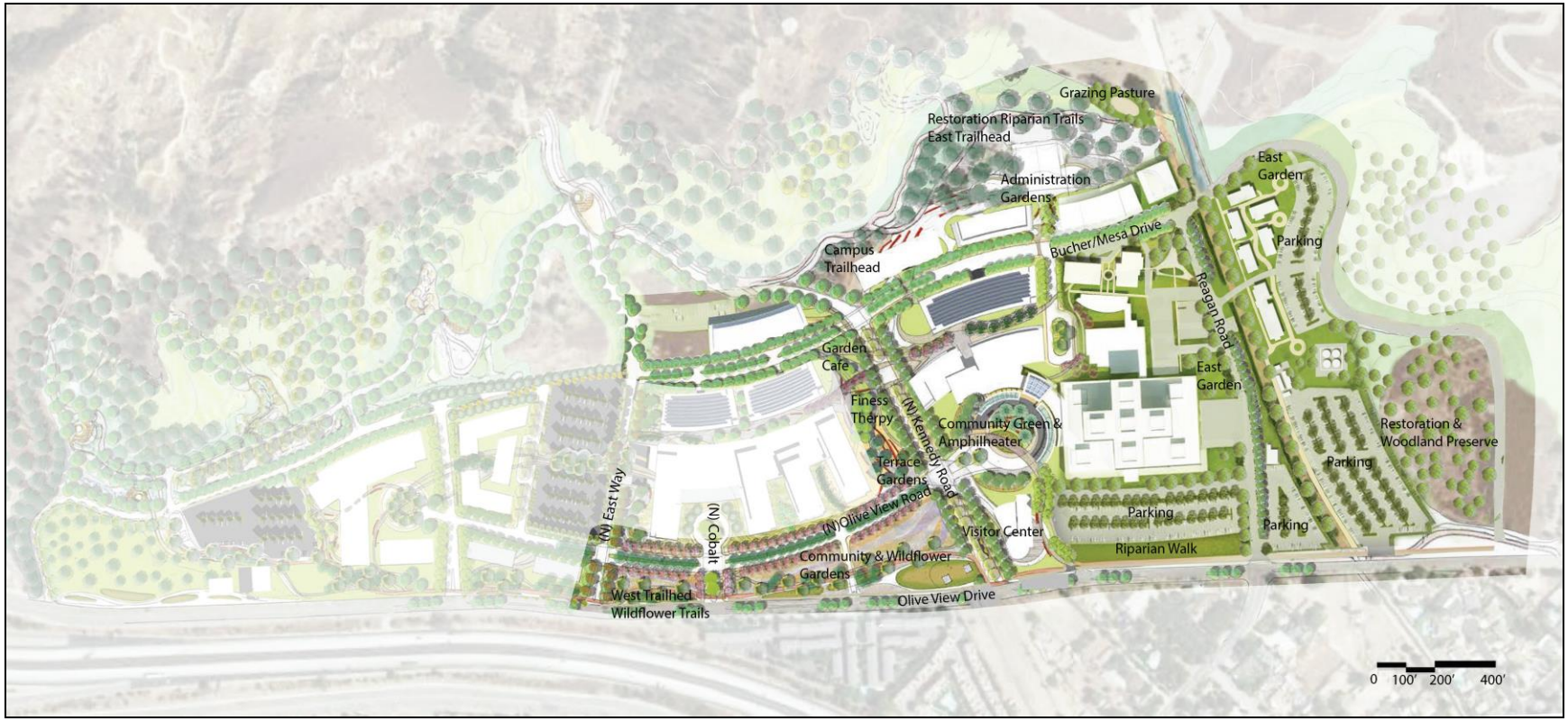
Planting guidelines propose using plant palettes of California native species, and plants that help reduce water consumption, maintenance, and hardscape repair costs. Plantings would be appropriate to the microclimate and function of the space in which they are developed. Tree canopies would be used to create different outdoor spaces, with thought given to color, mature growth characteristics, and spacing.

Landscaping improvements under Tier I, which could include riparian and wildflower gardens and other vegetation, would be concentrated along Olive View Drive to improve the appearance of the campus as viewed from the neighborhoods from the south and to improve wayfinding for motorists traveling from the freeway along Olive View Drive to the main hospital (Figure 2-5).

Proposed pedestrian, equestrian, and bike paths would be provided along Olive View Drive under Tier I and would be ultimately incorporated throughout the campus (under Tier II) (Figure 2-6). Each path would have a separate, distinguished lane to ensure safety by avoiding conflicts between the users. The intent of these Wellness Trails is to bring community and patients closer to nature, while providing transitions between vehicular traffic and hospital facilities that are safer and more convenient to move throughout the campus.

The Master Plan also proposes spaces for therapeutic significance, to provide play or relaxation, rest and respite, conversation, and seating areas (Figure 2-7). Courtyards would be provided that are specific, welcoming, and accommodating to children, families, the elderly, and individuals with mobility and medical needs. Multiple healing gardens, including a shared community garden area, a fitness and therapy area, and sculpture garden are proposed in the Master Plan (Figure 2-7). A green amphitheater (Figure 2-8) located in the circular drop-off adjacent to the ambulatory care center and existing hospital would be created for community engagement, along with habitat education areas, and community garden areas.

Figure 2-5. Tier I Landscaping Plan

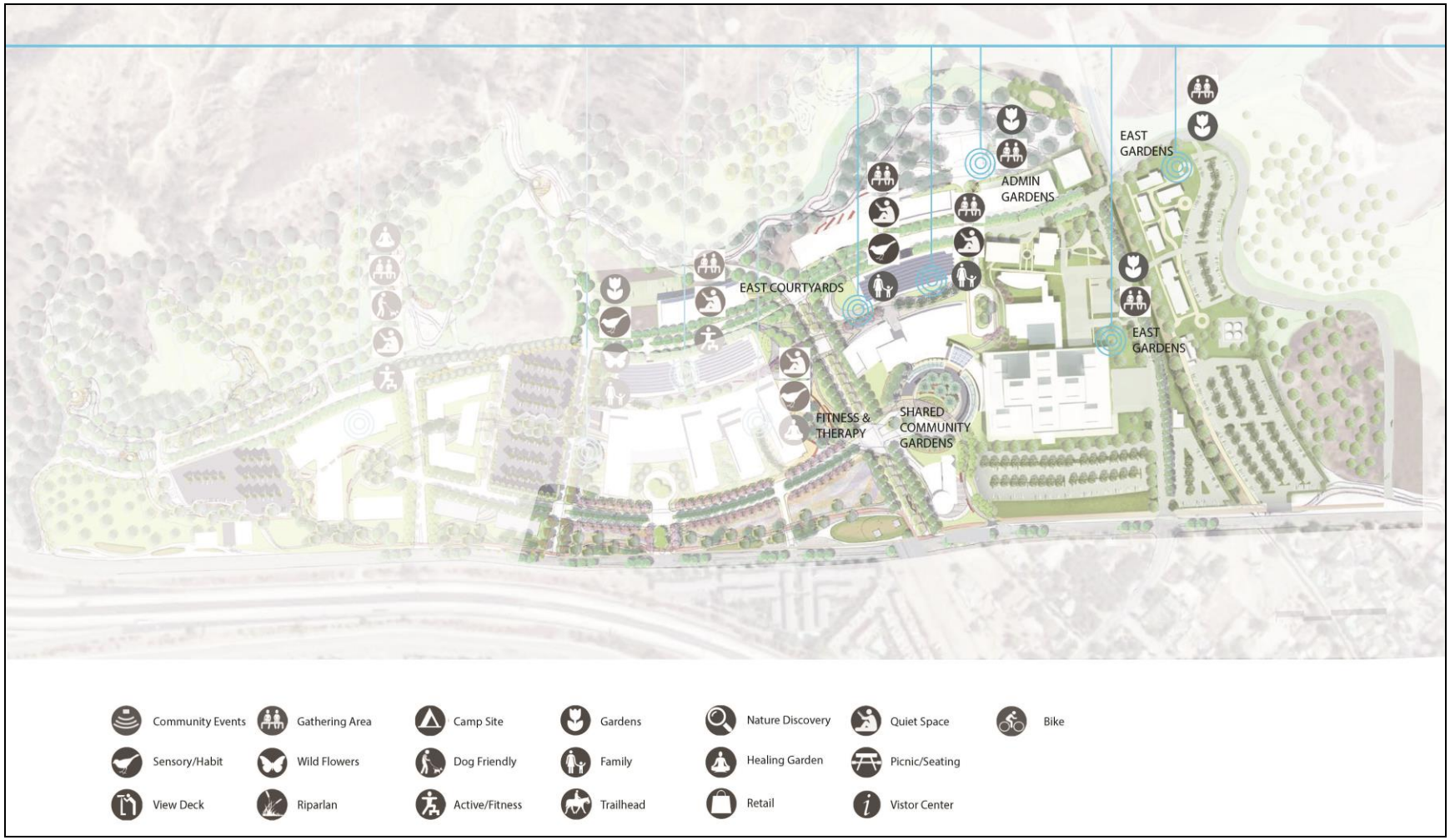


Source: Perkins Eastman 2019; SmithGroup JJR 2016.

Figure 2-6. Tier I Wellness Trails

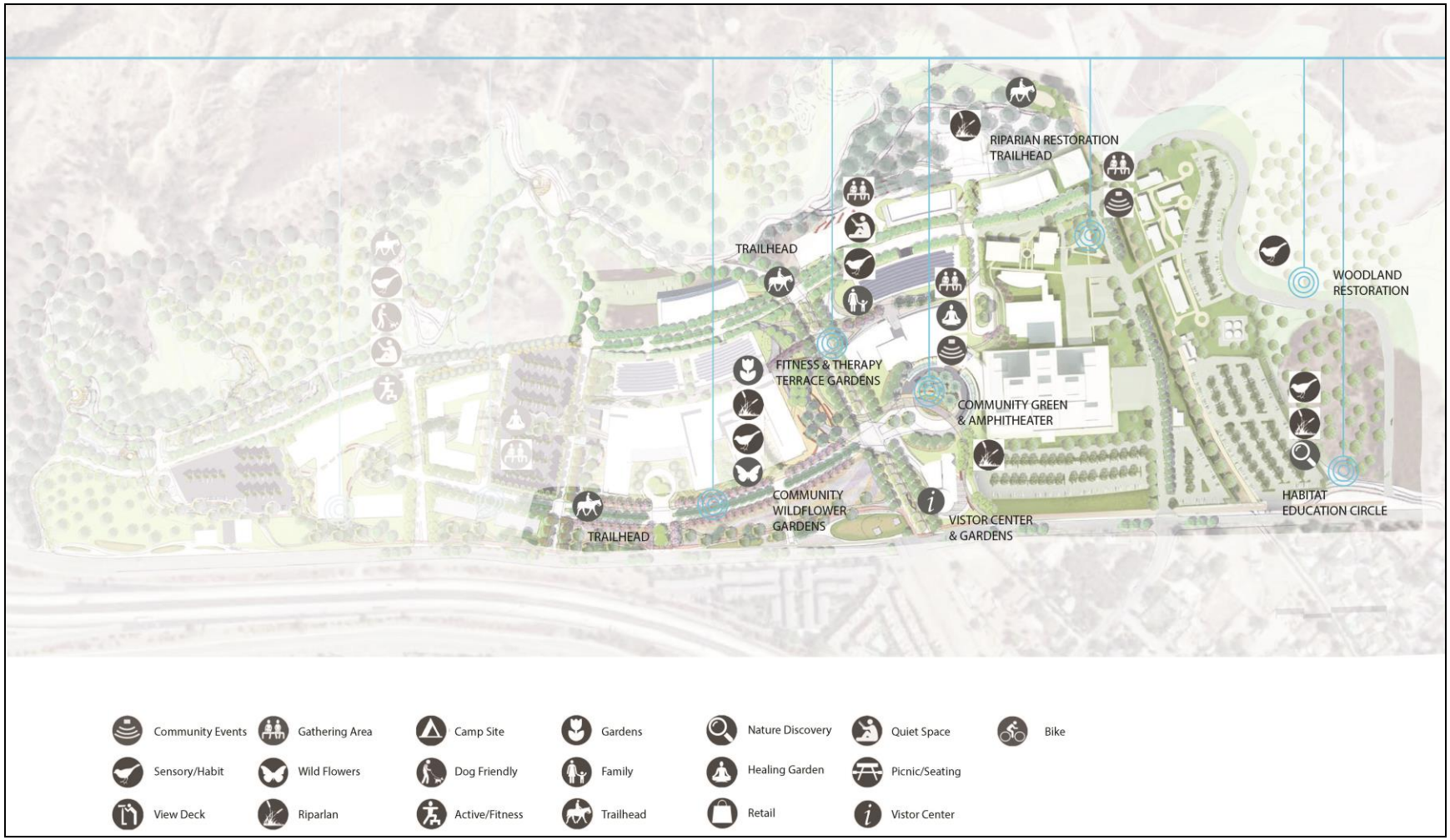
Source: Perkins Eastman 2019; SmithGroup JJR 2016.

Figure 2-7. Tier I Healing Gardens



Source: Perkins Eastman 2019; SmithGroup JJR 2016.

Figure 2-8. Tier I Community Open Space, Recreation, and Restoration



Source: Perkins Eastman 2019; SmithGroup JJR 2016.

Parking, Vehicle Circulation, and Pedestrian Circulation

The Master Plan includes the improvement of parking and vehicle circulation at the Olive View–UCLA Medical Center Campus. New parking structures and surface lots are proposed, as well as drop-offs at each main building entry to help reduce walking distances. Drop off areas would be located at each of the major buildings on the campus with the intent of being immediately visible upon entering the campus. Additionally, each zone of the campus would have a dedicated entry spot from Olive View Drive, which would be supplemented by clear signage and landmarks. Emergency vehicles would be provided a direct route to the emergency department.

Under Tier I, 674 spaces would be housed within a new parking facility north of the Ambulatory Care Center. An additional 1,369 parking spaces in surface lots would remain on campus under Tier I (see Table 2-1).

The existing campus is difficult for pedestrians to navigate; thus the Master Plan includes improvements to walking distances throughout campus. Various walking, biking, and equestrian paths would be developed to make the campus more inviting and easily traversed.

Utility Infrastructure

Development of the Master Plan would require new or upgraded sewer, water, storm drains, and telecommunication infrastructure. Approximately 500,000 square feet of utility improvements would occur under Tier I. For further information regarding utility infrastructure improvements that would occur under the Master Plan, see Appendix 04*, Engineering Systems,* of the Olive View–UCLA Medical Center Campus Master Plan document.

2.4.2.2 Tier II Development

Tier II consists of development that could occur beyond 2035 under the Master Plan. Because this development would occur much further in the future, the County's program needs will likely evolve and change over time. Therefore, the environmental impacts of the Tier II projects are analyzed at a programmatic level and are qualitatively described in Chapter 3 of this Final EIR. It is anticipated that subsequent environmental documents may need to be prepared, in compliance with CEQA regulations, for individual Tier II projects when they are proposed and better defined. Additionally, future maintenance activities including repairs and upgrades would be addressed separate from and outside the scope of this Final EIR.

Inpatient Services (Future Hospital)

Tier II development could include a new hospital to house inpatient services. The new hospital would be approximately 600,000 square feet and located centrally on the project site. The replacement hospital would create an opportunity to integrate inpatient and outpatient care, minimize operational costs and downtime, improve operational performance, and create a state-of-the-art facility to serve the community. Upon completion of the new hospital, the existing hospital would be renovated and reused for other purposes. For the purposes of the analysis in this Final EIR, it has been assumed that a new future inpatient hospital would have the same number of beds as the existing hospital.

UCLA Faculty Offices and Medical Office Building, Educational Facilities, and Research Facilities

The Master Plan proposes the continuation of the on-campus relationship between the Olive View Medical Center and UCLA. Under Tier II, proposed development to accommodate the David Geffen School of Medicine at UCLA postgraduate residency training programs and needs could include buildings for faculty and medical offices, educational facilities, and research facilities, which would be located to the west of the future hospital and childcare center (Figure 2-3). The two research and development buildings that could be constructed under Tier II would total approximately 120,000 square feet.

Senior, Fitness, and Childcare Centers

The Master Plan would provide facilities in response to community requests that would serve and support the shifting population age in the area surrounding the Olive View–UCLA Medical Center Campus. These facilities could include a new childcare center and fitness center in the western portion of campus. It also allows flexibility in the areas identified as zoning for community buildings, including areas in the proximity of the fitness center, to support future community development. This may include space for mental health day care/classes for Alzheimer's and stroke residents, a senior center with table tennis, gym, cafeteria, lounge, and game room, or a community building (gym, indoor walking or running tracks, saltwater swimming pool, game room for younger kids). The Master Plan also suggests facilities contain cool rooms for the community to use during heat waves.

Long-Term Care

Under Tier II of the Master Plan, the Long-Term Care facility could be constructed, which would provide skilled nursing care and supportive care to patients whose primary need is for availability of such services. The care would include, at a minimum, physician, nursing, pharmaceutical services, and an activity program. The building would be a maximum of three stories and could contain approximately 135,000 square feet of space.

Retail Space

Under Tier II, the Master Plan has proposed 40,000 square feet of retail space along Olive View Drive to benefit the staff and community.

Community Open Space and Landscaping

Tier II would further develop wellness-oriented, community, and recreation space located throughout the campus. Pedestrian, bicycle, and equestrian trails would be extended throughout to create fluid and complete circulation. Riparian zones along wellness trails in the northern area of campus would allow for the restoration of ecological communities, while providing the community with access to a wilderness experience. Tier II also includes a proposed campus art program to incorporate art or playful design elements using large-scale games, bocce courts, and functional art pieces that would be integrated into the landscape. These open spaces would serve to further connect the hospital with the community. Multiple gardens, including a bird and butterfly garden, meditation garden, healing garden, garden courtyard, and retail courtyards are proposed in the Master Plan under Tier II.

Parking, Vehicle Circulation and Pedestrian Circulation

Under Tier II, two additional parking structures would be constructed north of the future hospital, each housing 437 parking spaces. An additional 1,400 spaces would remain in surface lots on campus.

County Fire Department, Agricultural Commissioner, and Sheriff's Buildings

Relocation of the County Fire Department (currently used for office and hazardous materials operations), the Agricultural Commissioner, and the Sheriff's buildings would be required as part of the long-term development of the campus. Relocation of each will require further program analysis and development before location and size can be determined. For the purposes of the EIR, the locations of these buildings are assumed to be along Olive View Drive, at the far west end of the campus. Development would occur under Tier II.

2.4.2.3 Proposed Design Guidelines

The Olive View–UCLA Medical Center Master Plan campus design guidelines provide a framework to unify the campus fabric.

Architectural Design Guidelines

The Master Plan envisions architecture that reclaims the natural setting and scale of the campus and the surrounding region. A composition of gardens, buildings, and outdoor rooms is intended to transform the medical center campus into a healing campus. The architecture would work in collaboration with landscape design by emphasizing forms that shape outdoor space to enhance the pedestrian experience and circulation patterns on campus. Under the design guidelines, no building, except for the existing and future hospitals, should exceed four stories, and no building should exceed 100 feet in height. Building facades should be broken down into base, middle, and top components to provide a scale that is appealing and approachable for pedestrians. Main entrances should be clearly defined to enhance wayfinding. Consistent exterior cladding throughout the campus should complement the natural landscape and create a sense of unity and continuity. Buildings should also utilize orientation as the best passive means for controlling energy usage. Sunshades and the type of glass used should be considered to control sun exposure.

Landscape Design Guidelines

Landscaping will follow the Tier 1 guidelines described above under Community Open Space and Landscaping.

Lighting Design Guidelines

The proposed Master Plan includes lighting guidelines and goals that address safety and comfort, sustainability, lamp/luminaires, lighting levels, maintenance, lighting controls, and product requirements. The overall goal of the lighting guidelines for the Olive View–UCLA Medical Center Campus is to create a unified experience as one travels through the campus. Lighting would help to establish zones and campus identity and assist in wayfinding, especially at night. Light would also be utilized to create areas of visual hierarchy and interest. Light levels would be developed based on the illuminance criteria set forth in the Illuminating Engineering Society of America (IENSA)

Lighting Handbook, 10th Edition (2011), and will incorporate best practices found in the applicable Illuminating Engineers Society (IES) Recommended Practice (RP) manuals.

Signage Design Guidelines

The Master Plan includes guidelines for exterior signage on the campus. The intent of this program is to identify the site, buildings, and parking facilities and to provide directional information to patients, visitors, and staff. The sign guidelines describe the family of sign types and outline the intent of each sign. The goal is to have a sign program that works with the landscape and hardscape elements and helps create a seamless and intuitive experience for the visitor. In accordance with the signage design guidelines, signs would be located logically and within the line of sight, and be easy to understand. Additional directional signs would be located at all key decisions points, yet over-signing will be avoided.

2.5 Construction Scenario

Construction of campus buildings, facilities, and open space and infrastructure improvements under the Master Plan would occur over a number of years and could continue beyond the year 2035.

The precise timing for most of the individual project elements over this timeframe is not known, as they are dependent on securing necessary funding, among other factors.

2.5.1 Tier I Construction

The initial Tier I projects, to be developed and constructed within the next two years, are the Restorative Care Village facilities. Other Tier I projects would be constructed as funds become available and approvals are obtained in subsequent years; consequently their schedules have not yet been determined.

Staging areas for construction activities will be determined by the construction contractors in consultation with County staff but would likely be located on vacant parcels or existing parking lots on the campus, in the immediate vicinity of the construction sites.

2.5.2 Tier II Construction

Tier II development includes those buildings, structures, and other campus improvements that are expected to be constructed beyond 2035 and could include the construction of a replacement inpatient hospital and the development of the western portion of campus. To meet projected future parking demand, two new parking structures would be built north of the new hospital. Other Tier II facilities, as described above in Section 2.4.2.1, include new research and development buildings, and a second new central utility plants. Retail building space is also proposed, but can be developed at any phase when deemed appropriate by the campus. New County buildings for the Departments of Agriculture and Commerce, Fire (office space), and Sherriff may also be constructed. The current fire department offices, old lab, trailers, nursing building, fitness center, warehouse, childcare center, vivarium, police department, community mental health, and administration buildings would be demolished. Given that these projects would likely be developed far in the future, they are contingent upon securing necessary funding, and as the fact the County's needs are likely to evolve over time, the schedules for the Tier II projects are not yet known.

2.6 Project Approvals and Intended Uses of the EIR

Implementation of the proposed project would include the following discretionary actions and permits, but not be limited to the following approvals:

2.6.1 State of California

- Regional Water Quality Control Board–National Pollutant Discharge Elimination System (NPDES) Construction General Permit
- California Office of Statewide Health Planning and Development

2.6.2 County of Los Angeles

- Approval of Master Plan
- Certification of the Final EIR
- Project approval
- Funding approval
- Applicable building and safety permits, including, but not limited, to grading, excavation, and building

2.6.3 Others

- Approval of permits for temporary construction activities associated with off-site infrastructure and/or traffic system improvements within other jurisdictions (if such improvements are ultimately necessary), including the city of Los Angeles
- Haul Route Permit
- South Coast Air Quality Management District (SCAQMD) Air Quality Permit

2.7 Related Projects

A list of related projects has been developed. All projects that are proposed (i.e., with pending applications), recently approved, under construction, or reasonably foreseeable that could produce a cumulative impact on the local environment when, considered in combination with the proposed project, are included in an EIR. These projects can include, if necessary, projects outside of the control of the lead agency. Section 15130 of the State CEQA Guidelines stipulates that EIRs must consider the significant environmental effects of a proposed project as well as *cumulative* impacts, defined as impacts created as a result of the project evaluated in the EIR combined with the impacts of other projects, thereby causing related impacts (State CEQA Guidelines Section 15355). As stated in the State CEQA Guidelines, Section 15130(a)(1), the cumulative impacts discussion in an EIR need not discuss impacts that do not result in part from the project evaluated in the EIR. Cumulative impacts may be analyzed by considering past, present, and probable future projects with related or cumulative impacts (State CEQA Guidelines Section 15130(b)(1)(A)).

In this Final EIR, cumulative impact analyses are provided for each environmental issue discussed in Chapter 3, *CEQA Environmental Impact Assessment*, of this Final EIR. The study areas for the

cumulative impact analyses vary by impact. These can be found in each respective subsection (e.g., Air Quality, Transportation, and Traffic, etc.). Table 2-2, Related Projects, and Table 2-3, Related Projects on the Olive View–UCLA Medical Center Campus, list the related projects that were considered in the cumulative impact analyses. The locations of the Table 2-2 related projects are depicted in Figure 2-9, Related Projects Map.

Table 2-2. Related Projects in the Vicinity of the Olive View – UCLA Medical Center Campus

Map Ref. No.	Status	Project Title	Project Type Project Description/Scope	Environmental Document and Permits	Project Location/Limit
1	Design / planning phase	Sylmar Industrial Project	Industrial, 225.000 KSF Recreation facility, 9.9 acres		13503 San Fernando Rd.
2	Design phase	Lakeside Park	Park, size N/A	N/A—in design phase	15275 Lakeside St.
3			Retail, 7.486 KSF		13530 Glenoaks Blvd.
4	Project approved/ pre-construction	Sylmar Court	Senior housing, 150 units medical office, 25,000 KSF	Mitigated Negative Declaration	12415 San Fernando Rd.
5	Design/planning phase		Condominiums, 246 units Single family home, 1 unit Shopping center, 9.000 KSF General office, 0.900 KSF Auto care center, 2.000 KSF	Mitigated Negative Declaration	12385 San Fernando Rd.
6	Project approved/ pre-construction		Gas station, 5 fueling positions	Mitigated Negative Declaration, Conditional Use	12625 Glenoaks Blvd.
7	Constructed	Starbucks	Coffee with drive thru, 2.240 KSF Specialty retail, 7.000 KSF	Mitigated Negative Declaration, Conditional Use	13651 Foothill Blvd.
8	Project approved/ pre-construction		Condominiums, 250 units	Mitigated Negative Declaration	13401 Foothill Blvd.
9	Elements of the Master Plan in construction	Los Angeles Mission College Master Plan	College, size N/A	LAMC Master Plan EIR (2009), 2014 Facility Master Plan Update & EIR Addendum	13356 Eldridge Ave.
10	Design/planning phase		High school, 500 students	Mitigated Negative Declaration, Planning and Land Use Management Committee Report	13245 Hubbard St.
11	Design/planning phase		Fast food, 4.150 KSF		13763 Foothill Blvd.
12			Single family residences, 12 units		1523 W Cobalt St.
13			Single family residences, 3 units		13228 W Aztec St.
14			Single family residences, 3 units		12995 N El Dorado Ave.

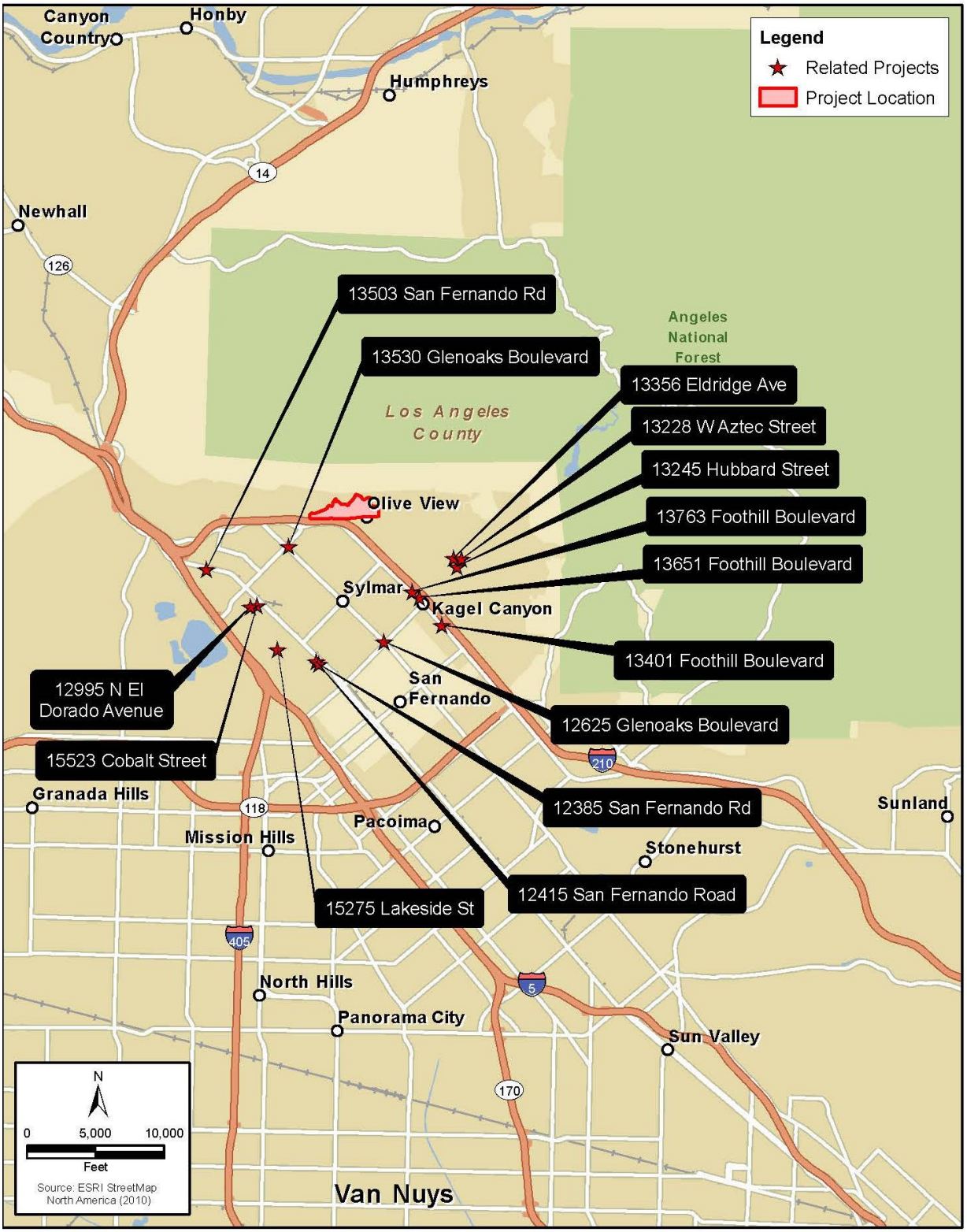
Note: KSF = thousand square feet
Source: ICF: Fehr & Peers 2019.

Table 2-3. Related Projects on the Olive View–UCLA Medical Center Campus

Project Title	Project Type; Project Description/Scope
General Radiology and Angiography/Interventional Radiology Suite renovation	The General Radiology Rooms 18 and 19, and Angiography/Interventional Radiology Suite renovation are the second phase of the overall radiology program to replace and update the radiology equipment throughout the County. General Radiation Room 18 and 19 project consists of the renovation of an existing radiology room to receive the upgraded "General Radiation" radiology equipment. The Angiography/Interventional Radiology Suite project consists of the renovation of an existing radiology room to receive the upgraded Interventional Radiology equipment.
Agriculture Commission Trailer	The Agriculture Commission Trailer project will provide new office space for 18 employees and a new garage and carport for equipment storage.
Women and Children's Medical Clinic Modular Building	The Women and Children's Medical Clinic project will provide a licensed outpatient women and children's medical clinic to serve approximately 5,000 women and children in the community.
Fire Alarm and Nurse Call Systems Upgrade	Replacement of the fire alarm and nurse-call systems throughout the hospital to meet current code and licensing requirements. The project will include upgrades to both low voltage and line voltage systems at the hospital.
Emergency Power Upgrade	Project to purchase and install a new stand by 2000kW/2500kVA emergency generator. This generator will augment the existing (2) generators currently in operation at the hospital. This generator was previously planned and has a pad and connectivity available.
GI Upgrade	Remodel the existing GI department to create a third GI Procedure room. The remodel will also provide a space for pre-and post-operative care for about (6) patients, nurses station, waiting room, GI clinic, and support spaces.
SB1953 Compliance	The project will bring the hospital into compliance with all NPC ratings: NPC-3, NPC-4D, and NPC-5, under the jurisdictional agency review. The proposed project will certify the hospital as NPC-3 and NPC-4D. It will also include refurbishing an existing water storage tank and retrofit the existing sewer system with a holding tank for sewage and liquid waste to support 72 hours of emergency operations to meet the NPC-5 rating.

Source: ICF, County of Los Angeles, 2019.

Figure 2-9. Related Projects Map



Source: ICF 2019.

Chapter 3
Environmental Analysis

This chapter describes the existing environmental conditions in the project area, the thresholds used to determine the significance of potential impacts, the construction and operational impacts that could occur due to the projected level of development under the Master Plan, measures to mitigate impacts that are identified as significant, and potential cumulative impacts. The thresholds that have been identified to determine the significance of project impacts are generally based on the environmental checklist questions in Appendix G of the State CEQA Guidelines. Where agencies that have jurisdiction over resources that could be affected by the proposed project have established specific quantifiable thresholds, those thresholds have been used to determine the significance of project impacts. The initial study attached to the notice of preparation (NOP) (see Appendix A of this Final EIR) and public responses to the NOP were used to identify those impacts requiring further analysis in this chapter. Please see Chapter 4 of this Final EIR for a list of environmental categories where no impacts would occur, and therefore no further analysis was required.

3.1 Aesthetics

3.1.1 Introduction

This section describes the potential of the proposed Olive View–UCLA Medical Center Campus Master Plan project to affect aesthetics and visual resources within the project's visual setting.

The Olive View–UCLA Medical Center Campus is located at 14445 Olive View Drive on several parcels of land owned by the County of Los Angeles. The campus is located within the community of Sylmar, at the north end of the San Fernando Valley, in the city of Los Angeles, California. Because the viewshed for evaluating aesthetics extends beyond the Olive View–UCLA campus and includes areas within the adjoining neighborhood that fall under city of Los Angeles jurisdiction, the Regulatory Setting includes both County and city of Los Angeles aesthetics-related policies.

3.1.2 Regulatory Setting

3.1.2.1 Federal

There are no federal regulations pertaining to aesthetics and visual resources that are applicable to the proposed project.

3.1.2.2 State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires an evaluation of scenic resources when considering project effects on the environment. Such evaluations consider site-specific history, context, and area sensitivity, such as whether light and glare, demolition, and new development could potentially change visual character, affecting scenic views and natural and manmade visual resources.

California Scenic Highways Program

The California Department of Transportation (Caltrans) established and implemented the California Scenic Highway Program to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment (Streets and Highways Code, Section 260 et seq.).

Caltrans defines a State Scenic Highway as any freeway, highway, road, and other public right-of-way that "traverses an area of outstanding scenic quality, containing striking views, flora, geology, and other unique natural attributes" (Caltrans 2008).

Once a highway has been designated a state or national scenic highway or corridor, special consideration must be made whenever a project proposes to develop the surrounding area.

No officially designated state scenic highways have been identified in the vicinity of the project site. The closest such route is SR-2 (Angeles Crest Highway) in the city of Azusa, approximately 16 miles to the southeast of the project site (Caltrans, 2016). However, I-210 is located approximately 300

feet south of the existing campus and is identified as an Eligible State Scenic Highway–Not Officially Designated.

3.1.2.3 Local

Los Angeles County General Plan

The current Los Angeles County 2035 General Plan provides the policy framework for how and where unincorporated areas will grow, and establishes goals, policies, and programs to protect neighborhood character and promote aesthetically pleasing, sustainable development. Although the project site is owned by the County, it is located within the city of Los Angeles. The city's regulations and guidelines are discussed below.

Chapter 9 of the General Plan, *Conservation and Natural Resources Element*, guides the long-term conservation of natural resources and preservation of available open space areas. The Element addresses the preservation of valuable designated scenic areas, vistas, and roadways. Goal 13 of the Element aims to protect visual and scenic resources. The following policies related to scenic resource protection and hillside management are included under Goal 13:

- **Policy C/NR 13.1**: Protect scenic resources through land use regulations that mitigate development impacts.
- **Policy C/NR 13.2**: Protect ridgelines from incompatible development that diminishes their scenic value.
- **Policy C/NR 13.3**: Reduce light trespass, light pollution, and other threats to scenic resources.
- **Policy C/NR 13.4**: Encourage developments to be designed to create a consistent visual relationship with the natural terrain and vegetation.
- **Policy C/NR 13.5**: Encourage required grading to be compatible with the existing terrain.
- **Policy C/NR 13.6**: Prohibit outdoor advertising and billboards along scenic routes, corridors, waterways, and other scenic areas.
- **Policy C/NR 13.7**: Encourage the incorporation of roadside rest stops, vista points, and interpretive displays into projects in scenic areas.
- **Policy C/NR 13.8**: Manage development in hillside management areas to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.
- **Policy C/NR 13.9**: Consider the following in the design of a project that is located within a hillside management area, to the greatest extent feasible:
    - Public safety and the protection of hillside resources through the application of safety and conservation design standards;
    - Maintenance of large contiguous open areas that limit exposure to landslide, liquefaction, and fire hazards and protect natural features, such as significant ridgelines, watercourses, and seas.
- **Policy C/NR 13.10**: To identify significant ridgelines, the following criteria must be considered:

- Topographic complexity;
- Uniqueness of character and location;
- Presence of cultural or historical landmarks;
- Visual dominance on the skyline or viewshed, such as a ridgeline's height and elevation; and
- Environmental significance to natural ecosystems, parks, and trail systems.

The Land Use Element is another element of the General Plan that includes policies or guidelines, such as community design standards that are relevant to a discussion of aesthetic impacts. As described in the Land Use Element, successful community design standards build upon the characteristics of both the natural and manmade environments that are unique to each community. Examples of community design elements include consistent landscaping for streets or uniform signage that designates a special district within a community in an urbanized setting, large minimum lot sizes, standards to minimize the visual impact of man-made structures on the rural landscape, and design standards for equestrian trails in a rural setting. The General Plan provides general community design policies that are intended to help create a sense of place and uniqueness within the diverse communities of the unincorporated areas.

Los Angeles Municipal Code

The Los Angeles Municipal Code (LAMC) sets forth regulations and standards regarding the allowable type, density, height, and design of new development projects. In particular, Chapter 1 of the LAMC, *General Provisions and Zoning*, provides development standards for the various zoning districts in the city of Los Angeles. In addition, the LAMC also sets forth the following specific regulation regarding lighting: "Chapter 1, Article 2, Section 12.21 General Provisions, paragraph A, Section 5, Part (k) restricts light spill onto adjacent properties and provides minimum luminance levels for safety within and around parking facilities."

As part of the LAMC, the city of Los Angeles Planning and Zoning Code includes standards for different land uses and identifies which land uses are allowed in various zoning districts. The project site has a city of Los Angeles zoning designation of Public Facilities (PF) (City of Los Angeles 2017). The PF zoning district allows public health facilities, including clinics and hospitals. PF-1 zoning does not have restrictions regarding the heights of buildings or any specific front-, side-, or rear-yard setbacks.

City of Los Angeles Walkability Checklist

The 2008 Walkability Checklist for Entitlement Review was developed by the City Planning Department's Urban Design Studio to encourage city planning staff, project proponents, and community stakeholders to pursue high quality urban design that provides enhanced pedestrian movement, access, comfort, and safety, both in the public right-of-way and on private properties. It specifies urban design guidelines that are generally applicable to all projects requiring discretionary approval for new construction. The Walkability Checklist consists of objectives, goals, and implementation strategies regarding various design elements that are intended to improve the pedestrian environment, protect neighborhood character, and promote high quality urban form. Such topics as sidewalks, crosswalks/street crossings, on-street parking, utilities, building orientation, off-street parking and driveways, onsite landscaping, building façades, and building signage and lighting are addressed and should be considered in the design of a project.

City of Los Angeles General Plan

The city of Los Angeles General Plan is a comprehensive, long-range declaration of purposes, policies, and programs for the development of the city of Los Angeles.

The Transportation Element of the city's general plan (1998) provides a list of scenic highways and streets. I-210 is listed as a designated scenic highway, which, as mentioned above, is approximately 300 feet south of the existing campus (Los Angeles General Plan Transportation Element). Views of the project site are limited from I-210. Sightlines to the crests of the foothills of the San Gabriel Mountains are somewhat available, depending upon the position and angle of the viewer, although, due to the grading (which creates an elevation difference where the freeway roadbed is approximately 15 feet below Olive View Drive), existing vegetation, and residences long south Olive View Drive, visual elements on the existing campus are much more difficult to detect.

The City's general plan is composed of a series of 35 community plans that provide more specific development policy guidance for each community. The Sylmar Community Plan (Sylmar Plan) governs physical development policy in the project area.

Sylmar Community Plan

The Sylmar Plan area is a unique semi-rural suburban community situated at the foothills of the San Gabriel Mountains. In the northeast corner of the San Fernando Valley, this 12-square-mile community is located at the northern border of the city of Los Angeles, approximately 28 miles north of downtown Los Angeles. Sylmar is a stable, semi-rural bedroom community at the edge of the city that is home to nearly 80,000 residents and the few remaining equestrian communities in the city. It is a working class community with many multi-generational families, a variety of residential neighborhoods, a mix of commercial uses and services, a thriving light industrial economy, and many natural, cultural, and civic amenities and resources. The general purpose of the plan is to preserve and enhance the character of Sylmar by strengthening the viability and identity of its neighborhoods and communities and improving the quality of life for all its residents (City of Los Angeles 2012). In addition, the Sylmar Plan also sets forth the following specific regulations related to aesthetic and visual quality:

- **LU13.2. Height Limits**. Design new commercial structures to be compatible in height with surrounding residential neighborhoods.
- **M7.2. Development**. Require development, including signs, adjacent to a scenic highway to protect public views of scenic vistas to the maximum extent feasible; be adequately landscaped to soften the visual impact of the development, restrict height, and establish design controls in order to maintain the integrity of scenic highways within Sylmar.

Citywide General Plan Framework Element

The 2009 Los Angeles General Plan Framework provides a series of policies, objectives, and goals addressing urban design topics throughout the city of Los Angeles. As it relates to the evaluation of aesthetics and views, the Framework's *Urban Form and Neighborhood Design* chapter establishes a goal of creating a livable city for existing and future residents with interconnected, diverse neighborhoods (Goal 5A). Also within the General Plan Framework, the *Open Space and Conservation* chapter calls for the use of open space to enhance community and neighborhood character (Objective 6.2). The policies in this chapter recognize that there are communities where open space and recreational resources are currently in short supply and, therefore, suggest that pedestrian-

oriented streets and small parks, where feasible, might serve as important resources for meeting the open space and recreation needs of residents (Policy 6.2.1).

Applicable objectives from the *Urban Form and Neighborhood Design* and *Open Space and Conservation* chapters address such issues as pedestrian activity and orientation, transitions in building height, landscaping and landscape buffers, ground floor uses, sidewalks and other streetscape elements, and open space.

3.1.3 Environmental Setting

3.1.3.1 Overview of the Project Area

Project Area

The Olive View–UCLA Medical Center Campus is located in the community of Sylmar, within the Los Angeles basin and the Peninsular Ranges Geomorphic Province, a geomorphic unit that extends through Los Angeles, south to the tip of Baja California. A product of largely flat to gently southeast sloping alluvial deposits, the basin is bounded by the San Gabriel Mountains and Elysian Hills on the north and northeast, Repetto Hills to the immediate south, and, in Orange County, the Santa Ana Mountains and San Joaquin Hills to the far southeast and south, respectively.

Within this overall geomorphic setting, the immediate project area occupies a range of relatively flat to rolling and hilly terrain ranging, on the south edge of the campus, from approximately 1,432 feet above mean sea level (msl), to approximately 1,553 feet above msl on the northeast near the Wilson Canyon Debris Basin. Immediately north of the campus, the San Gabriel Mountains rise abruptly to an elevation of approximately 4,000 above msl and provide a prominent visual backdrop to the campus. Due to this topographic variation, views of portions of the campus can be acquired from various vantage points in Sylmar, particularly those at higher elevations from hiking trails and lookout points within the San Gabriel Mountains/Angeles National Forest trail system. Similarly, the campus offers a number of vantages, at higher elevations and from the upper stories of the taller buildings, from which dramatic, informal (i.e., not officially recognized), offsite views are also possible, such as north-facing views of the hillsides of the San Gabriel Mountains.

Physical development within the project area has been shaped by its proximity to the Angeles National Forest/San Gabriel Mountains and by its general location within the larger Los Angeles basin. The community of Sylmar initially developed as an agricultural outgrowth of the city of San Fernando, with quality soil, an underground water supply, and a year-round warm climate that supports olive and citrus trees. Sylmar has grown significantly since its olive growing days and is now a semi-rural bedroom community that includes a variety of residential neighborhoods, including a number of homes that contain equestrian facilities, a mix of commercial uses and services, a light industrial economy, and natural, cultural, and civic amenities and resources.

The medical center campus uses occur within a semi-rural, partially developed setting transected by the Foothill Freeway (I-210), which is just south of Olive View Drive, and runs east/west until it banks southeast at Bledsoe Street in Sylmar. The I-210 has a partially below-grade (depressed) configuration, which, at its closest point, is approximately 150 feet south of the southern perimeter of the existing Olive View–UCLA Medical Center Campus.

The closest (non-campus) residential uses are on south Olive View Drive. These primarily single-family residential units are approximately 75 feet south of the campus and abut the I-210 on their

south side. Views of the existing campus can be had from these residences. Other nearby residences occur in more developed single- and multifamily residential neighborhoods south and east of campus, where views to the Olive View–UCLA Medical Center Campus are less available. Depending upon the position and angle of the viewer, the San Gabriel Mountains and existing main hospital tower form the most prominent visual elements north of the I-210.

The Campus

The Olive View–UCLA Medical Center Campus, located at the northern edge of Sylmar at the base of the San Gabriel Mountains, was historically established as a tuberculosis sanitarium in October 1920 and was later converted to an acute care hospital in 1970. The San Fernando Earthquake of 1971 (also known as the Sylmar Earthquake) damaged the hospital beyond repair, prompting the construction of the current hospital in the 1980s.

The existing six-story hospital building is the dominant visual presence on the campus. One- and two-story support buildings and parking lots are located in the surrounding areas and are dispersed throughout the campus. The 31 permanent buildings and 29 trailers on the campus exhibit a wide range of architectural styles and include single-story wood trailers that date back to the 1920s. The six-story hospital building, which houses inpatient and outpatient services, is located in the eastern third of the campus. As described in the Master Plan, the hospital tower is clad with .25-inch tempered vision glass with reflective solar cool bronze on all exterior façades from the third floor to the sixth floor. The first and second floor façades consists of ribbed concrete on all sides. Emergency services is housed directly north of the main tower, and the imaging center is to the west. Located north of the Main Hospital are various bungalows and trailers utilized primarily for administrative and hospital support functions; the Community Mental Health Urgent Care Center building is located at the far west end of the campus. The modular structures and trailers that are scattered throughout the campus provide additional space and storage needs for the medical center.

Landscaping on the campus does not have a prominent role in defining the its visual character. Generally, the landscaping lacks an overall cohesiveness and clarity, largely due to the random arrangement of buildings, variety of architectural styles, and expansive portions of the campus that have been consumed by surface parking lots developed over the years to serve the growing employee and visitor populations. Except for several mature pines along Olive View Drive and Kennedy Road, there are not many significant tree canopies at the site. Dominant tree species that remain include eucalyptus, pines, and coast live oaks. Trees damaged by the 2008 Sayre fire are still present in some areas of the campus near Wilson Canyon at Saranac Lane and along the west at Hillside Drive. Several stands of olive trees are evident at the northern edge of the Edison easement and a small group of Mexican fan palm trees have been randomly placed midway along Bucher Avenue at Sycamore Avenue. Ground vegetation is almost non-existent, except at the northern portion of the Edison easement and at two areas maintained or protected by part of the building:the turf area west of the education center and the small turf area west of the existing emergency wing of the hospital building. There is a small area of chaparral vegetation at the bottoms of slopes along the north edge of the campus and where areas have been left undisturbed for quite some time.

Photos 1 through 14B on the following pages (Section 3.1.3.3, *Visual Character and Quality*, of this Final EIR) illustrate the visual setting and key viewsheds within the campus and the immediate project area. buildings west of Kennedy Road house mostly campus support, administration, storage, and materials management services. There are also various parking lots and trailers in the western portion of campus. A new child care center (Photo 11) has been built on East Way and is

licensed for 82 children. The Community Mental Health building (Photos 13A and 13B), constructed in 2011, is at the far west end of the site, adjacent to West Way. As discussed, this one-story building serves as a mental health urgent care center. Overall, because of topographical changes and the sporadic development, the design setting is marked by abrupt changes in design character and land uses as the viewer looks across the viewshed (i.e., all the surface areas visible from an observer's viewpoint). There is a visual divide between campus built features and landscape components, which create disjointed and unique viewsheds throughout the grounds, upon the position and angle of the viewer.

3.1.3.2 Scenic Vistas

A scenic viewshed provides a scenic vista from a given location, such as a highway, a park, a hiking trail, river/waterway, or even from a particular neighborhood. The boundaries of a viewshed are defined by the field of view to the nearest ridgeline. Scenic viewsheds vary by location and community and can include ridgelines, unique rock outcroppings, waterfalls, ocean views, or various other unusual or scenic landforms.

No officially designated scenic vistas were identified in the immediate project vicinity, although dramatic, informal (i.e., not officially recognized) views of the San Gabriel Mountains are present from locations throughout the immediate project area and from various vantage points within the campus, particularly those from the upper stories of the taller campus buildings, including the existing hospital. The mountain ridgelines and hillsides, with gray-green colored chaparral and/or modest woodland and grassland vegetation, provide a vivid backdrop element to the campus when viewed from nearby land uses to the south, including residential uses.

While views to these ridgelines provide scenic relief for those on/near campus and at lower elevations, views from trails in the Angeles National Forest and on the San Gabriel Mountains also provide scenic viewsheds in the immediate project area.

3.1.3.3 Scenic Resources

According to Appendix G of the State CEQA Guidelines, scenic resources could include, but are not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. Scenic resources could also include natural vegetation other than trees, manmade landscaping, aesthetically noteworthy structures, large public artworks, and unique or topographically interesting landforms. Generally, scenic resources in the project area consist of designated scenic highways and routes/corridors (i.e., the Foothill Freeway/I-210), hillsides, and ridgelines, such as the San Gabriel Mountains, Verdugo Hills, Santa Susana Mountains, Simi Hills, Santa Monica Mountains, and Puente Hills. On-campus scenic resources are limited. Prominent visual elements within the medical center campus include the existing hospital building, a limited number of mature trees, and sightlines to the San Gabriel Mountains and ridgelines. although these are the more prominent on-campus visual elements, due to their overall lack of cohesion and/or contribution to a viewshed of substantially high visual quality, they are not considered to be scenic resources for this analysis.

3.1.3.4 Visual Character and Quality

To describe the visual character of the campus and immediate project area, 23 representative views were identified (see Figure 3.1-1, below, for the locations of these views). In describing these views

and viewsheds, consideration was given to characteristics such as land use, topography, scale, form, and color present in the views.

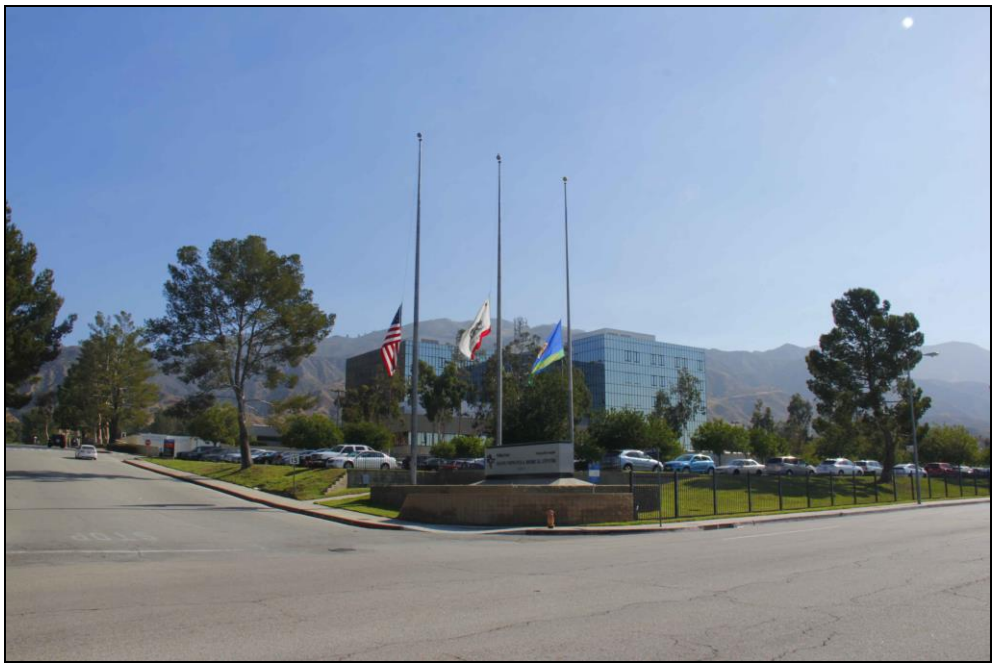
The assessments of visual quality used in the following section is based on guidelines outlined in the Federal Highway Administration publication, *Visual Impact Assessment for Highway Projects* (1981). Although these guidelines were initially crafted to provide an analytical framework for transportation projects by identifying and assessing the qualitative changes to the visual environment a project could introduce, the methodology is now widely used to evaluate visual impacts associated with a range of projects including development projects. The assessments used in this Final EIR are composed of three elements:

- *Vividness* of a view is based on the presence or absence of dramatic views of interesting natural landscape (i.e., far-off mountain ridgelines, a key visual resource in this setting) or man-made features (i.e., buildings) and the degree to which views can be readily acquired.
- *Intactness* is based on the presence or absence of intrusive manmade structures in an otherwise largely natural setting.
- *Unity* is based on the overall compositional harmony of the landscape and manmade structures present within it.

Views of high quality may have topographic relief, a variety of vegetation, rich colors, impressive scenery, and unique natural and/or built features. Views of medium quality may have interesting, but minor, landforms, some variety in vegetation and color, and/or moderate scenery. Views of low quality have uninteresting features, little variety in vegetation and color, uninteresting scenery, and/or common elements.

Figure 3.1-1. Photo Vantages

Photo 1. View From Olive View Drive and Kennedy Road, Facing Northeast toward the Existing Hospital Building



Source: ICF 2016.

The viewshed in Photo 1 is dominated by the campus entrance, where the existing main hospital building, surface parking lot, and several mature trees comprise the middleground of the view. These trees, along with the San Gabriel ridgelines in the background, provide scenic relief and add color. Due to the juxtaposition of the architectural form and massing of the existing main hospital building and the ridgeline of the San Gabriel Mountains, the view possesses a moderate degree of vividness and unity. The foreground and middleground also contain various mature trees, providing variety in vegetation and color. The presence of the three flagpoles at the hospital entrance, in addition to other manmade elements present in the viewshed, give this view a low degree of intactness. Viewer groups from this vantage point are primarily residential.

Visual quality rating: Moderately Low.

Photo 2A. From Reagan Road, Facing Northwest toward the Existing Hospital Building, Emergency Services, Central Plant, and San Gabriel Mountains

Source: ICF 2016.

The main cluster of development surrounding the exiting hospital building comprises the majority of visible elements in the middleground of the viewshed in Photo 2A, where associated landscaping and minimal tree canopy provide color. The San Gabriel Mountains form the backdrop of this view and provide visual interest. The presence of the central utility plant's cooling tower, ambulatory care center/emergency services building, delivery bay, and profile of the existing hospital building create a low degree of intactness. Visual unity and vividness are moderate due to the architectural forms, hardscape features (i.e., perimeter concrete walls, wrought-metal gates), and landscape (i.e., trees and greenways), backgrounded by the San Gabriel Mountains, which provide scenic relief.

Visual quality rating: Moderately Low.

Photo 2B. From Reagan Road, Facing West toward the Existing Hospital Building, Emergency Services, and San Gabriel Mountains

Source: ICF 2016**Error! Bookmark not defined.**.

The view presented in Photo 2B is similar to that of the view in Photo 2A, as they are taken from the same vantage point. Instead of facing northwest as in Photo 2A, Photo 2B faces west. This view shows the ambulatory care center/emergency services building, delivery bay, and north end of the existing main hospital building, which comprise the middleground of this views. Partial views of the foothills of the San Gabriel Mountains are also available in the background, providing some visual diversity and freedom from manmade elements. These partial sightlines provide moderately low levels of unity and vividness. Because of the nature and dominance of the manmade structures present, this view has a low degree of intactness.

Visual quality rating: Low.

Photo 3A. From Wilson Canyon Debris Basin, Facing South toward the Eastern Boundary of Proposed Project

Source: ICF 2016.

Photo 3A captures views of the ridgelines of the San Gabriel Mountains in the distant background, foothills of the same range near the hospital campus in the foreground, and the greenway/forest preserve just east of the current central utility plant. The hillside trees and shrubs provide variety in color and some scenic relief. Access roads to trailheads at the base of the San Gabriel mountain range can also be seen in the foreground. The elements in the foreground and background are bisected by the I-210 freeway, which traverses the middleground of the view in Photo 3A. The variety of vegetation, general absence of manmade elements, and unobstructed sightlines to the San Gabriel Mountains provide moderately high unity and vividness. The photo's viewshed provides a high degree of intactness, as it is largely free from manmade visual intrusions.

Visual quality rating: Moderately High.

Photo 3B. From Wilson Canyon Debris Basin, Facing Southwest toward Main Campus

Source: ICF 2016.

The view presented in Photo 3B is somewhat similar to that of the view in Photo 3A, as they are taken from the same vantage point. Instead of facing south as in Photo 3A, Photo 3B faces southwest. The view depicts the existing campus, with the main hospital building and ancillary facilities/parking lots that are not obstructed by mature trees and other vegetation comprising the middleground, which provide varied color. The background is comprised of partial sightlines to the foothills of the San Gabriel Mountains at the right edge of the frame, ridgelines of the Santa Monica Mountains, and residential neighborhoods throughout the community of Sylmar. Due to its massing, height, and articulation, the existing main hospital building is a commanding element in the view, which is moderately vivid and unified. Due to the presence of manmade features, it is also moderately intact.

Visual quality rating: Moderate.

Photo 3B Alt. From Wilson Canyon Debris Basin, Facing Southwest toward Main Campus

Source: ICF 2016.

The view depicted in Photo 3B Alt is also oriented southwest, as in Photo 3B, and shares approximately 50 percent of the viewshed. This view provides more context and views to the parking lot located along the Wilson Canyon Channel, while still maintaining the view of the existing campus. The background, like Photo 3B, is composed of views of the Santa Monica Mountains and residential neighborhoods throughout the community of Sylmar. As such, the views represented in Photo 3B Alt are as vivid, unified, and intact as the views represented in Photo 3B.

Visual quality rating: Moderate.

Photo 4A. From Bucher Avenue and Mesa Avenue, Facing Southeast toward the Existing Hospital Building and Supporting Surface Parking Lot

Source: ICF 2016.

The viewshed in Photo 4A is dominated by the existing main hospital building and supporting surface parking lot, with its limited associated landscaping. Due to the dominant presence of the parking lot on the north side of the hospital, the view possesses moderately low visual quality. The architectural elements of the existing hospital building provide some visual relief, as do mature trees and landscaped areas scattered throughout the parking lot. Visual unity, vividness, and intactness are moderately low, and lampposts detract somewhat from the intactness of the view.

Visual quality rating: Moderately Low.

Photo 4B. From Sycamore Avenue and Mesa Avenue, Facing Northeast toward Bungalows, Hospital Support Structures, and San Gabriel Mountains

Source: ICF 2016.

The view presented in Photo 4B is somewhat dissimilar to that of the view in Photo 4A, although they are taken from the same vantage point. Instead of facing southeast, as in Photo 4A, Photo 4B faces northeast. The view is composed of administrative buildings on the northeast end of the campus, adjacent vegetation, landscaping, mature trees, supplementary parking, and partially obstructed sightlines to the San Gabriel Mountains and Angeles National Forest. Together, these elements provide a variety of color and some scenic relief. Despite the presence of manmade structures, due to their low profile, views from this vantage point are moderately intact and unified. The variety of landscaped elements and views of the mountainside provide scenic relief, creating a moderately vivid view.

Visual quality rating: Moderate.

Photo 5A. From Upper Hill Crest Avenue, Facing Southwest toward Central Campus and Administrative Buildings/Trailers

Source: ICF 2016.

The viewshed in Photo 5A's foreground is dominated by the auxiliary utility plant buildings. Slightly rolling terrain and trees provide some scenic relief and add color. Although there are few significant design elements in the view, the slightly rolling terrain in the foreground and mature trees in the middleground lend the view a moderate degree of vividness and unity. The presence of the auxiliary utility plant building and paved road, as well as other administrative buildings in the middleground, detract from the view's level of intactness. The overall level of compositional unity is moderately low.

Visual quality rating: Moderately Low.

Photo 5B. From Upper Hill Crest Avenue, Facing Southeast toward Administrative Buildings/Trailers, Bungalows, and San Gabriel Mountains

Source: ICF 2016.

Photo 5B is taken from the same vantage point as Photo 5A; however, Photo 5B faces southeast instead of southwest. This views depicts fairly prominent topographic variation in the backdrop of the view, where portions of the San Gabriel Mountains can be seen from the middleground to the background. As in Photo 5A, the view depicts the auxiliary utility plant building and paved road, as well as other administrative buildings at the northeast end of the existing campus. Mature trees add color, giving the view, along with sightlines to the mountains, moderately high visual quality and unity. Only a relatively small number of obtrusive manmade features are present, however, resulting in a view with a moderate degree of intactness.

Visual quality rating: Moderately High.

Photo 5B Alt. From Upper Hill Crest Avenue, Facing Southeast toward Administrative Buildings/Trailers, Bungalows, and San Gabriel Mountains

Source: ICF 2016.

The view depicted in Photo 5B Alt is also oriented southeast, as in Photo 5B, and shares approximately 50 percent of the viewshed. This view provides more context and views to the developed infrastructure on the existing campus, including the main hospital building, and less of the prominent ridgelines of the San Gabriel Mountains and Angeles National Forest that border the northern edge of the campus. As such, the views represented in Photo 5B Alt are slightly less vivid, unified, and intact, because of the presence of manmade structures that do not provide substantial scenic relief.

Visual quality rating: Moderate.

Photo 6. From Sycamore Avenue and Bucher Avenue, Facing East Toward Administrative Buildings/Trailers and San Gabriel Mountains

Source: ICF 2016.

The viewshed in Photo 6 depicts administrative buildings and associated landscaping/trees throughout the foreground and middleground, with the San Gabriel ridgeline and hillsides forming the backdrop. These natural elements provide color and scenic relief. The pleasant mature trees and landscaped areas in the foreground, which partially obstruct views of existing administrative buildings from this angle, combined with sightlines to the San Gabriel Mountains create a moderately vivid, unified, and intact character at the intersection of Sycamore Avenue and Bucher Avenue. This view was selected because, under Tier I development, the central utility plant facilities would be relocated here, replacing the current administrative buildings that can partially be seen in the middleground.

Visual quality rating: Moderate.

Photo 6 Alt. From Sycamore Avenue and Bucher Avenue, Facing East toward Administrative Buildings/Trailers and San Gabriel Mountains

Source: ICF 2016.

Photo 6 Alt captures similar compositional elements as the view depicted in Photo 6, but is taken at a slightly different east-facing angle from just south of the intersection at Sycamore Avenue and Bucher Avenue. This view depicts the south perimeter and associated fencing of the administrative buildings, which, again, under Tier I development, would be replaced by the new central utility plant facilities. This view also depicts slightly more prominent features of the San Gabriel Mountains than those in Photo 6. The mature trees and landscaped sidewalks, along with the fenced administrative building and sightlines to the mountain, provide for moderate unity and vividness. The lampposts, fencing around the edges of the parcel, and paved roadway detract from the view's level of intactness, which is moderately low.

Visual quality rating: Moderate.

Photo 7. South of Sycamore Avenue and Bucher Avenue, Facing Southwest toward Central Campus and Administrative Trailers

Source: ICF 2016.

Photo 7, also taken from approximately 50 feet south of the intersection of Sycamore Avenue and Bucher Avenue, captures several administrative trailer units and associated parking lots in the middle of the campus. The proposed new hospital facility would be built in this viewshed, where there is little scenic relief and limited variety of color. The parking lots and disparate architectural forms associated with the scattered administrative facilities are fairly commonplace and create little visual interest. Although the mature trees provide some color and visual relief, the overall unity, vividness, and intactness are fairly low.

Visual quality rating: Low

Photo 8A. From West Kennedy Road between Bucher Avenue and Olive View Drive, Facing Northeast toward Existing Hospital Building and San Gabriel Mountains

Source: ICF 2016.

The view from Photo 8A depicts the existing visitor parking lots west of the main hospital and outpatient services buildings, as well as the associated landscaped features and mature trees, which add color to the scene. Somewhat limited sightlines to the San Gabriel Mountains are also present, depending upon the position and the angle of the viewer, which form the backdrop for this and similar views. The existing hospital building can be seen in the middleground at the right edge of the frame. In general, this viewshed represents the western edge of Tier I development. Due to the varying heights of the trees, juxtaposition of the existing main hospital building, the San Gabriel ridgeline, and the foreground dominance of the parking lots, the views presented from this vantage point are somewhat discontinuous. Visual unity, vividness, and intactness are moderately low.

Visual quality rating: Moderately Low.

Photo 8B. From West Kennedy Road between Bucher Avenue and Olive View Drive, Facing West toward Central Campus and Surface Parking Outside of Existing Hospital Building

Source: ICF 2016.

The view in Photo 8B is from just west of the entrance to the outpatient services wing on the west end of the existing main hospital building. Administrative buildings and trailers west of the visitor parking lots are mostly obstructed by vegetation and mature trees, which are present in the foreground and middleground, along with the parking lots themselves. These landscaped elements provide the scene with more variety in color. Together, all of the aforementioned visual elements create a viewshed with little visual interest. Although the trees provide some scenic relief and color, visual unity and vividness are low. The view, however, is moderately intact, although the dominance of the parking lot and cars diminish the overall quality of the view.

Visual quality rating: Low.

Photo 9. From Main Visitor Parking Lot South, Facing North toward Existing Hospital Building

Source: ICF 2016.

The view in Photo 9 captures the front (south-facing) façade of the existing main hospital building. Several mature trees are scattered throughout the middleground, with cars in the visitor parking lot south of the main building largely comprising the foreground. The architectural elements and hard edges of the main hospital dominate the views from this vantage point, which have some visual appeal. Trees and shrubs provide additional coloring. Views depicted in Photo 9 have a moderate degree of visual unity and vividness because of the juxtaposition of the building and trees, which provide color and contrast. Aside from the hospital, the view is somewhat free from manmade visual intrusions, such as lampposts and signage, which detract from the view's cohesion and overall quality. Views from this vantage point would go unchanged as a result of full buildout under Tiers I and II of the proposed Master Plan.

Visual quality rating: Moderate.

Photo 10. From Cobalt Street and Olive View Drive, Facing Northeast toward Modular Trailers, Mature Trees and San Gabriel Mountains

Source: ICF 2016.

The view in Photo 10, taken from just north of Olive View Drive, is representative of views throughout the west campus area, where most Tier II development has been proposed, looking north and northeast. The view captures the disparate architectural forms, scattered trailer units, surface parking lots, and other unpaved/undeveloped lands that are prevalent within the western part of the campus. A variety of vegetation is present throughout the middleground, and partial sightlines to the ridge and hills of the San Gabriel Mountains form the middle and background of this view. Mature trees in the foreground and middleground, as well as views to the San Gabriel Mountains, add a degree of vividness and unity to a viewshed whose foreground is mostly dominated by undeveloped land and modular facilities. As such, the degree of intactness is moderately low. Visual unity is moderate, since most of the existing manmade elements do not obstruct sightlines to the trees and mountains; although, again, because of their presence, the overall vividness of the view in Photo 10 is moderately low.

Visual quality rating: Moderately Low.

Photo 11. From East Way, Facing Northeast toward Child Care Center

Source: ICF 2016.

The view in Photo 11 faces east and features the existing child care center and its landscape features, which provide some color and visual interest. Mostly obstructed views of the San Gabriel mountains are available from this view, along with a few mature trees surrounding the property, which also add some color and visual interest. As such, the view possesses a moderate degree of visual unity and vividness, and the architectural design and style of the child care center serves as the most prominent visual element and creates some visual interest. Obtrusive manmade elements, such as the lamppost and bike rack, are minimally apparent and fairly integrated into the overall cohesion of the view. Photo 11 is moderately intact. Views from this location would be unchanged by the proposed Tier I and Tier II development under the Master Plan.

Visual quality rating: Moderate.

Photo 12. From Comstock Way and West Way, Facing East toward Modular Trailers and San Gabriel Mountains

Source: ICF 2016.

As in Photo 11, the view depicted in Photo 12 is representative of views throughout the western part of the existing campus. The foreground and middleground are composed of scattered administrative building and trailers. Some vegetation is visible in the foreground and middleground, providing color. The San Gabriel Mountains form the backdrop for this view and are the primary visible scenic resource. The view has a low degree of intactness because of these manmade features and others, such as lampposts, which do not provide visual interest. The middleground and background are composed of a mix of modular buildings, native shrubs, trees and vegetation, and sightlines to the San Gabriel Mountains. The visual elements in the middleground and background provide the viewshed with a moderate degree of color, contrast, scenery, and overall visual quality. Visual unity and vividness, overall, however, are moderately low.

Visual quality rating: Moderately Low.

Photo 13A. From Lantana Terrace, Facing North toward Community Mental Health Building and San Gabriel Mountains

Source: ICF 2016.

The primary visual element depicted in Photo 13A is the Olive View Community Mental Health Urgent Care Center, which, along with its entrance, parking lot, and landscaped features, dominates the foreground and middleground from this vantage point. This photo was taken from just north of Olive View Drive, and shows a variety of trees and landscaped greenways filling the middleground, providing color, depth, and visual contrast. The background contains views of the ridgeline of the San Gabriel Mountains, which add to the viewshed's overall harmony and cohesion. Visual unity and vividness are moderate. Aside from the lamppost, flagpole, and other manmade elements associated with the Olive View Community Mental Health Urgent Care Center, this view is relatively free of visual intrusions. Visual intactness is moderate.

Visual quality rating: Moderate.

Photo 13B. From Lantana Terrace, Facing Northeast toward Community Mental Health Building and San Gabriel Mountains

Source: ICF 2016.

The view in Photo 13B is similar to that of Photo 13A, albeit slightly to the east. Instead of orienting to the north, this view faces northwest, providing more sweeping views of the western parts of campus along Olive View Drive, which are substantially less developed than the eastern parts. As such, background views of the San Gabriel Mountains and Angeles National Forest are more prominent and available. As in Photo 13A, the left edge of the middleground depicts the existing Olive View Community Mental Health Urgent Care Center. The foreground of the view consists of landscaped native vegetation associated with the facility, as well as its parking lot. Other visual elements that fill in parts of the foreground and middleground of this view include mature trees, shrubs, and landscaping, as well as manmade features, such as parking and building signage, lampposts, and utility poles. Overall, this view has a moderate level of visual unity, vividness, and intactness. Views from this location would go mostly unchanged as a result of the proposed development under Tier I and Tier II of the Master Plan.

Visual quality rating: Moderate.

Photo 14A. From Olive View Road South between Cobalt Street and Kennedy Road, Facing Northeast

Source: ICF 2016.

The view in Photo 14A depicts Olive View Drive in the foreground and one-story administrative buildings and associated parking lots in the middleground. A variety of mature trees fill out the middleground of this view, with prominent, mostly unobstructed views of the San Gabriel Mountains and Angeles National Forest composing the background. These elements provide the majority of scenic relief, color, and visual interest depicted in this viewshed. Manmade features include lampposts, utility poles, and fencing, which create a moderate degree of intactness. Overall, this view has a moderate degree of visual unity and vividness. Views from this vantage point would depict the new hospital building, which would be located behind the existing one-story administrative buildings depicted in the foreground/middleground of this view. Viewer groups near Photo 14A would be primarily residential.

Visual quality rating: Moderate.

Photo 14B. From Olive View Road South between Cobalt Street and Kennedy Road, Facing Northwest

Source: ICF 2016.

Photo 14B was taken from a vantage point on south Olive View Drive, just east of the photo location depicted in Photo 14A. Whereas Photo 14A faces northeast, Photo 14B faces northwest. It also depicts Olive View Drive in the foreground and one-story administrative buildings and associated parking lots in the middleground. Similarly, a variety of mature trees fill out the middleground of this view, with mostly unobstructed views of the San Gabriel Mountains and Angeles National Forest composing the background. Manmade features include lampposts, utility poles, and fencing, which create a moderate degree of intactness. Overall, this view also has a moderate degree of visual unity and vividness. Viewer groups near Photo 14B, as in 14A, would be primarily residential. Photos 14A and 14B were selected to represent residential views in the immediate project vicinity because visual elements introduced in Photo 14A would primarily occur as a result of development under Tier I, and visual changes under Tier II would occur primarily within the viewsheds represented by Photo 14B.

Visual quality rating: Moderate.

3.1.4 Environmental Impact Analysis

3.1.4.1 Methods

Representative Views of Project and Viewer Groups

Because it is not feasible to analyze all the views in which the proposed project can be seen, 23 representative viewpoints were identified that would most clearly display the project's potential

visual effects (See Section 3.1.3.3, *Visual Character and Quality*, in this Final EIR). Such views represent the primary viewer groups that would be potentially affected by the proposed project. The analysis took into account views considered to be most sensitive to viewers, as well as the most common public views that can be acquired from varied locations within the project area.

Primary sensitive viewers include residents who reside in both single and multifamily residential buildings on the southern portion of Olive View Drive the closest of which are approximately 75 feet away from the campus's main entrance. This setting includes substantial traffic noise and visual intrusions from the adjacent freeway, as well activity present 24 hours a day, seven days a week, at the existing health services facilities adjoining the campus. The setting itself has undergone continuous expansion and growth, marked by project construction that has occurred over decades of time. Residential properties near the campus reflect concerted efforts to create greater privacy and visual screening from the visual intrusions posed by adjoining traffic, commercial, and institutional uses (e.g., trees, shrubbery, enclosed front porches, fencing, orientation). These features imply a measure of insulation exists currently from traffic, the campus, and new development proposed there.

Other viewer groups include:

- Employees, clients, and visitors at the Olive View–UCLA Medical Center Campus and other neighborhood businesses;
- Recreationists and hikers using the San Gabriel Mountains and trailheads within the Angeles National Forest system;
- Commuting motorists, bicyclists, and pedestrians on Olive View Drive; and
- Commuting motorists on the I-210 freeway, who can acquire fleeting views of some of the taller buildings on the Olive View–UCLA Medical Center Campus, including long-distance employee commuters and truckers traveling through the Sylmar neighborhood to and en route to other regional destinations.

Assessing Viewer Response

Viewer response is composed of two elements: *viewer sensitivity* and *viewer exposure*. These elements combine to form a method of predicting how the public might react to visual changes brought about by a project.

Viewer exposure is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, duration of their view, speed at which the viewer moves, and position of the viewer. High viewer exposure heightens the importance of early consideration of design, art, and architecture and their roles in managing the visual resource effects of a project. Because objects in the foreground have more detail, views from nearby locations are more detailed compared to objects that are indistinguishable in the distance. Viewers would experience visibility of a proposed project to varying degrees in a particular viewshed, depending upon distance or other intervening structures or obstacles.

Viewer sensitivity is defined both as the viewer's concern for scenic quality and the viewer's response to change in the visual resources that make up the view. Local values and goals may confer visual significance on landscape components and areas that would otherwise appear unexceptional in a visual resource analysis. The sensitivity of viewers in their perception of visual quality, as well as their sensitivity to changes in visual quality, varies based on familiarity with the view, sense of

ownership of the view, and the nature of one's activity while receiving the view. In turn, these considerations determine how much attention the receptor focuses on the view.

Residential viewer groups would have moderately high sensitivity to visual changes introduced by the proposed project, as would hospital employees and other regular visitors who are intimately familiar with existing views in the project area. Recreationist and hikers would have a moderate level of sensitivity to changes in the visual setting, although they are presumed to choose hiking routes, in part, based on aesthetic considerations, prominent visual elements would be less distinguishable from distance. Commuting motorists and bicyclists would have low sensitivity because of the nature of their fleeting views and constrained sightlines to the existing campus.

3.1.4.2 Thresholds of Significance

For the purposes of this analysis, and in accordance with Appendix G of the *State CEQA Guidelines*, the proposed project would result in a significant environmental impact if it would:

AES-1 Have a substantial adverse effect on a scenic vista.

AES-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

AES-3 In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality.

AES-4 Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

3.1.4.3 Impacts and Mitigation Measures

Impact AES-1: Would the Proposed Project Have a Substantial Adverse Effect on Scenic Vistas?

Construction Impacts

Tier I

As discussed in Section 3.1.2.2, *Scenic Resources*, of this Final EIR, views of the San Gabriel Mountains are present from locations throughout the immediate project area and from various vantage points within the campus and, for the purposes of this analysis, are considered to be informal scenic vistas that are publicly valued. Similarly, views from trails in the Angeles National Forest and on the San Gabriel Mountains also provide scenic viewsheds in the immediate project area. However, although these informal views could be affected by construction activities, no officially designated state scenic highways have been identified in the vicinity of the project site. The closest such route is SR-2 (Angeles Crest Highway) in the city of Azusa, approximately 16 miles to the southeast of the project site. However, I-210 is located approximately 300 feet south of the existing campus and is an eligible State Scenic Highway–Not Officially Designated. Because of its eligibility, and because it is listed as a designated scenic highway in the city's General Plan, special consideration must be made whenever a project proposes to develop the surrounding area. No other formally designated scenic vistas have been identified throughout the immediate project area.

As mentioned, viewsheds from trails within the San Gabriel Mountains and Angeles National Forest trail system can be valuable and offer more sweeping views of greater Los Angeles, but from higher elevations on the campus, visual elements are very difficult to detect because of the scale that is created by views from distance. From lower elevations, visual elements are still difficult to detect because of the existing tree canopy and sloping terrain. From certain angles and distances, construction materials and staging areas may be visible. However, these changes are considered to be temporary, as construction equipment and materials would be installed at the beginning of the construction period and removed upon completion of the proposed project. Therefore, from these views, construction activities, where visible, would not result in significant impacts.

Due to intervening landforms and development, campus features are difficult to detect from I-210. The I-210 freeway has a partially below-grade (depressed) configuration, which, at its closest point, is approximately 150 feet south of the southern perimeter of the existing Olive View–UCLA Medical Center Campus. Despite the proximity of the roadway, views of the eastern campus (where most Tier I development would occur under the proposed Master Plan) are limited, and, where available, fleeting, since the primary viewer group includes motorists, commuters, and passengers. Therefore, construction activities, which would include the presence of construction vehicles, cranes, barricading, grading, excavation, hauling, etc., would not create a significant, detectable visual intrusion or represent a substantial change in visual quality from existing conditions. Because of the depressed roadway, difficulty of obtaining unobstructed sightlines to campus, intervening landforms and development, fleeting nature of available views, and temporary nature of construction equipment, no impact on a scenic vista would occur as a result of the project construction activities under Tier I. Permanent visual elements that would be introduced during the construction period and would remain after the completion of construction, such as building structures, which have the potential to affect scenic vistas due to their massing, scale, and design, are evaluated below under Operational Impacts.

Tier II

As in Tier I, from certain angles and distances both on- and off-campus, construction materials and staging areas may be visible in informal scenic vistas that depict the San Gabriel Mountains and prominent ridgelines. Again, because of the temporary nature of views, construction activities, where visible, would not result in significant impacts.

Views of the western campus (where most Tier II development would occur under the proposed Master Plan) from I-210 are limited, and, where available, fleeting. Construction activities and equipment would be similar to those under Tier I. Again, because of the depressed roadway, difficulty to obtain unobstructed sightlines to campus, intervening landforms and development, fleeting nature of available views, and temporary nature of construction equipment, no impact on a scenic vista would occur as a result of the project construction activities under Tier II.

Mitigation Measures

No significant construction-related impacts would occur under Tier I or Tier II development of the proposed Master Plan. Therefore, no mitigation measures are required.

Operational Impacts

Tier I

As discussed above, no designated state scenic highways, corridors, or parkways have been identified within the project viewshed; however, because of its eligibility, and because I-210 is listed as a designated scenic highway in the city's General Plan, special consideration must be made whenever a project proposes to develop the surrounding area. Again, despite the proximity of the roadway, views of the eastern campus (where most Tier I development would occur under the proposed Master Plan) are limited, and, where available, fleeting. Development proposed under Tier I, such as the new Ambulatory Care Center, Recuperative Care Village, parking structure, and central utility plant facilities, would be subject to policies that protect scenic resources (i.e., San Gabriel Mountains/ridgelines) under the County's General Plan and would be designed to be in keeping with or improve the existing visual character and quality on the campus through adherence to the Master Plan design guidelines, which would minimize visual intrusions and ensure compatibility with surrounding land use types. Guidelines for architectural, landscaping, lighting, and signage design are implemented in order to reclaim the natural setting and scale of the campus and the surrounding region.

Although no formally designated scenic vistas have been identified within the project area, informal views of the San Gabriel Mountains and ridgelines are publicly valued, and, therefore, are considered to be scenic vistas. As mentioned, campus development under Tier I would be subject to the County's General Plan and the design guidelines developed for the Master Plan, which would minimize visual intrusions and ensure that scenic resources are protected (i.e., San Gabriel Mountains) and project development is in keeping with the surrounding visual environment. However, Tier I development would introduce visual changes to existing viewsheds and scenic vistas in the immediate project vicinity, such as those depicted in Photos 1–9 in Section 3.1.3.4, *Visual Character and Quality*, of this Final EIR. While development may partially obstruct some views with sightlines to the San Gabriel Mountains, these views are widely available throughout campus and in the immediate project vicinity, and to the extent practicable, they would be preserved. Therefore, significant impacts to scenic vistas are not expected. Similar impacts are expected from more fixed vantage points, such as those from residences on south Olive View Drive. Due to the scale of existing and planned Tier I development and available sightlines to the San Gabriel ridgelines, significant impacts to these informal scenic vistas are not likely to occur.

Additionally, Tier I development includes landscaping improvements such as healing gardens, courtyards, riparian and wildflower areas, in addition to pedestrian, equestrian, and bike paths that would serve to beautify the natural setting of the campus and enhance its overall visual quality, as well as improve informal viewsheds and scenic vistas in the project area. Therefore, Tier I development would not have a substantial adverse effect on a scenic vista, including views to/from the I-210 freeway and those from elevated trails within the San Gabriel Mountains and Angeles National Forest. As mentioned, informal views from some locations on the campus, however, may be obstructed by new buildings; although, no scenic vista or valued view would be substantially obstructed or affected. New low-rise buildings would be added to the campus, consistent in scale and massing with existing buildings, and extensive new park-like landscaped spaces would also be added in areas that are now paved and occupied by infrastructure. Thus, impacts on scenic vistas would be less than significant as a result of the operation of the project under Tier I.

Tier II

As in the Tier I discussion, despite the proximity of the I-210, views of the western campus (where most Tier II development would occur under the proposed Master Plan) are limited, and, where available, fleeting, since the primary viewer group includes motorists, commuters, and passengers. Again, development proposed under Tier II, such as the future hospital parking structures, and retail fronts would be subject to the County's General Plan and the Design Guidelines developed for the Master Plan, which would minimize visual intrusions and ensure that scenic resources are protected (i.e., San Gabriel Mountains) and project development would be consistent with the surrounding visual environment. Tier II development, which would mostly occur throughout the western two-thirds of the existing campus, would introduce more substantial visual changes than would Tier I. These changes would occur in viewsheds similar to those depicted in Photos 10–14B. Development under Tier II, as in Tier I, may partially obstruct some views with sightlines to the San Gabriel Mountains. However, these views are widely available throughout campus and in the immediate project vicinity. For more fixed views, such as those from residences along south Olive View Drive, the proposed main hospital building represents the most substantial visual change, which could be seen in views similar to those depicted in 14A and 14B. To the extent practicable, these views would maintain their visual quality and, in compliance with the County's General Plan and Master Plan Design Guidelines, scenic resources would be preserved and visual intrusions would be minimized. Therefore, significant impacts to scenic vistas are not expected.

Additionally, as in Tier I, Tier II development includes landscaping improvements such as gardens and wetlands, which, along with other landscaping improvements throughout campus, would serve to beautify the natural setting of the campus and enhance its overall visual quality, while also improving informal viewsheds and scenic vistas. Therefore, under operation of Tier II, the proposed project would not have a substantial adverse effect on a scenic vista, including views from the I-210 freeway and those to/from elevated trails within the San Gabriel Mountains and Angeles National Forest. As mentioned, informal views from some locations on the campus, however, may be obstructed by new buildings; although no scenic vista or valued view would be substantially obstructed or affected. Thus, impacts on scenic vistas would be less than significant as a result of the operation of the project under Tier II.

Mitigation Measures

Operational impacts under Tier I or Tier II development of the proposed Master Plan would be less than significant. Therefore, no mitigation measures are required.

Impact AES-2: Would Proposed Project Substantially Damage Scenic Resources, Including, but not Limited, to Trees, Rock Outcroppings, and Historic Buildings within a State Scenic Highway?

Construction Impacts

Tier I

As discussed above, on-campus scenic resources are limited, and no Officially Designated State Scenic Highways have been identified in the vicinity of the project site. However, I-210 is an Eligible State Scenic Highway–Not Officially Designated. Construction activities and equipment associated with Tier I development would not substantially damage primary scenic resources from the roadway, such as the San Gabriel Mountains. Similarly, no scenic rock outcroppings within the

highway or on the campus would be damaged by proposed construction under Tier I. No historic buildings on the campus have been identified, and most of the mature trees would be preserved as part of the project. While specific trees may be removed that have not yet been determined, these trees would be replanted at the appropriate ratios in accordance with the applicable policies from the County's General Plan. Impacts would be less than significant. No other off-campus improvements are proposed that could affect or damage scenic resources within I-210, the Angeles National Forest, or San Gabriel mountain range.

Tier II

As in Tier I, on-campus scenic resources are limited, and construction activities associated with Tier II development would not substantially damage primary scenic resources from I-210, such as the San Gabriel Mountains. Similarly, no rock outcroppings within the highway would be damaged by proposed construction under Tier II. No historic buildings on the campus have been identified, and most of the mature trees would be preserved as part of the project. While specific trees may be removed that have not yet been determined, these trees would be replanted at the appropriate ratios in accordance with the applicable policies from the County's General Plan. Impacts would be less than significant. No other off-campus improvements are proposed that could affect or damage scenic resources within I-210, the Angeles National Forest, or San Gabriel mountain range.

Mitigation Measures

Construction-related impacts would be less than significant under Tier I and Tier II development of the proposed Master Plan. Therefore, no mitigation measures are required.

Operational Impacts

Tier I & II

Impacts to scenic resources typically occur during construction through the complete removal or partial alteration of their visually prominent or character-defining features. As discussed above, no significant impacts to visual resources, on- or off-campus, would occur during the construction of either Tier I or Tier II development. Moreover, Tier I and Tier II development include landscaping improvements such as healing gardens, courtyards, riparian and wildflower areas, in addition to pedestrian, equestrian, and bike paths that would serve to beautify the natural setting of the campus and enhance its overall visual quality, resulting in an aesthetic benefit. As a result, impacts would be less than significant.

Mitigation Measures

Operational impacts under Tier I or Tier II development of the proposed Master Plan would be less than significant. Therefore, no mitigation measures are required.

Impact AES-3: Would the Proposed Project Substantially Degrade the Existing Visual Character or Quality of Public Views of the Site and its Surroundings in a Non-Urbanized Area? If the Proposed Project is in an Urbanized Area, Would the Proposed Project Conflict with Applicable Zoning and Other Regulations Governing Scenic Quality?

The analysis that follows takes into account the fact that the campus and it's immediate surroundings contain both suburban (low- to medium-density residential uses to the west, east, and south) and rural (the open space and undeveloped hillsides north of the campus) elements.

Construction Impacts

Tier I

Project construction under Tier I would occur in a fairly flexible, semi-urban setting that has seen extensive development occur over long period of time, and where a varied range of architectural styles and land uses are in close proximity. Also, the visual setting displays a range of visual quality from moderately high (e.g., unobstructed sightlines to the San Gabriel Mountains from within campus) to low visual quality (e.g., onsite views across west campus).

Tier I construction phasing would focus on the development of a new Recuperative Care Center, Residential Treatment Program facility, Mental Health Urgent Care Center, Mental Health Wellness Center, Ambulatory Care Center, and relocated central utility plants. Construction would also include new parking lots, various administrative buildings, and other miscellaneous facilities. The temporary presence of construction-related vehicles, equipment, barricading and cranes, etc., and construction-related excavation and grading would not result in significant changes to the visual character of the campus, nor would these result in a significant long-term overall reduction in visual quality. Thus, impacts would be less than significant during construction of Tier I development and facilities. Permanent visual elements that would be introduced during the construction period and would remain after the completion of construction, such as new buildings and structures, which have the potential to affect visual quality due to their massing, scale and design, are evaluated below under Operational Impacts.

Tier II

Tier II construction would focus on the replacement inpatient hospital and the development of the western portion of campus. Construction under Tier II would also include offices and maintenance shops, a senior/center community building, a fitness center and retail space along Olive View Drive. Although construction activities and the presence of construction equipment could be a nuisance to nearby viewer groups, these activities are temporary in nature and therefore would not result in significant changes to visual character, nor would these result in a significant overall long-term reduction in visual quality. As such, impacts would be less than significant during construction of facilities and infrastructure under Tier II. Again, permanent visual elements that would be introduced during the construction period and would remain after the completion of construction, such as structures to support the erection of new facilities, which have the potential to affect visual quality due to their massing, scale and design, are evaluated below under Operational Impacts.

Mitigation Measures

Construction-related impacts would be less than significant under Tier I and Tier II development of the proposed Master Plan. Therefore, no mitigation measures are required.

Operational Impacts

Tier I

As noted above, the visual setting is characterized by a range from low to moderately high visual quality (as shown in Photos 1 through 14B), providing an often flexible design context for new development features. Tier I development would be concentrated in the eastern third of the existing campus, as depicted in Photos 1–9. The most noticeable changes would occur in viewsheds similar to those depicted in Photos 2A, 2B, 4A, 4B, 5B, 5B Alt, and 8A, which depict the cluster of facilities, bungalows and surface parking lots around the existing main hospital building. In addition, noticeable changes would occur in viewsheds similar to that depicted in Photo 3B Alt because the Recuperative Care Center, Residential Treatment Program facility, Mental Health Urgent Care Center, and Mental Health Wellness Center would be partially located in the viewshed of Photo 3B Alt. Since it is anticipated that new buildings, in compliance with the Master Plan Design Guidelines, would be generally compatible in architectural form, finishes, and scale with existing campus buildings and surrounding areas, and because the project would preserve most of the prominent visual elements within the campus (i.e., existing main hospital building, mature trees, and available sightlines to the San Gabriel mountains), while adding extensive new landscape elements to create an inviting park-like setting for campus staff and visitors, the proposed project under Tier I would not substantially degrade the overall cohesion and would not substantially degrade the existing visual character of the site and its surroundings.

The project site is owned by Los Angeles County, and the facilities on the Olive View–UCLA Medical Center Campus are exempt from local land use regulations. Specifically, the proposed project would not be required to be consistent with city of Los Angeles' general plan land use designations and zoning. However, the proposed Master Plan provides guidelines for new development that are intended to reclaim the natural setting and scale of the campus and the surrounding region. Additionally, landscaping improvements under the Master Plan are intended to integrate the natural setting of the campus into its design.

As discussed in Section 3.1.3.1, *Overview of the Project Area*, of this Final EIR, the Olive View–UCLA Medical Campus lacks an overall cohesiveness and clarity, mostly because it contains a collection of unrelated structures. although visual changes are expected to occur under Tier I, these changes are not expected to reduce the visual quality ratings presented in Section 3.1.3.4, *Light and Glare*, of this Final EIR. Therefore, impacts would be less than significant.

Tier II

As noted above, the visual setting is characterized by a range from low to moderately high visual quality, providing an often flexible urban design context for new development features. Tier II development would be concentrated in the western two-thirds of the existing campus, as depicted in Photos 10–14B. The most noticeable changes would occur in viewsheds similar to those depicted in Photos 10 and 12, where campus development is sporadic or non-existent. Visual changes would also occur in more fixed vantage points, such as residences along south Olive View Drive. A new hospital would likely partially obstruct views of the San Gabriel Mountains from residences on south

Olive View Drive, changing the overall composition of viewsheds similar to those depicted in Photo 14B.

Because of the lack of overall development throughout the western portions of campus and because of the additional square footage proposed under Tier II development, visual changes under Tier II would be more substantial than those under Tier I. Since viewsheds within the western areas of campus have mostly lower overall visual quality ratings, and it is anticipated that new buildings would be generally compatible in architectural form and design setting by complying with the Master Plan Design Guidelines, while adding extensive new landscape elements to create an inviting park-like setting for campus staff and visitors, the proposed project under Tier II, as in Tier I, would not substantially degrade the existing visual character of the site and its surroundings. Again, although visual changes introduced under Tier II may be more substantial than those in Tier I, these changes are not expected to substantially reduce the visual quality ratings presented in Section 3.1.3.4, *Light and Glare*, of this Final EIR. Therefore, impacts would be less than significant.

Mitigation Measures

Since impacts would be less than significant, no mitigation measures are required.

Level of Significance after Mitigation

Operational impacts under Tiers I and II would be less than significant.

Impact AES-4: Would the Proposed Project Create a New Source of Substantial Light or Glare that Would Adversely Affect Day or Nighttime Views in the Area?

Construction Impacts

Tier I

Construction activities under Tier I are expected to occur during daylight hours, consistent with County and city regulations and are, therefore, unlikely to substantially alter ambient illumination light levels, or result in significant spill light impacts on surrounding land uses. The project is proposed in a setting in which there are numerous existing sources of light and glare, including the existing main hospital building, emergency services building, other campus facilities, headlights on Olive View Drive, freeway activity and support structures along the I-210 freeway, and nearby residential and commercial buildings on adjacent streets. In addition, there is also little potential for construction activities to produce substantial glare. The net contribution of project construction activities under Tier I, when considered in addition to existing sources of light and glare would not be major, and impacts associated with additional illumination would be temporary in nature. The proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant.

Tier II

As in Tier I, construction activities under Tier II are expected to occur during daylight hours, consistent with County and city regulations and are, therefore, unlikely to substantially alter ambient illumination light levels, or result in significant spill light impacts on surrounding land uses. The net contribution of project construction activities under Tier I, when considered in addition to existing sources of light and glare would not be major, and impacts associated with additional illumination would be temporary in nature. Construction activities would not create a new source of

substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant.

Mitigation Measures

Construction-related impacts under Tier I and Tier II development of the proposed Master Plan would be less than significant. Therefore, no mitigation measures are required.

Operational Impacts

Tier I

New buildings and parking areas and renovations to the existing hospital and outpatient services facility, in addition to other Tier I development, would not significantly alter ambient illumination light levels, or result in significant spill light impacts on surrounding land uses. As mentioned, the project is proposed in a setting in which there are numerous existing sources of light and glare, including the existing main hospital building, emergency services building, other campus facilities, headlights on Olive View Drive, freeway activity and support structures along the I-210 freeway, and nearby residential and commercial buildings on adjacent streets.

Because of the sprawled campus development, existing hospital infrastructure, density and height of mature trees and other vegetation, intervening landforms, and overall topography, many of the development projects proposed under Tier I would go largely unnoticed by nearby residents and motorists. Viewer groups primarily affected by Tier I development would be employees, patients, and hospital visitors. All project lighting features would be installed in accordance with applicable regulations and Master Plan lighting guidelines (see Chapter 2, *Project Description*, of this Final EIR) designed to promote energy efficiency, avoid spill light and glare, and preserve nighttime sky viewing. In addition, project elements would be designed to be compatible with the design character of the setting in which they are being proposed, and would receive non-highly reflective finishes and colors. Lighting would help to establish zones, a campus identity, and assist wayfinding, especially at night. Light would also be utilized to create areas of visual hierarchy and interest.

Therefore, it is not expected that the project would produce significant light or glare impacts. The project's net contribution under Tier I, when considered in addition to existing sources of light and glare, would not be major. The proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be less than significant.

Tier II

Buildings, parking areas and new shielded outdoor lighting features proposed under Tier II could include a new hospital, offices and maintenance shops, a senior/center community building, a fitness center, and retail space along Olive View Drive. Ambient illumination exists as a result of the existing main hospital building, emergency services building, other campus facilities, headlights on Olive View Drive, freeway activity and support structures along the I-210, and nearby residential and commercial buildings on adjacent streets.

As in Tier I, all project lighting features would be installed in accordance with applicable regulations designed to promote energy efficiency, avoid spill light and glare, and preserve nighttime sky viewing. Project elements would be designed to be compatible with the design character of the setting in which they are being proposed, and would receive non-highly reflective finishes and

colors. However, the western areas of campus are less developed (Tier II development would be concentrated in the western areas of campus), and, therefore, have lower ambient illumination levels than areas on the eastern portions of the campus. Given the proximity of nearby residential viewers on south Olive View Drive, and the potential for a 600,000-square-foot facility to be introduced into the viewsheds similar to those depicted in Photo 14B, the proposed project has the potential to create a new source of substantial light or glare. However, through incorporation of illuminance criteria and best practices, and in adherence to Master Plan Design Guidelines regarding lighting, the impacts of the new sources of light and glare associated with Tier II development would be minimized. As a result, while Tier II development would create a new source of light and/or glare, compliance with the applicable Lighting Guidelines would ensure that these potential new sources of light/glare would not substantially affect daytime or nighttime views in the area. Therefore, impacts would be less than significant.

Mitigation Measures

Operational impacts under Tier I or Tier II development of the proposed Master Plan would be less than significant. Therefore, no mitigation measures are required.

3.1.5 Cumulative Impacts

The study area for the cumulative impacts analysis is limited to locations that have clear sightlines to the built elements proposed as part of the project. Typically, the study area boundaries extend approximately 0.25 miles from the project perimeter. As outlined in Section 3.1.3, *Environmental Setting*, of this Final EIR, the study area for this cumulative impacts analysis are as follows: the Angeles National Forest/San Gabriel Mountains serve as the northern border of the immediate project vicinity, and I-210 creates a visual border to the south since north-facing views from the road (and south of the road) are fairly constrained because of the depressed freeway. To the west of the community mental health facility, the campus boundary at the Schoolhouse Debris Basin creates a visual border as the foothills of the San Gabriel Mountains converge with the I-210. To the east, because of topographical changes, the ridgeline between Reagan Road and Fenton Avenue serves as the eastern visual border.

A list of related projects (see Table 2-2, Related Projects, in Chapter 2, *Project Description*, of this Final EIR) was reviewed as part of this cumulative impacts analysis. None of the 14 related projects listed in Table 2-2 are located within the project's cumulative viewshed. The closest related project is located at 13530 Glenoaks Boulevard, approximately 0.5 miles from the campus. As a consequence, due to the intervening distances, topography, structures, and buildings, the related projects do not have clear sightlines of campus facilities. Therefore, the related projects would not cumulatively degrade or otherwise adversely affect the visual quality or character of the study area, and the proposed Master Plan would not result in a cumulatively considerable contribution to a significant cumulative aesthetic impact.

3.2 Air Quality

3.2.1 Introduction

This section describes the regulatory framework and existing conditions associated with air quality and the impacts on it that would result from the proposed project.

3.2.2 Regulatory Setting

At the federal level, the U.S. Environmental Protection Agency (EPA) is responsible for implementation of the Clean Air Act (CAA). Some portions of the CAA (e.g., certain mobile-source and other requirements) are implemented directly by EPA. Other portions of the CAA (e.g., stationary source requirements) are implemented by state and local agencies.

Responsibility for attaining and maintaining air quality in California is divided between the California Air Resources Board (CARB) and the regional air quality districts. Areas of control for the regional districts are set by CARB, which divides the state into air basins.

Plans, policies, and regulations at the federal, state, and local level relevant to the proposed project are discussed below.

3.2.2.1 Federal

The CAA was first enacted in 1963, but has been amended numerous times in subsequent years (1967, 1970, 1977, and 1990). The CAA establishes the National Ambient Air quality standards (NAAQS) and specifies future dates for achieving compliance. The CAA also mandates that the state submit and implement a State Implementation Plan (SIP) for local areas that fail to meet the standards. The plans must include pollution control measures that demonstrate how the standards will be met. The city of Los Angeles is within the South Coast Air Basin (Basin), which is designated as a nonattainment area for certain pollutants that are regulated under the CAA.

The 1990 amendments to the CAA identify specific emissions-reduction goals for areas that fail to meet the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the CAA that would most substantially affect development of the proposed project include Title I, *Nonattainment Provisions*, and Title II, *Mobile-Source Provisions*.

Title I provisions were established with the goal of attaining the NAAQS for criteria pollutants. Table 3.2-1 shows the NAAQS that are currently in effect for each criteria pollutant. The NAAQS were amended in July 1997 to include an 8-hour standard for ozone (O_3) and adopt a standard for inhalable particulate matter ($PM_{2.5}$). The $PM_{2.5}$ NAAQS was most recently amended in 2012 and the 8-hour O_3 NAAQS was most recently amended in October 2015. Due to site-specific stationary sources, the Los Angeles County portion of the Basin fails to meet national standards for O_3, $PM_{2.5}$, and lead (Pb), and, therefore, is considered a federal nonattainment area for those pollutants. Table 3.2-2 lists each criteria pollutant and its related attainment status.

Table 3.2-1. Federal and State Ambient Air Quality Standards

Pollutant	Symbol	Average Time	Standard (ppm)		Standard (µg/m³)		Violation Criteria	
			California	National	California	National	California	National
Ozone	O_3	1 hour	0.09	–	180	–	If exceeded	–
		8 hours	0.070	0.070	137	137	If exceeded	If fourth-highest 8-hour concentration in a year, averaged over 3 years, is exceeded at each monitor in an area
Carbon monoxide	CO	8 hours	9.0	9	10,000	10,000	If exceeded	If exceeded on more than 1 day per year
		1 hour	20	35	23,000	40,000	If exceeded	If exceeded on more than 1 day per year
(Lake Tahoe only)		8 hours	6	–	7,000	–	If equaled or exceeded	–
Nitrogen dioxide	NO_2	Annual arithmetic mean	0.030	0.053	57	100	If exceeded	If exceeded on more than 1 day per year
		1 hour	0.18	0.100	339	188	If exceeded	–
Sulfur dioxide	SO_2	24 hours	0.04	0.14	105	3,651	If exceeded	–
		1 hour	0.25	0.075	655	196	If exceeded	If exceeded on more than 1 day per year
		3 hours	–	0.5[a,b]	–	1,300[a,b]	–	–
		Annual arithmetic mean	–	0.030[a]	–	801	–	If exceeded on more than 1 day per year
Hydrogen sulfide	H_2S	1 hour	0.03	–	42	–	If equaled or exceeded	–
Vinyl chloride	C_2H_3Cl	24 hours	0.01	–	26	–	If equaled or exceeded	–
Inhalable particulate matter	PM10	Annual arithmetic mean	–	–	20	–	–	–
		24 hours	–	–	50	150	If exceeded	If exceeded on more than 1 day per year
	PM2.5	Annual arithmetic mean	–	–	12	12.0[c]	If exceeded	If 3-year average from single or multiple community-oriented monitors is exceeded
		24 hours	–	–	–	35	–	If 3-year average of 98th percentile at each population-oriented monitor in an area is exceeded
Sulfate particles	SO_4	24 hours	–	–	25	–	If equaled or exceeded	–
Lead particles	Pb	Calendar quarter	–	–	–	1.5	–	If exceeded no more than 1 day per year
		30-day average	–	–	1.5	–	If equaled or exceeded	–

Pollutant	Symbol	Average Time	Standard (ppm)		Standard (µg/m³)		Violation Criteria	
			California	National	California	National	California	National
		Rolling 3-month average	–	–	–	0.15	If equaled or exceeded	Averaged over a rolling 3-month period

[a] The final 1-hour SO^2 rule was signed June 2, 2010. The annual and 24-hour SO_2 standards were revoked in that same rulemaking. However, these standards remain in effect until 1 year after an area is designated for the 2010 standard, except in areas designated nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

[b] Secondary standard.

[c] EPA finalized the new PM2.5 annual arithmetic mean standard of 12.0 µg/m³ on December 14, 2012, which went into effect March 18, 2013. The previous 15 µg/m³ standard remained in effect until March 18, 2013, and remains in effect as the secondary standard.

ppm = parts per million; µg/m³ = micrograms per cubic meter.

Source: CARB 2016.

3.2.2.2 State

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California Ambient Air quality standards (CAAQS) by the earliest practical date. The CAAQS incorporate additional standards for most of the criteria pollutants and set standards for other pollutants recognized by the state. In general, the California standards are more health-protective than the corresponding NAAQS. California has also set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. The Basin is in compliance with the California standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. Table 3.2-2 provides the Los Angeles County portion of the Basin's attainment status with respect to NAAQS and CAAQS.

Table 3.2-2. Federal and State Attainment Status for Los Angeles County Portion of the South Coast Air Basin

Pollutants	Federal Classification	State Classification
O_3 (1-hour standard)	—	Nonattainment
O_3 (8-hour standard)	Nonattainment, Extreme	Nonattainment
PM_{10}	Attainment/Maintenance	Nonattainment
$PM_{2.5}$	Nonattainment, Serious *	Nonattainment
CO	Attainment/Maintenance	Attainment
NO_2	Attainment/Maintenance	Attainment
SO_2	Attainment	Attainment
Pb[a]	Nonattainment	Attainment

[a] Note that only the Los Angeles County portion of the basin is nonattainment for NAAQS Pb. The remainder of the basin is in attainment.

* 2012 standard

Sources: CARB 2017; EPA 2019a.

3.2.2.3 Local

The project lies within the Los Angeles County portion of the Basin, which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). SCAQMD has jurisdiction over an area of approximately 10,743 square miles, including all of Orange County, Los Angeles County (except for the Antelope Valley), the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Basin is a sub-region of SCAQMD's jurisdiction. Although air quality in this area has improved, the Basin requires continued diligence to meet air quality standards.

SCAQMD has adopted a series of air quality management plans (AQMPs) to meet the CAAQS and NAAQS. These plans require, among other emissions-reducing activities, control technology for existing sources, control programs for area sources and indirect sources, an SCAQMD permitting system that allows no net increase in emissions from any new or modified (i.e., previously permitted) emissions sources, and transportation control measures. The most recent publication is the 2016 AQMP, which is intended to serve as a regional blueprint for achieving the federal air quality standards for healthful air.

The 2016 AQMP represents a thorough analysis of existing and potential regulatory control options and includes available, proven, and cost-effective strategies to pursue multiple goals in promoting reductions in greenhouse gas (GHG) emissions and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP focuses on demonstrating NAAQS attainment dates for the 2008 8-hour O_3 standard, the 2012 annual $PM_{2.5}$ standard, and the 2006 24-hour $PM_{2.5}$ standard. The 2016 AQMP includes both stationary and mobile source strategies to ensure that rapidly approaching attainment deadlines are met, that public health is protected to the maximum extent feasible, and that the region is not faced with burdensome sanctions if the NAAQS are not met by the established date.

SCAQMD published the *CEQA Air Quality Handbook* in November 1993 to help local governments analyze and mitigate project-specific air quality impacts. This handbook provides standards, methodologies, and procedures for conducting air quality analyses as part of CEQA documents prepared within SCAQMD's jurisdiction. In addition, SCAQMD has published two guidance documents: *Localized Significance Threshold Methodology for CEQA Evaluations* (2003, revised 2008) and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* (2006). These publications provide guidance for evaluating localized effects from mass emissions during construction. Both were used in the preparation of this analysis (SCAQMD 2006, 2008).

The proposed project is also required to comply with all applicable SCAQMD rules and regulations pertaining to construction activities, including, but not limited to the following.

SCAQMD Rule 402—Nuisance

This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, endanger the comfort, repose, health, or safety of any such persons or the public, or cause, or have a natural tendency to cause, injury or damage to business or property. Odors are regulated under this rule.

SCAQMD Rule 403—Fugitive Dust

This rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area that remains visible beyond the property line of the emission's source.

During construction, best available control measures identified in the rule would be required to minimize fugitive dust emissions from proposed earthmoving and grading activities. These measures would include site pre-watering and re-watering as necessary to maintain sufficient soil moisture content. Additional requirements apply to construction projects on properties with 50 or more acres of disturbed surface area or any earthmoving operation with a daily earthmoving or throughput volume of 5,000 cubic yards or more three times during the most recent 365-day period. These requirements include submittal of a dust control plan, maintenance of dust control records, and designation of an SCAQMD-certified dust control supervisor.

SCAQMD Rule 1108—Cutback Asphalt

This rule specifies VOC content limits for cutback asphalt.

SCAQMD Rule 1470—Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines

This rule specifies requirements for stationary diesel engines, including emergency standby generators. It requires owners or operators of emergency standby generators to keep monthly logs of usage, limits maintenance, and testing to 20 hours per year and requires emission rates to not exceed 0.40 gram per brake-horsepower hour.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties. SCAG addresses regional issues related to transportation, the economy, community development, and the environment and is the federally designated metropolitan planning organization for a majority of the region and the largest metropolitan planning organization in the nation. As required by federal and state law, SCAG develops plans pertaining to transportation, growth management, hazardous waste management, housing, and air quality. SCAG data are used in the preparation of air quality forecasts and the conformity analysis included in the AQMP.

3.2.2.4 Description of Relevant Air Pollutants

Criteria Pollutants

Air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants, which are known as *criteria air pollutants*, are categorized as primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOCs), nitrogen oxides (NO_X), sulfur dioxide (SO_2), and most fine particulate matter (PM_{10} and $PM_{2.5}$), including Pb and fugitive dust, are primary air pollutants. Of these, CO, SO_2, PM_{10}, and $PM_{2.5}$ are criteria pollutants. VOCs and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. O_3 and nitrogen dioxide (NO_2) are the principal secondary pollutants. The following descriptions of each criteria air pollutant and their health effects are based on information provided by SCAQMD (2017a).

Nitrogen Dioxide (NO_2)

NO_2 is a reddish-brown gas with a bleach-like odor. NO is a colorless gas, formed from nitrogen (N_2) and oxygen (O_2) under conditions of high temperature and pressure, which are generally present

during combustion of fuels (e.g., motor vehicles); NO reacts rapidly with the oxygen in air to form NO_2, which is responsible for the brownish tinge of polluted air. The two gases, NO and NO_2, are referred to collectively as NO_X. In the presence of sunlight, atmospheric NO_2 reacts and splits to form an NO molecule and an oxygen atom. The oxygen atom can react further to form O_3, via a complex series of chemical reactions involving hydrocarbons.

Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposures to NO_2 at levels found in homes with gas stoves, which are higher than the ambient NO_2 levels found in Southern California homes that generally have fewer or no stoves. In healthy people, increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 (SCAQMD 2017a). Larger decreases in lung functions are observed in individuals with asthma and/or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. More recent studies have found associations between NO_2 exposures and cardiopulmonary mortality, decreased lung function, respiratory symptoms, and emergency room asthma visits.

Ozone (O_3)

Ozone, or smog, is photochemical oxidant that is formed when VOC and NO_X (both by-products of the internal combustion engine) react with sunlight. VOC are compounds made up primarily of hydrogen and carbon atoms (hydrocarbons). Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOC are emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. The two major forms of NO_X are NO and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. In addition to serving as an integral participant in ozone formation, NO_X also directly acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Ozone poses a higher risk to those who already suffer from respiratory diseases (e.g., asthma), children, older adults, and people who are active outdoors. Exposure to ozone at certain concentrations can make breathing more difficult, cause shortness of breath and coughing, inflame and damage the airways, aggregate lung diseases, increase the frequency of asthma attacks, and cause chronic obstructive pulmonary disease. Studies show associations between short-term ozone exposure and non-accidental mortality, including deaths from respiratory issues. Studies also suggest long-term exposure to ozone may increase the risk of respiratory-related deaths (EPA 2019c). The concentration of ozone at which health effects are observed depends on an individual's sensitivity, level of exertion (i.e., breathing rate), and duration of exposure. Studies show large individual differences in the intensity of symptomatic responses, with one study finding no symptoms to the least responsive individual after a 2-hour exposure to 400 (ppb) of ozone and a 50 percent decrement in forced airway volume in the most responsive individual. Although the results vary, evidence suggest that sensitive populations (e.g., asthmatics) may be affected on days when the 8-hour maximum ozone concentration reaches 80 ppb (EPA 2019d).

In addition to its deleterious human health effects, ozone has been tied to crop damage, typically in the form of stunted growth, leaf discoloration, cell damage, and premature death. Ozone can also act as a corrosive and oxidant, resulting in property damage, such as the degradation of rubber products and other materials.

Carbon Monoxide (CO)

CO, a colorless, odorless, relatively inert gas, is a trace constituent in the unpolluted troposphere produced by natural processes and human activities. In remote areas far from human habitation, CO occurs in the atmosphere at an average background concentration of 0.04 ppm, primarily as a result of natural processes, such as forest fires and the oxidation of methane. Global atmospheric mixing of CO from urban and industrial sources creates higher background concentrations (up to 0.20 ppm) near urban areas. The major source of CO in urban areas is incomplete combustion of carbon-containing fuels, mainly gasoline.

Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise and electrocardiograph changes indicative of worsening oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs, but exerts its effect on tissues by interfering with oxygen transport by competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include those with diseases involving heart and blood vessels, fetuses, and people with chronic hypoxemia (oxygen deficiency) as seen in high altitudes. Exposure to CO at high concentrations can also cause fatigue, headaches, confusion, dizziness, and chest pain. Ambient CO has no ecological or environmental effects (CARB 2019b).

Sulfur Dioxide (SO_2)

SO_2 is a colorless gas with a sharp odor. It reacts in air to form sulfuric acid, which contributes to acid precipitation, and sulfates, which are components of particulate matter. Main sources of SO_2 include coal and oil used in power plants and industries. Exposure of a few minutes to low levels of SO_2 can result in airway constriction in some asthmatics, the vast majority of whom are sensitive to the effects of SO_2. In asthmatics, increase in resistance to airflow, as well as reduction in breathing capacity leading to severe breathing difficulties, is observed after acute higher exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses, even after exposure to higher concentrations of SO_2.

Particulate Matter (PM_{10} and $PM_{2.5}$)

Particulate matter consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of particulates are now generally considered: inhalable course particles, or PM_{10}, and inhalable fine particles, or $PM_{2.5}$. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind on arid landscapes also contributes substantially to local particulate loading.

Particulate pollution can be transported over long distances and may adversely affect humans, especially for people who are naturally sensitive or susceptible to breathing problems. Numerous studies have linked PM exposure to premature death in people with preexisting heart or lung disease. Other symptoms of exposure may include nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms. In 2010, CARB estimated that annual $PM_{2.5}$ emissions caused 9,200 premature death per year in California, with an uncertainty range of 7,300–11,000; for the Basin, the estimate was 4,900, with an uncertainty range of 3,900–6,000 (SCAQMD 2017b). CARB estimated that annual emissions in the Sacramento Metropolitan Area caused 90 premature deaths, 20 hospital admissions, 1,200 asthma and lower respiratory symptom cases, 110 acute bronchitis cases, 7,900 lost work days, and 42,000 minor restricted-activity days in 2010 (SCAQMD 2013). Depending on its composition, both PM_{10} and $PM_{2.5}$

can also affect water quality and acidity, deplete soil nutrients, damage sensitive forests and crops, affect ecosystem diversity, and contribute to acid rain (EPA 2019).

Lead (Pb)

Pb in the atmosphere is present as a mixture of a number of lead compounds. Leaded gasoline and lead smelters have been the main sources of lead emitted into the air, but due to the phasing out of leaded gasoline, there has been a dramatic reduction in atmospheric Pb over the past three decades. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. In adults, increased Pb levels are associated with increased blood pressure. Pb poisoning can also cause anemia, lethargy, seizures, and death; there is no evidence to suggest that Pb has direct effects on the respiratory system.

Toxic Air Contaminants

Toxic air contaminants (TAC) are generally defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard. TACs are also defined as air pollutants that may increase a person's risk of developing cancer and/or other serious health effects not automatically create a health hazard. TACs are emitted by a variety of industrial processes, including petroleum refining, electric utility and chrome plating operations, commercial operations, such as gasoline stations and dry cleaners, and motor vehicle exhaust; TACs may exist as PM_{10} and $PM_{2.5}$ or as vapors (gases). To date, CARB has identified 21 TACs and adopted EPA's list of hazardous air pollutants as TACs. In August 1998, CARB identified diesel particulate matter (DPM) emissions as a TAC (CARB 1998). In September 2000, CARB approved a comprehensive diesel risk reduction plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. The goal of the plan was to reduce DPM emissions and the associated health risk by 75 percent by 2010 and by 85 percent by 2020 (CARB 2000).

TACs include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources. According to the 2009 *California Almanac of Emissions and Air Quality,* the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being DPM, which differs from other TACs in that it is a complex mixture of hundreds of substances, rather than a single substance (CARB 2009). DPM is composed of two phases, gas and particle, and both phases contribute to health risks. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra-fine PM is of the greatest health concern and may be composed of elemental carbon with adsorbed compounds, such as organic compounds, SO_2, nitrates, metals, and other trace elements. DPM is emitted from a broad range of diesel engines: the on-road diesel engines of trucks, buses, and cars and the off-road diesel engines that include locomotives, marine vessels, and heavy-duty equipment. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and presence of an emission control system.

Acute exposure to diesel exhaust may cause irritation to the eyes, nose, throat, and lungs, and has some neurological effects, such as lightheadedness. Acute exposure may also elicit a cough or nausea, as well as exacerbate asthma. Chronic exposure to DPM in experimental animal inhalation studies has shown a range of dose-dependent lung inflammation and cellular changes in the lung

and immunological effects. Based upon human and laboratory studies, there is considerable evidence that DPM is a likely carcinogen. Human epidemiological studies have demonstrated an association between DPM exposure and increased lung cancer rates in occupational settings.

3.2.3 Environmental Setting

3.2.3.1 Regional Context

The project site is located within the Basin, an area covering approximately 6,745 square miles and bounded by the Pacific Ocean to the west and south and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Basin includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The terrain and geographical location determine the distinctive climate of the Basin, which is a coastal plain with connecting broad valleys and low hills.

The Southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The extent and severity of the air pollution problem in the Basin is a function of the area's natural physical characteristics (i.e., weather and topography) as well as human-made influences (i.e., development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Basin, making it an area of high pollution potential.

The greatest air pollution impacts in the Basin occur from June through September and are generally attributed to the large amount of pollutant emissions, light winds, and shallow vertical atmospheric mixing. These conditions frequently reduce pollutant dispersion, thereby causing elevated air pollution levels. Pollutant concentrations in the Basin vary with location, season, and time of day O_3 concentrations, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Basin and adjacent desert.

SCAQMD completed ambient air monitoring, and their evaluation studies in the Basin are compiled in the regularly updated Multiple Air Toxics Exposure Study (MATES), the most recent of which is the MATES IV study: the final draft was released to the public in May 2015. The MATES IV study estimated that the average carcinogenic risk throughout the Basin attributed to TACs is approximately 1,023 in one million. Approximately 80 percent of all risk is attributed to DPM emissions, but DPM showed a 70 percent reduction compared to MATES III (SCAQMD 2015). MATES V is currently being conducted and will include a fixed site-monitoring program with 10 stations, an updated emissions inventory of toxic air contaminants, and a modeling effort to characterize cancer risk across the Basin.

Local Climate

Data from the closest climate monitoring station with recent data, the Western Regional Climate Center's (WRCC's) Burbank Valley Pump Station (COOPID 041194), was used to characterize project vicinity climate conditions. Over the period of record (1966–2016), the average study area summer (August) high and low temperatures were 89.0°F and 61.4°F, respectively. The average winter (January) high and low temperatures were 67.5°F and 41.7°F, respectively. Rainfall varies widely from year to year, with an annual average of 16.29 inches with an average of 36 days with measureable rainfall (greater than or equal to 0.01 inches) (WRCC 2019).

The closest wind monitoring station, located approximately 10 miles southeast of the study area, is the Burbank/Glendale/Pasadena Airport wind monitoring station. Wind patterns in the project vicinity arise primarily from the south and southeast, with seasonal and diurnal variations resulting during Santa Ana events and winter storms. Over the period of record (January 1, 2012, to December 31, 2014), winds at the Burbank/Glendale/Pasadena Airport station averaged a speed of 2.10 meters per second (4.7 miles per hour), with calm wind conditions present 34 percent of the time (WRCC 2016).

Local Air Quality

SCAQMD has divided the Basin into general forecast and air monitoring areas and maintains a network of air quality monitoring stations throughout. The project site is located in the East San Fernando Valley Monitoring Area (Source Receptor Area [SRA] 7) portion of the San Fernando Valley General Forecast Area. There are currently no active monitoring stations in SRA 7. Other SRAs within the San Fernando Valley General Forecast Area include SRA 6 (West San Fernando Valley) and SRA 13 (Santa Clarita Valley). The Reseda station (CARB 70074, 18330 Gault Street) in SRA 6 monitors O_3, NO_2, CO, and $PM_{2.5}$ and is 10 miles southwest of the project site. The closest station that monitors PM_{10} is the Santa Clarita (CARB 70090, 22224 Placerita Canyon) station, which is 6 miles northwest of the project site. Monitoring data from the Reseda and Santa Clarita stations have been provided. Information regarding concentrations of pollutants over the last 3 years (2015–2017) has been compiled from the stations' data (see Table 3.2-3, below).

The monitoring data show the following trends for pollutant concentrations:

- The 1-hour O_3 state standard as well as the 8-hour O_3 state and federal standards were exceeded in each of the most recent years for which data are available;
- The 24-hour PM_{10} state standard was exceeded in 2016 and 2017; and
- No exceedances of the 1-hour NO_2, 1-hour CO, 8-hour CO, PM_{10} federal, or $PM_{2.5}$ state or federal standards during the most recent 3-year period.

As discussed above, the CAAQS and NAAQS define clean air and represent the maximum amount of pollution that can be present in outdoor air without any harmful effects on people and the environment. Existing violations of the ozone and PM_{10} ambient air quality standards indicate that certain individuals exposed to this pollutant may experience certain health effects, including increased incidence of cardiovascular and respiratory ailments.

Local Health Risk

According to SCAQMD inhalation cancer risk data (MATES IV), the study area is within cancer risk zones of approximately 445 in one million (SCAQMD 2015a). For comparison, the average cancer risk in the Basin is 1,023 in one million.

Sensitive Receptors and Locations

SCAQMD defines sensitive receptor locations as residential, commercial, and industrial land use areas, as well as other locations where sensitive populations may be located, such as schools, hospitals, convalescent homes, day care centers, and other locations where children, chronically ill individuals, or other sensitive persons could be exposed (SCAQMD 2005).

The project site is surrounded by residential uses, undeveloped hillsides, flood control facilities, State Route 210 (I-210 or the Foothill Freeway), and a small number of businesses. Sensitive receptors within the project vicinity include the surrounding residences in all directions, and,

because a hospital is considered a sensitive receptor, patients, as well as workers on the project site itself. Sensitive receptors are also located along the haul and material delivery routes that will be required to implement the proposed project.

Table 3.2-3. Ambient Background Concentrations from Nearby Stations

Pollutant Standards	2015	2016	2017
1-Hour Ozone (O_3)			
State Maximum Concentration (ppm)	0.119	0.122	0.140
Number of Days Standard Exceeded			
CAAQS 1-hour Standard (>0.09 ppm)	11.0	9.0	26.0
8-Hour Ozone (O_3)			
State Maximum Concentration (ppm)	0.095	0.099	0.115
National Maximum Concentration (ppm)	0.094	0.098	0.114
National Fourth-Highest Concentration (ppm)	0.087	0.086	0.095
National Design Value (ppm)	0.084	0.085	0.089
Number of Days Standard Exceeded			
CAAQS 8-hour Standard (>0.070 ppm)	34.0	23.0	67.0
NAAQS 8-hour Standard (>0.070 ppm)	32.0	23.0	64.0
Carbon Monoxide (CO)			
Maximum Concentration 8-hour Period (ppm)	2.5	1.9	2.5
Maximum Concentration 1-hour Period (ppm)	3.0	2.4	3.0
Number of Days Standard Exceeded			
NAAQS 8-hour Standard (≥9 ppm)	0	0	0
CAAQS 8-hour Standard (≥9.0 ppm)	0	0	0
NAAQS 1-hour Standard (≥35 ppm)	0	0	0
NAAQS 1-hour Standard (≥20 ppm)	0	0	0
Nitrogen Dioxide (NO_2)			
Maximum National 1-hour Concentration (ppm)	0.0725	0.055	0.0625
Maximum State 1-hour Concentration (ppm)	0.072	0.055	0.062
Annual Average Concentration (ppm)	0.013	0.012	0.012
Number of Days Standard Exceeded			
CAAQS 1-Hour Standard (0.18 ppm)	0	0	0
NAAQS 1-Hour Standard (100 ppb)	0	0	0
Suspended Particulates (PM_{10})			
Maximum State 24-hour Concentration (μg/m^3)	39.0	96.1	66.5
Maximum National 24-hour Concentration (μg/m^3)	41.0	96.0	66.5
State Annual Average Concentration (μg/m^3)	N/A	23.6	N/A
Number of Days Standard Exceeded			
CAAQS 24-hour Standard (>50 μg/m^3)	0.0	1.0	2
NAAQS 24-hour Standard (>150 μg/m^3) *(estimated days)*	0.0	0.0	N/A
Suspended Particulates ($PM_{2.5}$)			
Maximum National 24-hour Concentration (μg/m^3)	36.8	30.0	35.2

Pollutant Standards	2015	2016	2017
24-hour Standard 98th Percentile (μg/m³)	28.4	24.5	20.7
National Annual Average Concentration (μg/m³)	8.8	9.1	9.7
State Annual Average Concentration (μg/m³)	N/A	16.9	16.8
Number of Days Standard Exceeded			
NAAQS 24-hour Standard (>35 μg/m³)	N/A	0	0

ppm = parts per million; ppb = parts per million; μg/m³ = micrograms per cubic meter; N/A = data not available.
Sources: CARB 2019a; EPA 2019b.

3.2.4 Environmental Impact Analysis

3.2.4.1 Methods

The methodology for assessing construction- and operations-related air quality impacts is presented below.

Construction Mass Emissions

As discussed in Chapter 2, *Project Description*, of this Final EIR, Tier I involves the construction of near-term projects. Construction of the proposed project would result in the generation of criteria pollutant and TAC emissions. Mass daily and total combustion exhaust, fugitive dust (PM_{10} and $PM_{2.5}$), and fugitive off-gassing paving emissions associated with Tier I construction activities have been estimated using the California Emissions Estimator Model (CalEEMod, version 2016.3.2) developed by the California Air Pollution Control Officers Association. Given that the specific construction schedule for each element of Tier I is unknown at this point, modeling defaults regarding construction phase types, equipment assumptions, and vehicle trip length assumptions within CalEEMod were used to provide a conservative analysis based on projected Master Plan square footages. Discussions with the project team following the Draft EIR public circulation period resulted in some changes in assumptions related to phase lengths, and those changes have been reflected herein. The Restorative Care Village was assumed to begin construction in 2020 and begin operation in 2021, and all construction activities associated with the Restorative Care Village were assumed to be undertaken concurrently. Construction of the Ambulatory Care Center, parking structure, administration, Community Center, Materials Management/Supply Services Building, and Central Plant East were assumed to begin construction following the completion of the Restorative Care Village, with construction beginning in 2021 and operation beginning in 2023. Although it is likely that construction would occur later and over a longer timeframe, this accelerated schedule is conservative in that it overstates the level of construction activity that would occur on any given day. Also, because this analysis assumes that construction would occur earlier than the 2035 buildout date for Tier 1 suggests, emissions estimates are likely overstated in that they reflect current vehicle and equipment technologies rather than cleaner technologies that are likely to be in use closer to the Tier 1 2035 buildout date.

During public circulation of the Draft EIR, SCAQMD submitted a comment letter in which they recommend that construction-period emissions of the Ambulatory Care Center, parking structure, administration, Community Center, Materials Management/Supply Services Building, and Central Plant East (including emissions from demolition) be combined with operational emissions from the Restorative Care Village and that sum compared to the SCAQMD operational thresholds of

significance. In response, the analysis in this Final EIR has been revised to show this overlapping scenario.

Regarding localized effects, SCAQMD's localized significance threshold (LST) methodology was developed to aid in the analysis of construction associated with land use development projects. SCAQMD's LST methodology focuses on emissions from mobile construction equipment (i.e., loaders, backhoes, forklifts, generators, etc.) and stationary sources (i.e., natural gas furnaces, emergency generators, etc.) and mobile equipment (i.e., forklifts) operating onsite and within the project boundary. The LST methodology and lookup tables are not designed to evaluate localized impacts from mobile sources traveling over roadways outside of the project boundary. Therefore, the LST analysis only includes those emissions that would occur onsite and does not include emissions from motor vehicles traveling on roadways.

For purposes of analysis, fugitive dust emissions assume compliance with SCAQMD Rule 403, which would reduce fugitive dust emissions by 61 percent by watering three times per day. The exact dust-control methods used for construction will be specified in a dust-control plan that would be submitted to the SCAQMD per Rule 403 prior to construction. Tier I emissions are presented at the daily time scale and compared with the thresholds discussed in Section 3.2.4.2, *Thresholds of Significance*, in this Final EIR. All emissions calculation worksheets and air quality modeling output files are provided in Appendix C of this Final EIR.

Tier 2 is discussed qualitatively, as details of the project elements and construction schedules are not known at this point. Additional environmental documentation will be prepared, if determined necessary under the requirements of CEQA, to assess the impacts of Tier 2 when more information is known and if determined necessary under the requirements of CEQA.

Emissions are presented at the daily time scale and compared with SCAQMD's thresholds discussed in Section 3.2.4.2, *Thresholds of Significance*, in this Final EIR. All emissions calculation worksheets and air quality modeling output files are provided in Appendix C of this Final EIR .

Construction Health Risk

Diesel-powered construction equipment and long-term truck activity would emit DPM that could potentially expose nearby sensitive receptors to pollutant concentrations. As discussed above, sensitive receptors within the project vicinity include the surrounding residences in all directions, as well as patients and workers on the project site itself. Given the project would introduce DPM emissions to an area near existing sensitive receptors, a construction-period health risk assessment (HRA) was conducted to evaluate potential human health risk impacts that could result from the exposure of nearby sensitive receptors to DPM. The HRA consists of three parts: a TAC inventory, air dispersion modeling, and risk calculations.

The methodologies and assumptions used in the HRA are consistent with the guidance recommended by OEHHA's *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments* (OEHHA 2015). The OEHHA methodology used in this assessment relies on a dose-response assessment to characterize risk from cancer due to inhaled TACs, specifically DPM. Based on these total emissions, onsite combustion PM_{10} emissions were extracted from the CalEEMod outputs and converted to an emission rate (in grams per second) for use in the air quality modeling to determine DPM concentrations at the nearest sensitive receptors. PM_{10} exhaust was assumed to be equal to DPM. Dispersion modeling was performed using the American Meteorological Society/Environmental Protection Agency Regulator Model (AERMOD), a steady-state, multiple-source Gaussian dispersion model that was designed for use with emission sources situated in

terrain where ground elevations can exceed the release heights of the emission sources (i.e., complex terrain). AERMOD is the EPA regulatory dispersion model specified in the *Guideline for Air Quality Methods* (Code of Federal Regulations, Title 40, Part 51, Appendix W) (EPA 2017) and is recommended for use by the SCAQMD, which has established its own modeling guidance for the model (SCAQMD n.d.).

The health risk calculations were based on the most recent OEHHA guidance manual, which includes age-specific factors that take into account increased sensitivity to carcinogens during early-in-life exposure. The approach to estimating cancer risk from the project's construction activities required calculating a range of potential doses and multiplying by cancer potency factors in units corresponding to the inverse dose to obtain a range of cancer risks. For cancer risk, the risk for each age group was calculated using the appropriate daily breathing rates, age sensitivity factors, and exposure duration. The cancer risks calculated for the most sensitive age groups (third trimester of pregnancy through 2 years of age) was used to estimate the project's incremental cancer risk.

Operational Mass Emissions

Existing (2016) uses at the project site generate criteria pollutant and TAC emissions, including emissions associated with motor vehicle travel to and from the site, natural gas combustion for space and heating, and area sources associated with consumer products (e.g., cleaning supplies, kitchen aerosols, cosmetics, toiletries), architectural coatings, and landscaping. Buildout of the proposed project would result in a change in land uses onsite, as well as increased intensity of existing uses, and would thus result in emissions in different quantities than existing uses. Assuming a 2020 construction start date and a default and concurrent construction schedule, Tier 1 elements could be operational as early as 2023. Therefore, the operational analysis assumes a 2023 Tier 1 full buildout. While the buildout date for Tier I of the proposed project is 2035, assuming a 2023 buildout date likely overstates impacts.

Criteria pollutant and TAC emissions associated with both existing and proposed uses were estimated using CalEEMod, motor vehicle trip generation data from the traffic impact analysis (Fehr & Peers 2019), and CalEEMod defaults for electricity, natural gas consumption, and area sources for both existing and proposed land uses. Emissions are presented at the daily time scale and the net effects of the proposed project (Master Plan buildout relative to existing uses) is compared with the thresholds discussed in Section 3.2.4.2, *Thresholds of Significance*, in this Final EIR. In addition, the Olive View–UCLA Medical Center Campus currently generates emissions from various permitted sources located onsite, including emergency generators, boilers, storage tanks, and other sources that emit both criteria pollutant and TAC emissions. Annual emissions from existing permitted sources was obtained from SCAQMD's Facility INformation Detail (FIND) database for calendar year 2016 reporting, converted to average daily emissions, and scaled linearly based on the change between existing campus square footage and buildout of Tier I square footage (SCAQMD 2019). Emissions associated with permitting for new or modified stationary sources are not included in this analysis, as the specific details regarding such equipment, or if equipment will be needed in the future, are unknown at this time.

Regarding localized effects, the LST analysis focuses on criteria pollutant emissions from stationary sources (i.e., natural gas furnaces, emergency generators, etc.) and mobile equipment (i.e., forklifts) operating onsite.

Operational Carbon Monoxide Hot Spots

A CO *hot spot* is a localized concentration of CO that is above the state or national 1-hour or 8-hour ambient air standards for the pollutant. The potential for the proposed project to result in localized CO impacts occurring from the addition of project-associated traffic volumes at intersections is assessed based on SCAQMD's suggested criteria, which recommends performing a localized CO impact analysis for intersections that change from level of service (LOS) C to D as a result of a project and for all intersections rated D or worse where the project increases the volume-to-capacity (V/C) ratio by 2 percent or more. Additionally, as part of SCAQMD's 2003 AQMP, which is the most recent AQMP that addresses CO concentrations, a detailed CO hot spots analysis was conducted at four heavily congested intersections in the Basin that were likely to experience the highest CO concentrations. The results of the CO hot spots analysis did not predict a violation of CO standards at any of these four intersections. As such, the highest daily traffic volumes that would occur among the study intersections analyzed in the project's traffic analysis are also compared against the highest traffic volumes at the busiest intersection evaluated in the 2003 AQMP in this analysis to evaluate the potential for the proposed project to result in any localized CO impacts.

3.2.4.2 Thresholds of Significance

For the purposes of the analysis in this Final EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2 Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is a nonattainment area with respect to the applicable federal or state ambient air quality standard.

AQ-3 Expose sensitive receptors to substantial pollutant concentrations.

AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G, Section III, of the State CEQA Guidelines states that, where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make determinations regarding air quality impacts. Given SCAQMD's regulatory role in the Basin, the significance thresholds and analysis methodologies established by SCAQMD are relied upon to make determinations regarding air quality impacts.

Criteria Pollutants

The significance thresholds and analysis methodologies outlined in SCAQMD's *CEQA Air Quality Handbook*, *Localized Significance Threshold Methodology for CEQA Evaluations*, and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* guidance documents were used in evaluating project impacts. Specifically, the SCAQMD construction and operational regional mass emissions thresholds identified in Table 3.2-4, below, were used for the regional assessment of criteria pollutants herein.

With respect to localized emissions, SCAQMD has developed LSTs and mass rate look-up tables to help public agencies analyze the project-related effects of pollutants on nearby receptors. The LSTs are based on the size or total area of the emissions source, the ambient air quality in each SRA where the emissions sources are located, and the distance to nearby sensitive receptor locations. The

project site encompasses 230 acres within the East San Fernando Valley Source Receptor Area 7 (SRA 7). The proposed project addresses issues concerning the entire Olive View–UCLA Medical Center Campus; therefore, the entire campus is considered the project site.

Given the size of the project site and the distance of specific buildings from the nearest offsite receptors, different LSTs were used for the components of Tier I. As discussed above, the Restorative Care Village would be constructed first; a 1-acre site size and 200-meter distance to offsite receptors was used to determine the appropriate LST. Following the completion of the Restorative Care Village, the Ambulatory Care Center, parking structure, administration, Community Center, Materials Management/Supply Services Building, and Central Plant East would be constructed; a 5-acre site and 50-meter receptor distance were used, based on the distance of the Community Center to the nearest offsite receptor, the multifamily residential development to the south of the campus. To account for construction-period effects of haul truck emissions on sensitive receptors near the project site, for the purposes of the LST analysis, it was assumed that 10 percent of total offsite emissions would occur at the project site. The inclusion of such emissions likely overstates impacts, as all but a small amount of on-road haul truck use would occur away from the site.

Table 3.2-4. SCAQMD Significance Thresholds (pounds per day)

Construction	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**Pb[a]**
Restorative Care Village							
Localized Significance Thresholds[b]	N/A	122	2,227	N/A	54	18	N/A
Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/ Supply Services Building, and Central Plant East							
Localized Significance Thresholds[c]	N/A	165	1,872	N/A	42	10	N/A
Regional Significance Thresholds	75	100	550	150	150	55	3
Operations							
Localized Significance Thresholds[d]	N/A	194	4,119	N/A	21	7	N/A
Regional Significance Thresholds	55	55	550	150	150	55	3

[a] The proposed project would result in no lead emissions during construction or operations due to the prohibition of lead in fuels. As such, lead emissions are not evaluated herein.

[b] Localized thresholds for construction based on a 1-acre construction site and 200-meter distance to receptors within SRA 7 (East San Fernando Valley). SCAQMD has not developed LSTs for VOC, SO_2, or Pb emissions.

[c] Localized thresholds for construction based on a 5-acre construction site and 50-meter distance to receptors within SRA 7. SCAQMD has not developed LSTs for VOC, SO_2, or Pb emissions.

[d] Localized thresholds for operation based on a 5-acre construction site and 200-meter distance to receptors within SRA 7. SCAQMD has not developed LSTs for VOC, SO_2, or Pb emissions.

Source: SCAQMD 2008, 2019.

For operations, emissions from onsite sources would occur throughout the entire site. Therefore, the maximum allowed acreage within the LST methodology of 5 acres is utilized for the operational analysis. A 200-meter receptor distance is used based on the proposed onsite stationary source (at proposed ambulatory care center) to the nearest offsite receptor (multifamily residences south of Olive View Drive).

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

In December 2018, the California Supreme Court issued its decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502), hereafter referred to as the Friant Ranch Decision. The case reviewed the long-term regional air quality analysis contained in the EIR for the proposed Friant Ranch development project, is a 942-acre Master Plan development in unincorporated Fresno County, within the San Joaquin Valley Air Basin, which is currently in nonattainment for the ozone and $PM_{2.5}$ NAAQS and CAAQS. The court found that the air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The court's decision clarifies that environmental documents must connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

As discussed in Section 3.2.2, *Regulatory Setting*, of this Final EIR, all criteria pollutants that would be generated by the proposed project are associated with some form of health risk (e.g., asthma). Criteria pollutants can be classified as either regional or localized pollutants: regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source, and localized pollutants affect ambient air quality near the emissions source. Ozone is considered a regional criteria pollutant, whereas CO, NO_2, SO_2, and Pb are localized pollutants. PM can be both a local and a regional pollutant, depending on its composition. As discussed above, the primary criteria pollutants of concern generated by the project are ozone precursors (ROG and NO_X), CO, and PM (including DPM).

Regional Project-Generated Criteria Pollutants (Ozone Precursors and Regional PM)

Adverse health effects induced by regional criteria pollutant emissions generated by the proposed project (ozone precursors and PM) are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). For these reasons, ozone precursors (ROG and NO_X) contribute to the formation of ground-borne ozone on a regional scale, where emissions of ROG and NO_X generated in one area may not equate to a specific ozone concentration in that same area. Similarly, some types of particulate pollutant may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased ozone or regional PM concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to an individual project.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. While there are models capable of quantifying ozone and secondary PM formation and associated health effects, these tools were developed to support regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating project-generated criteria pollutants to the locations where specific health effects could occur or the resultant number of additional days of nonattainment cannot be estimated with a high degree of accuracy for relatively small projects (relative to the regional air basin).

Technical limitations of existing models to correlate project-level regional emissions to specific health consequences are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and SCAQMD, both of which provided amici curiae briefs for the Friant Ranch legal proceedings. In its brief, SJVAPCD (2015) acknowledges that while health risk assessments for localized TACs, such as DPM, are commonly prepared, "it is not feasible to conduct a similar analysis for criteria air pollutants

because currently available computer modeling tools are not equipped for this task." The air district further notes that emissions solely from the Friant Ranch project (which equate to less than 0.1 percent of the total NO_X and VOC in the Valley) is not likely to yield valid information," and that any such information should not be "accurate when applied at the local level." SCAQMD (2015b) presents similar information in their brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels."[1]

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations and attainment or nonattainment designations under the NAAQS and CAAQS, both of which are informed by a wide range of scientific evidence that demonstrates there are known safe concentrations of criteria pollutants. While recognizing that air quality is cumulative problem, air districts typically consider projects that generate criteria pollutant and ozone precursor emissions below these thresholds to be minor in nature and would not adversely affect air quality such that the NAAQS or CAAQS would be exceeded. Emissions generated by the project could increase photochemical reactions and the formation of tropospheric ozone and secondary PM, which at certain concentrations, could lead to increased incidence of specific health consequences. Although these health effects are associated with ozone and particulate pollution, the effects are a result of cumulative and regional emissions. As such, a project's incremental contribution cannot be traced to specific health outcomes on a regional scale, and a quantitative correlation of project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis.

Localized Project-Generated Criteria Pollutants (PM and CO) and Air Toxics (DPM)

Localized pollutants generated by a project are deposited and potentially affect population near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts to adjacent sensitive receptors. Models and thresholds are readily available to quantify these potential health effects and evaluate their significance. Locally adopted thresholds and analysis procedures for the localized pollutants of concern associated with the proposed project (DPM and CO)[2] are identified below.

Toxic Air Contaminants

Regarding sensitive receptors' exposure to substantial pollutant concentrations, SCAQMD states that the project would have a significant impact from TACs if:

- TACs increase the non-cancer health risk due to short-term (i.e., acute) or long-term (i.e., chronic) exposures. The screening risk assessment for those TACs must estimate the acute and/or chronic Hazard Index, as applicable. Onsite stationary sources emit carcinogenic or TACs that individually or cumulatively exceed the maximum incremental cancer risk of 10 in 1 million (1.0×10^{-5}) or an acute or chronic Hazard Index of 1.0 (SCAQMD 2005, 2011c).

[1] For example, SCAQMD's analysis of their 2012 Air Quality Attainment Plan showed that modeled NO_X and ROG reductions of 432 and 187 tons per day, respectively, only reduced ozone levels by 9 parts per billion. Analysis of SCAQMD's Rule 1315 showed that emissions of NO_X and ROG of 6,620 and 89,180 pounds per day, respectively, contributed to 20 premature deaths per year and 89,947 school absence (SCAQMD 2015a).

[2] Although SO_2, NO_2, and Pb may also concentration locally, the project does not represent a significant source of these pollutants at the local level. Accordingly, they are not discussed or evaluated further.

- Hazardous materials associated with onsite stationary sources result in an accidental release of air toxic emissions or acutely hazardous materials, posing a threat to public health and safety (SCAQMD 1993).

Carbon Monoxide Hot Spots

Regarding carbon monoxide hot spots, SCAQMD states that a project impact is significant if it causes or contributes to an exceedance of the following attainment standards:

- 1-hour standards of 20 ppm (state) and 35 ppm (federal), and
- 8-hour standards of 9.0 ppm (state) and 9 ppm (federal).

Cumulative Impacts

Potential cumulative air quality impacts would result when other projects' pollutant emissions combine to degrade air quality conditions below acceptable levels. This could occur on a local level (e.g., increased vehicle emissions at congested intersections or concurrent construction activities at sensitive receptor locations) or a regional level (e.g., potential O_3 impacts from multiple past, present, and reasonably foreseeable projects within the Basin). Given that both localized and regional pollution is regulated at the air basin level, the Basin is the resource study area for the purposes of air quality.

The Basin experiences chronic exceedances of the NAAQS and CAAQS and is currently in nonattainment status for various pollutants. These nonattainment conditions within the region are considered cumulatively significant. SCAQMD thresholds have been established to ensure attainment of the NAAQS and CAAQS; therefore, an exceedance of SCAQMD threshold levels must be considered a significant cumulative impact and an adverse cumulative consequence.

3.2.4.3 Impacts and Mitigation Measures

Impact AQ-1: Would the Proposed Project Conflict or Obstruct Implementation of the Applicable Air Quality Plan?

Construction and Operational Impacts

Tiers I and II

SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Basin is in nonattainment status. SCAQMD's most recent plan to achieve air quality standards is the 2016 AQMP, adopted by the SCAQMD Governing Board on March 3, 2017. The AQMP outlines a comprehensive control strategy to meet the requirement for expeditious progress toward attainment of the 2006 24-hour $PM_{2.5}$ NAAQS through all feasible control measures and includes specific measures for implementing the O_3 strategy from previous AQMPs and attaining the 8-hour ozone standard by 2031 for the 2008 standard (SCAQMD 2017). These strategies are based, in part, on regional population, housing, and employment projections prepared by the region's cities and counties and incorporated by SCAG. As such, projects that propose development that is consistent with the growth anticipated in the relevant land use plans utilized in the formulation of the AQMP are considered to be consistent with the AQMP. As discussed in Section 3.10, *Land Use/Planning*, of this Final EIR, the proposed project falls under the jurisdiction of Los Angeles County because the project site is owned and maintained by the County. However, the project is located within the

Sylmar Community Plan (Sylmar Plan), a part of the General Plan of the city of Los Angeles. Although these documents are not binding on a County project, the consistency of the proposed project with the city's General Plan (as well as the Los Angeles County 2035 General Plan) has been analyzed. Projects that propose development consistent with the growth anticipated in these land use documents are considered consistent with the AQMP.

As discussed in Section 3.10, *Land Use/Planning*, of this Final EIR, the project would be consistent with both the County and city general plans and the goals of SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The proposed project would guide development in the short- and long-term at the Olive View–UCLA Medical Center Campus, with new medical, mental health, and support facilities. Buildout of the proposed project would increase development within the campus, which would increase motor vehicle travel to the site. The Master Plan would include utilization of sustainable design practices, including energy and water efficiency measures, implementation of Leadership in Energy and Environmental Design (LEED) and California Green Building Standards Code (CALGreen) program goals, creation of pedestrian and bicycle paths to promote alternative forms of transportation, and siting near existing transit services. However, while growth is anticipated, the proposed project would be consistent with the current land use designations. The proposed project would be generally supportive of the relevant environmental policies and objectives of the *County of Los Angeles General Plan Land Use Element, Mobility Element*, and the city of Los Angeles Sylmar Plan. Therefore, pursuant to SCAQMD guidelines, because the project would be consistent with the land use designations in the relevant plans and regional planning documents (SCAG RTP/SCS), the proposed project is considered consistent with the region's AQMP. As such, project-related emissions are accounted for in the AQMP, which has been developed to bring the Basin into attainment for all criteria and precursor pollutant standards. The proposed project would not conflict with or obstruct implementation of the applicable air quality plan. This impact is considered less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

No mitigation is required, and impacts would be less than significant.

Impact AQ-2: Would the Proposed Project Result in a Cumulatively Considerable Net Increase in a Criteria Pollutant for which the Project Region Is a Nonattainment Area for an Applicable Federal or State Ambient Air Quality Standard?

Construction Impacts

Tier I

Regional Mass Emissions

Construction of the proposed project would generate air pollutant emissions from the use of heavy-duty construction equipment, construction worker vehicle trips, material deliveries, and trips by heavy-duty haul trucks. In addition, earthwork activities would result in fugitive dust emissions, and paving operations would release VOCs from off-gassing. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts

considers each of these potential sources. Fugitive PM_{10} and $PM_{2.5}$ emissions estimates take into account compliance with SCAQMD Rule 403.

Construction-related emissions are shown in Table 3.2-5, below. To provide a conservative analysis scenario that likely overstates impacts, the analysis herein assumes that all Restorative Care Village structures would be under construction concurrently and soon afterward, the Ambulatory Care Center, parking structure, administration, Community Center, Materials Management/Supply Services Building, and Central Plant East would be constructed concurrently. As shown in Table 3.2-5, maximum daily project-related criteria and precursor pollutant emissions would not exceed any SCAQMD regional construction-period thresholds with the exception for an exceedance of the VOC standard during the architectural coatings phase. Therefore, mitigation is proposed to reduce emissions.

Table 3.2-5. Tier I Daily Construction-Period Regional Mass Emissions–Unmitigated (pounds per day)

Project Element	ROG[a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Restorative Care Village						
Demolition	2	21	15	<1	1	1
Site Preparation	2	22	9	<1	3	2
Grading	1	17	7	<1	3	2
Building Construction	2	16	15	<1	1	1
Paving	1	8	9	<1	1	<1
Architectural Coatings	39	2	2	<1	<1	<1
Maximum Daily Regional Emissions	**39**	**22**	**15**	**<1**	**3**	**2**
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Exceed Significance Threshold?	No	No	No	No	No	No
Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/ Supply Services Building, and Central Plant East						
Demolition	3	40	24	<1	5	2
Site Preparation	5	69	29	<1	11	6
Grading	3	54	23	<1	5	3
Building Construction (2021)	4	31	32	<1	4	2
Building Construction (2022)	3	29	31	<1	3	2
Paving	1	11	15	<1	1	1
Architectural Coatings	131	2	4	<1	<1	<1
Maximum Daily Regional Emissions	**131**	**69**	**32**	**<1**	**11**	**6**
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Exceed Significance Threshold?	Yes	No	No	No	No	No

[a] The terms VOC and reactive organic gases (ROG) are used interchangeably. ROG is used in this table based on CalEEMod.
Source: Emissions estimates using CalEEMod version 2016.3.2 (see Appendix C of this Final EIR).

In addition, the Restorative Care Village is assumed to begin operation in 2021 when construction activities would begin for the Ambulatory Care Center, parking structure, administration, Community Center, Materials Management/Supply Services Building, and Central Plant East. As

such, the operational emissions associated with the Restorative Care Village would overlap with the construction emissions associated with the Ambulatory Care Center, parking structure, administration, Community Center, Materials Management/Supply Services Building, and Central Plant East. Based on SCAQMD's recommendation, a project's overlapping construction and operational emissions should be combined and the resulting emissions total should be evaluated against SCAQMD's regional operational thresholds. The maximum daily overlapping construction and operational emissions for Tier I are shown in Table 3.2-6.

Table 3.2-6. Tier I Construction and Operational Overlap Scenario Daily Regional Mass Emissions–Unmitigated (pounds per day)

Project Element	ROG[a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Restorative Care Village						
Daily Operational Emissions[b]	4	15	30	<1	9	3
Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/ Supply Services Building, and Central Plant East						
Maximum Daily Construction Emissions	131	69	32	<1	11	6
Total Maximum Daily Overlapping Emissions[c]	**135**	**85**	**62**	**<1**	**19**	**9**
SCAQMD Regional Operational Threshold	55	55	550	150	150	55
Exceed Significance Threshold?	Yes	Yes	No	No	No	No

[a] The terms VOC and ROG are used interchangeably. ROG is used in this table based on CalEEMod.
[b] Accounts for emissions from area, energy, and mobile sources associated with the Restorative Care Village along with estimated emissions from permitted stationary sources that may potentially occur. The permitted stationary source emissions are based on SCAQMD FIND data from 2016, scaled up by 6 percent to capture the increase in development in the Tier I boundary from the Restorative Care Village (83,391 square feet of development).
[c] Totals may not add up precisely due to rounding.
Source: Emissions estimates using CalEEMod version 2016.3.2 (see Appendix C of this Final EIR).

As shown in Table 3.2-6, the overlap of the daily operational emissions for the Restorative Care Village and the daily maximum construction emissions for a the Ambulatory Care Center, parking structure, administration, Community Center, Materials Management/Supply Services Building, and Central Plant East would result in total daily emissions that would exceed the SCAQMD's regional operational thresholds. Therefore, mitigation is proposed to reduce these overlapping emissions.

To reduce the construction emissions (shown in Table 3.2-5) and overlapping construction and operational emissions (shown in Table 3.2-6) that would occur during Tier I, mitigation measures **MM-AQ-1**, which would require low-VOC coatings beyond SCAQMD requirements for non-residential uses, and **MM-AQ-2**, which would require the use of off-road equipment that meets or exceeds EPA Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during construction, would be implemented to reduce VOC and NO_X emissions. As shown in Table 3.2-7, implementation of **MM-AQ-1** and **MM-AQ-2** would reduce the Tier I construction emissions to below SCAQMD thresholds. Additionally, implementation of **MM-GHG-C1** (refer to Section 3.7, *Greenhouse Gas Emissions*, of this Final EIR), which would implement idling time restrictions, compliance with manufacturer's equipment specifications, potential use of alternative fuels, and use of local and recycled materials, would further reduce air pollutant emissions during construction.

Impacts associated with Tier I construction emissions would be less than significant with mitigation incorporated.

Table 3.2-7. Tier I Daily Construction-Period Regional Mass Emissions–Mitigated (pounds per day)

Project Element	ROG[a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Restorative Care Village						
Demolition	<1	1	15	<1	<1	<1
Site Preparation	<1	5	10	<1	2	1
Grading	<1	3	8	<1	2	1
Building Construction	1	7	16	<1	1	<1
Paving	<1	1	11	<1	<1	<1
Architectural Coatings	12	<1	2	<1	<1	<1
Maximum Daily Regional Emissions	12	5	15	<1	2	1
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Exceed Significance Threshold?	No	No	No	No	No	No
Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/ Supply Services Building, and Central Plant East						
Demolition	1	10	26	<1	3	1
Site Preparation	1	31	28	<1	9	4
Grading	1	31	25	<1	4	2
Building Construction (2021)	2	17	34	<1	3	1
Building Construction (2022)	2	16	32	<1	3	1
Paving	<1	1	18	<1	<1	<1
Architectural Coatings	40	<1	4	<1	<1	<1
Maximum Daily Regional Emissions	**40**	**31**	**34**	**<1**	**9**	**4**
SCAQMD Regional Construction Threshold	75	100	550	150	150	55
Exceed Significance Threshold?	No	No	No	No	No	No

[a] The terms VOC and ROG are used interchangeably. ROG is used in this table based on CalEEMod.
Source: Emissions estimates using CalEEMod version 2016.3.2 (see Appendix C of this Final EIR).

Additionally, as shown in Table 3.2-8, implementation of **MM-AQ-1** and **MM-AQ-2** would also reduce the Tier I overlapping construction and operational emissions to below SCAQMD's regional operational thresholds. Impacts associated with Tier I overlapping construction and operational emissions would be less than significant with mitigation incorporated.

Table 3.2-8. Tier I Construction and Operational Overlap Scenario Daily Regional Mass Emissions–Mitigated (pounds per day)

Project Element	ROG[a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Restorative Care Village						
Daily Operational Emissions[b]	4	15	30	<1	9	3
Ambulatory Care, Parking Structure, Administration, Community Center, Materials Management/ Supply Services Building, and Central Plant East						

Project Element	ROG[a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Maximum Daily Construction Emissions	40	31	34	<1	9	4
Total Maximum Daily Overlapping Emissions[c]	**44**	**46**	**63**	**<1**	**17**	**8**
SCAQMD Regional Operational Threshold	55	55	550	150	150	55
Exceed Significance Threshold?	No	No	No	No	No	No

[a] The terms VOC and ROG are used interchangeably. ROG is used in this table based on CalEEMod.
[b] Accounts for emissions from area, energy, and mobile sources associated with the Restorative Care Village along with estimated emissions from permitted stationary sources that may potentially occur. The permitted stationary source emissions are based on SCAQMD FIND data from 2016, scaled up by 6 percent to capture the increase in development in the Tier I boundary from the Restorative Care Village (83,391 square feet of development).
[c] Totals may not add up precisely due to rounding.
Source: Emissions estimates using CalEEMod version 2016.3.2 (see Appendix C of this Final EIR).

Localized Emissions

Localized emissions would result from construction activities that would occur at the site and in the immediate vicinity of project area sensitive receptors. Onsite construction equipment emissions are considered, as well as 10 percent of offsite emissions to account for haul truck emissions on and around the project site. Table 3.2-9 shows both the unmitigated and mitigated (implementation of **MM-AQ-1** and **MM-AQ-2**) onsite emissions estimates for each of the modeled elements of the proposed project. As shown therein, no exceedances of the LSTs would occur from the Tier I unmitigated emissions, and impacts would be less than significant for Tier I without mitigation. Nonetheless, implementation of **MM-AQ-1** and **MM-AQ-2** would further reduce the Tier I localized construction emissions within the project site.

Table 3.2-9. Tier I Daily Construction-Period Localized Onsite Emissions (pounds per day)

Project Element	NO_X	CO	PM_{10}	$PM_{2.5}$
Restorative Care Village – Unmitigated				
Demolition	21	15	1	1
Site Preparation	19	8	3	2
Grading	15	7	3	2
Building Construction	15	13	1	1
Paving	8	9	<1	<1
Architectural Coatings	2	2	<1	<1
Maximum Daily Onsite Emissions[a]	**21**	**15**	**3**	**2**
SCAQMD Localized Significance Threshold[b]	122	2,227	54	18
Exceed Significance Threshold?	No	No	No	No
Restorative Care Village – Mitigated				
Demolition	1	15	<1	<1
Site Preparation	1	9	2	1
Grading	1	7	2	1
Building Construction	6	14	<1	<1
Paving	1	10	<1	<1

Project Element	NO_X	CO	PM_{10}	$PM_{2.5}$
Architectural Coatings	<1	2	<1	<1
Maximum Daily Onsite Emissions[a]	**6**	**14**	**2**	**1**
SCAQMD Localized Significance Threshold[b]	122	2,227	54	18
Exceed Significance Threshold?	No	No	No	No
Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/ Supply Services Building, and Central Plant East - Unmitigated				
Demolition	32	22	4	2
Site Preparation	43	22	9	6
Grading	28	17	4	2
Building Construction (2021)	19	18	1	1
Building Construction (2022)	17	18	1	1
Paving	11	15	1	1
Architectural Coatings	1	2	<1	<1
Maximum Daily Onsite Emissions[a]	**43**	**22**	**9**	**6**
SCAQMD Localized Significance Threshold[c]	165	1,872	42	10
Exceed Significance Threshold?	No	No	No	No
Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/ Supply Services Building, and Central Plant East - Mitigated				
Demolition	3	24	3	<1
Site Preparation	5	22	7	4
Grading	4	18	3	1
Building Construction (2021)	4	19	<1	<1
Building Construction (2022)	4	19	<1	<1
Paving	1	17	<1	<1
Architectural Coatings	<1	2	<1	<1
Maximum Daily Onsite Emissions[a]	**5**	**24**	**7**	**4**
SCAQMD Localized Significance Threshold[c]	165	1,872	42	10
Exceed Significance Threshold?	No	No	No	No

[a] Accounts for onsite emissions identified in the CalEEMod run as well as 10 percent of offsite emissions to ensure that onsite haul truck emissions are captured.

[b] Localized thresholds for construction based on a 1-acre construction site and 200-meter distance to receptors within SRA 7 (East San Fernando Valley). SCAQMD has not developed LSTs for VOC, SO_2, or Pb emissions.

[c] Localized thresholds for construction based on a 5-acre construction site and 50-meter distance to receptors within SRA 7 (East San Fernando Valley). SCAQMD has not developed LSTs for VOC, SO_2, or Pb emissions.

Source: Emissions estimates using CalEEMod version 2016.3.2 (see Appendix C of this Final EIR).

Tier II

Tier II would involve the development of new hospital, research and development, retail, and utility plant land uses predominantly on the western portion of the campus, as well as the demolition of some existing uses at the site. Because details about Tier II are unknown, emissions associated with construction activities have not been quantified. As discussed above for Tier I, the implementation of Tier II would result in the generation of air pollutant emissions from heavy-duty construction equipment, construction worker vehicle trips, material deliveries, heavy-duty haul truck trips, earthwork activities, and other construction activities. Such emissions could exceed construction

thresholds for regional and localized pollutant emissions depending on the schedules, equipment used, and material movement required. In the event that Tier II construction activities result in emissions that exceed regional or localized standards at the time plans for Tier II are developed further, **MM-AQ-3** and **MM-AQ-4** will be implemented to ensure that impacts are minimized to the extent feasible. Additionally, implementation of **MM-GHG-C1** (refer to Section 3.7, *Greenhouse Gas Emissions*, of this Final EIR), which would implement idling time restrictions, compliance with manufacturer's equipment specifications, potential use of alternative fuels, and use of local and recycled materials, would further reduce air pollutant emissions during construction. Although **MM-AQ-3** and **MM-AQ-4**, along with **MM-GHG-C1**, would control construction-period emissions under Tier II, it cannot be stated with certainty that emissions would be below applicable regional or localized emissions thresholds. Thus, construction impacts could be significant and unavoidable for Tier II.

Mitigation Measures

The following measures are proposed to mitigate Impact **AQ-2**, above.

Tiers I and II

MM-AQ-1: To reduce VOC emissions during construction, the County (or its contractors) will use low-VOC coatings that surpass the requirements of SCAQMD Rule 1113 and have a VOC content of 15 grams per liter (g/L) or less during construction.

MM-AQ-2: To minimize particulate matter and NO_X emissions during construction of Tier I projects, the County (or its contractors) will use off-road equipment that meets or exceeds EPA Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during construction. Such equipment will be outfitted with Best Available Control Technology (BACT) devices including, but not limited to, CARB-certified Level 3 Diesel Particulate Filter (DPF) or equivalent.

Tier II

MM-AQ-3: In the event that construction-period emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following measures to achieve emissions reductions:

1. For exceedances of particulate matter or NO_X regional or localized significance thresholds, the County (or its contractors) will:
    a. Use off-road equipment that meets or exceeds EPA Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during all phases of construction;
    b. Outfit all off-road equipment with BACT devices, including, but not be limited to, CARB-certified Level 3 DPFs;
    c. Require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year or newer trucks (e.g., material delivery trucks and soil and aggregate import/export) that meet CARB's 2010 engine emission standards of 0.01 gram per brake horsepower-hour (g/bhp-hr) of PM and 0.20 g/bhp-hr of NO_X emissions or newer, cleaner trucks; and

d. The aforementioned off-road and on-road requirements will be included in the County's applicable bid documents, and the awarded construction contractor must demonstrate the ability to successfully supply compliant equipment prior to commencement of any construction activities. A copy of each equipment unit's certified tier specification and, where applicable, CARB or SCAQMD operating permit will be made available to the Construction Monitor upon request at the time of mobilization of each applicable unit of equipment. All construction contractors supplying off-road equipment greater than 50 hp to the campus will be encouraged to apply for SCAQMD Surplus Off-Road Opt-In for NO_X (SOON) funds, and SCAQMD's website containing information about the program will be provided to each contractor.

2. In recognition that the Tier II developments would occur after 2035 and that more effective measures would likely be available at that time to reduce pollution emissions, the County (or its contractors) will implement all other current and feasible mitigations that are readily available for deployment at the time a Tier II project's details are known, which may include, but is not limited to, the use of construction equipment with the latest emission control systems/technologies that would result in emission reductions exceeding those achieved by presently available technologies (e.g., Tier 4 off-road equipment and 2010 model year or newer trucks). Such technologies may include zero-emission or near-zero off-road and on-road equipment that is readily available in the SCAB. To stay abreast of the latest available mitigation, the County will conduct a review of SCAQMD's Air Quality Analysis Handbook website on an annual basis to ensure that recommended mitigation measures by the District are considered for each future discretionary project.

MM-AQ-4: Prior to issuance of a grading permit for new individual projects occurring under the Tier II development phase that are 1 acre or larger, the County will conduct an air quality analysis of the localized emissions (NO_X, CO, PM_{10}, and $PM_{2.5}$) associated with the maximum daily grading activities for the proposed development. If the localized air quality analysis shows that emissions would exceed SCAQMD's air quality CEQA-localized thresholds for those emissions, mitigation identified in **MM-AQ-3** will be implemented and/or the maximum daily grading activities of the proposed development will be limited to the extent feasible.

Level of Significance after Mitigation

Tier I impacts would be less than significant with the implementation of **MM-AQ-1** and **MM-AQ-2**. However, impacts under Tier II are considered potentially significant and unavoidable after mitigation.

Operational Impacts

Tier I

Existing and proposed uses would result in emissions from similar sources, but in different quantities. Emissions associated with motor vehicle trips; onsite consumption of natural gas for space and water heating; onsite use of solvents and consumer products; and emissions associated with landscaping were estimated using trip generation data from the traffic analysis as well as CalEEMod defaults regarding area and energy sources for the various land uses.

As shown in Table 3.2-10, below, maximum daily project-related criteria pollutant emissions over existing conditions are not expected to exceed SCAQMD operations-period thresholds for any pollutant. Similarly, maximum daily project-related criteria pollutant emissions over future no-project conditions are not expected to exceed SCAQMD operations-period thresholds for any pollutant. Implementation of **MM-GHG-O1** (refer to Section 3.7, *Greenhouse Gas Emissions*, of this Final EIR), which would implement sustainability measures related to water and energy conservation and solid waste and vehicle trip reductions, would further reduce the project's operational emissions. Consequently, the impact of operations-related emissions from the project is considered less than significant.

With respect to onsite emissions, SCAQMD FIND data from 2016 was scaled up by 24 percent to capture the increase in development in the Tier I boundary (823,900 square feet to 1,170,491 square feet with completion of Tier 1), as well as the reduction in energy use intensity associated with new construction. Based on Figure 6.49 of the Master Plan, energy use intensity of new buildings planned would fall from the current 450 thousand British Thermal Units per square foot per year (kBtu/sf-yr) to approximately 250 kBtu/sf-yr. Tier I emissions would not exceed applicable LSTs, and impacts would be less than significant.

Table 3.2-10. Tier I Daily Operational Regional Mass Emissions (pounds per day)

Project Element	**ROG[a]**	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Existing Uses (2016)[b]						
Area	6	<1	<1	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile	22	90	295	1	50	14
Permitted Sources[c]	3	82	30	3	18	18
Total	31	173	325	4	68	32
Tier I Master Plan Uses–Restorative Care Village (2023)						
Area	2	<1	<1	<1	<1	<1
Energy	<1	1	1	<1	<1	<1
Mobile	2	9	27	<1	7	2
Total	*4*	*10*	*28*	*<1*	*7*	*2*
Tier I Master Plan Uses–Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/Supply Services Building, and Central Plant East (2023)						
Area	12	<1	<1	<1	<1	<1
Energy	1	6	5	<1	<1	<1
Mobile	16	64	227	1	76	21
Permitted Sources[d]	4	102	37	4	23	23
Total	*32*	*172*	*269*	*4*	*99*	*44*
Regional Daily Emissions– Tier I Master Plan over Existing Uses	**4**	**9**	**-28**	**1**	**38**	**14**
SCAQMD Regional Operational Threshold	55	55	550	150	150	55
Exceed Significance Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
Localized Daily Emissions– Tier I Master Plan over Existing Uses	**8**	**20**	**7**	**1**	**4**	**4**
SCAQMD Localized Significance Threshold	N/A	194	4,119	N/A	21	7

Project Element	ROG[a]	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
for Operation[e]						
Exceed Significance Threshold?	N/A	*No*	*No*	N/A	*No*	*No*

Note: Totals may not add up precisely due to rounding.

[a] The terms VOCs and ROG are used interchangeably. ROG is used in this table based on CalEEMod.

[b] Only net changes in square footage within the Tier 1 boundary were modeled under existing conditions. Because the existing hospital would remain in use before and after the implementation of Tier 1, it would not represent a change in operations.

[c] Based on SCAQMD FIND data for 2016. Particulate matter emissions were used for both PM_{10} and $PM_{2.5}$.

[d] Based on SCAQMD FIND data from 2016, scaled up by 24 percent to capture the increase in development in the Tier I boundary (823,900 square feet to 1,170,491 square feet with completion of Tier 1) and the reduction in energy use intensity from new construction. Based on Figure 6.49 of the Master Plan, energy use intensity of new buildings planned would fall from the current 450 kBtu/sf-yr to approximately 250 kBtu/sf-yr.

[e] 5-acre site with a 200-meter receptor distance in SRA 7. Distance measured from proposed onsite stationary source (at proposed ambulatory care center) to the nearest offsite receptor (multifamily residences south of Olive View Drive).

N/A = Not applicable, as no LST has been developed.

Source: Emissions estimates using CalEEMod version 2016.3.2 (see Appendix C of this Final EIR).

Tier II

Operation of Tier II would involve emissions of air pollutants from building natural gas use, stationary sources, worker and visitor vehicle trips, and other sources. Because details about Tier II are unknown, emissions associated with operational activities under Tier II have not been quantified. Emissions under Tier II could exceed operational thresholds for regional and localized pollutant emissions depending on project details. In the event that Tier II operational activities result in emissions that exceed regional or localized standards at the time plans for Tier II are developed further, **MM-AQ-5** will be implemented to ensure that impacts are minimized to the extent feasible. Additionally, implementation of **MM-GHG-O1** (refer to Section 3.7, *Greenhouse Gas Emissions*, of this Final EIR), which would implement sustainability measures related to water and energy conservation and solid waste and vehicle-trip reductions, would reduce the project's operational emissions. Although **MM-AQ-5** and **MM-GHG-O1** would control operational emissions under Tier II, it cannot be stated with certainty that emissions would be below applicable regional or localized emissions thresholds. Thus, impacts would be significant and unavoidable for Tier II.

Mitigation Measures

MM-AQ-5: In the event that operational emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following to achieve emissions reductions upon construction:

1. Increase energy efficiency by at least 10 percent beyond the Title 24 standard in place at the time of construction, unless demonstrated to be infeasible;
2. Utilize low VOC coatings (VOC content less than or equal to 25 grams per liter) for periodic painting and facility upkeep;
3. Install solar water heaters;
4. Maximize interior day light and utilize high efficiency lighting;
5. Increase roof/ceiling insulation beyond the American Society of Heating, Refrigeration and Air Conditioning Engineers Standard 90.1-2010;

6. Install weather-based irrigation controllers to reduce outdoor water consumption;
7. Implement travel demand reduction measures (TDM) for employees, including, but not necessarily limited to measures such as:
    a. Providing bicycle parking for at least five percent of full-time-equivalent campus employees;
    b. Providing preferential carpool spaces within proposed parking structures on the campus; or
    c. Providing shuttles for visitors and employees from Metrolink and/or Metro Rail stations to reduce vehicle trips.
8. Incorporate onsite renewable energy production, including installation of photovoltaic cells or other options; and
9. The County will give preference to vendors that use zero-emission and near-zero emission on-road haul trucks in their vehicle fleet, as opposed to diesel-powered trucks.

Level of Significance after Mitigation

Tier I operational impacts would be less than significant. However, operational impacts under Tier II are considered significant and unavoidable after mitigation. Feasible mitigation has been identified under **MM-AQ-5.**

Impact AQ-3: Would the Proposed Project Expose Sensitive Receptors to Substantial Pollutant Concentrations?

Construction Impacts

Tier I

As discussed above, construction activities under Tier I would occur near sensitive receptors, including residences near the project site. Thus, construction activities, including the use of diesel-fueled equipment, haul trucks, and fugitive dust emissions would occur near sensitive receptors. However, as shown in Table 3.2-9, above, none of the unmitigated emissions from the project elements would exceed LSTs established to identify potential impacts on receptors near sources of pollutant emissions, and impacts would be less than significant.

Cancer Risks

Based on the HRA performed using AERMOD and estimated PM_{10} exhaust emissions generated by onsite construction activities, the incremental cancer risks to the maximally exposed individual resident in the project site resulting from exposure to DPM emissions were determined. As shown in Table 3.2-11, none of the maximum construction-related health risks would exceed SCAQMD's maximum incremental cancer risk threshold for TACs of 10 in 1 million. As such, the effect of project construction would not result in a significant increase in cancer risk at nearby residences. Details of the HRA are provided in Appendix C of this Final EIR.

Table 3.2-11. Tier I Construction-Period Health Risks

Project Element	Maximum DPM Concentration (ug/m3)	Exposure Duration	Incremental Cancer Risk to Maximally Exposed Individual Resident	Exceeds SCAQMD Threshold?
Restorative Care Village	0.0022	3rd trimester to age 1	0.39 in a million	No
Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/Supply Services Building, and Central Plant East	0.00495	3rd trimester to age 2	1.69 in a million	No

Source: Calculations in Appendix C of this Final EIR

Health Implications of Criteria Pollutants

As shown in Table 3.2-6, above, with implementation of **MM-AQ-1** and **MM-AQ-2**, the proposed project's estimated regional construction emissions during Tier I would not exceed any of SCAQMD's regional significance thresholds for criteria pollutants. Additionally, given that the proposed project's peak daily construction regional emissions of 40 pounds per day for VOC and 31 pounds per day for NO_X would not exceed 10 tons per year for either pollutant, the proposed project would represent a project of a size where it would not be feasible to directly correlate its emissions of VOC or NO_X with specific health impacts from ozone. Moreover, as shown in Tables 3.2-9, above, the estimated localized construction emissions associated with Tier I without mitigation would not exceed any of SCAQMD's LSTs for criteria pollutants. With implementation of **MM-AQ-1** and **MM-AQ-2**, the Tier I localized construction emissions would be further reduced. The LSTs represent emissions levels that would cause or contribute to a violation of any short-term NAAQS or CAAQS for a particular area, and since the project would not exceed these LSTs, the project would not cause or contribute to a violation of any health-protective standard. Accordingly, an analysis correlating the relatively minor emissions generated by the Tier I projects with specific levels of health impacts would not yield reliable or accurate results and has therefore not been conducted. Furthermore, it should be noted that the NAAQS and CAAQS are health-protective standards and define the maximum amount of ambient pollution that can be present without harming public health. SCAQMD's LSTs represent the level of pollutant emissions from onsite sources from a project that would not exceed the most stringent applicable federal or state ambient air quality standards. As such, projects with emissions below the applicable LSTs will not be in violation of the NAAQS or CAAQS, nor, thus, in EPA and CARB health protective standards. As shown in Tables 3.2-9, the maximum daily emissions would not exceed the applicable LSTs. Thus, there would be no violations of the health-protective CAAQS and NAAQS. Construction-period impacts related to exposing sensitive receptors to substantial pollutant concentrations under Tier I would be less than significant.

Tier II

Because details about Tier II are unknown, emissions associated with construction activities have not been quantified. As discussed above for Tier I, the implementation of Tier II would result in the generation of air pollutant emissions during construction activities. Such emissions could exceed construction thresholds and expose sensitive receptors to substantial pollutant concentrations,

depending on the schedules, equipment used, and material movement required. These emissions, if left unmitigated, could contribute to ozone ground-level formation in the Basin, which at certain concentrations, can contribute to short- and long-term human health effects. Certain individuals residing in areas that do not meet the CAAQS or NAAQS, including Los Angeles County, could be exposed to pollutant concentrations that cause or aggregative acute and/or chronic health conditions (e.g., asthma, lost work days, premature mortality). While implementation of the project would contribute to existing and future air pollution, project-generated construction emissions represent a fraction of Basin-wide ROG, NO_X, and $PM_{2.5}$ emissions. As previously discussed, the magnitude and locations of any potential changes in ambient air quality, and thus health consequences, from these additional emissions, cannot be quantified with a high level of certainty due to the dynamic and complex nature of pollutant formation and distribution (e.g., meteorology, emissions sources, sunlight exposure). Similar limitations exist for precisely modeling project-level health consequences of directly-emitted PM. However, it is known that public health will continue to be affected in Los Angeles County so long as the region does not attain the CAAQS or NAAQS.

In the event that Tier II construction activities result in emissions that exceed localized standards at the time plans for Tier II are developed further, **MM-AQ-3** will be implemented to ensure that impacts are minimized to the extent feasible. Additionally, implementation of **MM-GHG-C1** (refer to Section 3.7, *Greenhouse Gas Emissions*), which would implement idling time restrictions, compliance with manufacturer's equipment specifications, potential use of alternative fuels, and use of local and recycled materials, would further reduce air pollutant emissions during construction. Although **MM-AQ-3**, along with **MM-GHG-C1**, would control construction-period emissions under Tier II, it cannot be stated with certainty that emissions would be below applicable regional or localized emissions thresholds. Thus, impacts would be significant and unavoidable for Tier II.

Mitigation Measures

MM-AQ-1, **MM-AQ-2**, **MM-AQ-3**, and **MM-AQ-4**, above, would be implemented.

Level of Significance after Mitigation

Tier I impacts would be less than significant with the implementation of **MM-AQ-1** and **MM-AQ-2**. However, impacts under Tier II are considered significant and unavoidable after mitigation. Feasible mitigation for Tier II has been identified under **MM-AQ-3** and **MM-AQ-4**.

Operational Impacts

Tier I

As shown in Table 3.2-10, above, operational activities under Tier I would not exceed the applicable LST for operation, which were established to identify potential impacts on receptors near sources of pollutant emissions.

Health Implications of Criteria Pollutants

Also shown in Table 3.2-10, the proposed project's estimated regional and localized operational emissions would not exceed any of SCAQMD's significance thresholds for criteria pollutants. Given that the proposed project's net daily operational regional emissions of 4 pounds per day for VOC and 9 pounds per day for NO_X would not exceed 10 tons per year for either pollutant, the proposed project would represent a project of a size where it would not be feasible to directly correlate its emissions of VOC or NO_X with specific health impacts from ozone. Accordingly, the project would not

cause or contribute to a violation of any health-protective standards or define the maximum amount of ambient pollution that can be present without harming public health; an analysis correlating the relatively minor emissions generated by the project with specific levels of health impacts would not yield reliable or accurate results and therefore has not been conducted.

CO Hot Spots

Elevated levels of CO concentrations are typically found in areas with significant traffic congestion. CO is a public health concern because at high enough concentrations, it can cause health problems such as fatigue, headache, confusion, dizziness, and even death. However, it should be noted that ambient concentrations of CO have declined dramatically in California because of existing controls and programs. Most areas of the state, including the region in which the project is located, meet the state and federal CO standards (CARB 2004). As part of SCAQMD's 2003 AQMP, which is the most recent AQMP that addresses CO concentrations, a revision to the Federal Attainment Plan for Carbon Monoxide (CO Plan) that was originally approved in 1992 was provided that included a CO hot spots analysis at four specified heavily traveled intersections in Los Angeles at the peak morning and afternoon time periods. These four intersection locations selected for CO modeling are considered to be worst-case intersections that would likely experience the highest CO concentrations. The CO hot spots analysis in the 2003 AQMP did not predict a violation of CO standards at the four intersections. Of these four intersections, the busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which was described as the most heavily congested intersection in Los Angeles County, with an average daily traffic volume of approximately 100,000 vehicles per day. Based on the CO modeling, the 2003 AQMP estimated that the 1-hour concentration at this intersection was 4.6 ppm, which would not exceed the most stringent 1-hour CO standard of 20.0 ppm. In reviewing the project's Traffic Impact Analysis (see Section 3.15, *Transportation/Traffic*, of this Final EIR), it was determined that at buildout of Tier 1 (2035) the highest daily traffic volumes generated at the roadways within the vicinity of the proposed project would be a cumulative total of 13,735 vehicles per day at the intersection of Polk Street and the I-210 Eastbound Ramps intersection, which is approximately 14 percent of the vehicles per day at the busiest intersection in the 2003 AQMP's CO hot spots analysis, and is well under the applicable regulatory threshold. As such, it can be concluded that the proposed project would not exceed the most stringent 1-hour CO standard and no detailed CO hot spots analysis for the project would be required.

Furthermore, with respect to potential localized CO impacts at intersections resulting from increased vehicular traffic introduced by a project, the SCAQMD recommends performing a localized CO impact analysis for intersections that change from LOS C to D as a result of the project and for all intersections rated D or worse where the project increases the V/C ratio by 2 percent or more. In reviewing the Traffic Impact Analysis prepared for the proposed project (see Section 3.15, *Transportation/Traffic*, of this Final EIR), it was determined that development of the proposed project would not change the LOS values at any of the study intersections during or Tier I buildout (2035) conditions. Additionally, where the existing LOS at the study intersections were rated D or worse, the proposed project did not increase the V/C ratio by 2 percent or more. Thus, based on SCAQMD's recommended criteria, no localized CO impact analysis would need to be conducted, and impacts would be less than significant.

Tier II

Operation of Tier II would involve emissions of air pollutants from building natural gas use, stationary sources, worker and visitor vehicle trips, and other sources. Because details about Tier II are unknown, emissions associated with operational activities under Tier II have not been

quantified. Emissions under Tier II could exceed operational thresholds for regional and localized pollutant emissions depending on project details. These emissions, if left unmitigated, could contribute to ozone ground-level formation in the Basin, which at certain concentrations, can contribute to short- and long-term human health effects. Certain individuals residing in areas that do not meet the CAAQS or NAAQS, including Los Angeles County, could be exposed to pollutant concentrations that cause or aggregative acute and/or chronic health conditions (e.g., asthma, lost work days, premature mortality). While implementation of the project would contribute to existing and future air pollution, project-generated operational emissions represent a fraction of Basin-wide ROG, NO_X, and $PM_{2.5}$ emissions. As previously discussed, the magnitude and locations of any potential changes in ambient air quality, and thus health consequences, from these additional emissions cannot be quantified with a high level of certainty due to the dynamic and complex nature of pollutant formation and distribution (e.g., meteorology, emissions sources, sunlight exposure). Similar limitations exist for precisely modeling project-level health consequences of directly-emitted PM. However, it is known that public health will continue to be affected in Los Angeles County so long as the region does not attain the CAAQS or NAAQS.

In the event that Tier II operational activities result in emissions that exceed regional or localized standards at the time plans for Tier II are developed further, mitigation measure **MM-AQ-5** will be implemented to ensure that impacts are minimized to the extent feasible. Additionally, implementation of **MM-GHG-O1** (refer to Section 3.7, *Greenhouse Gas Emissions*, of this FEIR), which would implement sustainability measures related to water and energy conservation and solid waste and vehicle trip reductions, would reduce the project's operational emissions. Although **MM-AQ-5** and **MM-GHG-O1**, would control operational emissions under Tier II, it cannot be stated with certainty that emissions would be below applicable regional or localized emissions thresholds. Thus, impacts would be significant and unavoidable for Tier II.

Mitigation Measures

MM-AQ-5, above, would be implemented.

Level of Significance after Mitigation

Tier I impacts would be less than significant. However, impacts under Tier II are considered significant and unavoidable after mitigation. Feasible mitigation for Tier II has been identified under **MM-AQ-5**.

Impact AQ-4: Would the Proposed Project Result in Other Emissions (Such as Those Leading to Odors Adversely Affecting a Substantial Number of People)?

Construction and Operational Impacts

Tier I and II

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment facilities, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The proposed project includes none of these land uses. During the construction period, some limited odors may result from asphalt paving activities, which may be detectable by people immediately adjacent to work sites. However, asphalt paving would occur for a limited time period at each excavation site (less than 1 week), and the locations of paving activities would be distributed over several excavation sites at any one time. Furthermore, SCAQMD Rule 402 prohibits the discharge of air

contaminants that cause nuisance or annoyance to the public, including odors. Also, SCAQMD maintains both a toll-free phone line (1-800-CUT-SMOG) and a web-based platform (https://www.aqmd.gov/nav/online-services/complaints) for reporting complaints related to air quality, including odors. Given the limited duration and location of asphalt paving, mandatory compliance with SCAQMD Rule 402, and ability for the public to report complaints to SCAQMD, construction and operation would not create a significant level of objectionable odors. Impacts would be less than significant

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

No mitigation is required and impacts would be less than significant.

3.2.5 Cumulative

Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time. The study area for analysis of cumulative effects on air quality is the Basin, which experiences chronic exceedances of state and federal ambient air quality standards as a consequence of past and present projects and is subject to continued nonattainment status by reasonably foreseeable future projects. These nonattainment conditions within the region are considered cumulatively significant. Therefore, SCAQMD thresholds have been established to ensure attainment of the NAAQS and CAAQS.

As discussed above, the project is consistent with the AQMP and SIP. Furthermore, emissions would be below SCAQMD regional construction and operational thresholds for Tier I and would not result in substantial pollutant concentrations at nearby sensitive receptors during operations. However, emissions associated with construction and operation of Tier II of the proposed project have not been quantified as details have not been fully developed, and are therefore considered significant and unavoidable.

The proposed project would comply with SCAQMD rules and regulations, including Rule 403 (Fugitive Dust Control) and Rule 1108 (Cutback Asphalt), during construction as well as all other adopted AQMP emissions control measures while fully implementing buildout of the Master Plan. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, implementation of all feasible mitigation measures, and compliance with adopted AQMP emissions control measures) would also be imposed on all projects Basin-wide, which would include all nearby projects.

Cumulative impacts on Basin air quality with respect to criteria pollutant emissions would be less than significant for Tier I, but could exceed applicable thresholds under Tier II. Therefore, the project's long-term contribution to regional cumulative air quality impacts would be cumulatively considerable. **MM-AQ-1** through **MM-AQ-5,** along with **MM-GHG-C1** and **MM-GHG-O1** (refer to Section 3.7, *Greenhouse Gas Emissions*, of this FEIR)**,** would be implemented to reduce cumulative impacts, but impacts would remain cumulatively considerable.

3.3 Biological Resources

3.3.1 Introduction

This section identifies biological resources that are present within the limits of the Olive View–UCLA Medical Center Campus Master Plan area and an appropriate buffer area (study area), evaluates potential impacts on those resources as result of the proposed project, and identifies measures to mitigate any significant or potentially significant impacts.

3.3.1.1 Methods Used to Identify Biological Resources

The methods used to identify biological resources in the study area consisted of a pre-field literature review and field surveys.

Pre-field Literature Review

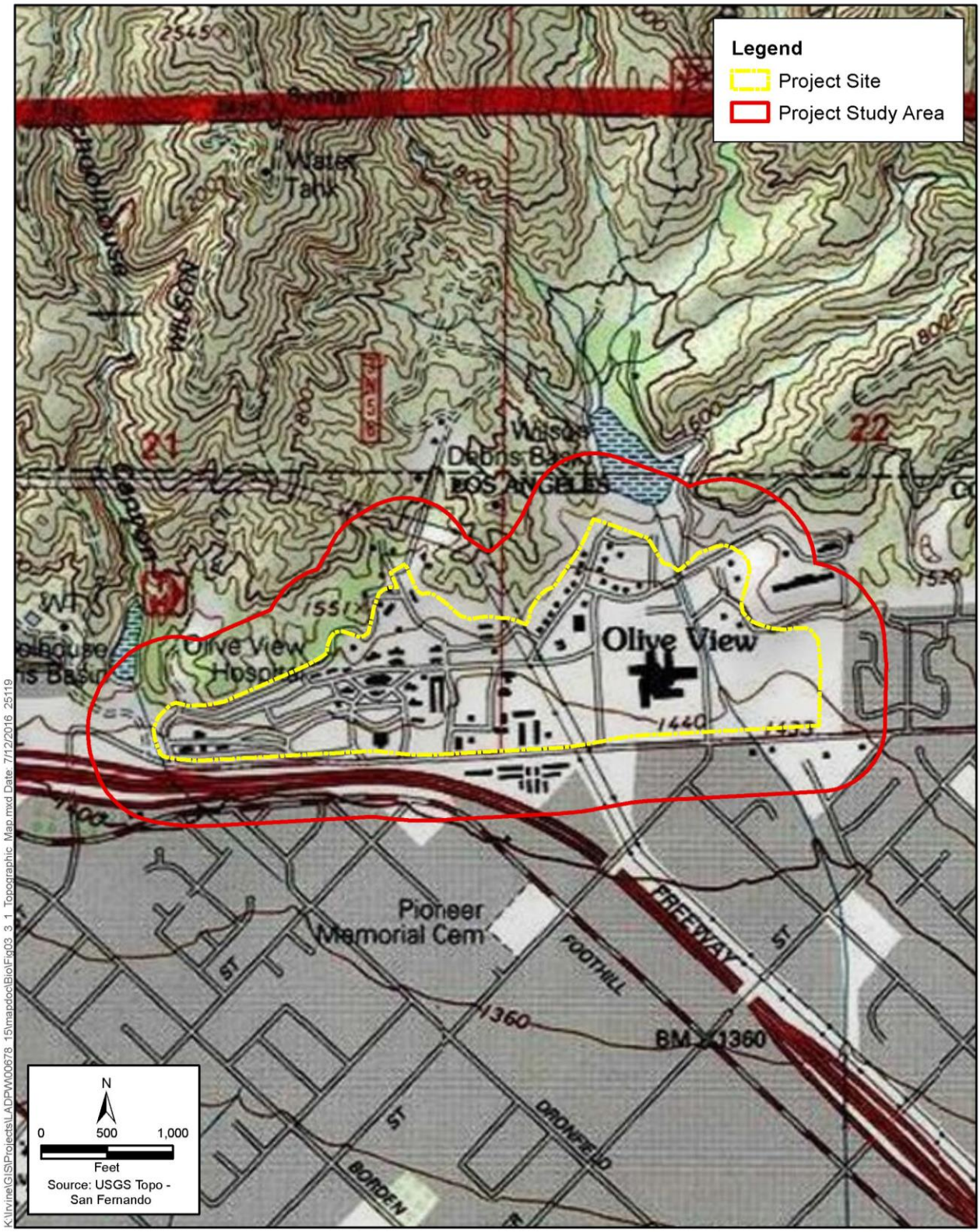
Prior to field surveys, ICF biologists conducted a comprehensive literature review to identify potential special-status species and jurisdictional waters that may be found in the vicinity of the study area. Pertinent sources reviewed were:

- California Natural Diversity Database (CNDDB) (California Department of Fish and Wildlife [CDFW] 2016a) for the 7.5-minute U.S. Geological Survey quadrangle maps in the project vicinity: San Fernando, Newhall, Mint Canyon, Agua Dulce, Oat Mountain, Sunland, Canoga Park, Van Nuys, and Burbank (see Appendix D of this Final EIR).
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2016) for the 7.5-minute U.S. Geological Survey quadrangle maps in the project vicinity: San Fernando, Newhall, Mint Canyon, Agua Dulce, Oat Mountain, Sunland, Canoga Park, Van Nuys, and Burbank (see Appendix D of this Final EIR).
- Most recent United States Fish and Wildlife Service (USFWS) critical habitat maps (USFWS 2016a).

In addition, resources databases, aerial photos, United States Geological Survey (USGS) topographical maps (Figure 3.3-1), and other available and relevant data were reviewed to determine watershed characteristics and the location/types of aquatic resources that may be present within the study area, including:

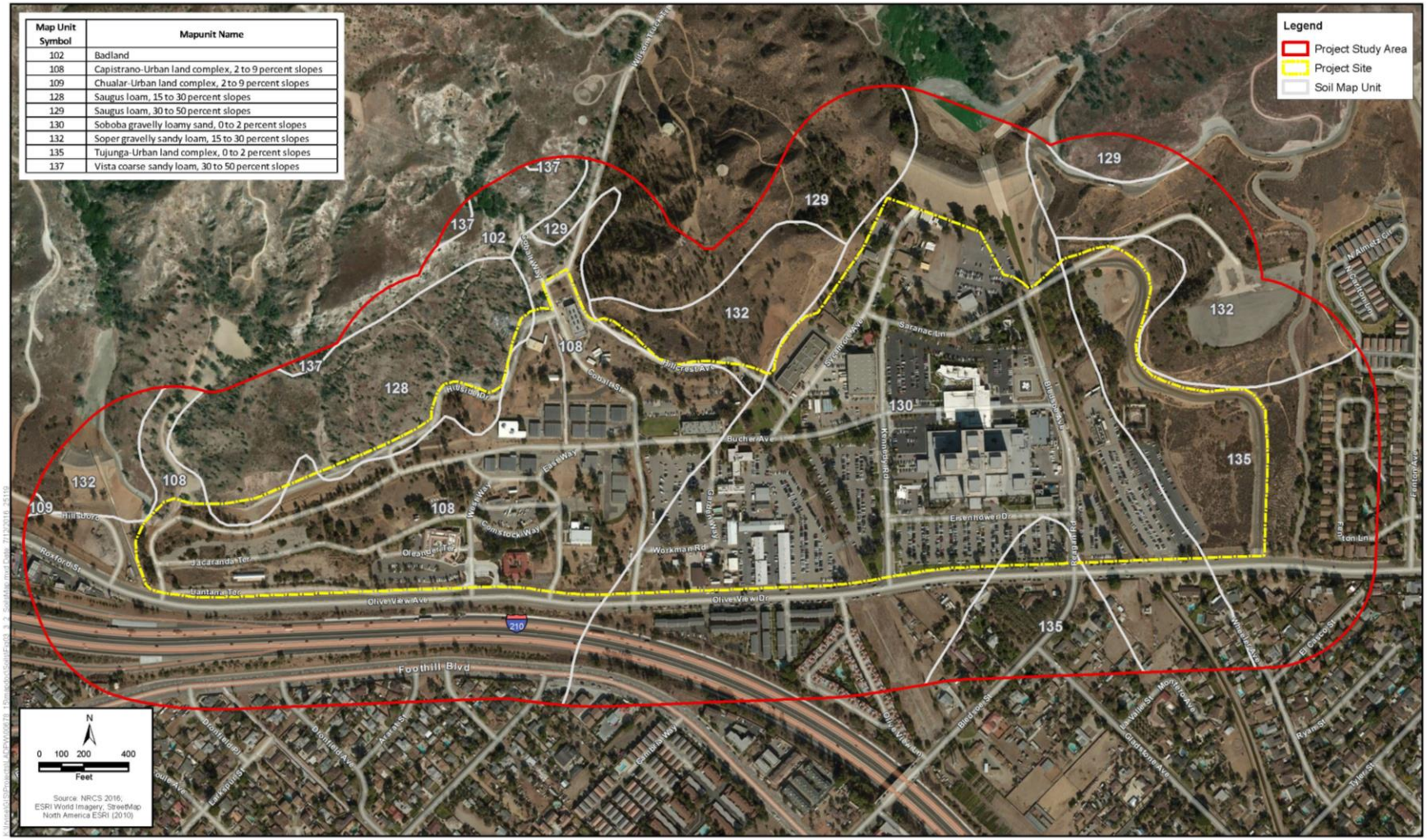
- San Fernando USGS topographic quadrangle map (USGS 1997)
- Current and historical aerial photographs (Google Earth 2016)
- Natural Resource Conservation Service Soil Survey Geographic (SSURGO) Database (USDA/NRCS 2016) (Figure 3.3-2)
- National Wetlands Inventory (USFWS 2016b)

Figure 3.3-1. Topographic Map



Source: ICF 2016.

Figure 3.3-2. Soils



Source: ICF 2016.

Field Surveys

ICF biologists Dennis Miller and Keoni Calantas conducted a reconnaissance-level field survey on June 2, 2016, to identify and evaluate vegetation communities and perform habitat assessments for special-status plants, wildlife, and aquatic resources present or potentially present within the study area. Although the development of the Olive View–UCLA Medical Center Campus Master Plan (Master Plan) has been defined for the purposes of this Final EIR as occurring in two phases (Tier I and Tier II), the Master Plan area (project site) was surveyed collectively.

The reconnaissance-level field survey included an evaluation for the presence, absence, or likelihood of occurrence of special-status species and vegetation types and for general biological resources within the study area. Parameters evaluated for special-status plants included topography, soil conditions, elevation, hydrology, the project site's current and proposed operational activities, and life history needs for specific species. Parameters evaluated for special-status wildlife included connectivity to documented and potentially occurring habitat, hydrology, access to the site, foraging and nesting habitat, the site's operational activities, and life history needs for each species.

All plant and wildlife species observed during the site visit were recorded in field notes. Plant species observed were identified by visual characteristics and morphology in the field D . Taxonomic nomenclature for plants followed *The Jepson Manual: Higher Plants of California,* 2nd Edition (Baldwin et al. 2012). Special-status rankings for plant species were identified through a review of the CDFW Special Plants, Bryophytes, and Lichens List (CDFW 2015). Wildlife species were detected by sight, calls, tracks, scat, or other sign (Appendix D of this Final EIR). Special-status rankings for wildlife were identified through a review of the CDFW Special Animals List (CDFW 2015b).

A formal jurisdictional delineation was not conducted for the project; however, potential jurisdictional features within the study area, which includes the project footprint and a 100-foot buffer for the purposes of evaluating aquatic resources, were observed and locations identified on maps during the habitat assessment.

ICF biologists Phil Richards and James Hickman conducted coastal California gnatcatcher (*Polioptila californica californica*) protocol level surveys in the winter and spring of 2016/2017 (Appendix D of this Final EIR). Protocol field surveys for the Coastal California Gnatcatcher were conducted within the project footprint and 250-foot buffer, where suitable sage scrub habitat was identified. Presence/absence of this species was determined in accordance with the USFWS 1997 Presence/Absence Survey Protocol, which includes nine focused surveys at a minimum of 14-day intervals.

ICF biologist Phil Richards conducted rare plant surveys in April and May of 2017 (Appendix D of this Final EIR) within the project footprint and 100-foot buffer. Based on blooming periods, the optimum survey period occurred in late April through May. Field survey methods were consistent with the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2009). Botanical species data was collected within the study area using 100 percent transect coverage surveys using CDFW survey methods. Species names were recorded according to *The Jepson Manual: Higher Plants of California,* 2nd Edition (Baldwin, et. al., 2012).

Vegetation mapping was conducted in the field on June 2, 2016, using approximately 1-inch to 200-foot scale aerials (aerial dated 2010), which was later converted to Geographic Information System shapefiles. Where possible, the vegetation mapping followed the classifications defined in *A Manual of California Vegetation* (Sawyer et al. 2009). In some cases, neither classification described

vegetation on site. In those cases, the communities were defined more specifically based on observations on site.

Geographic Information System Analysis

Geographic information system analysis was completed by overlaying the project's direct impact footprint on the vegetation communities to calculate the acreage of each plant community estimated to be affected temporarily or permanently by the project.

3.3.2 Regulatory Setting

3.3.2.1 Federal

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was enacted in 1918. Its purpose is to prohibit killing or transporting native migratory birds or any part, nest, or egg of any such bird unless allowed by another regulation adopted in accordance with the MBTA. The list of migratory bird species that are protected by the MBTA is maintained by the USFWS, which regulates most aspects of the taking, possession, transportation, sale, purchase, barter, exportation, and importation of migratory birds. Under the MBTA, "take" means only to kill, directly harm, or destroy individuals, eggs, or nests or to otherwise cause failure of an ongoing nesting effort. Permits are available under the MBTA through USFWS, and authorization for potential take under MBTA is addressed as part of the federal Endangered Species Act (ESA) Section 7 consultation process.

The proposed project must be analyzed to ensure consistency with the MBTA, including avoidance of take, with respect to nesting birds, their eggs, or activities that may cause nest failure. This applies to all migratory species protected under the MBTA that may be directly or indirectly affected by the project. Any potential take must be either avoided or minimized through mitigation measures or permitted through consultation with USFWS.

Federal Endangered Species Act

The federal ESA was enacted in 1973 to protect threatened and endangered species and their associated ecosystems. "Take" of a listed species is prohibited except when specific authorization has been granted through a USFWS permit under Sections 4(d), 7, or 10(a) of the ESA. "Take" is defined as to harass, harm, shoot, wound, kill, trap, capture, or collect or to attempt to engage in any of these activities without a permit.

Clean Water Act

In 1948, Congress first passed the Federal Water Pollution Control Act. This act was amended in 1972 and became known as the Clean Water Act (CWA), which regulates the discharge of pollutants into the waters of the United States. Under Section 404, permits need to be obtained from the U.S. Army Corps of Engineers (USACE) for the discharge of dredged or fill material into jurisdictional waters of the United States. USACE-regulated activities under Section 404 involve a discharge of dredged or fill material, including, but not limited to, grading, placing of riprap for erosion control, pouring concrete, laying sod, and stockpiling excavated material into waters of the United States. Activities that generally do not involve a regulated discharge (if performed specifically in a manner that avoids discharges) include driving pilings, some drainage channel maintenance activities,

constructing temporary mining and farm/forest roads, and excavating without stockpiling. USACE issues nationwide permits for activities that require discretionary authority and do not exceed specific impact requirements (e.g., less than 0.5 acre of permanent impacts, no impacts on special aquatic sites, etc.). USACE requires individual permits for activities that exceed the requirements of nationwide permits.

Under Section 401 of the CWA, water quality certification from the State Water Resources Control Board/Regional Water Quality Control Board needs to be obtained if an action could result in any impacts on jurisdictional waters of the United States.

3.3.2.2 State

California Endangered Species Act

The California ESA authorizes the California Fish and Game Commission (Commission) to designate endangered, threatened, and rare species and regulate the taking of these species (California Fish and Game Code Sections 2050–2098). The act defines *endangered* species as those whose continued existence in California is jeopardized. State-listed *threatened* species are those that are not presently facing extinction but that may become endangered in the foreseeable future.

Section 2080 of the California Fish and Game Code prohibits the taking of state-listed plants and animals. CDFW also designates *fully protected* or *protected* species as those that may not be taken or possessed without a permit from the Commission and/or CDFW. Species that have been designated as fully protected or protected may or may not be listed as endangered or threatened.

California Fish and Game Code

The California Fish and Game Code is regulated by the Commission, as authorized by Article IV, Section 20, of the Constitution of the State of California. Sections 3503, 3503.5, 3505, 3800, and 3801.6 of the California Fish and Game Code protect all native birds, birds of prey, and nongame birds, including their eggs and nests, that occur naturally within the state that are not already listed as fully protected. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, falcons), including their nests or eggs. CDFW's Lake and Streambed Alteration Program (Sections 1600–1607) requires any person who proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake or use materials from a streambed to notify the CDFW before beginning the project.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) was enacted in 1977. It allows the Commission to designate plants as rare or endangered. Sixty-four species, subspecies, and varieties of plants are designated as *rare* under the NPPA, which prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations, emergencies, and, after properly notifying CDFW, vegetation removal from canals, roads, and other sites, changes in land use, and certain other situations.

A consortium of scientists, botanists, and enthusiasts, the CNPS has a mission to review and categorize native plants in California. The resulting list of sensitive plant species produced by CNPS can be above and beyond the federal and state lists of threatened and endangered species. CNPS rankings can therefore be used as a criterion for environmental review in the CEQA process. If a

property has suitable habitat, CEQA may require analysis of all CNPS Rank 1B, Rank 2, Rank 3, and Rank 4 plants that could occur in the vicinity. Surveys should be completed in accordance with CDFW and CNPS protocols during the plant species blooming period to stand up to rigorous environmental review.

Natural Community Conservation Planning Act

The Natural Community Conservation Planning Act (NCCPA) allows for the development of broad-based ecosystem-level plans for the protection and perpetuation of biological diversity. The primary objective of Natural Community Conservation Plans prepared under the NCCPA is to conserve natural communities at the ecosystem level while accommodating compatible land use. Although plants that are protected under an approved Natural Community Conservation Plan may be taken by activities that are covered under the plan, they typically receive a high level of conservation and protection.

California Coastal Act of 1976

The California Coastal Act (CCA), administered by the California Coastal Commission, includes policies for development proposed within the Coastal Zone and recognizes California's ports, harbors, and coastline beaches as economic and coastal resources. Decisions to implement specific development, where feasible, are to be based on consideration of alternative locations and designs to minimize any adverse environmental impacts. The California Coastal Commission regulates all jurisdictional wetlands that are under the joint jurisdiction of USACE and the Regional Water Quality Control Boards, as well as riparian habitat that is under the jurisdiction of CDFW. The CCA also defines *Environmentally Sensitive Area* as "any area in which plant or animal life, or their habitats, is either rare or especially valuable because of its special nature or role in an ecosystem, which could be easily disturbed or degraded by human activities and developments" (Section 30107.5). The CCA requires such areas to be protected and development projects within or adjacent to such areas to be planned and sited to prevent degradation of the Environmentally Sensitive Area.

3.3.2.3 Local

Los Angeles County Oak Tree Ordinance

The Los Angeles County Oak Tree Ordinance requires an Oak Tree Permit to be obtained to cut, destroy, remove, relocate, inflict damage, or encroach upon a protected oak tree or its protected zone. The ordinance protects any tree, shrub, or plant of the oak tree genus, *Quercus*, with a diameter of 8 inches or more; for oaks with multiple trunks, a combined diameter of 12 inches or more, measured 4.5 feet above the natural grade, is required for the two largest trunks. The protected zone for oaks is defined as the area beneath the dripline or canopy of the tree, plus 5 feet beyond the dripline or 15 feet from the trunk, whichever distance is greater. Impacts can include pruning or cutting the trunk to apply pesticides to a protected tree for the benefit of the tree.

There are two types of permits, administrative and discretionary. Actions that would affect one protected tree on a property with a single-family residence require an approved administrative Oak Tree Permit. Actions that would affect protected oak trees on any other type of property require a discretionary Oak Tree Permit.

Oak Tree Permit requests require the property owner to file an application with the Department of Regional Planning and provide a filing fee, an Oak Tree Permit, site plans for the property, and maps of the surrounding area.

Los Angeles County Interim Tree Removal and Replacement Policy

The Los Angeles County Interim Tree Removal and Replacement Policy requires any tree removal within the Department of Public Works right-of-way be replaced at a 1:1 ratio or higher. Replacement of the removed trees should be near the location of removal; however, if replacement in the original location is not feasible, replacement can occur elsewhere. A tree removal permit is required prior to the removal of any tree within, but not limited to, parkways, public right-of-ways, flood control facilities, and public buildings.

3.3.3 Environmental Setting

The study area is located within the community of Sylmar at the north end of the San Fernando Valley, in the City of Los Angeles, California. The study area is surrounded by Wilson Canyon Debris Basin and the Angeles National Forest to the north and a mix of residential neighborhoods and commercial buildings to the south, east, and west. The terrain of the project site is developed and relatively even; the northern portion of the study area includes the lower elevations of the adjacent foothills. Elevations for the study area range from approximately 1,400 to 1,600 feet above mean sea level (amsl). The study area is vegetated with a mosaic of plant communities, including those associated with developed residential and commercial areas, roadways, and other infrastructure.

3.3.3.1 Vegetation Communities/Land Cover Types

Five distinct vegetation communities/land cover types were mapped within the study area (Figure 3.3-3 and Table 3.3-1). A detailed description of each vegetation community is provided below.

Developed

Developed areas make up a majority of the study area. These areas have been physically altered and include existing campus infrastructure, medium-density residential communities, roads and hardscape structures, and other manmade features. A chain-link fence runs along the northern border of the project site, preventing unauthorized entry of vehicles and other equipment into the northern extent of the study area. Mature ornamental trees are spread throughout the developed areas of the study area, and coast live oak (*Quercus agrifolia*) and Engelmann's oak (*Q. engelmannii*) occur sporadically throughout.

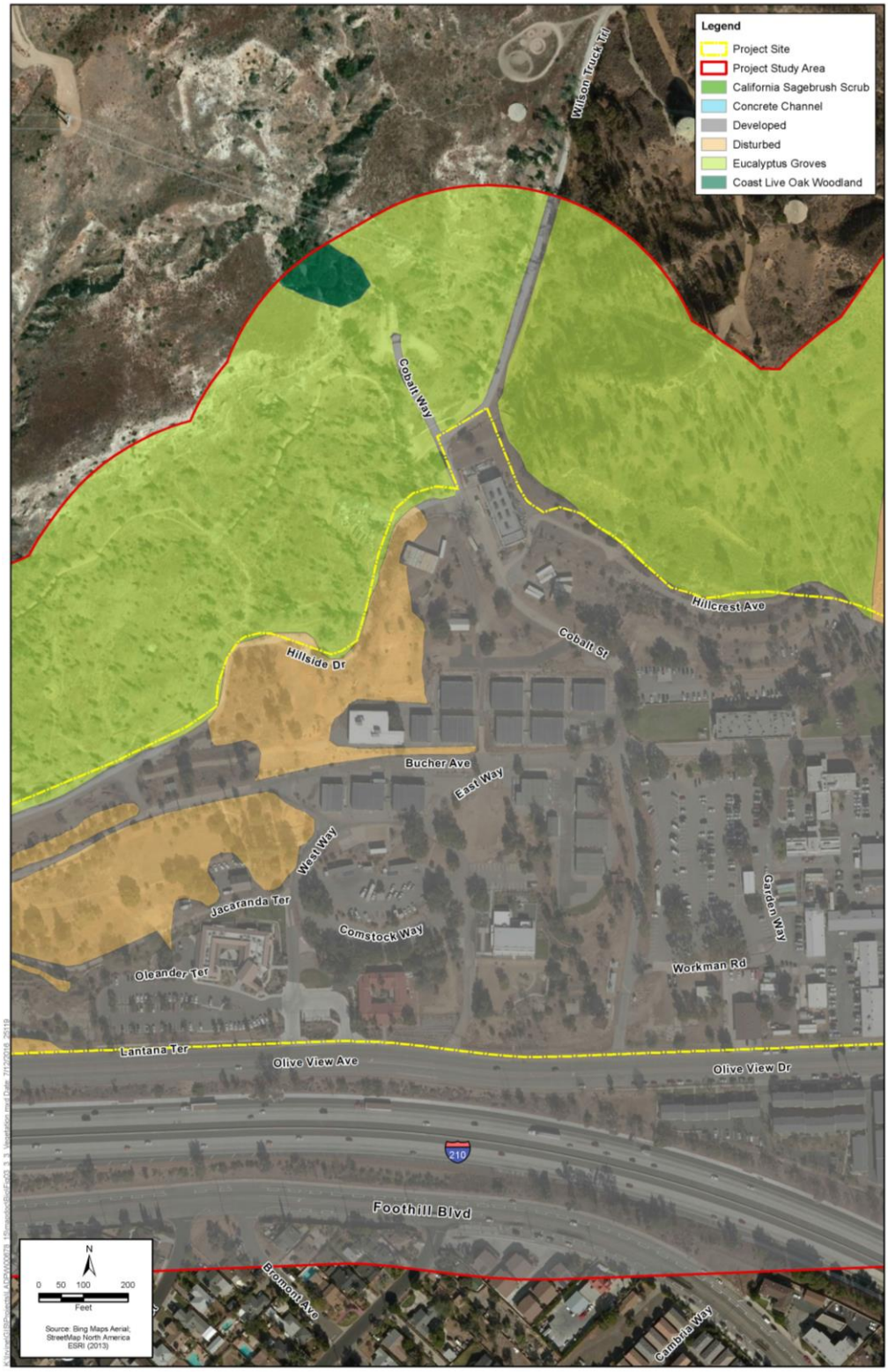
Disturbed Habitat

Disturbed habitat is any land that has been permanently altered by previous human activity, including grading, repeated disturbance, and dirt roads. Disturbed land is typically characterized by more than 50 percent bare ground and absence of remnant native vegetation. Disturbed habitat within the study area surrounds existing development within the project site and is dominated by nonnative grasses and other species, including ripgut grass (*Bromus diandrus*), wild oat (*Avena barbata*), tocalote (*Centaurea melitensis*), shortpod mustard (*Hirschfeldia incana*), Indian hedgemustard (*Sisymbrium orientale*), and Russian thistle (*Salsola* sp.). Patches of bare ground also are spread intermittently within the disturbed habitat.

Figure 3.3-3a. Vegetation Communities and Land Use – Sheet 1

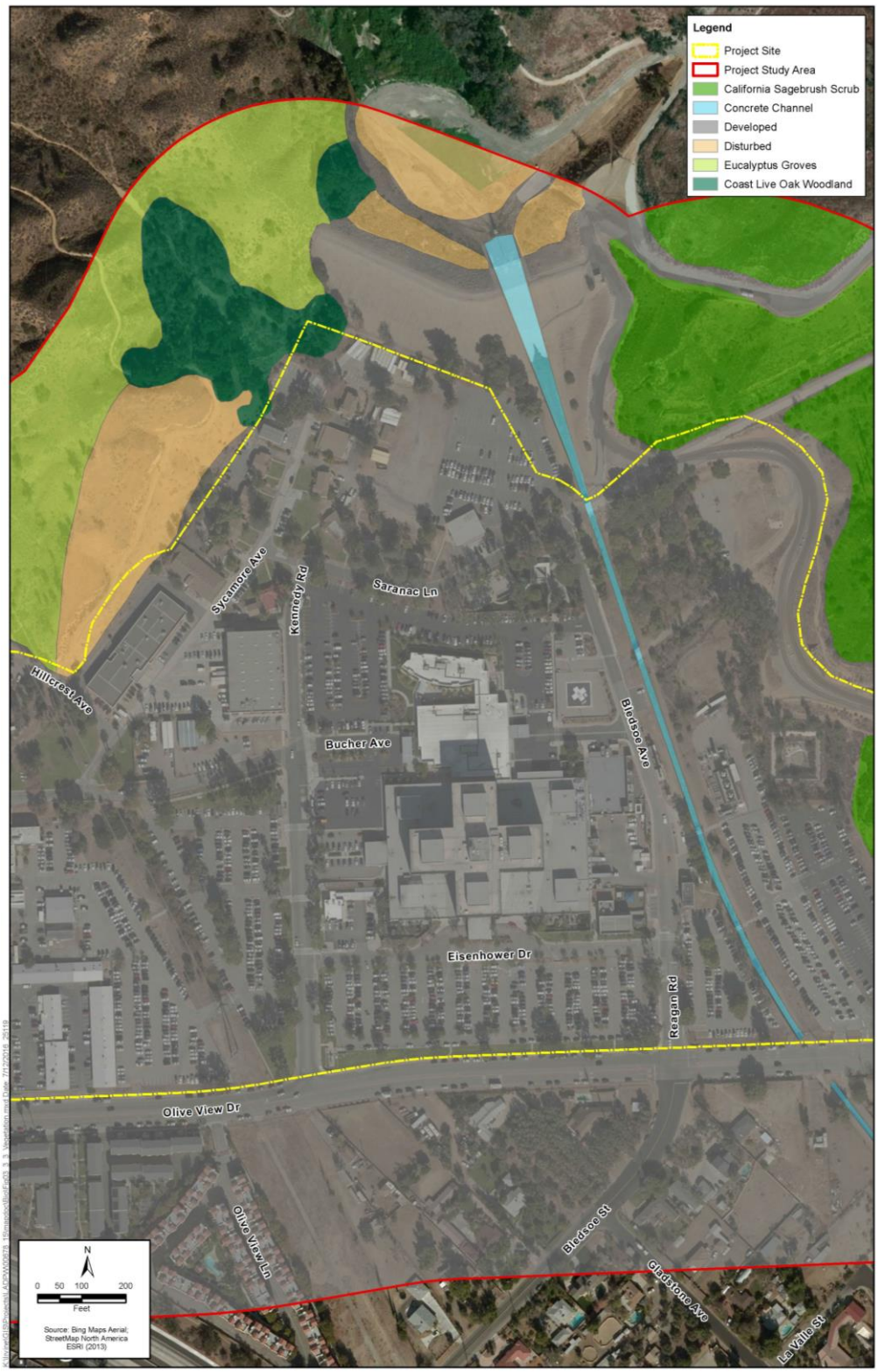
Source: ICF 2016.

Figure 3.3-3b. Vegetation Communities and Land Use – Sheet 2



Source: ICF 2016.

Figure 3.3-3c. Vegetation Communities and Land Use – Sheet 3



Source: ICF 2016.

Figure 3.3-3d. Vegetation Communities and Land Use – Sheet 4

Source: ICF 2016.

California Sagebrush Scrub

California sagebrush scrub is comprised of low, soft-woody subshrubs to about 1 meter (3 feet) high and is one of the major shrub-dominated (i.e., scrub) communities within California. This community occurs on xeric sites with shallow soils or on dry sites, such as steep, south-facing slopes, or clay-rich soils that are slow to release stored water. California sagebrush scrub is located in the eastern portion of the study area and is dominated by California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), thickleaf yerba santa (*Eriodictyon crassifolium*), laurel sumac (*Malosma laurina*), deerweed (*Acmispon glaber*), and toyon (*Heteromeles arbutifolia*).

Eucalyptus Woodland

Eucalyptus woodland is dominated by several species of eucalyptus (*Eucalyptus* spp.). These introduced species produce large amounts of leaf and bark litter, the chemical composition of which may inhibit the establishment and growth of other species, especially natives, in the understory. Eucalyptus woodland extends along the foothills of the northern portion of the study area.

Coast Live Oak Woodland

Coast live oak woodland (Southern coast live oak riparian forest) is an open- to dense-evergreen riparian forest dominated by coast live oak. Coast live oak woodland is associated with bottomlands and outer floodplains along large streams and occurs on fine-grained, rich alluvium. Structurally, this habitat generally consists of western sycamore (*Platanus racemosa*), cottonwood (*Populus fremontii*), and willows (*Salix* sp.) at the channel margins, bordered by coast live oak at slightly higher elevations. Coast live oak woodland present within the study area is located at bottom of the foothill canyons, in the northern portion of the study area.

Table 3.3-1. Vegetation Communities/Land Cover Types within the Study Area

Vegetation/Land Cover Type	Acreage
California Sagebrush Scrub	19.80
Concrete Channel	1.31
Developed	192.75
Disturbed	17.27
Eucalyptus Groves	45.66
Coast live oak woodland	3.53
Total	**280.32**

Source: ICF 2016.

3.3.3.2 Sensitive Vegetation Communities

Sensitive vegetation communities are those that are known to have limited distribution in the region. Two of the communities found in the study area, California sagebrush scrub and coast live oak woodland (southern coast live oak riparian forest), are considered sensitive by CDFW (Figure 3.3-3a–3d).

3.3.3.3 Special-Status Biological Resources

Special-status species are plants and animals legally protected under the federal ESA, CESA, CEQA, or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing. Special-status species are defined as species that are:

- Listed, proposed for listing, or candidates for listing under the federal ESA as threatened or endangered;
- Listed or candidates for listing under the CESA as threatened or endangered;
- Listed as rare under the Native Plant Protection Act; and
- A state species of special concern or fully protected species. A state species of special concern is a species, subspecies, or distinct population of a fish, amphibian, reptile, bird, or mammal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:
    - Is experiencing, or formerly experienced, serious (non-cyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
    - Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that, if realized, could lead to declines that would qualify it for State threatened or endangered status.

The CNPS maintains lists of plants as rare or endangered. Unless separately listed by the state or federal government, the plants on the CNPS lists are not formally protected in law. The CNPS lists are as follows:

- California Rare Plant Rank List 1A: Plants presumed extinct
- California Rare Plant Rank List 1B: Plants rare, threatened, or endangered in California and elsewhere
- California Rare Plant Rank List 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere
- California Rare Plant Rank List 3: Plants about which more information is needed—a review list
- California Rare Plant Rank List 4: Plants of limited distribution—a watch list

Plants listed on CNPS List 1A, 1B, or 2 meet the definition of Section 1901, Chapter 10 (Native Plant Protection Act) and Sections 2062 and 2067 (CESA) of the California Fish and Game Code. Thus, for the purposes of this Final EIR, only plants on CNPS List 1A, 1B, or 2 are considered rare plants for the purposes of the analysis. CNPS List 3 plants must be considered in the CEQA document.

A list of special-status wildlife and plant species known to occur within the vicinity was evaluated for potentiality to occur within the study area (Table 3.3-2).

State and Federally Listed Plants

Dprovides the CNDDB and CNPS lists of plants for the San Fernando quadrangle and adjacent quadrangles. The literature review resulted in six federally and/or state listed plant species that have been recorded within the region: Braunton's milk-vetch (*Astragalus brauntonii*), Nevin's barberry (*Berberis nevinii*), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*),

slender-horned spineflower (*Dodecahema leptoceras*), spreading navarretia (*Navarretia fossalis*), and California Orcutt grass (*Orcuttia californica*). Four species, Braunton's milk vetch, Nevin's barberry, San Fernando Valley spineflower, and slender horned spineflower, were determined to have low potential to occur within the study area and were not detected during the field survey.

Table 3.3-2. Potentially Occurring Special-Status Species

Species	Status	Habitat Requirements	Potential to Occur
Plants			
Braunton's milk-vetch (*Astragalus brauntonii*)	FE, CRPR 1B.1	Perennial herb. Found in recently burned and disturbed areas, sandstone and carbonite soils, chaparral, coastal scrub, valley and foothill grasslands; ranges from 4–640 m (13–2,099 ft.) in elevation. Blooming period: January–August.	Low
Parish's brittlescale (*Atriplex parishii*)	CRPR 1B.1	Annual herb. Chenopod scrub, alkaline vernal pools, playas; 25–1,900 m (82–6,232 ft.). Blooming period: June–October.	Absent–Suitable habitat does not occur on site.
Nevin's barberry (*Berberis nevinii*)	CRPR 1B.1, FE, SE	Evergreen shrub. Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, riparian scrub; 274–825 m (898–2,707 ft.). Blooming period: March–June.	Low
Round-leaved filaree (*California macrophylla*)	CRPR 1B.2	Annual herb. Clay soils in cismontane woodland, valley and foothill grassland; 15–1,200 m (50–3,936 ft.). Blooming period: March–May.	Absent–Suitable habitat does not occur on site.
Catalina mariposa lily (*Calochortus catalinae*)	CRPR 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland; 15–700 m (49–2,296 ft.). Blooming period: February–June.	Low
Club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*)	CRPR 4.3	Perennial bulbiferous herb. Clay, rocky, or serpentine soils in chaparral, coastal scrub, cismontane woodland, valley and foothill grassland; 75–1,300 m (246–4,264 ft.). Blooming period: May–June.	Absent–Suitable habitat does not occur on site.
Slender mariposa-lily (*Calochortus clavatus* var. *gracilis*)	CRPR 1B.2	Perennial herb. Occurs in the Western Transverse Ranges and San Gabriel Mountains in shaded foothill canyons within chaparral, coastal scrub, valley and foothill grasslands; 0–1,000 m (3,281 ft.). Blooming period: March–June.	Low
Plummer's mariposa-lily (*Calochortus plummerae*)	CRPR 4.2	Perennial bulbiferous herb. Granitic and rocky areas in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland; 100–1,700 m (328–5,576 ft.). Blooming period: May–July.	Medium

Species	Status	Habitat Requirements	Potential to Occur
Peirson's morning-glory (*Calystegia peirsonii*)	CRPR 4.2	Perennial herb. Chaparral, chenopod scrub, cismontane woodlands, coastal scrubs, valley and foothill grassland, and even lower elevation conifer forests; 30–1,500 m (98–4,920 ft.). Typically restricted to rocky slopes and known only from Los Angeles County. Blooming period: April–June.	Absent–Suitable habitat does not occur on site.
Lewis' evening-primrose (*Camissoniopsis lewisii*)	CRPR 3	Annual herb. Sandy or clay soils in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; 0–300 m (0–984 ft.). Blooming period: March–June.	Absent–Study area occurs outside elevation range for the species.
White pygmy-poppy (*Canby candida*)	CRPR 4.2	Annual herb. Gravelly, sandy, or granitic soils in Joshua Tree woodland, Mojavean desert scrub, pinyon and juniper woodland; 600–1,460 m (1,968–4,789 ft.). Blooming period: March–June.	Absent–Study area occurs outside elevation range for the species.
Southern tarplant (*Centromadia parryi* ssp. *australis*)	CRPR 1B.1	Annual herb. In margins of marshes and swamps, vernally mesic soils in valley and foothill grassland, vernal pools; 0–480 m (0–1,574 ft.). Blooming period: May–November.	Absent–Suitable habitat does not occur on site.
Island mountain-mahogany (*Cercocarpus betuloides* var. *blancheae*)	CRPR 4.3	Evergreen shrub. Closed-cone coniferous forests, chaparral; 30-600 m (98–1,968 ft.). Blooming period: February–May.	Absent–Suitable habitat does not occur on site.
San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*)	CRPR 1B.1, FC, SE	Annual herb. In sandy areas on foothills, mixed grassland, chaparral; 90–500 m (295–1,640 ft.). Severely limited distribution; only known in Los Angeles, Orange, and Ventura Counties. Blooming period: April–July.	Low
Small-flowered morning-glory (*Convolvulus simulans*)	CRPR 4.2	Annual herb. Friable clay soils or serpentine seeps in chaparral openings, coastal scrub, valley and foothill grassland; 30–700 m (98–2,297 ft.). Blooming period: March–July.	Absent–Suitable habitat does not occur on site.
Santa Susana tarplant (*Deinandra minthornii*)	CRPR 1B.2	Deciduous shrub. Rocky chaparral, coastal scrub, sandstone outcrops and crevices; 280–760 m (919–2,493 ft.). Blooming period: July–November.	Absent–Suitable habitat does not occur on site.
Paniculate tarplant (*Deinandra paniculata*)	CRPR 4.2	Annual herb. Usually found in vernally mesic soils in coastal scrub, valley and foothill grassland, vernal pools; 25–940 m (82–3,084 ft.). Blooming period: April–November.	Absent–Suitable habitat does not occur on site.
Mt. Pinos larkspur (*Delphinium parryi* ssp. *purpureum*)	CRPR 4.3	Perennial herb. Grows sporadically in Kern, Santa Barbara, and Ventura counties in the understory of chaparral, scrub, and pinyon-juniper woodlands; 360–820 m (1,181–2,690 ft.). Blooming period: May–June.	Absent–Suitable habitat does not occur on site.

Species	Status	Habitat Requirements	Potential to Occur
Slender-horned spineflower (*Dodecahema leptoceras*)	CRPR 1B.1, FE, SE	Annual herb. Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; sandy soils; 200–760 m (656–2,493 ft.). Blooming period: April–June.	Low
Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)	CRPR 1B.1	Perennial herb. Coastal scrub, coastal bluff scrub, chaparral, valley and foothill grassland; often found in open, rocky slopes, in shallow clays over serpentine, or in rocky areas with little soil; 0–450 m (1,476 ft.). Blooming period: April–June.	Absent–Suitable habitat does not occur on site.
Many-stemmed dudleya (*Dudleya multicaulis*)	CRPR 1B.2	Perennial herb. Often in clay soils in chaparral, coastal scrub, valley and foothill grassland; 15–790 m (49–2,591 ft.). Blooming period: April–July.	Absent–Suitable habitat does not occur on site.
Palmer's grapplinghook (*Harpagonella palmeri*)	CRPR 4.2	Chaparral, coastal scrub, valley and foothill grassland. Clay soils; open grassy areas within shrubland; 20–955 m (65–3,133 ft.). Blooming period: March–May.	Absent–Suitable habitat does not occur on site.
Newhall sunflower (*Helianthus inexpectatus*)	CRPR 1B.1	Perennial herb. Marshes and swamps, riparian woodland; 0–305 m (1,000 ft). Blooming period: August–October.	Absent–Study area occurs outside elevation range for the species.
Urn-flowered alumroot (*Heuchera caespitosa*)	CRPR 4.3	Perennial rhizomatous herb. Rocky soil in montane riparian forest, cismontane woodland, lower and upper montane coniferous forest; 1,155–2,650 m (3,788–8,692 ft.). Blooming period: May–August.	Absent–Study area occurs outside elevation range for the species.
Vernal barley (*Hordeum intercedens*)	CRPR 3.2	Annual herb. Coastal dunes, coastal scrub, saline flats, depressions in valley and foothill grassland, vernal pools; 5–1,000 m (16–3,280 ft.). Blooming period: March–June.	Absent–Suitable habitat does not occur on site.
Mesa horkelia (*Horkelia cuneata* var. *puberula*)	CRPR 1B.1	Perennial herb. Sandy and gravelly soils within maritime chaparral, cismontane woodland, coastal scrub; 70–810 m (229–2,657 ft.). Blooming period: February–September.	Low
San Gabriel Mountains sunflower (*Hulsea vestita* ssp. *gabrielensis*)	CRPR 4.3	Perennial herb. Rocky soil in lower and upper montane coniferous forest; 1,500–2,500 m (4,920–8,200 ft.). Blooming period: May–July.	Absent–Study area occurs outside elevation range for the species.
Parry's sunflower (*Hulsea vestita* ssp. *parryi*)	CRPR 4.3	Perennial herb. Granitic, carbonite, or rocky openings in lower and upper coniferous forest and pinyon-juniper woodland; 1,370–2,895 m (4,494–9,496 ft.). Blooming period: April–August.	Absent–Study area occurs outside elevation range for the species.

Species	Status	Habitat Requirements	Potential to Occur
Southern California black walnut (*Juglans californica*)	CRPR 4.2	Deciduous tree. Alluvial areas in chaparral, cismontane woodland, coastal scrub; 50–900 m (164–2,952 ft.). Blooming period: March–August.	Low
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	CRPR 1B.1	Annual herb. Coastal salt marsh, coastal salt swamps, playas, vernal pools; 1–1,220 m (3–4,001 ft.). Blooming period: February–June.	Absent–Suitable habitat does not occur on site.
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	CRPR 4.3	Annual herb. Openings in chaparral and sage scrub; 0–885 m (2,900 ft.). Blooming period: January–July.	Low
Ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*)	CRPR 4.2	Perennial bulbiferous herb. Openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland; 30–1,800 m (98–5,904 ft.). Blooming period: March–August.	Absent–Suitable habitat does not occur on site.
San Gabriel linanthus (*Linanthus concinnus*)	CRPR 1B.2	Annual herb. Rocky openings in chaparral, lower and upper montane coniferous forest; 1,520-2,800 m (4,986–9,184 ft.). Blooming period: April–July.	Absent–Study area occurs outside elevation range for the species.
Davidson's bush-mallow (*Malacothamnus davidsonii*)	CRPR 1B.2	Perennial shrub. Coastal scrub, riparian woodland, chaparral, cismontane woodland, sandy washes; 185–855 m (607–2,805 ft.). Blooming period: June–January.	Medium
White-veined monardella (*Monardella hypoleuca* ssp. hypoleuca)	CRPR 1B.3	Perennial herb. Chaparral, cismontane woodland, dry slopes; 50–1,525 m (165–5,000 ft.). Blooming period: June–August.	Absent–Suitable habitat does not occur on site.
Spreading navarretia (*Navarretia fossalis*)	CRPR 1B.1, FT	Annual herb. San Diego hardpan and claypan, chenopod scrub, marshes and swamps, playas, swales, depressions, vernal pools; 30–655 m (98–2,150 ft.). Blooming period: April–June.	Absent–Suitable habitat does not occur on site.
Piute Mountains navarretia (*Navarretia setiloba*)	CRPR 1B.1	Annual herb. Cismontane woodland, pinyon-juniper woodland, valley and foothill grassland, in clay soils or on gravelly loam; 285–2,100 m (935–6,890 ft.). Blooming period: April–July.	Absent–Suitable habitat does not occur on site.
Short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)	CRPR 1B.2	Shrub. Chaparral, Joshua Tree woodland, Mojavean desert scrub, pinyon-juniper woodland, in sandy soil or coarse, granitic loam; 425–1,800 m (1,395–5,905 ft.). Blooming period: April–June.	Absent–Suitable habitat does not occur on site.
California Orcutt grass (*Orcuttia californica*)	CRPR 1B.1, FE, SE	Annual grass. Restricted to deeper portions of undisturbed vernal pools; 60–660 m (197–2,165 ft.). Blooming period: April–August.	Absent–Suitable habitat does not occur on site.

Species	Status	Habitat Requirements	Potential to Occur
Hubby's phacelia (*Phacelia hubbyi*)	CRPR 4.2	Annual herb. Gravelly to rocky soil or talus in chaparral, coastal scrub, valley and foothill grassland; 0–1,000 m (0–3,280 ft.). Blooming period: April–July.	Absent–Suitable habitat does not occur on site.
Mojave phacelia (*Phacelia mohavensis*)	CRPR 4.3	Annual herb. Sandy to gravelly soil in meadows, seeps, cismontane, pinyon-juniper woodland, lower montane coniferous forest; 1,400–2,500 m (4,592–8,200 ft.). Blooming period: April–August.	Absent–Study area occurs outside elevation range for the species.
White rabbit-tobacco (*Pseudognaphalium leucocephalum*)	CRPR 2B.2	Perennial herb. Occurs in dry, sandy creek bottoms within chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats; often on sandy or gravelly soils; 14–1400 m (46–4,593 ft.). Blooming period: August–November.	Low
San Gabriel oak (*Quercus durata* var. *gabrielensis*)	CRPR 4.2	Evergreen shrub. Chaparral and cismontane woodland; 450–1,000 m (1,476–3,280 ft.). Blooming period: April–May.	Medium
Chaparral ragwort (*Senecio aphanactis*)	CRPR 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub, drying alkaline flats; 20–855 m (49–2,625 ft.). Blooming period: January–April.	Absent–Suitable habitat does not occur on site.
Western bristly scaleseed (*Spermolepis lateriflora*)	CRPR 2A	Annual herb. Sonoran Desert scrub, rocky or sandy substrate; 365–670 m (1,198–2,198 ft.). Blooming period: March–April.	Absent–Suitable habitat does not occur on site.
Greata's aster (*Symphyotrichum greatae*)	CRPR 1B.3	Perennial herb. Mesic areas in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland; 300–2,010 m (984–6,593 ft.). Blooming period: June–October.	Absent–Suitable habitat does not occur on site.
Invertebrates			
Vernal pool fairy shrimp (*Branchinecta lynchi*)	FT	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains; restricted to seasonal vernal pools. Prefers cool-water pools with low to moderate dissolved solids; are unpredictable and often short-lived.	Absent–Suitable habitat does not occur on site.

Species	Status	Habitat Requirements	Potential to Occur
Fish			
Santa Ana sucker (*Catostomus santaanae*)	FT	Previously found in the Los Angeles, San Gabriel and Santa Ana river systems. Most streams are fairly small and shallow, with currents ranging from swift to sluggish. Species is abundant where waters are cool and unpolluted, though they can occur where waters are fairly turbid. Often occurs where boulders, rubble and sand are the main bottom materials; associated with growths of filamentous algae and *Chara*. Spawning period: early April to early July.	Absent–Suitable habitat does not occur on site.
Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*)	FE, SE, CFP	Inhabits slow-moving reaches or quiet-water microhabitats in streams and rivers. Favorable habitats are usually shaded by dense and abundant vegetation. In more open reaches, algal mats or barriers may provide refuge. Reproduction occurs in areas with adequate aquatic vegetation and slow-moving water where males can establish and vigorously defend territories.	Absent–Suitable habitat does not occur on site.
Arroyo chub (*Gila orcuttii*)	CSC	Occur within warm, fluctuating streams and within slow moving sections of streams containing sandy or muddy bottoms.	Absent–Suitable habitat does not occur on site.
Santa Ana speckled dace (*Rhinichthys osculus* ssp.)	CSC	This subspecies of speckled dace is assumed extirpated from most of the Santa Ana River. Formerly widespread in mountain portions of the Santa Ana, San Gabriel, and Los Angeles watersheds. Populations were scattered in foothill areas and rare in lowlands. They were last seen in the Santa Ana River near Rialto in 2001.	Absent–Suitable habitat does not occur on site.
Amphibians			
Arroyo toad (*Anaxyrus californicus*)	FE, CSC	Found in rivers with willows, cottonwoods, and sycamores. This species prefers sandy/gravelly areas in drier parts of its range near washes or intermittent streams with clear standing water that is required for egg deposition.	Absent–Suitable habitat does not occur on site.
Southern mountain yellow-legged frog (*Rana muscosa*)	FE, SE, CSC	Inhabits lakes, ponds, meadow streams, isolated pools, and sunny riverbanks. Populations are known in the San Gabriel, San Jacinto and San Bernardino Mountains, always encountered within a few feet of water, in rocky streams in narrow canyons and in the chaparral belt.	Absent–Suitable habitat does not occur on site.

Species	Status	Habitat Requirements	Potential to Occur
Western spadefoot (*Spea hammondii*)	CSC	Found primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools and seasonal ponds are essential for breeding and egg laying. Found at 0–1,370 m (4,500 ft.).	Absent–Suitable habitat does not occur on site.
Reptiles			
Silvery legless lizard (*Anniella pulchra pulchra*)	CSC	Habitat is primarily areas with sandy or loose loamy soils under the sparse vegetation of beaches, chaparral, or pine-oak woodland, and open, well-shaded terraces in mature riparian natural communities. Leaf litter is commonly present.	Medium
Western pond turtle (*Actinemys* [=*Emys]* *marmorata*)	CSC	Requires slack- or slow-water aquatic habitat, aerial and aquatic basking sites, and an upland oviposition site on an unshaded slope with clay soils in the vicinity of the aquatic site.	Absent–Suitable habitat does not occur on site.
Coast horned lizard (*Phrynosoma blainvillii*)	CSC	Inhabits grasslands, brushlands, woodlands, and open coniferous forests with sandy or loose soil; requires abundant ant colonies for foraging.	Medium
Two-striped garter snake (*Thamnophis hammondii*)	CSC	Often in water and rarely found far from it, though also known to inhabit intermittent streams with rocky beds bordered by willow thickets or other dense vegetation; will also inhabit large riverbeds if riparian vegetation is available and occur in artificial impoundments if both aquatic vegetation and suitable prey items (small amphibians and fish) are present.	Absent–Suitable habitat does not occur on site.
Birds			
Cooper's Hawk	CSC	Breeds across southern Canada southward to southern United States and into central Mexico. Breeds in deciduous, mixed, and coniferous forests. Winters throughout the United States and Mexico. Builds stick nests within tall trees typically in wooded areas. Feeds on birds and small mammals.	Foraging: Present Nesting: Present

Species	Status	Habitat Requirements	Potential to Occur
Tricolored blackbird (*Agelaius tricolor*)	CSC	Range is restricted to the Central Valley and surrounding foothills, throughout coastal and some inland localities in southern California, and scattered sites in Oregon, western Nevada, central Washington, and western coastal Baja California. Breed in dense colonies and may travel several kilometers to secure food for their nestlings; males defend small territories within colonies and mate with 1 to 4 females. They are itinerant breeders, nesting more than once at different locations during the breeding season.	Foraging: Absent Nesting: Absent
Grasshopper sparrow (*Ammodramus savannarum*)	CSC	Species appears to prefer areas with significant grass cover and scattered shrubs for perching; does not use habitats with dense shrub cover or sites that have been over-grazed. During migration and winter, will use many types of open fields.	Foraging: Absent Nesting: Absent
Burrowing owl (*Athene cunicularia*)	CSC	Inhabits prairies, grasslands, lowland scrub, agricultural lands, coastal dunes, desert floors, and some artificial, open areas. Requires large, open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small-mammal burrows. Uses rodent or other burrows for roosting and nesting cover; uses pipes, culverts, and nest boxes when burrows are scarce.	Foraging: Absent Nesting: Absent
Swainson's hawk (*Buteo swainsoni*)	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands or alfalfa or grain fields, that support rodent populations.	Foraging: Absent Nesting: Low
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*)	FT, SE	Riparian forest nester along the broad, lower flood-bottoms of larger river system. Nests are in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Foraging: Absent Nesting: Absent
White-tailed kite (*Elanus leucurus*)	CFP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Will forage in open grasslands, meadows, or marshes and isolated, dense-topped trees for nesting and perching.	Foraging: Absent Nesting: Absent
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE, SE	Breeds in riparian woodlands along rivers, streams, or other wetlands. Usually nests in proximity to water or very saturated soil.	Foraging: Absent Nesting: Absent

Species	Status	Habitat Requirements	Potential to Occur
Loggerhead shrike (*Lanius ludovicianus*)	CSC	Forages in open country of many types (including non-intensive agricultural areas) and nests in small trees and large shrubs, often at the edges of such open areas. Like most birds of prey, this species generally occurs in low densities. The species is widely distributed in southern California, with some seasonal movements evident.	Foraging: Absent Nesting: Absent
Coastal California gnatcatcher (*Polioptila californica californica*)	FT, CSC	Prefers open, scrubby habitats such as coastal sage scrub and some forms of chaparral.	Absent–Based on 2016/2017 focused surveys.
Least Bell's vireo (*Vireo bellii pusillus*)	FE, SE	Inhabits riparian thickets either near water or in dry portions of river bottoms. Nests along margins of bushes, and forages low to the ground; may also be found using mesquite and arrow weed in desert canyons.	Foraging: Absent Nesting: Absent
Mammals			
Pallid bat (*Antrozous pallidus*)	CSC	Found throughout Southern California, from the coast to mixed conifer forests, grasslands, shrublands, and woodlands. Most common in open, dry habitats with rocky areas for roosting; yearlong resident in most of its range. Roosts under bridges and in rock crevices, caves, mine shafts, buildings, and tree hollows.	Foraging: Low Roosting: Low
Townsend's big-eared bat (*Corynorhinus townsendii*)	SC, CSC	Occurs throughout the drier portions of California; non-migratory; hibernates from approximately October through April. Take a variety of prey, but primarily larger insects, especially moths. Known roost sites have been in caves, lava tubes, mines, tunnels, buildings and other manmade structures. Foraging habitats include coniferous forests and pinyon-juniper woodlands, deciduous riparian woodlands, and desert lands.	Foraging: Low Roosting: Low
Spotted bat (*Euderma maculatum*)	CSC	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes, almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.	Foraging: Absent Roosting: Absent
Western mastiff bat (*Eumops perotis californicus*)	CSC	Forages in a variety of habitats, such as dry desert washes, floodplains, chaparral, oak woodland, open ponderosa pine forest, grassland, montane meadows, and agricultural areas. Primarily a cliff-dwelling species for breeding.	Foraging: Absent Roosting: Absent

Species	Status	Habitat Requirements	Potential to Occur
Western yellow bat (*Lasiurus xanthinus*)	CSC	Inhabits extremely arid areas to dry areas, including savannas, secluded woodlands, regions dominated by pastures or croplands; even tolerates residential areas. Roosts in trees; commonly found in the skirt of dead fronds of native and nonnative palm trees.	Foraging: Absent Roosting: Absent
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)	CSC	Distributed along the coastal slope from around Point Conception south into Baja California. Requires extensive open spaces, such as grasslands or open sage scrub, usually in fairly level situations. Generally not found in chaparral or woodland habitats. The presence of substantial available cover, either dense grasses or shrubs, appears to be important for day roosts and is often adjacent to more open foraging areas.	Absent–Suitable habitat does not occur on site.
California leaf-nosed bat (*Macrotus californicus*)	CSC	Low-flying forager that gleans and feeds on the ground and in the air. Roosts are in deep tunnels or caves, occasionally in buildings or bridges. Formerly found throughout southern California, but apparently is now confined to lowland Sonoran Desert habitat below 900 m (2,952 ft.). Forages in desert wash vegetation within 1 to 3 miles of roosting sites. Historical habitats utilized in coastal areas appear to be poorly known.	Foraging: Absent Roosting: Absent
San Diego desert woodrat (*Neotoma lepida intermedia*)	CSC	Distributed from central California southward well into Baja California, Mexico; locally common in a variety of sunny shrub habitats, frequently in rocky and/or steep terrain and upper drainages; often builds its dens low in cactus or rock crevices, but will use other sites as needed.	Low
Big free-tailed bat (*Nyctinomops* [=*Tadarida*] *macrotis*)	CSC	Inhabits arid, rocky areas; roosts in crevices in cliffs.	Foraging: Absent Roosting: Absent
Southern grasshopper mouse (*Onychomys torridus ramona*)	CSC	Inhabits desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Absent–Suitable habitat does not occur on site.
Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)	CSC	Inhabits areas of open ground, prefers fine sandy soils (for burrowing), but is also found commonly on gravel washes and on stony soils, within brush and woodland habitats. Rarely found on sites with a high cover of rocks.	Absent–Suitable habitat does not occur on site.

Species	Status	Habitat Requirements	Potential to Occur
American badger (*Taxidea taxus*)	CSC	Inhabits a diversity of habitats that meet the principal requirements of sufficient food, friable soils, and relatively open, uncultivated ground; prefers grasslands, savannas, and mountain meadows near timberline.	Absent–Suitable habitat does not occur on site.

CRPR = California Rare Plant Rank, CSC = California Species of Concern; FT = Federal Threatened; FE = Federal Endangered; SE = State Endangered Species; CFP = California Fully Protected; FC = Federal Candidate Species; SC = State Candidate Species

Source: ICF 1016; California Department of Fish and Wildlife 2016; California Native Plant Society 2016.

Non-Listed Special-Status Plants

Non-listed special-status species are species that are not listed under either the California or the federal ESA, but are sufficiently rare to require special consideration. Table 3.3-2 identifies 40 non-listed special-status plants known to occur in the region. Based on observed conditions during the field survey, nine species were determined to have low to medium potential to occur within the study area: Catalina mariposa lily (*Calochortus catalinae*), slender mariposa lily (*Calochortus clavatus* var. *gracilis*), Plummer's mariposa-lily (*Calochortus plummerae*), mesa horkelia (*Horkelia cuneata* var. *puberula*), Southern California black walnut (*Juglans californica*), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*), Davidson's bush-mallow (*Malacothamnus davidsonii*), white rabbit-tobacco (*Pseudognaphalium leucocephalum*), and San Gabriel oak (*Quercus durata* var. *gabrielensis*). A full list of plant species detected during the field survey can be found in Appendix D of this Final EIR. Rare plant surveys were completed in April and May 2017, at which time no special-status plants were observed during the focused survey effort and thus were presumed to be absent from the study area (Appendix D of this Final EIR).

State- and Federally-Listed Wildlife

Table 3.3-2 identifies 10 federally and/or state-listed threatened and endangered wildlife species that are known from the region. Of these species, two were determined to have low or greater potential to occur within the study area.

Swainson's hawk (*Buteo swainsoni*) was determined to have low potential for nesting within the study area; however, this species was not detected during the field survey, and no suitable foraging habitat occurs within a 5-mile radius. Therefore, the likelihood for occurrence is less than reasonable within the study area.

Coastal California gnatcatcher (*Polioptila californica californica*) was determined to have a medium to high potential to occur in the eastern portion of the study area (Figure 3.3-4) based on the initial habitat assessment. Between November 2016 and March 2017, protocol level (USFW 1997) Coastal California gnatcatcher surveys were conducted (see Appendix D for full report). No coastal California gnatcatchers were observed within the study area.

Non-listed Special-Status Wildlife

Table 3.3-2 identifies 24 non-listed special-status wildlife species that are known from the region (CDFW 2016a). Six of these were determined to have a low or medium potential to occur in the

study area based on current habitat conditions: Cooper's hawk (*Accipiter cooperii*), silvery legless lizard (*Anniella pulchra pulchra*), coast horned lizard (*Phrynosoma blainvillii*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), and San Diego desert woodrat (*Neotoma lepida intermedia*). A full list of wildlife species detected during the field survey is found in Appendix D of this Final EIR.

Critical Habitat

No USFWS designated critical habitat for any species overlaps the study area.

3.3.3.4 Wildlife Corridors

Wildlife movement within the study area is expected to be higher along the undeveloped northern portion. This area of the study area is connected to a landscape of undeveloped open space through Wilson Canyon to the north, which is further connected to the Angeles National Forest. Otherwise, development of the Master Plan is mostly contained within existing chain-link fencing, which inhibits movement of wildlife onto the campus. The developed southern portion of the study area also inhibits the movement of wildlife southward. The species expected to move across the study area include small-to-large sized mammals, birds, and reptiles. One juvenile coyote (*Canis latrans*) was observed in the northwestern portion of the study area within a disturbed lot adjacent to campus buildings.

Figure 3.3-4. Suitable Coastal California Gnatcatcher Habitat

Source: ICF 2016.

3.3.3.5 Jurisdictional Waters and Wetlands

Potential waters in the study area include several unnamed blue line features (USGS 1997) that drain from north to south through the study area. One of these features flows north to south within a concrete box culvert from Wilson Debris Basin; a second borders the western side of project site and flows through a concrete box culvert from Schoolhouse Debris Basin. Both features continue south into the Sylmar community of the City of Los Angeles before transitioning underground, likely into the storm drain system. Seven other riverine features occur in the hills to the north of the study area (USFWS 2016b). Two other potential features noted during the habitat assessment were not depicted on the USGS topographic map or the National Wetlands Inventory. All nine of these potential water features transition underground as they approach the study area, likely into the storm drain system. Each of these features may be considered jurisdictional waters under CWA, Section 404 for USACE, Section 401 of the CWA, and Section 13050(e) (et seq.) of the California Water Code via the Porter Cologne Water Quality Act for Regional Water Quality Control Board (RWQCB), and CDFW jurisdiction, pursuant to Section 1602 of the California Fish and Wildlife Code.

3.3.4 Environmental Impact Analysis

This section describes the impacts that could occur to biological resources due to implementation of the Master Plan and identifies measures to mitigate any significant impacts. The impacts are organized by topic, which correspond with the significance criteria.

3.3.4.1 Methods

The following sections evaluate the biological resource impacts that would result should the proposed project be implemented. The existing conditions described in Section 3.3.3, which presents the literature review, the results of a field survey conducted on June 2, 2016, the 2016 protocol California Gnatcatcher surveys, and the 2016 rare plant surveys, along with the significance thresholds identified below, provide the basis for assessing the direct and indirect impacts on plants and wildlife of anticipated development of the Master Plan.

3.3.4.2 Thresholds of Significance

For the purposes of this Final EIR, in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

BIO-1 Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS.

BIO-2 Have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

BIO-3 Result in substantial interference with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

BIO-4 Conflict with any local policies or ordinances to protect biological resources, such as a tree preservation policy or ordinance.

BIO-5 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS.

BIO-6 Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

3.3.4.3 Impacts and Mitigation Measures

Impact BIO-1: Would Implementation of the Proposed Project Have a Substantial Adverse Effect, Either Directly or through Habitat Modifications, on any Species Identified as a Candidate, Sensitive, or Special-Status Species in Local or Regional Plans, Policies, or Regulations or by CDFW or USFWS?

Construction Impacts

Tier I

Special-Status Plant Species

Special-status plant surveys conducted in April and May of 2017 concluded that no special-status plants were present within the study area at the time of the survey. Because the project footprint consists of a large percentage of disturbed/developed land uses and fragmented native vegetation communities, there are little intact and undisturbed native vegetation communities that provide habitat for sensitive plant species. Therefore, no impacts on special-status plants are anticipated as a result of Tier I implementation. One small section of coastal California sagebrush occurs on the eastern side of the project area; however, no sensitive plants occurred within the habitat at the time of the rare plant survey.

Special-Status Wildlife Species

Tier I development includes the construction of the Restorative Care Village, which includes a proposed Recuperative Care Center, Residential Treatment Program facility, Mental Health Urgent Care Center, and Mental Health Wellness Center in the northeastern portion of the campus. The Residential Treatment Program facility and Recuperative Care Center and its associated parking lot would be located just west of suitable coastal California gnatcatcher habitat as identified during the initial habitat assessment. No permanent loss of gnatcatcher habitat is anticipated as a result of the development of these facilities. However, given that the extent of other Tier I improvements in this area of the campus are less clearly defined (e.g., recreational trails and facilities), it is possible that some permanent loss of suitable California sagebrush habitat that may be used by coastal California gnatcatcher (Figure 3.3-4) could occur. To determine the presence or absence of coastal California gnatcatcher in this area, protocol level surveys were conducted in 2016 and 2017, but no coastal California gnatcatchers were found. Additionally, the literature review indicated that populations of coastal California gnatcatcher are generally not present in the area, despite the expanse of open California sagebrush habitat to the north of the project. The lack of a population in that undisturbed area indicates that it is highly unlikely that any Coastal California gnatcatcher would occupy this area in the eastern portion of the campus. As protocol surveys were negative for coastal California gnatcatcher, no impacts to the species are anticipated. For a discussion of the significance of impacts due to the removal of sagebrush scrub habitat, please see discussion under Impact **BIO-5**, below.

The removal or modification of abandoned buildings that provide suitable roosting habitat within the project area may result in impacts on two bat species: pallid bat and Townsend's big-eared bat. Therefore, impacts on these two species are considered to be potentially significant. However, implementation of mitigation measures **MM-BIO-1** and **MM-BIO-2** would reduce impacts to a less-than-significant level.

Impacts from construction to three additional special-status species, including coast horned lizard, silvery legless lizard, and San Diego desert woodrat, would be less than significant because these species occur throughout Southern California and are not limited geographically to the vicinity of the study area, and the project is not anticipated to have a significant impact on any regional populations.

Tier II

Under Tier II, no additional impacts would occur to the area beyond restoration; no impacts to California gnatcatcher would occur as they are not occupying the California Sagebrush Scrub habitat on the eastern end of the project site. Impacts from construction to three additional special-status species, including coast horned lizard, silvery legless lizard, and San Diego desert woodrat, would be less than significant because these species occur throughout southern California and are not limited geographically to the vicinity of the study area.

Mitigation Measures

The following measures will provide the necessary steps to determine the presence or absence of bat species, and if present, avoidance measures needed to reduce impacts to less than significant.

MM-BIO-1: Prior to the commencement of construction activities, a habitat assessment will be done by a qualified bat biologist to identify buildings within the project area that are suitable roosting habitat for bats. The following measures would apply to structures with bat roost potential, as determined by a qualified biologist:

- To avoid impacts to roosting bats, preconstruction surveys will be conducted prior to work occurring within the vicinity of, or removal of, vacant buildings. A qualified bat biologist will be retained to conduct bat and bat roosting site surveys between May 1 and July 30, prior to commencement of construction activities. This pre-construction survey will be conducted at the non-vacant and vacant buildings determined to be potentially suitable for roosting bats. The survey must occur during maternity season to confirm whether Townsend's big-eared bat is present in the vacant buildings, the only locations with potential for this species. The survey at the buildings will involve exit counts and acoustic surveys to determine whether a structure supports a nursery or roost and by which species. For the non-vacant buildings, a structure inspection will be performed by a bat biologist to look for bat sign (e.g., guano, wall streaking).
- Preconstruction bat surveys will include evening emergence surveys performed at dusk using active full-spectrum acoustic monitoring. Work will be performed by qualified biologists, who have knowledge of the natural history of the bat species that could occur in the project area and experience conducting surveys, using full spectrum acoustic equipment. During surveys, biologists will avoid unnecessary disturbance of occupied roosts. Evening (i.e., dusk) emergence surveys will consist of at least one biologist stationed on at different vantage points from the structure, watching for emerging bats from a half hour before sunset to 1–2 hours after sunset or until visibility is no longer optimal. Full-spectrum

acoustic detectors will be used during emergence surveys to assist in species identification. All emergence surveys will be conducted during favorable weather conditions (i.e., calm nights with temperatures conducive to bat activity [55°F and above] and no precipitation predicted).

- If roosting sites or bats are not found, a report confirming their absence will be sent to the CDFW, and no further action will be required.
- If it is determined that structures in the project area are being used by bats as roost sites, the following protective measures will be implemented:
  - Disturbance of maternity roosting structures or trees (e.g., structure removal, construction equipment operation near roosts, tree trimming or removal) will not occur between April 15 and the following September 15 (i.e., the maternity period) to avoid impacts on reproductively active females and active maternity roosts, whether colonial or solitary. The maternity roost will remain undisturbed from the time it is located until the following September 15 or until a qualified biologist has determined the roost is no longer active. No construction work will occur at the roost or within a 100-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) until September 15.
  - Exclusion devices may be installed outside of the maternity period (i.e., between September 16 and April 14) to preclude bats from occupying buildings during construction. Exclusionary devices will only be installed by or under the supervision of an experienced bat biologist.
  - A Bat Management Plan (see **MM-BIO-2**) will be developed if a bat maternity roost, including Townsend's big-eared bat, is found in the vacant building(s), and no construction work within a 250-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) will occur between April 1 and September 30.

MM-BIO-2: A Bat Management Plan will be developed to ensure mortality to bats does not occur. The following items will be included in the plan, at a minimum:

- For each location confirmed to be occupied by bats, the plan will detail, both in text and graphics, where exclusion devices will be placed, type(s) of exclusion material to be used, the timing for exclusion work, and the timeline and methodology needed to exclude the bats.
- Monitoring activities and schedules will be included, including frequency of monitoring, identification of structures that need to be monitored, and reporting requirements.
- The plan will be reviewed and approved by CDFW.

Level of Significance after Mitigation

Less-than-significant impact.

Operational Impacts

Tier I

Special-Status Plant Species

Operational activities within the project area would not differ significantly from current activities. Therefore, operation of the proposed facilities and buildings would not have an adverse impact on any candidate, sensitive, or special-status plant species. Accordingly, operational impacts associated with the development of Tier I would be less than significant.

Special-Status Wildlife Species

Suitable habitat for coastal California gnatcatcher occurs along the eastern side of the project site. Tier I development in proximity to the suitable habitat, where this species was absent during 2016/2017 focused protocol surveys, will include the construction of the Restorative Care Village. Additionally, new pedestrian recreation trails (see Figure 2-6 in Chapter 2, *Project Description*) are proposed within the California sagebrush habitat. However, given the presence and proximity of existing parking lots and roads, these new facilities are not expected to result in a substantial increase in operational impacts on coastal California gnatcatcher from lighting, noise, traffic, or other operational components. Therefore, operational impacts on this wildlife species would be less than significant.

Operational activities within the project area, which would not differ significantly from current activities, are also not expected to result in significant impacts on other special-status species, including pallid bat, Townsend's big-eared bat, and Swainson's hawk, that may roost and nest on the project site. Operational impacts on additional special-status species with low potential to occur, such as coast horned lizard, silvery legless lizard, and San Diego desert woodrat, would also be less than significant. Therefore, operation of the proposed facilities and buildings would not have a significant adverse impact on any candidate, sensitive, or special-status animal species. Accordingly, operational impacts associated with the development of Tier I would be less than significant.

Tier II

Operational impacts under Tier II would be similar to that described under Tier I.

Mitigation Measures

No operational impacts to candidate, sensitive, or special-status species would occur; therefore, no mitigation is required.

Level of Significance

No impact or less-than-significant impact.

Impact BIO-2: Would Implementation of the Proposed Project Have a Substantial Adverse Effect on Federally Protected Wetlands, as Defined by Section 404 of the CWA, through Direct Removal, Filling, Hydrological Interruption, or Other Means?

Construction and Operational Impacts

Tier I

Two blue line concrete box culverts and nine blue line and non-blue line potential jurisdictional features occur within the study area. A jurisdictional delineation is required to determine the extent of each feature and whether any features are jurisdictional and could be affected by Tier I construction.

Levels of temporary and permanent impacts on potentially jurisdictional aquatic resources will be assessed when subsequent project-specific plans are completed following a jurisdictional delineation of the site. Given the small amount of potential jurisdictional waters potentially affected, the limited functions and values of these features, including their ephemeral nature (i.e., limited to transport of water during and shortly after rainfall), significant impacts are not anticipated. Additionally, if impacts occur, any compensatory mitigation (i.e., on site restoration at a 1:1 ratio for temporary impacts and off-site mitigation through land purchase, in-lieu fee program, or other agency-approved mitigation program) developed during the permitting phase, would ensure impacts on potential waters and/or wetlands would be less than significant.

Tier II

Construction and operational impacts under Tier II would be similar to those described under Tier I.

Mitigation Measures

The following measure is proposed to mitigate the impact on jurisdictional aquatic resources described above under Impact **BIO-2**:

MM-BIO-3: Prior to construction of individual Master Plan projects, a jurisdictional delineation will be conducted within the project site for jurisdictional features, including wetlands. If jurisdictional features are not present, there is no potential for impacts to occur, and no further action will be needed. If a jurisdictional feature is found within the project disturbance limits, then the following measures would be triggered:

- **Full avoidance**: This may be possible if the jurisdictional feature is found in portions of the project site that can be avoided. In this instance, environmentally sensitive area fencing will be placed between the work area and the location of the feature. A biologist will be present during the placement of the fencing.
- **Impact**: If avoidance of jurisdictional features is not feasible, permits/agreements will be obtained from appropriate agencies (i.e., RWQCB, USACE, CDFW) prior to work within the features.

Level of Significance after Mitigation

Less-than-significant impact.

Impact BIO-3: Would Implementation of the Proposed Project Result in Substantial Interference with the Movement of any Native Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors or Impede the Use of Native Wildlife Nursery Sites?

Construction Impacts

Tier I and Tier II

Wildlife Movement

Although small-to-large-sized mammals and reptiles have the potential to wander onto the project site, an existing chain-link fence currently prohibits movement of most wildlife onto the project site. Since development will be contained within the existing chain-link fence, impacts to terrestrial wildlife species would be considered less than significant.

Bats

The removal or modification of the buildings that provide suitable roosting habitat within the project site may result in impacts to maternity bat roosts. Disturbance to a maternity roost can result in abandonment by the adult females, resulting in the mortality of the young or direct mortality to the entire roost, which would be a significant impact. However, with the implementation of **MM-BIO-2** and **MM-BIO-4**, impacts to maternity roosts would be less than significant.

Nesting Birds

Impacts resulting from construction have the potential to directly and indirectly affect nesting birds and temporarily cause portions of the site to be inaccessible to bird species in the area. Bird species protected under the MBTA have potential to nest in existing ornamental and natural vegetation on the project site. Some bird species protected by the MBTA may also nest on existing buildings or other appurtenances. Removal of vegetation and the demolition of buildings during construction could result in direct impacts on nests that are protected under the MBTA. Also, high noise levels and dust from construction activity could cause indirect impacts on nests and cause failure. The MBTA prohibits take of nearly all native birds. Under the MBTA, *take* means to kill, directly harm, or destroy individuals, eggs, or nests or otherwise cause failure of an ongoing nesting effort. Similar provisions within the California Fish and Game Code protect all native birds of prey (Section 3503.5) and all non-game birds that occur naturally in the state (Section 3800). The destruction of an occupied nest would be a significant impact and a violation of the MBTA and the California Fish and Game Code. However, **MM-BIO-4** would reduce the significant impact associated with MBTA-protected bird species to less than significant. Additionally, the Master Plan includes future landscaping plans that would utilize native plant palettes in an effort to connect the campus to the surrounding natural vegetation communities, thereby replacing nesting habitat. Therefore, impacts from construction would be less than significant with the implementation of **MM-BIO-4**.

Mitigation Measures

Measures **MM-BIO-1** and **MM-BIO-2** are proposed to mitigate construction impacts to bat maternity roosts under Impact **BIO-3**.

The following measure is proposed to mitigate construction impacts on nesting birds described above under Impact **BIO-3**:

MM-BIO-4: The nesting season for birds will be avoided, or preconstruction nesting bird surveys will be conducted if construction activities are carried out during the nesting season. To ensure compliance with the MBTA and similar provisions under Sections 3503, 3503.5, 3505, 3800, and 3801.6 et seq.of the California Fish and Game Code, the County of Los Angeles, through the general contractor, will conduct all vegetation removal during the non-breeding season, between September 1 and February 14, or implement the following:

- If the removal of vegetation, demolition of buildings, or noise-generating construction activities are scheduled between February 15 and August 31, the proponent or construction contractor will retain a qualified biologist experienced with conducting nesting bird surveys who will conduct a nesting bird survey prior to the start of vegetation removal, building demolition, or noise-generating construction activities within any potential nesting habitat (i.e., all vegetation, buildings, etc.). The size of the nesting bird survey area will be determined by a qualified biologist at the time of the survey and include the entire limits of disturbance. It will also include a buffer area, if deemed necessary by the biologist. The preconstruction nesting bird survey will be conducted no more than seven days prior to initiation of vegetation removal, building demolition activities, or noise-generating construction activities. If no active nests are detected during these surveys, no restrictions on project activities will be necessary.
- If active nests are not found, then no potential for impact to nesting birds (or raptors) will occur and no further action will be needed.
- If an active nest(s) is observed, then an appropriate buffer (no-construction activity buffer) will be established by the biologist to ensure that nest abandonment does not occur due to the construction activities. All no-construction activity buffer areas will be clearly demarcated in the field with stakes and flagging that are visible to construction personnel.

Level of Significance after Mitigation

Implementation of **MM-BIO-2** and **MM-BIO-3** would ensure that the potential impacts of construction activities on maternity roosts would be reduced to less than significant.

Implementation of **MM-BIO-5** would ensure that the potential impacts of construction activities on nesting birds that are protected under the MBTA and California Fish and Game Codes would be reduced to less than significant.

Operational Impacts

Tier I and Tier II

Impacts from long-term operation of the Master Plan would be similar to existing conditions. Operation of the proposed facilities and buildings would not have an adverse impact on the movement of wildlife species through natural corridors or impede the use of nursery sites. Accordingly, operational impacts associated with the development of Tier I and Tier II would be considered less than significant.

Mitigation Measures

No mitigation is proposed for operational impacts that are less than significant to wildlife movement.

Level of Significance

Less-than-significant impact.

Impact BIO-4: Would Implementation of the Proposed Project Conflict with any Local Policies or Ordinances to Protect Biological Resources, such as a Tree Preservation Policy or Ordinance?

Construction Impacts

Tier I and Tier II

Native oak trees are currently located on the project site as ornamental landscaping. Coast live oak and Engelmann's oak trees are interspersed with nonnative ornamental trees throughout the campus.

Construction of proposed Master Plan facilities and structures could result in damage to, or removal of, vegetation on the project site, including native oak trees that have been planted in ornamental areas or that occur naturally. Although coast live oak trees are not considered special-status plant species, these trees are protected under the Los Angeles County Oak Tree Ordinance. Protected trees include native oaks that measure 8 inches or more in diameter or oaks with multiple trunks, with a combined diameter of 12 inches or more for the largest two trunks measured 4.5 feet above the natural grade. Potential damage to or removal of oak trees that are protected by the Los Angeles County Oak Tree Ordinance would be a significant impact.

Mitigation Measures

The following measure is proposed to mitigate the impact to oak trees described above under Impact **BIO-4**:

> **MM-BIO-5:** Prior to construction of Master Plan projects that could result in tree removal or pruning, a qualified arborist will inventory native oak trees on the project site in support of an Oak Tree Permit, if required. Oak Tree Permit requests require a property owner to file an application with the Department of Regional Planning and provide a filing fee, an Oak Tree Report, site plans for the property, and maps of the surrounding area. The Oak Tree Report will include information about the protection of oak trees that may be adjacent to construction activities that are to remain. The Oak Tree Report will also include the proposed replanting plan, in accordance with the required replacement ratio, for any oak trees that are to be removed.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I and Tier II

Operation of facilities and buildings proposed under the Master Plan, including routine maintenance and pruning of ornamental vegetation and trees, is not expected to result in significant impacts on protected biological resources such as oak trees, which are protected by the Los Angeles County Oak Tree Ordinance.

Mitigation Measures

No significant operational impacts to native oak trees would occur; therefore, no mitigation is required.

Level of Significance

Less than significant.

Impact BIO-5: Would Implementation of the Proposed Project Have a Substantial Adverse Effect on any Riparian Habitat or other Sensitive Natural Community Identified in Local or Regional Plans, Policies, or Regulations or by CDFW or USFWS?

Construction Impacts

Tier I and Tier II

The study area includes two sensitive vegetation communities: California sagebrush scrub and coast live oak woodland. Impacts on these sensitive communities are described below.

California Sagebrush Scrub

Tier I development in the northeastern portion of the project site would include the Recuperative Care Center and Residential Treatment Program facility. These facilities would be located just west of California sagebrush scrub habitat. Although temporary minor impacts could occur due to dust or construction debris, construction of these facilities is not expected to result in any permanent impacts to or loss of sagebrush scrub habitat. Other project components that are less well defined include pedestrian recreational trails and related small recreational facilities within the sagebrush scrub habitat area. Development of these trails may result in the loss of small areas of sagebrush scrub habitat. The Master Plan includes strategies for utilizing native plant palettes for future planting and protecting existing native trees and shrubs in the areas that currently exist as California sagebrush scrub habitat; other restoration and preservation activities may include removal of invasive species. Landscaping plans to encourage the survival of native wildlife species would also be implemented. Nonetheless, the impact due to the possible removal of sagebrush scrub habitat is considered to be a potentially significant impact.

Coast Live Oak Woodland

Coast live oak woodland within the study area is located outside the project site, with the exception of a few coast live oak trees that extend onto the project site boundary. Master Plan landscaping plans include strategies to protect existing native coast live oak trees along the boundary of the project site. However, if project construction requires the removal of these or other protected oak

trees on the project site, implementation of **MM-BIO-5** would reduce these significant impacts to less than significant.

Mitigation Measures

The following measure is proposed for mitigating impacts to California sagebrush scrub associated with Impact **BIO-5**, above:

MM-BIO-6: Prior to construction within the eastern portion of the project site that could temporarily affect California sagebrush scrub as identified in Figure 3.3-3 of the Master Plan EIR, a Habitat Mitigation Monitoring Plan (HHMP) will be created. The Plan will include, at a minimum, the following requirements:

- Vegetation monitoring will be performed in the spring-summer, or as specified in the HMMP, within California sagebrush scrub habitat proposed for temporary impact. A list of native species present will be compiled, and the absolute percent cover of each species will be estimated. This information will set the performance standards and success criteria for the HMMP.
- The HMMP will provide a map showing the location of each area proposed for impact and the absolute percent cover of each native species within the impact area.
- Restoration monitoring will be performed for 5 years or until success criteria are met with monitoring every quarter for the first 2 years and annually thereafter.
- The monitoring will include annual vegetation sampling beginning after the first year. The sampling will occur in the window of March to June, or as specified within the HMMP. The sampling will provide absolute percent cover of native shrubs and forbs/grasses.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I and Tier II

Impacts from long-term operation of the Master Plan would be similar to existing conditions. Operation of the proposed facilities and buildings would not have an adverse impact on the sensitive vegetation communities within the study area as all California sagebrush impacts, if they occur, would be limited to the construction phases. No additional California sagebrush is anticipated to be directly or indirectly affected during operation. Accordingly, no impacts or less-than-significant operational impacts would occur under Tiers I and II.

Mitigation Measures

Success criteria and monitoring from **MM-BIO-6** addresses operational impacts to sensitive vegetation communities; see above.

Level of Significance after Mitigation

Less than significant.

Impact BIO-6: Would Implementation of the Proposed Project Conflict with the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other Approved Local, Regional, or State Habitat Conservation Plan?

Construction and Operational Impacts

Tier I and Tier II

The project site is not encompassed within any adopted habitat conservation plans. Therefore, implementation of the proposed project would not affect any adopted habitat conservation plans.

3.3.5 Cumulative Impacts

The study area for cumulative biological impacts consists of the general project area, the community of Sylmar, and the open space that surrounds the project site to the north. As discussed in the impacts section above, construction of the Master Plan could result in impacts on coastal California gnatcatcher habitat and that of other nesting birds and roosting bats, as well as the destruction of sensitive habitat. It is possible that other related projects could also result in similar impacts and that the cumulative impacts on special-status species could be significant. However, with implementation of the mitigation measures identified above and avoidance of potential impacts to the affected species and habitat, implementation of the Master Plan would not contribute to significant cumulative impacts. Additionally, because the majority of the project site and surrounding area to the south is currently developed or disturbed, the proposed Master Plan is not anticipated to result in cumulative impacts on biological resources beyond those identified above. Therefore, the proposed project would not contribute to any significant cumulative impacts to biological resources.

3.4 Cultural Resources

3.4.1 Introduction

This section discusses potential impacts on cultural resources (i.e., archaeological, historical, and paleontological resources) resulting from the proposed project.

3.4.2 Regulatory Setting

The proposed project is subject to several laws regarding historical resources as well as regulations and building codes regarding built-environment historical resources. In this context, the term *historical resources* encompasses all cultural resource types, including built-environment resources, prehistoric archaeological sites, and historical archaeological sites. In addition, paleontological resources are considered cultural resources for the purposes of the California Environmental Quality Act (CEQA). The appropriate treatment of historic properties is guided by federal guidelines promulgated by the Secretary of the Interior.

3.4.2.1 State

The National Historic Preservation Act of 1966 mandated the selection and appointment of a State Historic Preservation Officer (SHPO) in each state. Each SHPO is tasked, among other duties, with maintaining an inventory of historic properties. In California, the state legislature established additional responsibilities for the SHPO. These include maintenance of the California Register of Historical Resources (CRHR). Established by California Public Resources Code (PRC) Section 5024.12(a) in 1992, the CRHR serves as "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent feasible, from substantial adverse change." According to PRC Section 5024.1(c), the CRHR criteria broadly mirror those of the National Register of Historic Places (NRHP). The CRHR criteria found at PRC Section 5024.1(c) are as follows:

A historical resource must be significant at the local, state, or national level under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States; or
2. It is associated with the lives of person important to local, California, or national history; or
3. It embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values; or
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

The general rule is that a resource must be 50 years old to qualify for the CRHR. In addition to meeting one or more of the significance criteria, the resource must possess integrity. Integrity is defined as the authenticity of a historical resource's physical identity evidence by the survival of characteristics that existed during the resource's period of significance.

There are several ways for resources to be included in the CRHR. A resource can be listed in the CRHR, based on a nomination and public consideration process. In addition, a resource that is subject to a discretionary action by a government entity will be evaluated with respect to *eligibility* for the CRHR. Properties that are listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR.

California Environmental Quality Act

Established in 1970, CEQA directs state and local government entities to analyze and publically disclose the environmental impacts of proposed projects. Moreover, it requires development and adoption of mitigation measures to lessen impacts. At PRC Section 21060.5, the CEQA Guidelines define the environment to include "objects of historic…significance." For the purposes of CEQA, *historical resources* are defined at PRC Section 15064.5(a) of the CEQA Guidelines and include the items below (Paleontological resources are provided protection as historical resources, as discussed in PRC Section 15064.5(a)(3) of the CEQA Guidelines.). The text below is abbreviated and excerpted.

1. A resource listed in or determined eligible by the State Historical Resources Commission for listing in the CRHR.
2. A resource included in a local register of historical resources…or identified as significant in a historical resource survey…will be presumed historically significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the criteria for listing in the CRHR.

State Health and Safety Code Section 7050.5/California Public Resources Code Section 5097.9

Under State Health and Safety Code (HSC) Section 7050.5, if human remains are discovered during any project activity, the County coroner must be notified immediately. If human remains are exposed, HSC Section 7050.5 states that no further disturbance will occur until the County coroner has made the necessary findings as to origin and disposition, pursuant to PRC Section 5097.98. Construction will halt in the area of the discovery of human remains, the area of the discovery will be protected, and consultation and treatment will occur as prescribed by law. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the Native American Heritage Commission (NAHC) within 24 hours. The NAHC, pursuant to Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased person so they can inspect the burial site and make recommendations for treatment or disposal.

Public Resources Code Section 5097.5

PRC Section 5097.5 states that no person will knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any vertebrate paleontological site, including fossilized footprints or any other archaeological, paleontological, or historical feature situated on public lands, except with the

express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

3.4.2.2 Local

Los Angeles County

On September 1, 2015, the Los Angeles County Board of Supervisors adopted the Historic Preservation Ordinance, which applies only to those properties in the unincorporated areas of Los Angeles County. The Olive View–UCLA Medical Center Campus is in the Sylmar Community Plan area of the city of Los Angeles. Therefore, the Historic Preservation Ordinance does not apply.

City of Los Angeles Cultural Heritage Ordinance

The city of Los Angeles maintains a list of all sites, buildings, and structures that have been designated through the Cultural Heritage Ordinance as Historic-Cultural Monuments (HCMs).

Historic-Cultural Monument

Section 22.1717.7 of the Cultural Heritage Ordinance states that an HCM is any site, including significant trees or other plant life located on the site; building; or structure of particular historic or cultural significance to the city of Los Angeles. This includes historic structures or sites in which the broad cultural, economic, or social history of the nation, state, or community is reflected or exemplified; or which is identified with historic personages or with important events in the main currents of national, state, or local history; or which embodies the distinguishing characteristics of an architectural type specimen, inherently valuable for a study of a period, style, or method of construction or a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

After an application for HCM designation is submitted, the Cultural Heritage Commission determines whether or not the application merits consideration. If the commission recommends approval of the application and includes the site, building, and structure in the list of HCMs, no permit for demolition, substantial alteration, or relocation of the HCM may be issued (Section 22.171.14) unless:

1. The Superintendent of Building determines that demolition, relocation, or substantial alteration is necessary in the interest of the public health, safety, or general welfare;
2. The substantial alteration complies with the Secretary of the Interior's Standards for Rehabilitation;
3. The substantial alteration protects and preserves the historic and architectural qualities and the physical characteristics that made the site, building, or structure a designated HCM; and
4. The proposed action is in compliance with CEQA PRC Section 21000 et seq.

3.4.3 Environmental Setting

This section provides information on the archaeological, historical, and paleontological resources at the Olive View–UCLA Medical Center Campus.

The project area is in the San Fernando Valley, within the Transverse Ranges physiographic province. The Transverse Ranges are composed of parallel, east/west-trending mountain ranges and

sediment-filled valleys (U.S. Geological Survey 1996). The San Fernando Valley is a structurally complex, sedimentologically diverse, and tectonically evolving late Tertiary-Quaternary[1] basin that contains the headwaters of the Los Angeles River and its tributaries. Prior to the advent of flood control, the valley floor was composed of active alluvial fans and floodplains. Seasonal streams emanating from Pacoima and Big Tujunga Canyons drain the complex western San Gabriel Mountains and deposit coarse, highly permeable alluvium that contains generally high-quality water.

The San Fernando Valley is a structural trough that has been filled from the sides, with the major source of sediment being large drainages in the San Gabriel Mountains. Deposition on the major alluvial fan of Tujunga Wash and Pacoima Wash, which issues from the San Gabriel Mountains, as well as smaller fans, has been influenced by ongoing compressional tectonics in the valley. Late Pleistocene[2] deposits have been cut by active faults and warped over growing folds. Holocene[3] alluvial fans are locally ponded behind active uplifts (Yerkes 1997).

Today's Mediterranean-like climate is characterized by warm, dry summers and cool, moist winters, with rainfall falling predominantly between November and May. Climatic conditions in this region varied substantially during prehistoric times. Paleoclimatic research indicates that pine forests were present in the Santa Barbara coastal regions between 12,000 and 8,000 years ago. As the climate became warmer and drier, the pine forests were replaced approximately 5,700 years ago by Holocene-type grassland and oak woodland communities. Today's coastal sage scrub and chaparral communities became more pronounced approximately 2,000 years ago.

Current land uses in the project vicinity are mainly urban in character, with medical buildings, parking lots, and landscaping. Native vegetation is present just outside the boundaries of the project area to the north. Low-lying areas and gentle slopes are dominated by nonnative grasses with scattered coast live oak and valley oak. Higher elevations transition to chaparral. Areas between the nonnative grasses and chaparral are dominated by coastal sage scrub species, such as yucca and buckwheat. This setting hosts a variety of animal resources, including mule deer, brush rabbits, and black-tailed jackrabbits. Along the nearby intermittent streams is riparian vegetation where willows, cottonwoods, a variety of shrubs, and some grasses are present.

3.4.3.1 Geologic Setting

The project area is at the base of the San Gabriel Mountains, at elevations ranging from 1433 to 1551 feet above sea level. The project area is covered by fluvial and fan deposits that originated in the mountains to the north. The majority of the project area is underlain by recent Holocene alluvium, consisting of silt, sand, and gravel (Dibblee and Ehrenspeck 1991). The slopes in the northern portion of the project area are composed of the Pleistocene Pacoima Formation, a weakly consolidated alluvial gravel with sand deposits derived from the adjacent mountains (Dibblee 1991).

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[1] *Tertiary* is defined as noting or pertaining to the early part of the Cenozoic era, from 65 to 2 million years ago. *Quaternary* is defined as noting or pertaining to the present period of Earth's history, forming the latter part of the Cenozoic era; it originated 2 million years ago and included the Recent and Pleistocene epochs.

[2] Noting or pertaining to the epoch forming the earlier half of the Quaternary period, beginning about 2 million years ago and ending 10,000 years ago.

[3] Denoting or formed in the second and most recent epoch of the Quaternary period, which began 10,000 years ago, at the end of the Pleistocene.

3.4.3.2 Prehistoric Setting

Approaches to prehistoric frameworks have changed over the past half century, from being based on material attributes to radiocarbon chronologies to associations with cultural traditions. Archaeologists defined a material complex consisting of an abundance of milling stones with few projectile points or vertebrate faunal remains dating from about 7,000 to 3,000 years before the present as the Millingstone Horizon (Wallace 1955), which was later redefined as a cultural tradition named the Encinitas Tradition (Warren 1968), with various regional expressions, including Topanga and La Jolla. The characteristics of the Encinitas Tradition are abundant metates and manos, crudely made core and flake tools, bone tools, shell ornaments, very few projectile points, and subsistence that focused on collecting (e.g., plants, shellfish, etc.) (Sutton and Gardner 2010:7). Faunal remains vary by location, but include shellfish, land animals, marine mammals, and fish. The Encinitas Tradition is currently defined under four geographical patterns: (1) Topanga in coastal Los Angeles and Orange Counties; (2) La Jolla in coastal San Diego County; (3) Greven Knoll in inland San Bernardino, Riverside, Orange, and Los Angeles counties; and (4) Pauma in inland San Diego County (Sutton and Gardner 2010:8–25).

About 3,500 years before present, the Encinitas Tradition was replaced in the greater Los Angeles Basin by the Del Rey Tradition (Sutton 2010). This tradition has been generally assigned to the Intermediate and Late Prehistoric periods. The changes that initiated the beginning of the Intermediate period include new settlement patterns, economic foci, and artifact types that coincided with the arrival of a biologically distinctive population.

As defined by Sutton (2010), the Del Rey Tradition replaces usage of the Intermediate and Late Prehistoric designations for both the southern California mainland and the southern Channel Islands. The Del Rey Tradition represents the arrival, divergence, and development of the Gabrielino in Southern California. Within the Del Rey Tradition are two regional patterns: Angeles and Island.

The Angeles pattern generally is restricted to the mainland and appears to have been less technologically conservative and more ecologically diverse, with a largely terrestrial focus and greater emphases on hunting and nearshore fishing. In Angeles Phase I, Elko points for atlatls or darts appear; small steatite objects such as pipes and effigies from Catalina are found; shell beads and ornaments increase; fishing technologies increase, including use of bone harpoons/fishhooks and shell fishhooks; donut stones appear; and hafted microblades for cutting/graving wood or stone appear. In addition, several Encinitas (Topanga) traits, such as discoidals, cogged stones, plummet-like charmstones, and cairn burials, virtually disappear from the record. Mortuary practices changed to consist of flexed primary inhumations, with extended inhumations becoming less common. Settlement patterns made a shift from general use sites being common to habitation areas that were separate from the functional work areas. Subsistence shifted from mostly collecting to increased hunting and fishing (Sutton 2010).

Angeles Phase II is identified primarily by the appearance of a new funerary complex, with other characteristics similar to Angeles I. The complex features killed (i.e., broken) artifacts, including manos, metates, bowls, mortars, pestles, and points, plus highly fragmented cremated human bones and a variety of faunal remains (Sutton 2010).

Angeles Phase III is the beginning of what has been known as the Late period and marked by several changes from Angeles I and II. These include the appearance of small projectile points, steatite shaft straighteners, and increased use of asphaltum, all reflecting adoption of the bow and arrow. In addition, obsidian sources changed from mostly Coso to Obsidian Butte, and shell beads derived

from Gulf of California species began to appear. Subsistence practices continued as before, and the geographic extent of the Angeles Pattern increased (Sutton 2010).

Angeles Phase IV is marked by new material items, including Cottonwood points for arrows, olivella cupped beads and *Mytilus* shell disks, birdstones (zoomorphic effigies with magico-religious properties), and trade items (e.g., pottery from the Southwest). It appears that populations increased, and there was a change in the settlement pattern to fewer but larger permanent villages. The presence and utility of steatite vessels may have impeded the diffusion of pottery into the Los Angeles Basin. Smaller special-purpose sites continued to be used (Sutton 2010), practices continued as before, and the geographic extent of the Angeles Pattern increased (Sutton 2010).

Angeles Phase V components contain more and larger steatite artifacts, including larger vessels, more elaborate effigies, and comals. Settlement locations shifted from woodland to open grasslands. The exploitation of marine resources seems to have declined, and the use of small seeds increased. Many Gabrielino inhumations contained grave goods, while cremations did not (Sutton 2010).

Angeles Phase VI reflects the ethnographic mainland Gabrielino of the post-contact (i.e., post-A.D. 1542) period. One of the first changes in Gabrielino culture after contact was population loss due to disease, coupled with resulting social and political disruption. Angeles Phase VI material culture is essentially Angeles Phase V, augmented by a number of Euro-American tools and materials, including glass beads and metal tools such as knives and needles (used in bead manufacture). The frequency of Euro-American material culture increased through time until it constituted the vast majority of materials used. Locally produced brownware pottery appears along with metal needle-drilled olivella disk beads (Sutton 2010).

3.4.3.3 Native American Ethnographic Setting

The project area is within the traditional tribal territory of the Fernandeño, a subgroup of the Gabrielino/Tongva. The Tongva occupied Los Angeles County south of the Sierra Madre Mountains, portions of Orange County, San Clemente Island, and Santa Catalina Island (McCawley 1996). Historically, populations of the Tongva associated with Mission San Fernando were known as Fernandeño Indians. However, both were populations of the Tongva nation. The distinction is primarily geographical (McCawley 1996).

Two groups of Native Americans were present prehistorically in the San Fernando Valley, the Tataviam (Fernandeño) and the Tongva (Gabrielino). Tataviam territory stretched from the Antelope Valley to the Tejon Ranch area and the San Fernando Valley. The Tongva territory encompassed a vast area extending from Topanga Canyon to the northwest, to the base of Mount Wilson to the north, to San Bernardino to the east, to Aliso Creek to the southeast, and to the southern Channel Islands, an area of more than 2,500 square miles (McCawley 1996:3).

Gabrielino subsistence was based on a varied hunting and gathering strategy that included large and small land and sea mammals, river and ocean fish, and a variety of plant resources. Deep-sea fishing was accomplished from boats of wooden planks tied together and sealed with asphalt and other materials. Sea mammals were hunted with harpoons, spears, and clubs. River fishing was accomplished by the use of line and hook, nets, basket traps, spears, and poisons. Land mammals were hunted with bow and arrow, clubs, and traps.

The Gabrielino first encountered Europeans in 1542, when Spanish conquistador Juan Rodríguez Cabrillo and his crew entered Gabrielino territory. Spanish colonization of the region began in 1769 and resulted in the establishment of Missions San Fernando and San Gabriel. Disease and violence resulting from Spanish colonization, as well as the harsh effects of mission life, diminished Gabrielino populations. Following the secularization of the missions, most surviving Gabrielino became wage laborers on the ranchos of Mexican California. In the early 1860s, a smallpox epidemic nearly wiped out Gabrielino culture.

3.4.3.4 Historical Setting

Once known as the Olive View Sanatorium, the original 468-acre hospital campus was purchased by the County of Los Angeles (County) in 1915 expressly for tuberculosis treatment. At that time, County General Hospital was where most of the local tubercular patients were taken and treated. An additional 122 acres was added at the eastern end of the campus in 1922, for a total of 590 acres. Located at the time in unincorporated Los Angeles County, in the northeast corner of the San Fernando Valley, Olive View Sanatorium was isolated, connected to metropolitan Los Angeles only by the rail transit lines of the Pacific Electric Red Cars and Southern Pacific Railroad, which served the adjacent city of San Fernando. The site was named for its panoramic views of the extensive nearby olive groves.

Pulmonary tuberculosis, also known as consumption, is a communicable disease that is spread by the tubercular bacillus bacteria. Poor ventilation and overcrowding in the home and the workplace, specifically, the tenements and sweatshops of the poor, were blamed for the spread of tuberculosis to epidemic proportions in the later decades of the nineteenth century and the first half of the twentieth century. In the 1870s, the disease killed approximately 15 percent of the world's population. By the 1940s, it had claimed more lives than any other contagious disease. The most common treatment for tuberculosis was the "sanatorium rest routine, sequestering…patients in sprawling rural hospitals, isolated from great centers of population" (Caldwell 1988:11). Therapy for early, or *incipient*, cases included an abundance of fresh air. Patients were encouraged to sleep with a window open or outside, even in the coldest of climates. Southern California thus became a mecca for tuberculosis sanatoria as the warm, dry air was thought to be medicinal. This favorable climate encouraged a great migration, not just of the patients, but also their families. Severe overcrowding of patients with tuberculosis became a significant issue for local hospitals.

The sanatoria, which were built soon after the turn of the century, included Barlow Sanatorium (established in 1902, now known as Barlow Respiratory Hospital), Kaspare Cohn Hospital (established in 1902, now known as Cedars-Sinai Medical Center), the Jewish Consumptive Relief Association (established in 1912, now known as City of Hope), and Olive View Sanatorium, the only public institution in the group. As a result, patients recuperating at County General Hospital would generally be relocated to Olive View Sanatorium.

In addition to rest therapy, the treatment of tuberculosis also included collapse therapy, wherein where one lung would be collapsed with an injection of nitrogen and thereby allowed to rest and heal. As this and other more radical treatments and operations were performed from the 1920s through the 1940s, the sanatoria expanded their facilities to include operating rooms, acute units, and additional medical staff. In the winter of 1944–1945, the antibiotic streptomycin was first used as a treatment for tuberculosis at the Mayo Clinic in Minnesota. Recovery time was cut from months or years at the sanatoria to just a few weeks. The Barlow Sanatorium became a respiratory hospital. The other early tubercular sanatoria either closed their doors or became general hospital facilities.

In its first year of operation (1921), Olive View Sanatorium had a total of 95 patients and 32 staff members. The patients were housed in four wards, and the staff was housed in two dormitories. From 1921 to 1931, numerous buildings were constructed on the hospital campus, including convalescent camps, occupational therapy buildings, a chapel, two schools, a post office, and a fire station. The pastoral setting of the Craftsman and Spanish Colonial Revival buildings, all residential in character, was enhanced by a well-maintained and lush landscape. The buildings were generally one or two stories in height, with most designed with south-facing verandas to take advantage of the sunlight and views.

In 1928, a total of 156 buildings housed 1,000 patients and 550 employees. Seven of the 33 wards were for children. Between 1928 and 1930, a surgical unit (Building 401/402) and nurse's dormitory (Building 403) were constructed at the extreme eastern end of the campus. Olive View Sanatorium reached its peak patient population of 1,230 in 1953, when it was accepting tubercular patients from smaller sanatoria that had closed because of the successful use of antibiotics to fight the disease. In 1962, a forest fire destroyed the original administration building. From 1964 to 1971, a new general hospital was constructed. Days after its opening in January of 1971, this replacement hospital collapsed in the Sylmar earthquake on February 9, 1971.

Current Campus

The current Olive View–UCLA Medical Center Campus contains buildings that date from the early 1920s to the present. The original campus was laid out according to direction from published treatises of the early twentieth century, including the choice of site, the grouping and siting of buildings, the particular styles of architecture used for specific types of structures, and the overall landscape design, with its paths and interior roadways. Little of that original design remains today. Only a few buildings date to the era before the introduction of antibiotic treatment, including the former administration building (now used by the personnel/payroll department), a warehouse (now used for material management/storage), and the bungalows along Sycamore and Saranac avenues.

The administration building (1925), located west of Cobalt Avenue, is isolated in the western portion of the campus. To the west is the newer psychiatric urgent care building. To the northwest are open paved areas where some wards and a chapel were once located. North and northeast of the administration building are other wards; employees' dorms; support buildings, such as the kitchen, pharmacy, and service building; and pre-fabricated storage buildings. Previous administration building alterations were determined to be incompatible, including a sliding metal sash.

The warehouse (1926), located at the end of Cobalt Avenue, north of Bucher Avenue, bisects the campus on the east–west axis. It appears to be generally intact.

The Craftsman and Spanish Colonial Revival bungalows and cottages that line both sides of Sycamore and Saranac Avenues north of the main hospital building are used as support and ancillary departments at the hospital. All display alterations, primarily replacement window sashes, although roof and porch alterations are evident as well. Bungalows G, H, I, and J were constructed in 1927; Bungalows M, N, and O were constructed in 1929; and Bungalows P and R were constructed in 1930. Bungalows C, D, E, and F were demolished after 1994, and Bungalows K, L, and Q were replaced by trailers in 1994 and 2014.

Immediately west of the main hospital building are the offices and shops of the maintenance facility. These one-story concrete and brick buildings with raised elevations generally form a U shape, opening toward Olive View Drive, and are cohesive in style and use. North of the shops are the old

lab and vivarium, along with a structure for the Sheriff's Department. In combination with the shops, these represent a collection of mid-century buildings constructed between 1958 and 1969.

The replacement hospital building was constructed in 1983 and is currently the primary focus of the campus. Set back from Olive View Drive, with a surface parking lot between it and the street, the hospital visually dominates the landscape, both in mass and in height. A transmission line easement divides from the building from the original western end of the campus. In addition, the hospital building blocks views of the series of small-scale Craftsman and Spanish Colonial Revival buildings off Sycamore and Saranac Avenues from the public right-of-way. In many ways, this physically represents the completed transition of the campus from a sanatorium to a general hospital, specifically, from a landscape with a focused purpose (i.e., the care, treatment, and cure of patients with tuberculosis) to a facility that treats patients with various ailments, but primarily those who require short-term care or mental health services.

3.4.3.5 Historical and Archaeological Resources

The identification of historical and archaeological resources in the project area is based on a study prepared by Cogstone Resource Management, Inc., entitled *Archaeological Resources Assessment for the Olive View–UCLA Medical Center Master Plan EIR, Los Angeles County, California* (Lev-Tov and Valasik 2016) (see Appendix E of this Final EIR]).

Information Review Results

The sources of information that were reviewed included:

- National Register of Historic Places
- California Historical Landmarks
- California Points of Historical Interest
- California Register of Historical Resources
- City of Los Angeles Historic-Cultural Monument List
- SurveyLA–Historic Resources Survey Report, Sylmar Community Plan Area, August 2015
- Olive View–UCLA Medical Center, Department of Parks and Recreation (DPR) Primary Record, District Record and Continuation Sheets, September 30, 1994
- 1926 Map of Olive View
- Undated Map of Olive View Hospital (1950s/1960s)
- 1970 Map of Olive View Hospital (with accompanying list of structures, improvements, and equipment as of May 31, 1970)
- 1995 Map of Olive View–UCLA Medical Center Campus, 14445 Olive View Drive, Sylmar, CA, September 22, 1995

A search for archaeological and historical records was completed at the South Central Coastal Information Center at California State University, Fullerton, on January 28, 2016.

The records search determined that two historic built-environment resources and one historic district were recorded within the project area. The historic district for the Olive View–UCLA Medical Center Campus, P-19-175294, is within both the Tier I and Tier II project areas. Also located within

Tier I is P-19-187900, consisting of foundations for the laundry and linen buildings within the Olive View Tuberculosis Sanitarium Complex. Within Tier II is P-19-003794, which consists of a concrete foundation and sidewalk associated with men's solarium wards 121 and 124, as well as a concrete subterranean transformer vault.

The review of existing sources of information, combined with information collected during the field visits, was used to determine the significance of buildings, structures, objects, sites, and districts and evaluate potential effects on such resources.

Field Investigation Results

An intensive pedestrian survey of the 138.6-acre project site was conducted on February 15, 2016 (Lev-Tov and Valasik 2016). Portions of the three previously recorded cultural resources were observed during the survey. No archaeological resources were previously recorded or observed during the survey.

The Olive View–UCLA Medical Center Campus has been surveyed for historical resources several times, by both local and federal agencies, beginning in 1994. Following the Northridge Earthquake in 1994, the Olive View–UCLA Medical Center Campus was surveyed by the Federal Emergency Management Agency (FEMA) and its consultants in compliance with Section 106 guidance. At that time, the consultants for FEMA found that an NRHP-eligible historic district was evident. The boundary of the historic district was delineated by outlining the concentration of 50-year-old buildings (constructed in 1944 or earlier), which, at that time, formed the historic core of the hospital campus. When the boundary was drawn around the historic core, 67 buildings were located within the historic district; 46 were considered *contributing* and 19 were considered *non-contributing*. Between the survey and completion of the evaluation, one contributing building was demolished.

This eligibility determination included a DPR Primary Record, District Record, and 40 pages of continuation sheets dated September 30, 1994. The consultant determined the period of significance to be 1920 to 1944 and found the historic district eligible under Criterion A. On November 16, 1994, this documentation was forwarded to FEMA, stating that the district eligibility was reviewed in consultation with the staff at the Office of Historic Preservation (OHP), but that the documentation had not been formally submitted to OHP and should be considered draft. Less than a year later, representatives from OHP, FEMA, the California Office of Emergency Services, and the County (as the owner and operator of the Olive View–UCLA Medical Center Campus) met to discuss various FEMA-related undertakings at this location. The meeting took place at the Olive View–UCLA Medical Center Campus, and a field reconnaissance survey was conducted. As a result of field reconnaissance, in concert with a review of new information and additional details related to historical development of the campus, OHP concluded that, although the 1994 determination of NRHP eligibility was valid at that time, a re-examination of the campus showed that the Olive View–UCLA Medical Center Campus had lost integrity of design, setting, materials, and workmanship. Therefore, OHP concluded that, because of the combination of demolition, relocation, reconfiguration, additions, and intrusions that occurred between 1944 and the 1970s, the character and appearance of the district's components, cumulatively, were substantially changed; therefore, the Olive View–UCLA Medical Center Campus could no longer be seen as a coherent and cohesive NRHP-eligible district. OHP submitted its finding in a letter to FEMA on September 28, 1995.

In 2015, as part of the Los Angeles Historic Resources Survey (SurveyLA)[4] program conducted by the city of Los Angeles Office of Historic Resources, the Olive View–UCLA Medical Center was identified as potentially significant and a "rare remaining example of a 1920s sanatorium in Los Angeles; the property has been in continuous use as a medical facility since its establishment in 1920." However, the identification of contributing and non-contributing features was considered to be out of scope for the survey, and a formal evaluation was not completed. No period of significance was identified because this was primarily a windshield survey, and no NRHP, CRHR, or local criteria were applied. No DPR forms were prepared in concert with this survey.

The survey team provided a discussion of notable features in its description of the campus, including the Craftsman bungalows on Sycamore Avenue, Spanish Colonial Revival buildings at the intersection of Sycamore and Mesa Avenues, the original administration building on Olive View Drive, the warehouse building at the north end of Cobalt Street, three of the maintenance shops along Olive View Drive, the Quonset hut on Jacaranda Terrace, the old lab on Bucher Avenue, as well as numerous other buildings and structures, representing various periods of development. In addition, the SurveyLA team also pointed out remnants of extensive development on the property, such as paved roads, walkways, concrete steps, retaining walls, and light standards, as well as various mature trees, which are extant.

Table 3.4-1 lists the buildings at the Olive View–UCLA Medical Center Campus that were previously evaluated and the associated finding.

Table 3.4-1. Historical Status of Campus Buildings

Address	Building Name	Previous Finding	Finding Date	Notes	Current Status
Building 2249	Men's Solarium Wards 121 and 123	7R	2/29/08	Two features: concrete foundation and sidewalk associated with the wards and a concrete subterranean transformer vault. DPR form.	Actual buildings demolished
Building	Ward 403	6Z	9/26/07	Building evaluated for CRHR only. DPR form.	Demolished
Building 2521 and 2519	Laundry and Linen Buildings	7R	9/25/06	Two features: cement pad and stairway (Laundry Building) and a smaller cement pad (Linen Building). DPR form.	Actual buildings demolished
N/A	Maclay Highline Aqueduct	7R	9/18/06	Underground aqueduct (abandoned). May have been demolished by Los Angeles Department of Water and Power. DPR form.	Not observed in 2016

[4] Note: SurveyLA provides baseline information on historic resources to inform planning decisions and support City policy goals and processes. Survey findings are subject to change over time as properties age, more information is uncovered, and more detailed analyses are completed. Resources identified through SurveyLA are not designated resources; designation is a separate process that requires public hearings and property owner notification.

Address	Building Name	Previous Finding	Finding Date	Notes	Current Status
Building 2169	Building 106	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2167	Building 110	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2139	Warehouse (currently used for materials management and storage)	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ
Building 2142	Cottage #4	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2145	Cottage U	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2144	Garage	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2248	Ward 103/ Stationary	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished

Address	Building Name	Previous Finding	Finding Date	Notes	Current Status
Building 2168	Building 108	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2148	Cottage #3	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2190	Barber Shop	2S2	11/16/94; 9/28/95	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2147	Cottage #1	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2189	Garbage and Can House	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2171	Medical Transcription	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2164	Personnel Payroll (former administration building)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ

Address	Building Name	Previous Finding	Finding Date	Notes	Current Status
Building 2154	Building 307	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2259	Bungalow D	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2258	Bungalow E	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2257	Bungalow F	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2176	Building 114	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2260	Bungalow C	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2237	Bungalow G (currently houses Employee Health Services)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ

Address	Building Name	Previous Finding	Finding Date	Notes	Current Status
Building 2236	Building H (currently houses the Department of Surgery and Patient Financial Services Workers)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ
Building 2222	Building I (currently houses Environmental Health and Safety)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ
Building 2220	Bungalow J (currently houses Internal Services Department)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ
Building 2180	Convalescent Cottage	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2223	Building 401/402	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2138	Garage/Lumber Storage	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished

Address	Building Name	Previous Finding	Finding Date	Notes	Current Status
Building 2155	Building 301	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2157	Building 303	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2156	Building 305	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2200	Bungalow L	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2202	Bungalow M (currently houses Quality Assurance Coordinator)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ
Building 2203	Bungalow N (currently houses Doctor's Office)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ
Building 2204	Bungalow O (currently houses Patient Financial Services Workers)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ

Address	Building Name	Previous Finding	Finding Date	Notes	Current Status
Building 2205	Double Garage (currently houses Occupational Therapy)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ
Building 2241	Film Storage Vault	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2261	Women's Doctor's Cottage	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2211	Building 403	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2206	Bungalow P (currently houses Credit Union)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building..	In situ
Building 2207	Bungalow Q	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2208	Bungalow R (currently houses Information Systems)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ

Address	Building Name	Previous Finding	Finding Date	Notes	Current Status
Building 2295	Bungalow S (currently houses Utilization Review)	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ
Building 2266	Guest Cottage	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2265	Bungalow T	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 2175	Morgue	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	Demolished
Building 5018	Coroner's Office	2S2	11/16/94	HRG/FEMA determination; see 9/29/1995 SHPO correspondence, which refutes 1994 finding of no NRHP-eligible historic district or individually eligible building.	In situ

2S2: Individual property determined eligible for NRHP by consensus through Section 106 process. Listed in the CRHR.

6Z: Found ineligible for NRHP, CRHR, or local designation through survey evaluation.

7R: Identified in reconnaissance-level survey: not evaluated.

Source: City of Los Angeles 2015; ICF 2016.

Field Investigation Results

Of the 46 buildings and structures that were identified as contributing features to the proposed historic district in 1994, only 13 remain at the Olive View–UCLA Medical Center Campus. This was confirmed following a field survey conducted by qualified architectural historians with ICF on May 26, 2016. Only 27 percent of the resources identified as contributing features to the proposed historic district in 1994 remain.

For the purposes of the NRHP, a *district* is defined as an area that possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects that are united historically or aesthetically by plan or physical development (National Park Service 1990). The May 2016 survey of the campus revealed that there is little visual sense of the physical environment from the period of significance (1920–1944), as defined in the 1994 evaluation, remaining on the site. The aforementioned pattern of demolition, relocation, and modern (post-1944) additions has degraded the important interrelationship of buildings, structures, and landscape from the period of significance. This, in turn, has affected the integrity of the proposed historic district (*integrity* is the ability of a property to convey its significance.). When evaluating properties for NRHP eligibility, a property's integrity is as important as the property's association with an important historic context.

Seven aspects define integrity as it relates to evaluating properties for NRHP eligibility. The following aspects were considered most important when evaluating the integrity of the proposed Olive View–UCLA Medical Center historic district (1994):

- **Design:** A combination of elements that creates the form, plan, space, structure, and style of a property;
- **Setting:** The physical environment of a historic property;
- **Materials:** The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property;
- **Feeling:** The property's expression of the aesthetic or historic sense of a particular period of time; and
- **Association:** The direct link between an important historic event or person and a historic property.

During the field survey in March 2016, the architectural historian was granted access to historical maps, photographs, and property inventory lists, which provided a basis for understanding the physical changes to the campus over time. Based on this on-site research, the results of the records search, and a walking survey of the campus, it appears that, although there are still remnants of occupation over a long period of time, as the SurveyLA team remarked, the determination made by OHP in 1995 (i.e., that the Olive View–UCLA Medical Center Campus had lost integrity of design, setting, materials, and workmanship and the combination of demolition, relocation, reconfiguration, additions, and intrusions between 1944 and the 1970s had substantially changed the character and appearance of district components) is still valid. In addition, since 1995, other physical improvements, such as demolition and new construction, have degraded the site's historic integrity even more. Therefore, although the historic core of the Olive View–UCLA Medical Center is associated with an important local context (i.e., the goal of humanely and efficiently treating and caring for tubercular patients in Los Angeles County in the early part of the twentieth century), the buildings, individually and collectively, no longer retain integrity of design, setting, materials, workmanship, feeling, or association and convey significance as an NRHP-eligible property under any criterion. As a result, the property is also not eligible for the CRHR under Criterion 1, 2, 3, or 4.

The proposed 1994 historic district boundary excluded the buildings in Table 3.4-2, constructed between 1944 and 1967, from evaluation. In accordance with the accepted practice of using the 50-year mark, 1967 was used as the cut-off date for evaluating properties at the Olive View–UCLA Medical Center Campus.

Table 3.4-2. Properties Constructed between 1944 and 1967

County Building Number	Original/Former Building Name	Current Name/Use	Year Built
3217	Old Pharmacy Building	Weed Abatement	1955
3584	Lab Building	Pathology/Housekeeping/CRM	1958
4224	Paint/Warehouse/Electric Shop Building	Maintenance of Plant	1961
4225	Storage Building	Maintenance of Plant	1960–1961
4227	Mechanical Shops	Maintenance of Plant	1960–1961
4228	Office of Building	Maintenance of Plant	1961
4407	Metal Storage Building	Maintenance of Plant	1964
4985	Vivarium	Testing Annex	1963–1964
5000	Garage	OV–Storage	1962
5018	Corrugated Iron Building	Storage	1962
Source: ICF 2016. Note: None of the properties identified above appear to be eligible for the CRHR.			

As a result of exclusion from the 1994 evaluation, the buildings were evaluated for individual NRHP eligibility for the purposes of this report.

3.4.4 Environmental Impact Analysis

3.4.4.1 Thresholds of Significance

For the purposes of this Final EIR, in accordance with Section 21084.1 of CEQA and Appendix G of the CEQA Guidelines, the proposed project would have a significant adverse environmental impact if it would:

CR-1: Cause a substantial adverse change in the significance of a historical resource, pursuant to Section 15064.5 of the CEQA Guidelines.

CR-2: Cause a substantial adverse change in the significance of an archaeological resource, as defined in Section 15064.5 of the CEQA Guidelines.

CR-3: Disturb any human remains, including those interred outside of formal cemeteries.

3.4.4.2 Impacts and Mitigation Measures

Impact CR-1: Would the Proposed Project Cause a Substantial Adverse Change in the Significance of a Historical Resource, as Defined in Section 15064.5 of the CEQA Guidelines?

Construction Impacts

Tiers I and II

Because there are no known historical resources on the Olive View–UCLA Medical Center Campus, no substantial adverse changes are anticipated.

Operational Impacts

Tiers I and II

Operation of the Olive View–UCLA Medical Center Campus under the proposed Master Plan would not affect historical resources.

Impact CR-2: Would the Proposed Project Cause a Substantial Adverse Change in the Significance of an Archaeological Resource, as Defined in Section 15064.5 of the CEQA Guidelines?

Construction Impacts

Tiers I and II

Surface disturbances over the past 130 years have probably destroyed intact archaeological resources on the campus. Therefore, the likelihood of encountering prehistoric and historical archaeological resources is low. However, based on consultation with a tribal representative of the Fernandeño Tataviam Band of Mission Indians in 2017 (see Section 3.16, *Tribal Cultural Resources*, of this Final EIR), it has been determined that the campus is within the known use radius of two tribal cultural resources, as well the vicinity of natural springs and mature oak trees. As a consequence, and given the campus' location along the foothills, there is increased potential for subsurface tribal cultural resources in the vicinity of the campus. Therefore, the possibility exists that structural demolition, grading, and excavation for new building foundations, new internal roadways, and utility infrastructure, as well as parking structures, could affect unknown buried archaeological resources. Disturbance or destruction of archaeological resources, resulting in a substantial adverse change in the significance of the resource, would be a significant impact. Construction impacts would vary, depending on final plans, and need to be analyzed in detail to determine what level of monitoring, if any, would be required. To ensure that impacts on archaeological resources would be minimized or avoided, mitigation measures **MM-CR-1** through **MM-CR-6**, below, would be implemented.

Operational Impacts

Tiers I and II

Operation of the Olive View–UCLA Medical Center Campus under the proposed Master Plan would not affect archaeological resources.

Mitigation Measures

The following measures are proposed to mitigate Impact **CR-2**, as described above:

MM-CR-1: Train Construction Personnel. Prior to any ground disturbance, all construction personnel will be trained to recognize possible buried cultural and tribal cultural resources during construction. Training will inform construction personnel of the procedures to be followed upon discovery of cultural and tribal cultural resources, including Native American burials. Training will make construction personnel aware that unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order and violators will be subject to prosecution under appropriate state and federal laws. Violations will be grounds for removal from the project.

MM CR-2: Cultural Resources Monitoring. Cultural resources monitoring of ground-disturbing activities within undisturbed native soils will be conducted by a qualified archaeologist who is familiar with the types of cultural and tribal cultural resources that could be encountered in the project area. The monitor will be under the direct supervision of an archaeologist who meets the national standards for archaeology, as set by the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation. Ground-disturbing activities include, but are not limited to, auguring, excavation, geotechnical investigations, vegetation clearing, ground-surface leveling, trenching, and conventional mass grading. A single monitor will be assigned to observe two or more simultaneous ground-disturbing activities that occur less than 50 feet away from each other. Additional monitors will be assigned if two or more simultaneous ground-disturbing activities occur more than 50 feet away from each other. Monitors will complete a daily activity log.

MM-CR-3: Native American Tribal Monitoring. If intact prehistoric cultural resource deposits, as determined by the project archaeologist, and/or tribal cultural resources, as determined in consultation between the Fernandeño Tataviam Band of Mission Indians and the County, are identified during ground-disturbing activities within native soils, Native American tribal monitoring will be conducted by a Native American monitor from the Fernandeño Tataviam Band of Mission Indians. A single tribal monitor will be assigned to observe two or more simultaneous ground-disturbing activities that occur less than 50 feet away from each other. Additional tribal monitors will be assigned if two or more simultaneous ground-disturbing activities occur more than 50 feet away from each other. The tribal monitors will represent the tribe's interests and follow the NAHC's Guidelines for Tribal Monitors. Monitors will complete a daily activity log.

MM-CR-4: Discovery of Cultural and Tribal Cultural Resources. If cultural resources or tribal cultural resources are encountered during ground-disturbing activities, cultural and tribal monitors will be empowered to divert ground-disturbing activities within 50 feet of the discovery until a qualified archaeologist can determine whether the resource is a unique archaeological resource or historical resource, as defined in PRC Section 21083.2 and/or 14 California Code of Regulations Section 15064.5, or tribal cultural resource, as defined in PRC Section 21074 and determined in consultation with the tribe. Work may continue in other areas. Tribal monitors will cooperate with the qualified archaeologist to locate all cultural materials exposed during ground-disturbing activities. All cultural resources recovered will be documented on DPR Series 523 forms.

MM-CR-5: Treatment of Cultural and Tribal Cultural Resources. If the qualified archaeologist determines that a discovery is a historical resource (as defined in **MM-CR-4**) of an archaeological nature or, as determined in consultation between the tribe and the County, a tribal cultural resource, then the mitigation standards of 14 California Code of Regulations Section 15126.4(b), which specifies that preservation in place will be the preferred manner of mitigation, will be implemented.

If preservation in place is not feasible, a cultural and/or tribal cultural resources treatment plan will be prepared, pursuant to 14 California Code of Regulations Section 15126.4(b) and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The treatment plan will include provisions for (i) assessing and treating the identified resources, (ii) reporting results in a timely manner, (iii) providing an opportunity for the tribe to recover the material, and (iv) providing comments on the draft report. The tribe will be afforded an opportunity to review the plan prior to implementation. The plan will be submitted to the Los Angeles County Department of Public Works prior to treatment of the historical resource, unique archaeological resource, or tribal cultural resource.

A preliminary draft monitoring compliance report will be submitted within 3 months of the end of project construction activity. The report, which will be prepared by a qualified archaeologist, will include documentation and interpretation regarding the identified or recovered resources. Interpretation will include full evaluation of the eligibility of the resources identified for listing in the CRHR. All surface and subsurface artifacts and features will be mapped and described in the report. The tribe will be afforded an opportunity to provide comments for inclusion in the final report. The final report will be filed at the South Central Coastal Information Center at California State University, Fullerton. One copy of the final report will be provided to the tribe.

MM-CR-6: Human Remains. In accordance with California Health and Safety Code Section 7050.5, if human remains are encountered, no further disturbance will occur within 50 feet of the find(s) until the Los Angeles County Coroner has made the necessary findings as to origin. Furthermore, pursuant to PRC Section 5097.98(b), remains will be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Los Angeles County Coroner determines that the remains are Native American, the NAHC will be contacted within 24 hours. The NAHC will identify the Most Likely Descendant, who will make recommendations concerning treatment of the remains within 48 hours, as provided in PRC Section 5097.98. If the County cannot come to an agreement with the Most Likely Descendant, PRC Section 5097.98(e) requires the County to "reinter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance."

Level of Significance after Mitigation

Impacts on archaeological resources, if any are found, are expected to be reduced to a level of less than significant with implementation of **MM-CR-1** through **MM-CR-6**.

Impact CR-3: Would the Proposed Project Disturb any Human Remains, Including those Interred Outside of Formal Cemeteries?

Construction Impacts

Tiers I and II

Ground-disturbing activities have the potential to unearth human remains. Should human remains be uncovered during construction, mitigation plans would require construction to halt in the area of discovery, the area to be protected, and no further disturbance to occur, as specified by State Health and Safety Code Section 7050.5. **MM-CR-6** explains how potential impacts on human remains would be mitigated.

Operational Impacts

Tiers I and II

Operation of the Olive View–UCLA Medical Center Campus under the proposed Master Plan would not affect human remains.

Mitigation Measures

Mitigation measure **MM-CR-6** is proposed to mitigate Impact **CR-2**, as described above.

Level of Significance after Mitigation

Impacts on human remains, if any, would be reduced to a level of less than significant with implementation of **MM-CR-6**.

3.4.5 Cumulative Impacts

3.4.5.1 Historical Resources

Because there are no historical resources on the campus and the proposed project would not result in any adverse effects on historical resources in the vicinity of the campus, the proposed project would not contribute to any cumulative impacts on historical resources. No further discussion is required.

3.4.5.2 Archaeological Resources

The study area for the cumulative impacts analysis of prehistoric archaeological resources consists of the traditional tribal territory of the Tongva nation. The Tongva occupied Los Angeles County south of the Sierra Madre Mountains, portions of Orange County, San Clemente Island, and Santa Catalina Island. The study area for the cumulative impacts analysis of historic archaeological resources consists of the Los Angeles metropolitan region. Growth and development in the cumulative impacts study areas could result in significant impacts if prehistoric or historic archaeological resources are encountered and disturbed or damaged during construction activities. It should be noted that a great deal of historic-period debris (e.g., bricks, bottles, broken cups, plates) can be found during construction; however, this material is seldom considered a significant resource that would be eligible for the CRHR. In addition, although the potential for an individual cumulative project to affect significant cultural resources is unknown, given the geographic extent of the cumulative impacts study areas, it is probable for cumulative growth and development to affect

significant prehistoric or historical archaeological resources. Although the likelihood of encountering prehistoric or historic archaeological resources on the Olive View–UCLA Medical Center Campus is low, the possibility remains for project excavation to affect unknown archaeological resources, a potentially significant project impact. However, **MM-CR-1** through **MM-CR-6** would reduce potential project-related impacts to a less-than-significant level. Therefore, with mitigation, the proposed project's contribution to significant cumulative impacts would be rendered less than cumulatively considerable.

3.5 Energy

3.5.1 Introduction

This section describes the existing energy systems that serve the project site, including natural gas, electricity, and transportation fuels, and the impacts on those systems that could occur due to implementation of the proposed Master Plan. Measures that would mitigate significant impacts are also identified.

3.5.2 Regulatory Setting

3.5.2.1 Federal

The Energy Policy and Conservation Act of 1975

The Energy Policy and Conservation Act of 1975 (EPCA) is a United States Act of Congress that responded to the 1973 oil crisis by creating a comprehensive approach to federal energy policy. The primary goals of EPCA are to increase energy production and supply, reduce energy demand, provide energy efficiency, and give the executive branch additional powers to respond to disruptions in energy supply.

Leadership in Energy and Environmental Design Leadership in Energy and Environmental Design (LEED) is a rating system devised by the United States Green Building Council to evaluate the environmental performance of a building and encourage market transformation towards sustainable design. The system is credit-based, allowing projects to earn points for environmentally friendly actions taken during construction and use of a building. LEED was launched in an effort to develop a "consensus-based, market-driven rating system to accelerate the development and implementation of green building practices." The program is not rigidly structured: not every project must meet identical requirements to qualify.

3.5.2.2 State

California Code of Regulations, Title 24, Part 6

Title 24, Part 6 of the California Code of Regulations (also known as the California Energy Code) establishes energy conservation standards for new construction. These standards relate to insulation requirements, glazing, lighting, shading, and water and space heating systems. Local governmental agencies may adopt and enforce energy standards for new construction, and additions, alterations, and repairs to existing buildings provided the California Energy Commission finds that the standards will require buildings to be designed to consume no more energy than permitted by Title 24, Part 6. Section 91.1300 of the City of Los Angeles Municipal Code incorporates these state requirements.

2010 California Green Building Standards Code

1. The 2010 California Green Building Standards Code (CALGreen) is a statewide mandatory green building code all cities in California were required to adopt by January 1, 2011. CALGreen

requires new standards in materials reuse, locally sourced materials, water/energy efficiency, and indoor air quality. To meet CALGreen requirements, the Los Angeles County Board of Supervisors adopted the Los Angeles County Green Building Standards Code (Title 31), which is designed to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact, or positive environmental impact, and encouraging sustainable construction practices in the following categories (Los Angeles County Board of Supervisors 2013):

a. Planning and design

b. Energy efficiency

c. Water efficiency and conservation

d. Material conservation and resource efficiency

e. Environmental air quality

Senate Bill 1078

In 2002, Senate Bill (SB) 1078 (Public Utilities Code Chapter 2.3 Section 387, 390.1, and 399.25) implemented a Renewable Portfolio Standard, which established a goal that 20 percent of the energy sold to customers be generated by renewable resources by 2017. The goal was accelerated in 2006 under SB 107 and expanded in 2011 under SB 2, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 (LADWP 2015).

Senate Bill 100

In 2018, SB 100 (Public Utilities Code Chapter 312 Section 399.11, 399.15, 399.30 and 454.53) increased the Renewable Portfolio Standard target and established state policy that renewable energy resources and zero-carbon resources supply all electricity procured to serve California end-use customers and the State Water Project by 2045. The bill requires the California Public Utilities Commission (CPUC), California Energy Commission, Department of Water Resources, and California Air Resources Board to incorporate this policy into all relevant planning, and use existing programs to achieve this policy.

California Public Utility Commission

The CPUC regulates privately owned electric, telecommunications, natural gas, water, and transportation companies, in addition to household goods movers and rail safety. The CPUC's Energy Division sets electric rates, protects consumers, and promotes energy efficiency, electric system reliability, and utility financial integrity. The CPUC regulates local natural gas distribution facilities and services, natural gas procurement, intrastate pipelines, and intrastate production and gathering. It works to provide opportunities for competition when, in the interest of consumers, it takes the lead in environmental review of natural gas–related projects, recognizes the growing interaction of electric and gas markets, and monitors gas energy efficiency and other public purpose programs.

3.5.2.3 Local

County of Los Angeles

General Plan 2035

The Conservation and Natural Resources Element of the County's General Plan serves to augment the protection, conservation, and preservation of natural resource and open space areas in Los Angeles County. This element addresses Open Space Resources; Biological Resources; Local Water Resources; Agricultural Resources; Mineral and Energy Resources; Scenic Resources; and Historical, Cultural, and Paleontological Resources. The primary goals for Energy Resources are to encourage the production and use of renewable energy resources, encourage effective management of energy resources, and encourage the use of existing infrastructure to reduce environmental impacts. (Los Angeles County 2015)

City of Los Angeles

Power Integrated Resources Plan

The Los Angeles Department of Water and Power (LADWP) is responsible for the construction, operation, maintenance, and management of electric works and property for the benefit of the city and its habitats. The goal of the Power Integrated Resources Plan is to identify a portfolio of generation resources and power system assets that meets the city's future energy needs at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards (LADWP 2015). The plan provides a 20-year framework to ensure that current and future energy needs of the city can be met.

The Power Integrated Resources Plan provides objectives and recommendations to reliably supply LADWP customers with power and to meet the updated SB 1078's 50 percent renewable energy goal by 2030.

3.5.3 Environmental Setting

3.5.3.1 Natural Gas

The Southern California Gas Company (SoCalGas), Pacific Region, is the principal distributor of natural gas in southern California, providing retail and wholesale customers with transportation, exchange, and storage services as well as procurement services to most retail core customers. As the nation's largest natural gas distribution utility, SoCalGas is responsible for providing energy to its 21.8 million consumers over a 24,000-square-mile service area throughout central and southern California. The company maintains 5.9 million meters in more than 500 communities. SoCalGas is a gas-only utility and, in addition to serving the residential, commercial, and industrial markets, provides gas for enhanced oil recovery and electric generation customers in southern California. As a public utility, SoCalGas is under the jurisdiction of federal and state regulatory agencies (SoCalGas 2019).

Aliso Canyon, California's largest underground natural gas storage facility, has a total working capacity of 86 billion cubic feet of natural gas, or about 64 percent of SoCalGas' total storage capacity. On October 23, 2015, a natural gas leak in well SS25 was detected at the Aliso Canyon natural gas storage facility owned by SoCalGas. The leak was stopped on February 11, 2016, and

well SS25 was permanently sealed on February 18, 2016. Following the leak, the facility's maximum working gas storage level is limited to 23.6 billion cubic feet, about 28 percent of the facility's maximum capacity. Because of the limited maximum storage of Aliso Canyon, the company's natural gas supply has dropped significantly. Nevertheless, a study commissioned by Los Angeles County found that the storage facility was not necessary to maintain electricity reliability in the area, as demand response, energy storage, and energy efficiency could alleviate market supply issues (SoCalGas 2018).

The 2018 *California Gas Report* estimated the total annual gas supply taken by SoCalGas was approximately 2,534 million cubic feet per day in 2017. SoCalGas projects total gas demand to decline at an annual rate of 0.5 percent from 2018 to 2035 (SoCalGas 2018). The decline in throughput demand is due to modest economic growth, CPUC-mandated energy efficiency standards and programs, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure. Table 3.5-1 summarizes the projected annual gas requirements in southern California through year 2035.

Table 3.5-1. Southern California Projected Annual Gas Requirements through Year 2035

2020	2025	2030	2035
2,566 MMcf/day	2,442 MMcf/day	2,310 MMcf/day	2,313 MMcf/day

Note: Assumes average temperature and normal hydro year.
MMcf = million cubic feet
Source: SoCalGas 2018.

SoCalGas expects it will be able meet their forecasted demand with a combination of in- and out-of-state gas sources (SoCalGas 2018). The Olive View–UCLA Medical Center Campus currently consumes an estimated 3,492,117 cubic feet per year of natural gas (County of Los Angeles 2016).

3.5.3.2 Electricity

Existing power and electrical services to the Olive View–UCLA Medical Center Campus are provided by LADWP, which supplies more than 26 million megawatt hours (MWh) of electricity per year for its 1.5 million residential and business customers. LADWP is responsible for the maintenance of 10,000 miles of overhead distribution lines and underground distribution cables and 15,452 transmission towers; and also maintains 160 distributing stations, 21 receiving stations, and over 50,000 substructures. Of LADWP's total power resources, about 30 percent are from renewable sources, 31 percent from natural gas, 10 percent from nuclear, and 18 percent from coal. About 70 percent of the city's electricity is consumed by business and industry, with the remaining 30 percent required for residents, averaging about 5,900 kilowatt hours (5.9 MWh) of usage per year. (LADWP 2019)LADWP also prepares energy forecasts as a part of their Power Integrated Resource Plan. LADWP's Load Forecast incorporates updates to reflect the latest load forecast, fuel price, and projected renewable price forecasts, along with numerous other modeling assumptions. The most recent Power Integrated Resources Plan (2015) makes projections out to Fiscal Year 2039/2040. Table 3.5-2 summarizes the projected net energy demand for LADWP's service area through 2040.

Table 3.5-2. LADWP Projected Energy Demand through Year 2040

2020	2030	2040
26,859 GWh	31,395 GWh	35,749 GWh

GWh = gigawatt hours
Source: LADWP 2016.

The Olive View–UCLA Medical Center Campus currently consumes an estimated 5,503,577 kilowatt hours per year of electricity (County of Los Angeles 2016). (See Appendix C of this Final EIR for electricity consumption assumptions and calculations.)

3.5.3.3 Transportation Fuels

The State CEQA Guidelines, Appendix F, Energy Conservation, state that EIRs are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. California is the most populous state in the nation, and its total energy demand is second only to Texas' (U.S. Energy Information Administration 2012).

Driven by high demand from California's many motorists, major airports, and military bases, the transportation sector is the state's largest energy consumer (Luna & Glushon 2009). The majority of transportation energy is currently derived from a wide variety of petroleum products. Automobiles and trucks consume gasoline and diesel fuel. The transportation sector consumes relatively minor amounts of natural gas or electricity; however, propelled mainly by air quality laws and regulations, technological innovations in transportation are expected to increasingly rely on compressed natural gas and electricity as energy sources. Energy consumption by on-road motor vehicles reflects the types and numbers of vehicles, the extent of their use (often described in terms of vehicle miles traveled), and their fuel economy (typically described in terms of miles per gallon).

Data from the Department of Motor Vehicles show that gasoline demand is largely driven by Light Duty Vehicles (LDVs), which represent more than 90 percent of all gasoline consumption in California (California Energy Commission 2017). Gasoline vehicles made up 92 percent of California LDVs in 2015. Gasoline also fuels hybrid vehicles and accounts for more than 95 percent of the fuel used by flexible-fuel vehicles in California. Corporate Average Fuel Economy (CAFE) standards provide for significantly improved fuel economy, and the National Highway Traffic Safety Administration estimates that this trend will continue through 2025. Most of the demand for gasoline in California can be attributed to LDVs in the residential sector, and thus the slow growth in population, coupled with improvements in fuel economy, explains an overall decline in demand for gasoline. Demand forecasts show reductions of up to 3.7 percent per year due to improved fuel economy, driven by CAFE standards and displacement by alternative fuels, primarily driven by the Zero-Emission Vehicle regulations. Overall, in the low-demand, mid-demand, and high-demand cases, California on-road gasoline consumption would decrease from approximately 14 billion gallons to between 10 and 11 billion gallons (California Energy Commission 2017).

3.5.4 Environmental Impact Analysis

This section presents a discussion of the potential impacts on energy resources that could result from implementation of the proposed Master Plan.

3.5.4.1 Thresholds of Significance

For the purposes of this Final EIR, and in accordance Appendix F of the State CEQA Guidelines, the proposed project would have a significant environmental impact on energy resources and service systems if it would:

ENERGY-1 Result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.

ENERGY-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.5.4.2 Impacts and Mitigation Measures

Impact ENERGY-1: Would the Proposed Project Result in the Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources during Project Construction or Operation?

Construction Impacts

Tier I

Construction of structures under Tier I would require the use of energy resources, including natural gas, electricity, and transportation fuels. Under Tier I, new buildings and facilities that could be constructed include a Restorative Care Village, which is composed of a Recuperative Care Center, a Residential Treatment Program facility, a new Mental Health Urgent Care Center, and a Mental Health Wellness Center, an Ambulatory Care Center, research and development buildings, a Community Center, improvements to the existing hospital, and new parking facilities.

Transportation Fuels

Diesel fuel for construction vehicles and equipment would be the primary source of energy used throughout the course of construction under Tier I. In total, the Tier I construction period would result in the consumption of approximately 147,427 gallons of fuel.[1] However, construction would be temporary, and would represent a negligible increase in regional demand and an insignificant amount relative to the more than 18 billion gallons of on-road fuels used in the state in 2015 (California Energy Commission 2017). Construction contractors, to reduce costs, would implement energy conservation practices, including using fuel efficient vehicles and equipment to the extent practicable and maintaining construction equipment in accordance with manufacturers' specifications so equipment performance would not be compromised. Consequently, construction of Tier I facilities would not result in the wasteful, inefficient, or unnecessary use of transportation fuels in meaningful amounts. Impacts would be less than significant.

Electricity and Natural Gas

Construction of individual projects under Tier I would require the use of electricity and, to a limited extent, natural gas to operate construction equipment and worker vehicles. The additional consumption of electricity and natural gas from construction activities would be temporary and

[1] This estimate was based on air quality modeling outputs of Tier I construction activities. For worksheets, please see Appendix C of this Final EIR.

relatively minor. As stated above, construction contractors, to reduce costs, would implement energy conservation practices. As a consequence, construction of Tier I facilities would not result in the wasteful, inefficient, or unnecessary use of electricity and natural gas in meaningful amounts. Impacts would be less than significant.

Tier II

Under Tier II of the Master Plan, approximately 137,000 square feet of existing development on the campus would be demolished and 992,000 square feet of new buildings and facilities could be constructed. Because of the increase in both demolition and proposed new development under Tier II, more construction workers would be employed than would occur under Tier I. However, the amount of energy consumed by Tier II construction workers would still be finite and limited to the construction periods. Additionally, over time, it can be expected that construction equipment and worker vehicles will become more fuel efficient and will use, to a greater extent, alternative and renewable sources of energy. Consequently, and for the reasons stated above under Tier I, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy under Tier II.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

The additional development that may occur under Tier I could result in long-term increases in energy consumption due to electricity and natural gas consumed by the additional new development that could occur and the increase in motor vehicle trips generated by that new development. Based on air quality modeling outputs (see Appendix C of this Final EIR), Tier I development would consume an additional 12,728,594 kWh of electricity, 25,882,552 cubic feet of natural gas, and 2,819,286 gallons of fuel per year compared to existing conditions. However, the proposed Master Plan includes more energy efficient project elements such as solar electric power, solar thermal and hot water, and ground source heating energy for various facilities. In addition, the proposed project would comply with Title 24's energy conservation standards for new construction (see Section 3.5.2, *Regulatory Setting*). Also, in the near future vehicles used to travel to and from the site will become more fuel efficient, and alternative fuel/electric vehicles will become more common. For these reasons, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy.

Tier II

As with Tier I, new and renovated buildings and facilities that may occur under Tier II could result in long-term increases in energy consumption. However, the proposed Master Plan includes more energy efficient project elements and would comply with Title 24's energy conservation standards for new construction. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy under Tier II.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Impact ENERGY-2: Would the Proposed Project Conflict with or Obstruct a State or Local Plan for Renewable Energy or Energy Efficiency?

Construction and Operational Impacts

Tiers I and II

Construction of structures under Tiers I and II would require the use of energy resources, including natural gas, electricity, and transportation fuels. However, as discussed above under **ENERGY-1**, construction activities are not expected to result in the wasteful, inefficient, or unnecessary consumption of energy in meaningful amounts. Additionally, as detailed in Section 3.10, *Land Use*, of this Final EIR, the proposed project would not conflict with energy-related policies of local and state plans that pertain to energy. Furthermore, a goal of the proposed project is to identify feasible opportunities to exceed state energy requirements and pursue green building sustainable design to the maximum extent possible, exceed state energy requirements, and promote efficient energy use.

Design and construction of proposed buildings and facilities under the Master Plan would also comply with the energy conservation standards of Title 24, Part 6, of the California Code of Regulations and the 2010 California Green Building Standards Code (CALGreen). Therefore, construction and operation of the proposed project would not conflict with or obstruct a state or local plan for renewable energy and energy efficiency.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

3.5.5 Cumulative Impacts

The study area for the cumulative energy impacts analysis includes the service areas of the project site's individual energy providers. Cumulative development within those service areas would require the use and consumption of energy. For a discussion of anticipated energy demand and the ability of energy providers to accommodate that demand, see Section 3.5.3, *Environmental Setting*, of this Final EIR. It is anticipated that proposed Master Plan development, as well as cumulative development in the project area, would comply with applicable state and local energy efficiency and conservation regulations. Therefore, the proposed project in conjunction with cumulative development is not expected to result in the inefficient or wasteful use of large amounts of energy or conflict with existing state and local plans related to energy efficiency. Consequently, the proposed project would not result in a cumulatively considerable contribution to significant energy impacts.

3.6 Geology/Soils

3.6.1 Introduction

This section describes the regulatory setting and affected environment related to geologic, soil, and seismic conditions in the proposed project's study area. It also identifies the potential project impacts related to geology, soils, and seismicity pursuant to CEQA.

In March 2016, Ninyo & Moore prepared its *Preliminary Geotechnical Evaluation for Olive View—UCLA Medical Center Master Plan*, and Paleo Solutions prepared its *Paleontological Technical Study,* which are included in Appendix F of this Final EIR. This section summarizes the analysis and findings included in that report.

3.6.2 Regulatory Setting

3.6.2.1 Federal

No federal regulations are applicable to the proposed project.

3.6.2.2 State

Alquist–Priolo Earthquake Fault Zoning Act

The 1972 Alquist–Priolo Earthquake Fault Zoning Act requires the State Geologist to delineate Earthquake Fault Zones (EFZs) along known active faults in California. The Act also requires building setbacks to be established from the trace of an active fault. EFZs must meet the requirements of being "sufficiently active" (evidence of movement within the last approximate 11,000 years) and "well-defined" (detectable by a trained geologist). It is known that faults often rupture along a complex zone that may include the movement of multiple splays/strands rather than of a single strand. The EFZs are intended to be sufficiently wide enough on both sides of a known active fault to include these known or unknown splays/strands of the fault. The purpose of the Alquist–Priolo Earthquake Fault Zoning Act was to prohibit the location of most structures for human occupancy across the traces of active faults, thus mitigating the hazard of fault rupture.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 and went into effect in 1991. The act addresses issues related to earthquake hazards from non-surface fault rupture, including hazards related to liquefaction and seismically induced landslides. The purpose of the Seismic Hazards Mapping Act is to identify and map seismic hazard zones to be used by cities and counties when preparing the safety elements of their general plans, thereby encouraging land use management policies and regulations that will reduce seismic hazards. The act has resulted in the preparation of maps that delineate Liquefaction Zones and Earthquake-Induced Landslide Zones of Required Investigation (California Department of Conservation, California Geological Survey 2007).

California Building Standards Code

The California Building Standards Commission (Commission) is responsible for coordinating, managing, adopting, and approving building codes in the state of California. In January 2011, the 2010 California Building Standards Code (CBSC) became effective. The 2010 CBSC updated all prior codes under California Code of Regulations (CCR) Title 24. The 2013 version of the CBSC, which was reviewed and approved by the Commission at meetings in December 2012 and January 2013, went into effect on January 1, 2014.

The State of California provides minimum standards for building design through the 2010 California Building Code (CBC), a component of the 2010 CBSC (codified under CCR Title 24). Chapters 16 through 18 of the 2010 CBC regulate structural design, structural tests and inspections, and soils and foundations. The CBC applies to building design and construction in the state and is based on the federal Uniform Building Code (UBC), which is used widely throughout the country (generally adopted on a state-by-state or district-by-district basis).

The CBC, which has been modified for California conditions, contains numerous provisions that are more stringent than those in the UBC because of California's seismic and environmental conditions. According to Section 1613 of the CBC, "[e]very structure, and portion thereof, including nonstructural components that are permanently attached to structures and their supports and attachments, will be designed and constructed to resist the effects of earthquake motions in accordance with ASCE 7."[1]

State of California Geological Survey

The State of California Geological Survey (CGS; formerly CDMG, California Division of Mines and Geology) identifies earth resource issues that should be taken into consideration when evaluating a proposed project for geologic hazards, particularly related to earthquake damage. Consideration includes the potential for existing geologic conditions to affect the proposed project, as well as the potential for the proposed project to affect the existing geologic and soil conditions by creating or exacerbating a geologic hazard.

The CGS establishes regulations related to geologic hazards, including faulting, liquefaction, seismically induced landslides, and ground shaking, as they affect people and structures. These regulations include the Alquist–Priolo Earthquake Fault Zone Act and the Seismic Hazards Mapping Program. The CGS also issues guidelines for the evaluation of geologic and seismic factors that may affect a project or that may be affected by a project. Each guideline provides checklists and outlines to ensure a comprehensive report of geologic and seismic conditions. Although not mandatory in all their detail, the guidelines provide assistance in assuring completeness of geologic and seismic studies conducted for a project.

Alquist Hospital Seismic Safety Act of 1983

The Alquist Hospital Seismic Safety Act of 1983 establishes a seismic safety building standards program under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD) for hospitals built on or after March 7, 1973. The Act was initiated following the loss of life incurred due to the collapse of hospitals during the Sylmar earthquake of 1971. The Act emphasizes that essential facilities, such as hospitals, must remain operational following an earthquake, and

[1] ASCE 7 is a document published by the American Society of Civil Engineers (ASCE) that specifies minimum design loads for buildings and other structures.

thus the provisions and subsequent regulatory language of the act were developed to address the issues of survivability of both nonstructural and structural components of hospital buildings after a seismic event.

OSHPD sets requirements for building design and rates buildings on a number of categories according to the anticipated ability of a building to withstand seismic activity. The categories include structural performance category (SPC) ranks, numbering SPC-1 through SPC-5, with a lower rating indicating a higher potential risk of collapse and thus a higher risk to the public, and a higher rating indicating compliance with provisions of the Act. Nonstructural performance category (NPC) ranks are also provided for buildings and range from levels 1 through 5.

3.6.2.3 Local

Los Angeles County General Plan

The Los Angeles County General Plan Safety Element (Chapter 12 of the General Plan) includes regulations regarding geotechnical issues for new development. Specifically, the Safety Element includes the following goals and policies for seismic and geotechnical hazards:

- **Goal S 1**: An effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geotechnical hazards.
    - **Policy S 1.1**: Discourage development in Seismic Hazard and Alquist–Priolo Earthquake Fault Zones.
    - **Policy S 1.2**: Prohibit the construction of most structures for human occupancy adjacent to active faults until a comprehensive fault study that addresses the potential for fault rupture has been completed.
    - **Policy S 1.3**: Require developments to mitigate geotechnical hazards, such as soil instability and landsliding, in hillside management areas through siting and development standards.
    - **Policy S 1.4**: Support the retrofitting of unreinforced masonry structures to help reduce the risk of structural and human loss due to seismic hazards.

Los Angeles County Building Code

Los Angeles County has adopted the California Building Code, described above, to evaluate the adequacy of geotechnical and engineering studies needed for design and construction of buildings in the County. Some jurisdictions have adopted more stringent local building codes to reflect geotechnical conditions in the area, typically as zoning or grading ordinances.

3.6.3 Environmental Setting

3.6.3.1 Regional Geology

The project site is located on the northern edge of the San Fernando Valley, a Tertiary-Quaternary period sediment-filled basin within the Transverse Ranges geomorphic province of southern California. Rock units in the province include older Precambrian-era[2] and Jurassic-period[3]

[2] The earliest era of earth history, ending 570 million years ago, during which the earth's crust formed and life first appeared in the seas.

metavolcanic, metasedimentary and igneous rocks. Cretaceous-age[4] marine and non-marine sedimentary and metasedimentary rocks and younger Tertiary-age[5] rocks composed of volcanic, marine, and non-marine sediments overlie the older rocks. More recent Quaternary[6] sediments, primarily of alluvial origin, comprise the low-lying valley and drainage areas within the region, including the area where the Olive View–UCLA Medical Center Campus project site is located.

The rock formations in the province have been folded and uplifted due to compression and rotation associated with a restraining bend on the San Andreas Fault. The folding and uplifting of the region led to characteristic east-to-west trending structural troughs and mountain ranges. The San Fernando Valley formed as sediment infilled a subsiding basin between the San Gabriel Mountains to the north and the Santa Monica Mountains to the south.

3.6.3.2 Site Geology

The medical center is situated on a gently sloping alluvial fan and rock formations at the margin between the northern San Fernando Valley and western end of the San Gabriel Mountains. Regional geologic maps indicate that the upper, elevated northwestern portion of the project site is underlain by Tertiary-age Towsley Formation, generally composed of cobble conglomerate and coarse-grained sandstone, and Cretaceous-age metamorphic rocks. Other elevated hillside areas in the western, northern, and eastern portions of the site are mapped as being underlain by Pacoima Formation and older alluvium composed of weakly consolidated sand and gravel. The lower southern portion of the project site, where the existing improvements are located, and the eastern portions of the project site at the base of Wilson Canyon are mapped as being underlain by young (Holocene[7]) alluvial deposits generally composed of gravel, sand, and clay sediments. A regional geologic map of the site vicinity is shown on Figure 3.6-1.

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[3] Noting or pertaining to a period of the Mesozoic epoch, occurring from 190 to 140 million years ago.

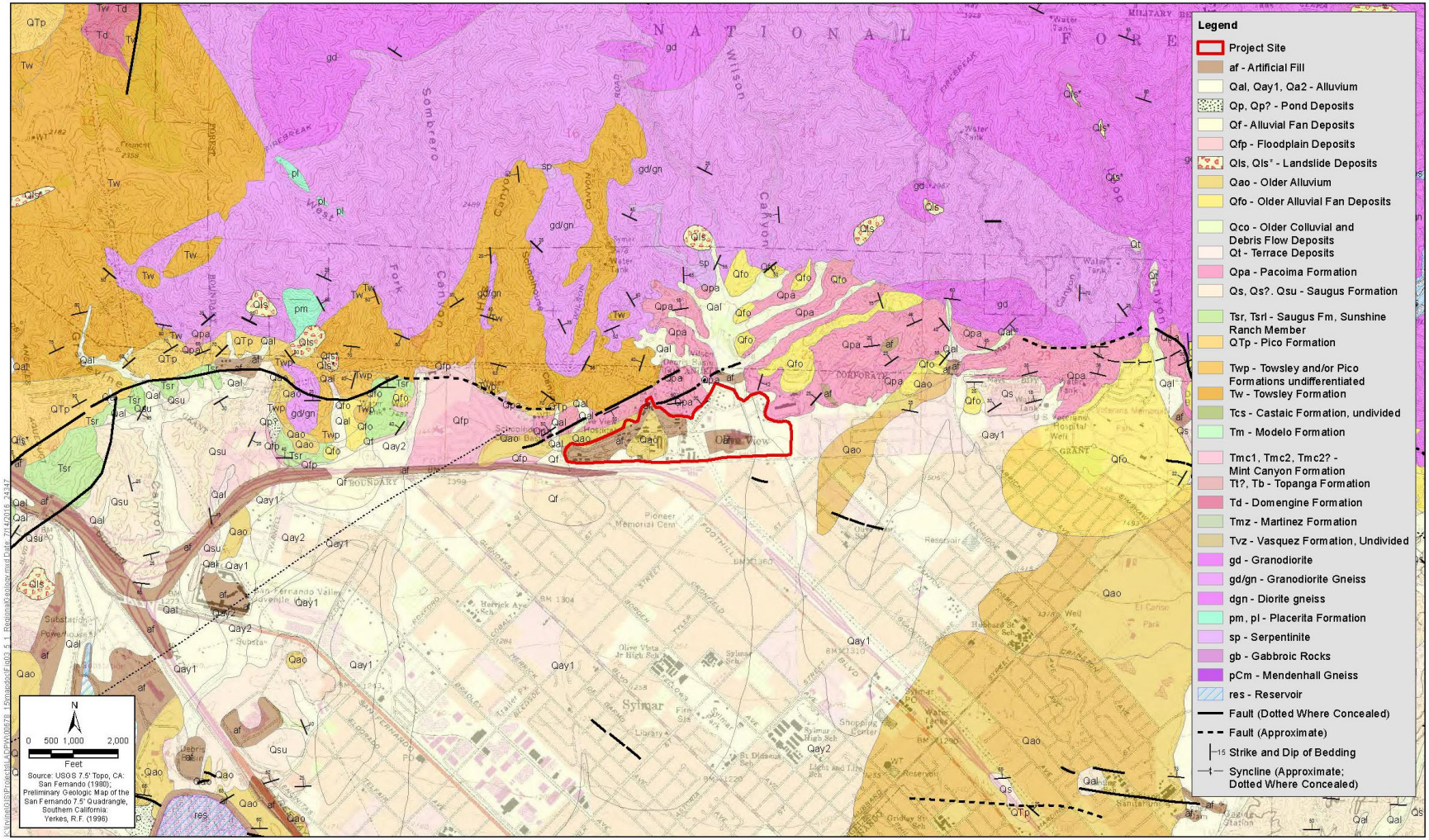
[4] Noting or pertaining to a period of the Mesozoic era, from 140 to 65 million years ago.

[5] Noting or pertaining to the early part of the Cenozoic era, from 65 to 2 million years ago.

[6] Noting or pertaining to the present period of earth history, forming the latter part of the Cenozoic era. Originated 2 million years ago and included the Recent and Pleistocene epochs.

[7] Denoting or formed in the second and most recent epoch of the Quaternary period, which began 10,000 years ago at the end of the Pleistocene.

Figure 3.6-1. Regional Geology



Source: ICF 2017.

Groundwater

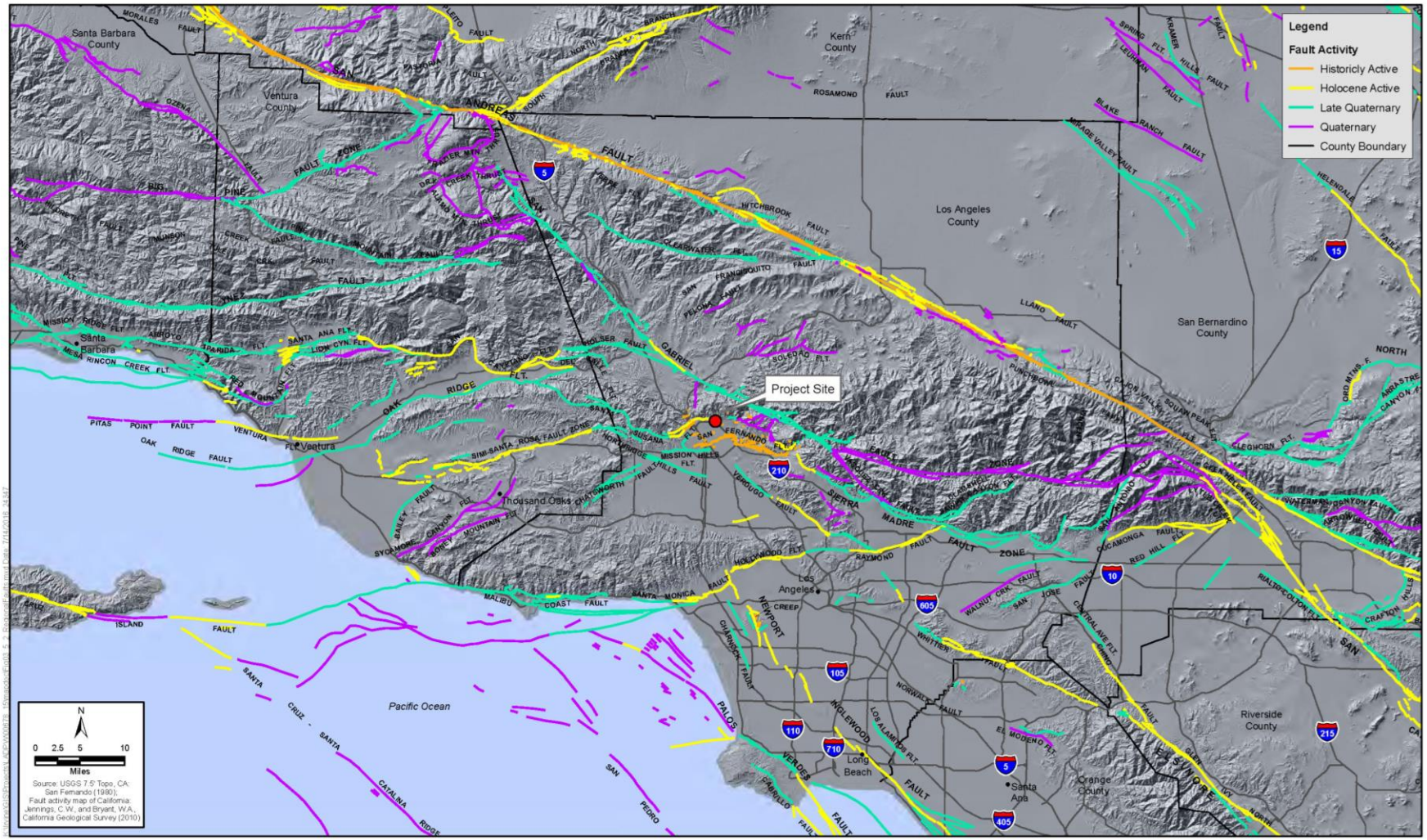
The site is located within the San Fernando Valley Groundwater Basin. Monitoring well data were not available for the project site, but were reviewed for commercial properties located in the Sylmar community south of the project site. These properties were involved in environmental clean-up activities when monitoring wells were installed and groundwater data from LACDPW wells were utilized. Based on the groundwater information reviewed from the GeoTracker website, groundwater levels from 1993 to 2013 in the Sylmar community, approximately 1.5 miles south of the project site, have ranged from approximately 125 to 200 feet below the ground surface. The historic high groundwater mapped by the CGS near the southern portion of the medical center site is approximately 120 feet deep.

Groundwater levels may be influenced by seasonal variations, precipitation, subsurface stratification, groundwater pumping, irrigation practices, and other factors and are subject to fluctuations. Shallow perched conditions may be present.

Faulting and Seismicity

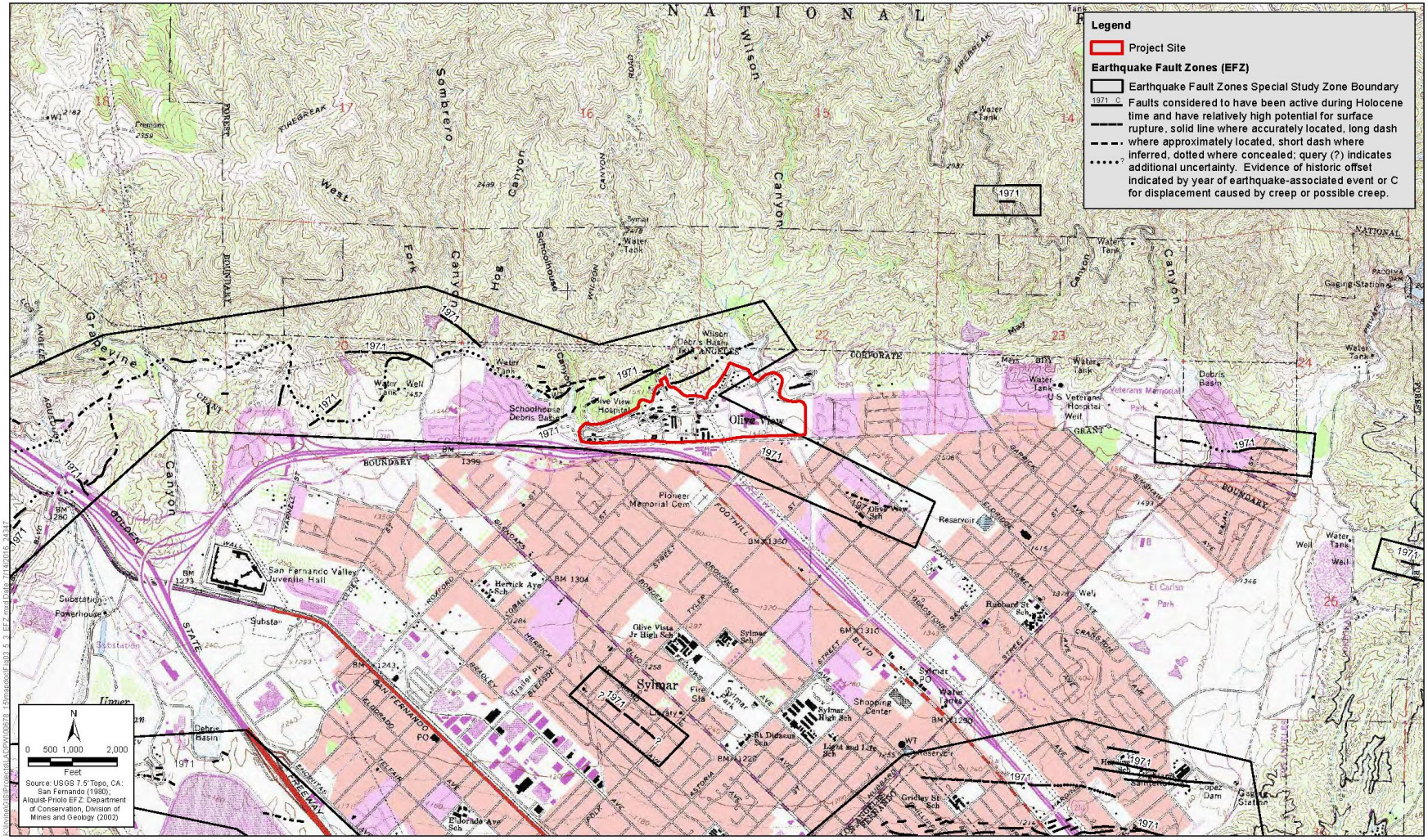
The Olive View–UCLA Medical Center Campus site is located in a seismically active area, as is the majority of the Southern California region, thus the potential for strong ground motion is considered potentially significant. The numerous faults in southern California include active, potentially active, and inactive faults. As defined by the CGS, active faults are faults that have ruptured within Holocene time, or within approximately the last 11,000 years. Potentially active faults are those that show evidence of movement during Quaternary time (approximately the last 1.6 million years), but for which evidence of Holocene movement has not been established. Inactive faults have not ruptured in the last approximately 1.6 million years. Figure 3.6-2 shows the approximate site location relative to the principal faults in the region.

Figure 3.6-2. Regional Faults



Source: ICF 2017.

Figure 3.6-3. Earthquake Fault Zones



Source: United States Geological Survey (USGS), ICF 2017.

The project site is also located in the State of California (1979) EFZ (formerly Alquist–Priolo Special Studies Zone) related to surface ruptures caused by the 1971 San Fernando Earthquake (also known as the 1971 Sylmar Earthquake). Figure 3.6-3, above, shows the site location relative to the mapped EFZ. Faults in proximity of the project site include the Santa Susana Fault, which is less than 0.1 mile from the site, the Northbridge Blind Thrust, which is 0.5 mile from the site, and the Sierra Madre (San Fernando) fault which is 1.7 miles from the site. Significant damage occurred to the buildings at the site in 1971 due to ground shaking from the San Fernando Earthquake. The potential for surface rupture to occur at the site is a potentially significant hazard to existing and planned structures. Table 3.6-1 lists the principal known active faults within approximately 30 miles of the project site and the predicted maximum moment magnitude (M_{max}).

Table 3.6-1. Principal Regional Active Faults

Fault	Approximate Fault-to-Site Distance[1] miles (kilometer)	Maximum Moment Magnitude[1] (M_{max})
Santa Susana[2]	<0.1 (<0.1)	6.9
Northridge Blind Thrust	0.5 (0.8)	6.9
Sierra Madre (San Fernando)	1.7 (2.8)	7.3
San Gabriel	3.2 (5.2)	7.3
Verdugo	4.7 (7.5)	6.9
Holser	8.6 (13.9)	6.8
Simi-Santa Rosa	14.4 (23.2)	6.9
Hollywood	16.2 (26.0)	6.7
Oak Ridge	16.6 (26.8)	7.4
Upper Elysian Park Blind Thrust	17.0 (27.3)	6.7
Santa Monica	17.3 (27.9)	7.4
Raymond	19.0 (30.5)	6.8
San Cayetano	19.6 (31.6)	7.2
Newport-Inglewood (Los Angeles Basin)	19.7 (31.8)	7.5
Malibu Coast	21.0 (33.8)	7.0
Puente Hills Blind Thrust (LA)	21.2 (34.1)	7.0
Anacapa-Dume	21.9 (35.3)	7.2
San Andreas	22.0 (35.3)	8.2
Palos Verdes	25.3 (40.8)	7.7
Clamshell-Sawpit Canyon	27.5 (44.3)	6.7

[1] Petersen et al.
[2] USGS 2014.
Source: Ninyo & Moore 2016.

Santa Susana (Olive View) Fault

The Santa Susana fault was not mapped as crossing the project site as part of the USGS 2008 National Seismic Hazard Map database, but rather it was shown to be located approximately 2.9 miles west of the site. However, according to the preliminary geotechnical evaluation (Appendix F of

this Final EIR), the 2014 National Seismic Hazard Map shows the Santa Susana fault crossing through the northern portion of the site. Accordingly, the Santa Susana fault is considered to be in the immediate vicinity of the campus and the fault-to-site distance in Table 3.6-1 is shown as less than 0.1 mile.

1971 Sylmar Earthquake

The Olive View–UCLA Medical Center Campus site was previously subjected to substantial ground shaking, surface rupture, and earthquake-related damages resulting from the 1971 Sylmar Earthquake. The magnitude 6.5 earthquake included roughly 12 miles of surface rupture in the site vicinity and produced a maximum slip of 6 feet. The approximate locations of faults associated with major surface ruptures that were mapped at the project site are shown on Figure 3.6-3. Other surface ruptures and landslides that occurred at the site as a result of the earthquake are shown on references reviewed for the preliminary geotechnical evaluation (Appendix F of this Final EIR). Damage to the medical center site included the collapse of stair towers adjacent to buildings, the partial collapse of medical buildings, and the collapse of parking structures. Some structures damaged in the earthquake were later demolished. The extensive urban damages and loss of life that resulted from the 1971 Sylmar Earthquake led to the enactment of the Alquist–Priolo Act, signed into California law on December 22, 1972. Additionally, previous geologic mapping and references indicate the presence of a roughly east-west trending fault (the Olive View Fault) across the northwestern portion of the site (see Figure 3.6-2 and Figure 3.6-3). Although not labeled on the referenced map used for Figure 3.6-3, the fault has been named as the Olive View Fault by others. The USGS has designated the fault as the eastern extension of the active Santa Susana Fault Zone. This active fault was associated with surface ruptures at the project site caused by the 1971 Sylmar Earthquake.

Liquefaction

Liquefaction is the phenomenon in which loosely deposited granular soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact due to the rapid rise in pore water pressure causing the soil to behave as a fluid for a short period of time. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking. The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of slabs due to sand boiling, buckling of deep foundations due to liquefaction-induced ground settlement.

According to Seismic Hazard Zones Maps published by the State of California, a portion of the project area in the northeastern part of the site near the mouth of Wilson Canyon is located within an area considered susceptible to liquefaction (Figure 3.6-4). This portion of the site within the lower-lying canyon bottom area was mapped as potentially liquefiable due to the tendency for shallower groundwater and loose, younger alluvial sediments to accumulate in canyon bottoms. However, the overall historic high groundwater levels at the site are deep, approximately 120 feet or more below the ground surface, thus much of the project site is not considered susceptible to liquefaction. Areas of the project site mapped as being underlain by rock formations are not susceptible to liquefaction.

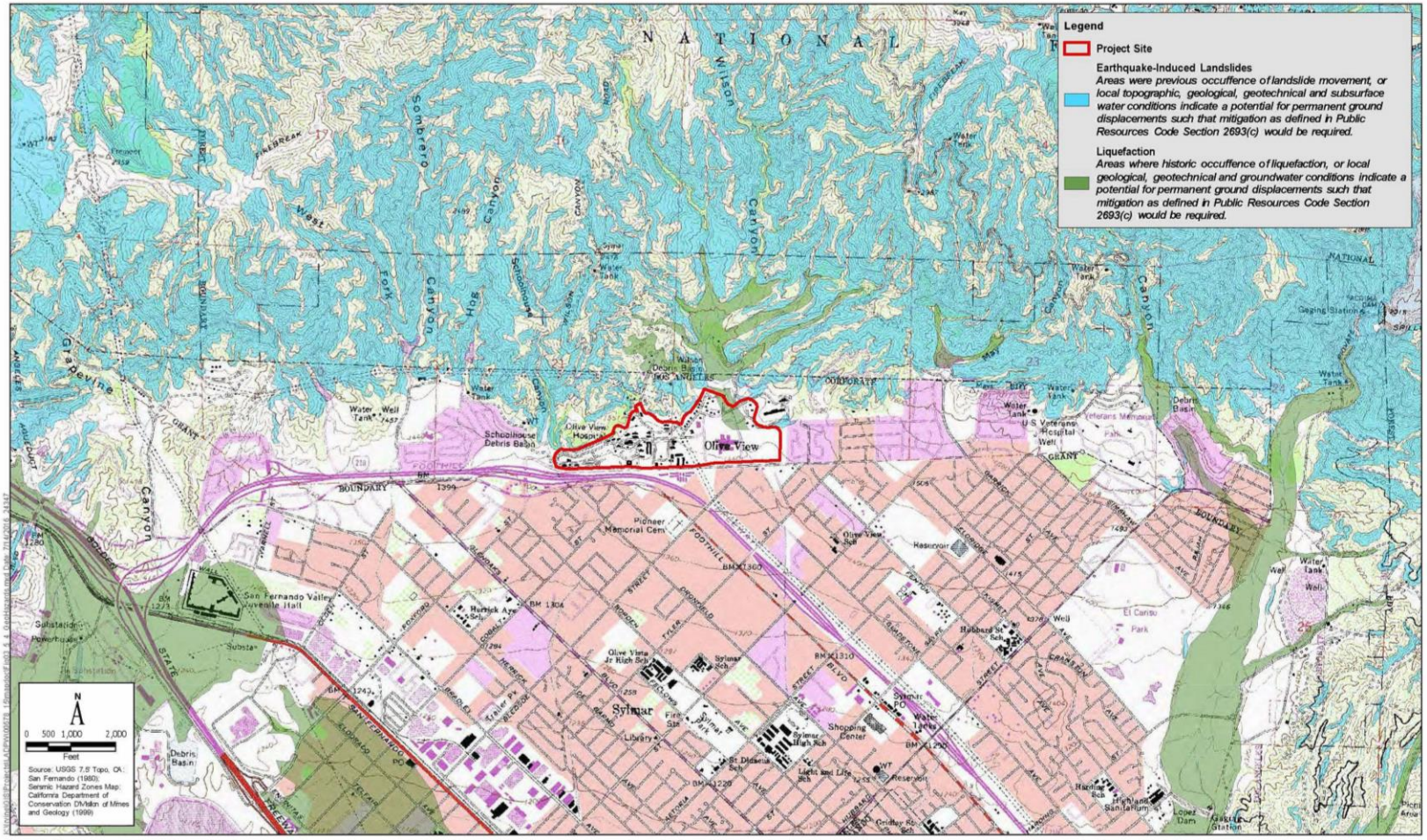
Landslides

Landslides, slope failures, and mudflows of earth materials generally occur where slopes are steep and/or he earth materials are too weak to support themselves. Earthquake-induced landslides may also occur due to seismic ground shaking. Landslides can consist of rockfalls, shallow slumps, mudflows, and erosional failures, or deeper-seated rotational and block failures. Shallow failures are typically caused by high incident rainfall or concentrated surface runoff conditions that weaken surficial materials. Rotational slides and block-type slides form deeper within the ground and are generally related to discontinuities in the rock that manifest into a sliding surface. Rainfall and other water infiltration into the ground can exacerbate and initiate these deeper sliding conditions. Landslides can also be caused by construction activities, such as grading that undercuts the toe of a slope or induces loading at the top of a slope.

Landslides are not known to occur on the northern hillside areas of the site; however, the northern portion of the project site contains steep, natural slopes that have been subjected to fires. In addition, portions of the slopes on the northern part of the site have been designated on the State Seismic Hazard Zones Map (Figure 3.6-4) as having the potential for earthquake–induced landslides. Furthermore, landslides that were caused by earthquake ground shaking were mapped at the site following the 1971 Sylmar Earthquake.

The southern portion of the project site has shallower slope gradients and has been extensively developed and is primarily covered with pavements, hardscape, and structures. The developed southern portion of the site includes some graded slopes at shallow gradients associated with landscaping and open space areas.

Figure 3.6-4. Seismic Hazard Zones Map



Source: State of California 1999, Ninyo & Moore 2016.

Site Soils

Erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur at the project site where soil or rock is exposed to wind or moving water (i.e., rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses. According to the preliminary geotechnical evaluation (Appendix F of this Final EIR), surface exposures at the site are composed of various types of soil and rock materials. In addition, the site comprises varied topographic terrain, ranging from gentle to steep gradients. In a general sense, steeper slope gradients, such as in the northern portion of the site, provide a higher erosion potential for similar soil types.

Sandy soils typically have low cohesion, and have a relatively higher potential for erosion from surface runoff when exposed in slopes or utilized near the face of fill embankments. Surface soils with higher amounts of clay tend to be less erodible as the clay acts as a binder to hold the soil particles together. Additionally, large portions of the site, including the eastern and northern portions, are currently undeveloped and subject to potential water- and wind-related soil erosion. Soil erosion and soil runoff from natural drainages and non-vegetated areas on the adjacent slopes have the potential to affect the site.

Subsidence

Subsidence is characterized as a sinking of the ground surface relative to surrounding areas and can generally occur where deep soil deposits are present. Subsidence in areas of deep soil deposits is typically associated with regional groundwater withdrawal or other fluid withdrawal from the ground such as oil and natural gas. Subsidence can result in the development of ground cracks and damage to site improvements.

There are no known areas of subsidence mapped in the City or County of Los Angeles. Historic subsidence is not known to have occurred or been reported in the site region. The Safety Element of the Los Angeles City General Plan (1996) includes information regarding the city's program to preclude potential subsidence within the city. Subsurface extraction activities within the City of Los Angeles are regulated by oil drilling district procedures, which contain provisions for monitoring and imposing measures to preclude subsidence related to oil and gas extraction. Therefore, the potential for subsidence at the project site is relatively low.

Compressible/Collapsible Soils

Compressible soils undergo consolidation when exposed to new loading, such as fill or foundation loads. Soil collapse is a phenomenon in which the soils undergo a significant decrease in volume when exposed to an increase in moisture content, with or without an increase in external loads. Buildings, structures, and other improvements may be subject to excessive settlement-related distress when compressible soils or collapsible soils are present.

According to the preliminary geotechnical evaluation (see Appendix F of this Final EIR), the project area is underlain by fill soils, alluvial sediments, and sedimentary rock formations. The alluvial deposits underlying the site are generally unconsolidated to weakly consolidated, based on the young nature of the deposits, reflecting a depositional history without substantial loading, and may be subject to collapse. Older, undocumented fill soils related to previous site development are considered potentially compressible/collapsible.

Expansive Soils

Expansive soils include clay minerals, which are characterized by their ability to undergo significant volume change (i.e., shrink or swell) in response to variations in moisture content. Sandy soils are generally not expansive. Changes in soil moisture content can result from rainfall, irrigation, pipeline leakage, surface drainage, perched groundwater, drought, or other factors.

A volumetric change in expansive soils may cause excessive cracking and heaving of structures with shallow foundations, concrete slabs on grade, or pavement that was supported on such material. According to the preliminary geotechnical evaluation (see Appendix F of this Final EIR), the near-surface soils in the project site are predominantly composed of sandy, coarse-grained materials. These soils typically have a low expansion potential. However, clayey soils may be present in areas of the project site.

3.6.3.3 Paleontological Resources

The identification of paleontological resources within the project area is based on a study prepared by Paleo Solutions, Inc., entitled *Paleontological Technical Study: Olive View–UCLA Medical Center Master Plan Project, Los Angeles County, California* (Grillo and Raum 2016) (see Appendix F of this Final EIR).

Information Review Results

A locality search was completed at the Vertebrate Paleontology section of the Los Angeles County Museum of Natural History (LACM). Searches were also conducted in the University of California Museum of Paleontology (UCMP) online database, the PaleoBiology Database (PBDB), and in literature. The records and literature reviews indicate that there are four recorded localities (LACM 5745, LACM 3387, LACM 7152, LACM 1733) in older Quaternary alluvial deposits, similar to the Pacoima Formation, southwest of the proposed project site (McLeod 2016). No other paleontological resources have been recorded in the immediate area in Quaternary alluvium or Pacoima Formation (UCMP 2016; Jefferson 1991; PBDB 2016).

LACM 5745, southwest of the proposed project, east of the Golden State Freeway (I-5) and south of the Foothill Freeway (I-210), produced fossil specimens of mastodon (*Mammut*) and horse (*Equus*) in fill dirt. Southwest of the proposed project site, LACM 3397 produced fossil bison (*Bison*) at a 75 foot depth, LACM 7152 produced fossil mammoth (*Mammuthus*) and bison (*Biso*n) in terrace deposits;,and LACM 1733 produced fossil horse (*Equus*) at unknown depth (McLeod 2016).

3.6.4 Environmental Impact Analysis

3.6.4.1 Methods

The impact analysis presented in this section incorporates information from the *Preliminary Geotechnical Evaluation for Olive View–UCLA Medical Center Master Plan*, prepared by Ninyo & More in March 2016 (Appendix F of this Final EIR). The following discussion identifies impacts and the measures required to mitigate impacts that are found to be significant.

3.6.4.2 Thresholds of Significance

For the purposes of this Final EIR and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

GEO-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving:

1) Rupture of a known earthquake fault, as delineated on the most recent Alquist–Priolo Earthquake Fault Zone map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to *Division of Mines and Geology Special Publication 42*),
2) Strong seismic ground shaking,
3) Seismically related ground failure, including liquefaction, or
4) Landslides.

GEO-2 Result in substantial soil erosion or the loss of topsoil.

GEO-3 Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

GEO-4 Be located on expansive soils, as defined in Table 18-1-B of the UBC (1994), or corrosive soils, creating substantial direct or indirect risk to life or property.

GEO-5 Have soils that would be incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available for the disposal of wastewater.

GEO-6 Directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

The lead agency determined in the Notice of Preparation/Initial Study (see Appendix A of this Final EIR) that the proposed project would result in no impacts in the following area and was therefore screened from further review in this Final EIR.

3.6.4.3 Impacts and Mitigation Measures

Impact GEO-1: Would the Proposed Project Expose People or Structures to Potential Substantial Adverse Effects, including the Risk of Loss, Injury, or Death, Involving Earthquake Fault Rupture, Seismic Shaking, Ground Failure, or Landslides?

Construction Impacts

Tier I

Fault Rupture

As previously mentioned, the project site is located within a State of California EFZ (formerly Alquist–Priolo Special Studies Zone), and there is a possibility for seismic surface rupture to occur at the site, a potentially significant impact. As shown in Table 3.6-1, above, a number of active faults lay within the project vicinity, including the Santa Susana Fault (less than 0.1 miles from the site), the Northbridge Blind Thrust (0.5 miles from the site), and the Sierra Madre (San Fernando) fault (1.7 miles from the site), although the faults do not run through the project site. Moreover, the project

site previously was subjected to substantial surface rupture damage resulting from the 1971 Sylmar Earthquake.

Fault trenching studies to evaluate the presence and relative activity of faulting at portions of the site have been conducted in the past by other geotechnical consultants on behalf of the County of Los Angeles. Studies conducted in 2008 and 2010 for the proposed Mental Health Urgent Care Facility and Day Care Facility in the southern portion of the project site involved performance of subsurface trenches and test pits adjacent to the facilities to explore for the presence of active faulting. These studies generally concluded that the trenches exposed older (Pleistocene) alluvium that was not cut by active (Holocene epoch [last 11,000 years]) faulting. Following these findings, a trench shadow corridor area was established for the investigated sites that is free of active faulting and feasible for permitting structures intended for human occupancy in accordance with the provisions of the Alquist–Priolo Act.

Additionally, as part of the master planning study for the proposed project, a preliminary planning map for subsurface fault rupture hazards was prepared, showing a summary of fault trench locations performed by other geotechnical consultants at the site. The map also identified areas of the project site where fault trenching has cleared areas of active faulting for potential buildings sites, areas where additional subsurface geologic investigations are required, and areas located within the EFZ where subsurface geologic investigations may not be feasible (see fault rupture hazards figure on page 203 of the Appendix to the Campus Master Plan, SmithGroup 2015). Therefore, although previous trenching studies have cleared some areas of the project site for habitable structures, additional subsurface geologic investigations are required. Mitigation measure **MM-GEO-C1** (see below) would require the applicant to perform additional subsurface geologic investigations to evaluate all potential buildable zones proposed under the Master Plan. With implementation of **MM-GEO-C1**, impacts would be reduced to a less-than-significant level.

Seismic Ground Shaking

As mentioned above, active faults lay in the project vicinity. Earthquake events from one of the regional active or potentially active faults near the project area could result in strong ground shaking that could affect the project site. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking. The potential levels of ground shaking at the project site could result in significant impacts on future improvements. However, the proposed project would adhere to all applicable seismic design requirements and guidelines. Additionally, the implementation of structural design mitigation measures (see **MM-GEO-C1**, below) would reduce potential seismic ground shaking impacts to a less-than-significant level.

Ground Failure

According to the preliminary geotechnical evaluation prepared for the proposed project (see Appendix F of this Final EIR), the northeastern portion of the project site near the mouth of Wilson Canyon is located within in an area that is considered susceptible to liquefaction. If not mitigated during detailed project design, liquefaction and its associated manifestations could cause damage to future project improvements, a potentially significant impact. Potentially damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of slabs due to sand boiling, and buckling of deep foundations due to liquefaction-induced ground settlement. Mitigation measures identified in **MM-GEO-C1** would

reduce the potentially significant liquefaction hazard impacts to Master Plan development to a less-than-significant level.

Landslides

According to the preliminary geotechnical evaluation prepared for the proposed project (see Appendix F of this Final EIR), the presence of steep hillside areas and previously mapped earthquake-induced landslides in the northern portion of the project site has the potential to produce landslides, mudflows, or seismic slope instability, which has the potential to affect the proposed project. Earthquake-induced landslides may occur due to seismic ground shaking, but can also be caused by construction activities, such as grading that undercuts the toe of a slope or induces loading at the top of a slope. **MM-GEO-C1** would require a detailed assessment of the landslide and mudflow potential in areas of project improvements and incorporated into the Master Plan design, as appropriate. Therefore, with the implementation of **MM-GEO-C1**, impacts would be reduced to a less-than-significant level.

Tier II

Tier II construction impacts related to exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving earthquake fault rupture, seismic shaking, ground failure, or landslides are expected to be similar to those described for Tier I. Impacts would be less than significant after incorporation of **MM-GEO-C1**.

Mitigation Measures

Mitigation measures below are proposed for both Tier I and Tier II development.

MM-GEO-C1: All recommendations included in the preliminary geotechnical evaluation prepared for the proposed project (see Appendix F of this Final EIR) are incorporated into mitigation measures and will be followed. A detailed subsurface geotechnical evaluation will be performed to address site-specific conditions at the locations of the planned improvements and provide detailed recommendations for design and construction.

The geotechnical evaluation will include the following measures to mitigate potential fault rupture, seismic ground shaking, ground failure, and liquefaction hazards identified under Impacts **GEO-1** and **GEO-2**.

- **Fault rupture**: Future geologic investigations to evaluate the location and relative activity of potentially active fault splays at the project site and the feasibility of locating future site improvements will be conducted by geologic consultants prior to design of structure locations. Fault investigations will be conducted by a California State Certified Engineering Geologist and reviewed by the CGS. Appropriate building setback zones will be established in locations deemed not feasible for construction of occupied structures.
- **Seismic ground shaking**: Structural elements of future improvements will be designed to resist or accommodate appropriate site-specific ground motions and conform to current seismic design standards, including those set forth by the 2013 CBC and the County of Los Angeles building regulations.
- **Ground failure**: Assessment of liquefaction potential at the project site will be evaluated by subsurface geotechnical exploration prior to detailed design and construction of project improvements and be incorporated into the design, as appropriate. Structural design will be developed to reduce the potential impacts of liquefaction, including the incorporation of

techniques such as structural design, in-situ ground modification, or supporting foundations with piles at depths designed specifically for seismically induced settlement.

- **Landslides**: A detailed assessment of the landslide and mudflow potential in areas of project improvements will be performed prior to design and construction of improvements and incorporated into the design, as appropriate. Methods for construction in areas with a potential liquefaction hazard may include excavation of potentially unstable material for a more stable slope configuration; reduction of landslide driving forces by removal of earth materials at the top of the landslide; construction of a buttress and/or stabilization fills; construction of retailing walls, installation of rock bolts on the face of the slope, or installation of protective wire mesh on the slope face; the construction of debris impact walls at the toe of the slope to contain rock fall debris; and/or supporting foundations with piles at depths designed specifically for seismically induced settlement. Graded slopes created for future developments within the project site also will be designed to reduce the potential for landslides or mudflows.

The geotechnical evaluation will include the following measures to mitigate unstable soil impacts identified under Impact **GEO-3**.

- **Groundwater**: Excavations for foundations in areas with shallow perched groundwater may need to be cased, shored and/or dewatered to maintain stability of the excavations and adjacent improvements and provide access for construction. All recommendations included in the preliminary geotechnical evaluation pertaining to groundwater will be followed.

  On-site infiltration of storm water related to Low Impact Development (LID) guidelines will be evaluated during the detailed design phase of the project. Further study, including subsurface exploration, will also be performed during the detailed design phase of planned improvements to evaluate the presence of seepage and/or perched groundwater, the potential for stormwater infiltration at the site, and the potential impacts on design and construction of project improvements. Techniques such as casing, shoring, and/or construction dewatering will be incorporated.

- **Collapsible soils/settlement**: Assessment of soil settlement will be performed prior to detailed design and construction or project improvements, and techniques will be developed, as appropriate, to reduce impacts related to settlement. Surface reconnaissance and subsurface evaluation will be performed. Site-specific geotechnical evaluations will also be performed to assess the settlement potential of on-site natural soils and undocumented fill, which will include drilling of exploratory borings or test pits, laboratory testing of soils, or other appropriate measures to evaluate site conditions.

  Examples of possible mitigation measures for soils with the potential for settlement could include removal of the compressible/collapsible soil layers and replacement with compacted fill, surcharging to induce settlement prior to construction of improvements, allowing for a settlement period after or during construction of new fills, and utilization of specialized foundation design, including the use of deep foundation systems, to support structures. Various in-situ soil improvement techniques are also available, such as dynamic compaction (i.e., heaving tamping) or compaction grouting.

The geotechnical evaluation will include the following measures to mitigate the expansive and corrosive soils hazards identified under Impact **GEO-4**.

- **Expansive soils**: Assessment of the potential for expansive soils will be performed during the design phase of the project through subsurface exploration, and mitigation techniques, such as over-excavation and replacement with non-expansive soils, soil treatment, moisture management, and/or specific structural design for expansive soil conditions, will be developed, as appropriate, to reduce the impacts related to expansive soils.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

Fault Rupture

As discussed under Tier I construction impacts, the project site is located within a State of California EFZ and the possibility exists for potentially significant impacts to occur, including seismic surface rupture at the site. The project site was also previously subjected to substantial surface rupture damage resulting from the 1971 Sylmar Earthquake. However, incorporation of mitigation measure **MM-GEO-C1** would reduce impacts to a less-than-significant level.

Seismic Ground Shaking

As discussed under Tier I construction impacts, earthquake events from one of the regional active or potentially active faults near the project area could result in strong ground shaking, which could affect the project site. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking. As shown in Table 3.6-1, above, a number of known active faults in the project vicinity create a significant potential for strong ground motion at the project site. The potential level of ground shaking could have significant impacts on project improvements without appropriate design mitigation, and should be considered during the detailed design phase of the project. Appropriate structural design and mitigation techniques as proposed under **MM-GEO-C1** would reduce the impacts related to seismic ground shaking. The proposed project would also adhere to all applicable seismic requirements and guidelines. Therefore, implementation of **MM-GEO-C1**, impacts would be reduced to a less-than-significant level.

Ground Failure

As mentioned under Tier I construction impacts, although a portion of the project area in the northeastern part of the site, near the mouth of Wilson Canyon, is located within an area considered susceptible to liquefaction, structural design and mitigation techniques would reduce potential impacts of liquefaction. Incorporation of **MM-GEO-C1** would reduce impacts to a less-than-significant level.

Landslides

As mentioned under Tier I construction impacts, according to the preliminary geotechnical evaluation for the proposed project, there is the potential for future landslides or mudflows in the project area. Earthquake-induced landslides may occur due to seismic ground shaking. However,

potential impacts due to landslides are considered low with mitigation incorporated. **MM-GEO-C1** would reduce impacts to a less-than-significant level.

Tier II

Tier II operational impacts related to exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving earthquake fault rupture, seismic shaking, ground failure, or landslides, are expected to be similar to those described for Tier I. Impacts would be less than significant after incorporation of **MM-GEO-C1**.

Mitigation Measures

See **MM-GEO-C1**.

Level of Significance after Mitigation

Less than significant.

Impact GEO-2: Would the Proposed Project Result in Substantial Soil Erosion or the Loss of Topsoil?

Construction Impacts

Tier I

According to the preliminary geotechnical evaluation, near-surface soils at the project site are predominantly composed of sandy, coarse-grained materials. Clayey soils might also be present in areas of the project site. Sandy soils typically have low cohesion and a relatively higher potential for erosion from surface runoff when exposed in cut slopes or utilized near the face of fill embankments. Surface soils with higher amounts of clay tend to be less erodible because the clays are able to hold soil particles together.

Tier I construction activities would result in ground surface disruption, including disruptions from grading, trenching, and excavation activities. Such activities could result in erosion at the project site during construction, a potentially significant impact. Additionally, portions of the campus are currently undeveloped and subject to potential water and wind soil erosion. However, as described in Section 3.8 of this Final EIR, *Hydrology and Water Quality*, any project involving grading of an area greater than 1 acre is required to apply for a National Pollutant Discharge Elimination System permit from the Los Angeles Regional Water Quality Control Board. This permit requires preparation and implementation of a Stormwater Pollution Prevention Plan that incorporates best management practices (BMPs) for erosion control. Specifically, construction activity resulting in a land disturbance of 1 acre or more, or less than one acre, but part of a larger common plan of development or sale, must obtain the Construction Activities Storm Water General Permit. Compliance with permit requirements and implementation of **MM-GEO-C2** (see below) would minimize the erosion potential during construction and reduce impacts to a less-than-significant level.

Tier II

Construction activity under Tier II would be similar to that described under Tier I. Impacts would be less than significant after incorporation of **MM-GEO-C2**.

Mitigation Measures

The following measure would ensure that soil erosion impacts (Impact **GEO-2**) would be minimized:

> **MM-GEO-C2:** A Storm Water Pollution Prevention Program incorporating BMPs for erosion control will be prepared prior to the start of construction in accordance with governing agencies. Long-term erosion management practices and drainage provisions will also be incorporated into the design and maintenance of the project following the development of site improvements. BMPs may include surface drainage measures for erosion due to water, such as the use of erosion prevention mats or geofabrics, silt fencing, sandbags and plastic sheeting, and temporary drainage devices. Positive surface drainage will be accommodated at project construction sites to allow surface runoff to flow away from site improvements or areas susceptible to erosion. Wetting of soil surfaces and/or covering exposed ground areas and soil stockpiles will also be considered during construction operations, as appropriate, to reduce wind-related erosion (see Section 3.9 of this Final EIR, *Hydrology and Water Quality*). Project design will address reducing concentrated runoff conditions that could cause erosion and affect the stability of the project.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

As described in Section 3.9, *Hydrology and Water Quality*, of this Final EIR, soil erosion during long-term operation of future development on the project site would be minimized through site drainage design and maintenance practices. The Master Plan would increase and improve storm drainage pipes and incorporate the use of bioretention and permeable pavement LID features, which would also minimize runoff and the potential for soil erosion. These features would meet the requirements of the city of Los Angeles Department of Sanitation's *Development Best Management Practices Handbook*. Discharge rates would also decrease after implementation of the Master Plan also reducing the potential for soil erosion. Thus, Tier I operational impacts on erosion would be less than significant.

Tier II

Similar to Tier I, soil erosion during operation of the site would be minimized through site drainage design and maintenance practices, thus impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Impact GEO-3: Would the Proposed Project be Located on a Geological Unit or Soil that is Unstable or that Would Become Unstable, Potentially Resulting in an On-site or Off-Site Landslide, Lateral Spreading, Subsidence, Liquefaction, or Collapse?

Construction and Operational Impacts

Tier I

For a discussion of landslide and liquefaction hazards during construction, see Impact **GEO-1**, above.

As previously stated, mapped areas of subsidence were not found in the city or County of Los Angeles reference materials. The County of Los Angeles General Plan Safety Element includes goals and policies addressing the introduction or expansion of developments in areas known to have geologic hazards. Therefore, the potential for subsidence on the project site is relatively low and would be considered a less-than-significant impact. No mitigation measures are required.

Tier I construction activities could result in ground surface disruption, including disruptions from grading, trenching, and excavation activities. Based on the deep groundwater levels reported in the project vicinity and the anticipated depth of construction activities, groundwater may not have a significant impact on Tier I construction activities. However, areas of shallower perched groundwater may be encountered during excavations, and, if encountered, could cause instability of excavations and present a constraint to construction activities, a potentially significant impact. Implementation of **MM-GEO-C1** would ensure impacts related to perched groundwater and wet or saturated soil conditions would be reduced to less-than-significant levels.

Due to the presence of potentially compressible/collapsible soils at the project site, there is a potential for a differential settlement to cause damage to project improvements. Without appropriate mitigation implemented during detailed project design and construction, the potential impacts of settlement would be considered significant. Mitigation measures, including soil assessment, removal of the compressible/collapsible soil layers and replacement with compacted fill, surcharging to induce settlement prior to construction of improvements, allowing for a settlement period after or during construction of new fills, and utilization of specialized foundation design, including the use of deep foundation systems, to support structures, would reduce potential impacts to less-than-significant levels. With the implementation of **MM-GEO-C1**, the proposed project's compressible/collapsible soils impacts would be less than significant.

Tier II

Tier II impacts related to unstable soils conditions are expected to be similar to those described for Tier I. Impacts would be less than significant after incorporation of **MM-GEO-C1**.

Mitigation Measures

See **MM-GEO-C1**, above.

Level of Significance after Mitigation

Less than significant.

Impact GEO-4: Would the Proposed Project Be Located on Expansive Soil, as Defined in Table 18-1-B of the UBC (1994), or Corrosive Soils, Creating Substantial Risk to Life or Property?

Construction and Operational Impacts

Tier I

According to the preliminary geotechnical evaluation prepared for the proposed project, the near-surface soils at the project site are predominantly composed of sandy, coarse-grained materials that typically have a low expansion potential. However, clayey soils might be present in areas of the project site. If construction activities occur on soils that are known to be potentially expansive, the impact on proposed future improvements could be significant. Implementation of **MM-GEO-C1** would reduce potential impacts from expansive soils to less than significant.

Tier II

Tier II impacts related to expansive soils are expected to be similar to those described for Tier I. Impacts would be less than significant after incorporation of **MM-GEO-C1**.

Mitigation Measures

See **MM-GEO-C1**, above.

Level of Significance after Mitigation

Less than significant.

Impact GEO-5: Would the Proposed Project Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature?

Based on the results of the geologic map review, literature, museum record searches, and reconnaissance survey, the paleontological potential of the geologic units within the project site were ranked using the Potential Fossil Yield Classification (PFYC) System, which was developed by the Bureau of Land Management (BLM) (BLM 2007) as a predictive tool for classifying geologic units on their likelihood of containing paleontological resources on a scale of 1 (very low potential) to 5 (very high potential).

Pacoima Formation sediments are evaluated as having a moderate potential (PFYC 3a) for paleontological resources in the vicinity of the project site. This conclusion is based on the generally fine- to medium-grained nature of the sediments observed during survey and the report of significant Pleistocene fossils from similar alluvial deposits in the vicinity (McLeod 2016).

Quaternary alluvium sediments are evaluated as having a low potential (PFYC 2) for paleontological resources at the surface. This conclusion is based on the Holocene age of these sediments, which may shallowly overlie older paleontologically sensitive deposits of older Quaternary alluvium.

Construction Impacts

Tiers I and II

Construction during implementation of the project could involve clearing, grading, excavation, utility relocation, and other earthmoving activity. Depending on the previous level of disturbance,

construction activities have the potential to affect sensitive geologic units and geographic areas known to contain scientifically significant fossils; as a result, adverse impacts to nonrenewable paleontological resources could occur (State CEQA Guidelines, 14 CCR Sections 15064.5[3] and 15023; State CEQA Guidelines Appendix G, Section V, Part C).

Surface grading or shallow excavations in the uppermost few feet of the younger Quaternary alluvium in the proposed project area are unlikely to uncover significant fossil vertebrate remains. However, deeper excavations that extend down into older sedimentary deposits, as well as any excavations in the Pacoima Formation in the northern portion of the campus may well encounter significant vertebrate fossils (McLeod 2016). Therefore, grading and other earthmoving activities may potentially result in significant direct impacts to paleontological resources throughout the entirety of the project site. Implementation of **MM GEO-C3** below would reduce these impacts to a less-than-significant level.

Operational Impacts

Tiers I and II

Normal operation of the Olive View–UCLA Medical Center Campus under the proposed Master Plan would not affect paleontological resources.

Mitigation Measures

Prior to any excavation related to the construction of facilities or improvements proposed under the Master Plan, a qualified vertebrate paleontologist will be retained by the County or construction contractor to prepare a paleontological resource monitoring plan. This plan should include specific locations and construction activities requiring monitoring, procedures to follow for monitoring and fossil discovery, and a curation agreement with LACM.

MM-GEO-C3: Due to the moderate paleontological potential of the Pacoima Formation, monitoring will be conducted during all earthmoving activities that affect native sediments to reduce potential impacts to a less-than-significant level. Excavations will be monitored by a qualified paleontological monitor under the supervision of a qualified paleontologist.

Additionally, when initial excavation exceeds depths of 5 feet into areas mapped as Quaternary alluvium, periodic paleontological spot checks should be conducted to determine if older, paleontologically sensitive sediments are present. If present, full-time monitoring will be implemented.

Monitoring may be reduced if some of the potentially fossiliferous units described herein are, upon exposure and examination by qualified paleontologic personnel, determined to have a low potential for containing fossil resources.

The paleontologic monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor will have the authority to temporarily divert grading away from exposed fossils to recover the fossil specimens professionally and efficiently and collect associated data. All efforts to avoid delays in project schedules will be made. To prevent construction delays, paleontological monitors will be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data, including handheld global positioning system receivers, digital cameras, and cell phones, as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (e.g., awls, hammers,

chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms will be used to record pertinent geologic data, stratigraphic sections will be measured, and appropriate sediment samples will be collected and submitted for analysis.

Fossils collected, if any, will be transported to a paleontological laboratory for processing where they will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility such as LACM.

Following analysis, a Report of Findings with an appended itemized inventory of specimens will be prepared. The report and inventory, when submitted to the appropriate lead agency, along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will signify completion of the program to mitigate impacts on paleontological resources.

Level of Significance after Mitigation

Impacts on paleontological resources, if any are found, are expected to be reduced to a level of less than significant with implementation of **MM-GEO-C3**, as identified above.

3.6.5 Cumulative Impacts

3.6.5.1 Tiers I and II

In general, geologic/soils hazards (i.e., fault rupture, seismic shaking, liquefaction, expansive and corrosive soils) are site specific and the combined effects of individual projects would not result in cumulative increases in these geologic hazards on individual projects. However, cumulative impacts could occur in three areas: soil erosion, subsidence, and unstable soils. Cumulative soil erosion impacts could occur when multiple projects disturb and expose soils during construction, resulting in erosion and the cumulative loss of topsoil. Wind or water transport of eroded soils could also result in cumulative adverse impacts on the water quality of local water bodies (see Section 3.9, *Hydrology/Water Quality*, of this Final EIR for a discussion of water quality impacts). Cumulative subsidence impacts could occur when multiple projects result in the withdrawal of groundwater from the same water source or result in withdrawals, such as oil and natural gas, from local sources, thereby increasing the potential for subsidence to occur. Cumulative soil stability impacts could occur if two or more projects are in very close proximity; excavation or earthmoving activities could cumulatively increase the instability of the local geologic unit or project area slopes.

With respect to cumulative soil erosion impacts, cumulative development within the San Fernando Valley and greater Los Angeles region could result in the cumulative loss of topsoil. However, as noted in the discussion above, projects requiring grading of more than 1 acre would be required to apply for a National Pollutant Discharge Elimination System permit and implement an SWPPP that incorporates BMPs for erosion control. Development on the medical center campus under the Master Plan would be subject to permit requirements and the specific measures identified in **MM-GEO-2**, which would minimize soil erosion on the campus during construction. Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative soil erosion impact during construction (during operation, implementation of LID features on the campus would reduce runoff and soil erosion, and thus would not contribute to any adverse cumulative impacts).

The proposed project would not require groundwater, oil, or gas withdrawals from local sources, and therefore would not contribute to any potential subsidence impacts.

With respect to unstable soil impacts, none of the 14 related projects shown in Table 2-2 of Chapter 2, *Project Description,* are located adjacent or in very close proximity to the campus. The nearest related project is located 0.5 miles from the campus at 13530 Glenoaks Boulevard; therefore, none of the related projects would contribute to cumulative slope stability impacts in the immediate vicinity of the campus. However, multiple projects could be developed within the campus under the Master Plan over time, and some of those projects may be constructed simultaneously and in close proximity to each other. The measures identified in **MM-GEO-C1** would minimize landslide hazards; therefore, development on the campus is not expected to result in cumulatively considerable contribution to significant cumulative landslide hazard impacts on or in the immediate vicinity of the campus.

Paleontological Resources

The study area for cumulative impacts to paleontological resources generally consists of the San Fernando Valley and greater Los Angeles region. Cumulative impacts to paleontological resources concern the incremental loss of these nonrenewable resources to society as a whole.

Cumulative growth and development in the Los Angeles region could have impacts if significant paleontological resources are found during construction activities. Significant fossil resources do exist in the San Fernando Valley. The potential for an individual project to affect significant paleontological resources is unknown, but it is probable that cumulative growth and development could have impacts on significant fossil resources given the geographic extent of the cumulative impacts study area. Construction activities associated with the project have the potential to affect sensitive geologic units and geographic areas known to contain scientifically significant fossils. Project grading and earthmoving could disturb or destroy paleontological resources, a potentially significant project impact that could cumulatively contribute to the progressive loss of paleontological resources in the region. However, **GEO-C2** would reduce potential project-related impacts. This mitigation measure includes monitoring, treatment of any discovered paleontological resources to mitigate impacts, preparation of a final report, and curation of discovered specimens in an approved facility. Therefore, with mitigation, the proposed project's contribution to significant cumulative impacts to paleontological resources would be rendered less than cumulatively considerable.

3.7 Greenhouse Gas Emissions

3.7.1 Introduction

This section provides an overview of the regulatory framework applicable to greenhouse gas (GHG) emissions at the statewide, regional, and local scales and evaluates the potential environmental impacts associated with implementation of the Olive View–UCLA Medical Center Campus Master Plan (Master Plan or proposed project). GHG emissions refer to airborne pollutants that are generally understood to affect global climate conditions. These gaseous pollutants have the effect of trapping heat in the atmosphere and consequently altering weather patterns and climactic conditions over long timescales. The GHG emissions impact assessment addresses both construction and operational activities associated with the proposed project. Supporting data and calculations are included in Appendix C of this Final EIR.

3.7.2 Regulatory Setting

3.7.2.1 Federal

There is currently no overarching federal law specifically related to climate change or the reduction of GHG emissions. Under the Obama Administration, the United States Environmental Protection Agency (EPA) was developing regulations under the Clean Air Act (CAA) pursuant to EPA's authority under the act. There have also been settlement agreements between EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating units and refineries, as well as EPA's issuance of two noteworthy findings on December 7, 2009, regarding greenhouse gases, under section 202(a) of the Clean Air Act:

- **Endangerment Finding:** The Administrator finds that the current and projected concentrations of the six key well-mixed greenhouse gases: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6)—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The Administrator finds that the combined emissions of these well-mixed greenhouse gases from new motor vehicles and new motor vehicle engines contribute to the greenhouse gas pollution which threatens public health and welfare.

EPA also adopted a Mandatory Reporting Rule (2015) and Clean Power Plan (2014), the latter of which contains EPA-issued regulations for controlling carbon dioxide (CO_2) emissions from new and existing coal-fired power plants. However, on February 9, 2016, the Supreme Court issued a stay of these regulations pending litigation. Former EPA Administrator Scott Pruitt also signed a measure to repeal the Clean Power Plan. The fate of the proposed regulations is uncertain pending the potential change in federal administrations and the outcome of federal court deliberations.

3.7.2.2 State

California has taken proactive steps, briefly described in this section, to address the issues associated with GHG emissions and climate change, much of which establishes a broad framework for the state's long-term GHG and energy reduction goals and climate change adaptation program. The former and current governors of California have also issued several Executive Orders (EOs)

related to the state's evolving climate change policy. Summaries of key policies, EOs, regulations, and legislation at the state level that are relevant to the project are provided below in chronological order.

Assembly Bill 1493

With the passage of Assembly Bill (AB) 1493 (referred to as Pavley I) in 2002, California launched an innovative and proactive approach to dealing with GHG emissions and climate change at the state level. AB 1493 requires the California Air Resources Board (CARB) to develop and implement regulations to reduce automobile and light-truck GHG emissions. These stricter emissions standards were designed to apply to automobiles and light trucks beginning with the model year 2009. Although litigation challenged these regulations and the EPA initially denied California's related request for a waiver, the waiver request was granted.

Executive Order S-3-05

On June 1, 2005, Governor Arnold Schwarzenegger signed California EO S-3-05. The goal of this EO was to reduce California's GHG emissions to (1) 2000 levels by 2010; (2) 1990 levels by 2020; and (3) 80 percent below the 1990 levels by 2050. EO S-3-05 also calls for the California Environmental Protection Agency to prepare biennial science reports on the potential impact of continued global warming on certain sectors of the California economy. As a result of the scientific analysis presented in these biennial reports, a comprehensive Climate Adaptation Strategy was released in December 2009 following extensive interagency coordination and stakeholder input. The latest of these reports, Climate Action Team Biennial Report, was published in December 2010.

Green Building Code and Title 24 Updates

The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code (24 California Code of Regulations [CCR]). Part 11 established voluntary standards that became mandatory under the 2010 edition of the code. These involved sustainable site development, energy efficiency (in excess of California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The current energy efficiency standards were adopted in 2016 and took effect on January 1, 2017. The standards are to be updated periodically, with the next update planned for 2019.

Assembly Bill 32

One goal of EO S-03-05 was further reinforced by Assembly Bill (AB) 32 (Chapter 488, Statutes of 2006), the Global Warming Solutions Act of 2006, which requires the state to reduce GHG emissions to 1990 levels by 2020. Since AB 32 was adopted, CARB, the California Energy Commission (CEC), the California Public Utilities commission (CPUC), and the Building Standards Commission have been developing regulations that will help meet the goals of AB 32. Under AB 32, CARB is required to prepare a scoping plan and update it every five years. The Scoping Plan was approved in 2008, the first update approved in 2014, and an additional update was approved in 2017 (see discussion of Senate Bill [SB] 32 below). The Scoping Plan identifies specific measures to reduce GHG emissions to 1990 levels by 2020, and requires CARB and other state agencies to develop and enforce regulations and other initiatives for reducing GHGs. Specifically, the AB 32 Scoping Plan articulates a key role for local governments, recommending they establish GHG reduction goals for both their municipal operations and the community that are consistent with those of the state.

Low Carbon Fuel Standard

With EO S-01-07, Governor Schwarzenegger set forth the low carbon fuel standard (LCFS) for California in 2007. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020. In September 2018, the LCFS regulation was amended to increase the statewide goal to a 20 percent reduction in carbon intensity of California's transportation fuels by at least by 2030.

Senate Bill 375

SB 375, signed into law by Governor Schwarzenegger on September 30, 2008, became effective January 1, 2009. This law requires that the state's 18 Metropolitan Planning Organizations develop the sustainable communities strategies (SCS) as part of their RTPs, focusing on integrated land use and transportation planning, and that the SCS demonstrates the state's ability to attain the GHG emissions reduction targets that the CARB established for the region by 2020 and 2035. This goal would be accomplished through either the financially constrained SCS as part of the RTP or an unconstrained alternative planning strategy. If regions develop integrated land use, housing, and transportation plans that meet the SB 375 targets, new projects in these regions can be relieved of certain California Environmental Quality Act (CEQA) review requirements.

Senate Bills 1078, 107, and 2

California's Renewables Portfolio Standard (RPS), outlined and updated in SBs 1078 (2002), 107 (2006), and 2 (2011), obligates investor-owned utilities, energy service providers, and Community Choice Aggregators to procure additional retail sales per year from eligible renewable sources with the long-range target of procuring 33 percent of retail sales from renewable resources by 2020. The CPUC and CEC are jointly responsible for implementing the program.

Executive Order B-30-15

Governor Jerry Brown signed EO B-30-15 on April 29, 2015. EO B-30-15 established a medium-term goal for 2030 of reducing GHG emissions by 40 percent below 1990 levels and requires CARB to update its current AB 32 Scoping Plan to identify measures to meet the 2030 target. EO B-30-15 supports EO S-3-05, but is only binding for state agencies.

Senate Bill 32 and Assembly Bill 197

SB 32 (2016) requires CARB to ensure that statewide GHG emissions are reduced to at least 40 percent below the 1990 level by 2030, as is consistent with the target set forth in EO B-30-15. The companion bill to SB 32, AB 197 creates requirements to form a Joint Legislative Committee on Climate Change Policies, requires CARB to prioritize direct emission reductions and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit, requires CARB to prepare reports on sources of GHGs and other pollutants, establishes 6-year terms for voting members of CARB, and adds two legislators as non-voting members. CARB adopted the *2017 Climate Change Scoping Plan* in November 2017 to meet the GHG reduction requirement set forth in SB 32. The 2017 Scoping Plan proposes continuing the major programs of the previous Scoping Plan, including cap-and-trade regulations, low carbon fuel standards, more efficient cars, trucks, and freight movement, RPS, and reducing methane emissions from agricultural and other wastes.

Senate Bill 32 Scoping Plan

CARB approved the 2017 Climate Change Scoping Plan Update in December 2017, which builds on the programs set in place as part of the previous Scoping Plan that was drafted to meet the 2020 reduction targets per AB 32. The 2017 Scoping Plan Update proposes meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for freight movement, continued investment in renewables, greater use of low-carbon fuels, including electricity and hydrogen, stronger efforts to reduce emissions of short-lived climate pollutants (i.e., methane [CH_4], black carbon [BC], and fluorinated gases), further efforts to create walkable communities with expanded mass transit, and other alternatives to traveling by car, continuing the cap-and-trade program, and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target. The Scoping Plan Update also recommends that local governments aim to achieve community-wide efficiency of 6 metric tons of carbon dioxide-equivalent ($MTCO_2e$) per capita by 2030 and 2 $MTCO_2e$ per capita by 2050 to be used in local climate action planning. These efficiency targets would replace the 15 percent from 2008 levels by 2020 approach recommended in the initial Scoping Plan, which would allow for local governments to grow in a sustainable manner (CARB 2016).

Senate Bill 350 and Senate Bill 100

SB 350 (The Clean Energy and Pollution Reduction Act) was signed into law on October 2015. SB 350 requires CARB (in coordination with the California Public Utilities Commission [CPUC] and the California Energy Commission [CEC]) to coordinate and implement the following overarching goals:

1. Increase the RPS to 50 percent of retail sales by 2030, and ensure grid reliability.
2. Establish annual targets for statewide energy efficiency savings, and demand reductions that will achieve a cumulative doubling of statewide energy efficiency savings for electricity and natural gas end uses by 2030.
3. Reduce GHG emissions in the electricity sector through the implementation of the above-referenced measures and other actions as modeled in their integrated resource plans (IRPs) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs. The IRPs will detail how each large utility will meet their customers resource needs, minimize price increases, reduce emissions, and ramp up the deployment of clean energy resources.

In September 2018, SB 100 was signed into law, which implements the following goals:

1. Increase the RPS to 50 percent of retail sales by 2026 (moved up by four years from SB 350).
2. Increase the RPS to 60 percent of retail sales by 2030 (new 2030 target).
3. Increase the RPS to 100 percent of retail sales by 2045 (carbon-free goal for 2045).

SB 100 is a legislative action that was signed into law after the 2017 Scoping Plan was adopted. The Scoping Plan modeling is based on the SB 350 target of 50 percent renewables by 2030. However, the new SB 100 target of 60 percent renewables by 2030 and 100 percent renewables by 2045 supersedes the goals of SB 350 and will be included in future Scoping Plan updates.

Mobile Source Strategy

CARB developed the Mobile Source Strategy to provide an action plan that establishes an integrated planning perspective and common vision for transforming the mobile sector. The Mobile Source Strategy supports multiple planning efforts, including the State Implementation Plans, the Scoping Plan, the Short-Lived Climate Pollutant Reduction Strategy, and the California Sustainable Freight Action Plan. The Mobile Source Strategy outlines CARB's approach to reducing emissions from mobile sources, including actions to modernize and upgrade transportation infrastructure, enhance system-wide efficiency and mobility options, and promote clean economic growth.

Short-Lived Climate Pollutant Strategy

SB 1383, adopted in 2013, requires CARB to develop and implement a Short-Lived Climate Pollutant (SLCP) Strategy with the following 2030 goals: 40 percent reduction in methane, 40 percent reduction in hydrofluorocarbon (HFC) gases, and 50 percent reduction in anthropogenic BC. Per its directive, CARB adopted the SLCP Strategy, establishing a path to decrease SLCPs from various sectors of the economy. Strategies span from wastewater and landfill practices and methane recovery to reducing natural gas leaks and consumption. The SLCP strategy also identifies measures that can reduce HFC emissions through incentive programs and limitations on the use of high-GWP () refrigerants in new refrigeration and air-conditioning equipment.

Cap-and-Trade

In October 2011, CARB adopted a cap-and-trade program, a market-based system with an overall emissions limit for affected emission sources, including in-state electricity generators, hydrogen production, and petroleum refining for large-scale manufacturers, fuel suppliers, and distributors. The original cap-and-trade program set a compliance schedule through 2020. AB 398 extends the program through 2030 and requires CARB to make refinements, including establishing a price ceiling. Revenue generated from the cap-and-trade program are used to fund various programs. AB 398 established post-2020 funding priorities to include (1) air toxics and criteria pollutants, (2) low and zero carbon transportation, (3) sustainable agricultural practices, (4) healthy forests and urban greening, (5) short-lived climate pollutants, (6) climate adaptation and resiliency, and (7) climate and clean energy research.

Executive Order B-55-18

EO B-55-18 acknowledges the environmental, community, and public health risks posed by future climate change. It further recognizes the climate stabilization goal adopted by 194 states and the European Union under the Paris Agreement. Although the United States is no longer party to the agreement, California is committed to meeting Paris Agreement goals and exceeding them wherever possible. Based on the worldwide scientific agreement that carbon neutrality must be achieved by the mid-twenty-first century, EO B-55-18 establishes a new state goal of achieving carbon neutrality as soon as possible, and no later than 2045, and maintaining net negative emissions thereafter. The EO charges CARB with developing a framework for implementing and tracking progress toward these goals. This EO extends EO S-3-05, but is only binding on state agencies. However, given this directive, it is likely that the carbon neutral goal by 2045 will make its way into future updates to the Scoping Plan, which must be updated every 5 years.

3.7.2.3 Regional

South Coast Air Quality Management District

As discussed in Section 3.2, *Air Quality*, of this Final EIR, the South Coast Air Quality Management District (SCAQMD) has primary responsibility for the development and implementation of rules and regulations for meeting national ambient air quality standards (NAAQS) and California ambient air quality standards (CAAQS), as well as permitting new or modified sources, developing air quality management plans, and adopting and enforcing air pollution regulations within the South Coast Air Basin, in which the proposed project is located. CARB's scoping plans do not delineate an explicit role for local air districts with respect to implementing the reduction goals of SB 32 and AB 32, but CARB does state that they will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (i.e., criteria pollutants and GHGs) is provided primarily through permitting, but also through their role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents.

On December 5, 2008, the California Air Resources Board considered draft GHG guidance and adopted a staff proposal for an interim GHG significance threshold of 10,000 $MTCO_2e$ per year for industrial permitting projects where SCAQMD is the lead agency. The board letter, resolution, interim GHG significance threshold, draft guidance document, and attachments can be found under Item 31, California Air Resources Board Monthly Report of the December 5, 2008, Governing Board Meeting Agenda[1] and are attached as Exhibit B in Appendix C of this Final EIR. In its draft guidance document, SCAQMD included the evidence and rationale for developing thresholds, specifically citing CEQA Guidelines Section 15064.7(a): Each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects") and Subsection (b): Thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule or regulation, and developed through a public review process and be supported by substantial evidence. SCAQMD developed thresholds for both stationary sources as well as for land use development projects. SCAQMD's recommended GHG significance threshold underwent a public review process as part of stakeholder working group meetings that were open to the public. The draft guidance document provides the supporting analysis and methodology for developing the GHG significance thresholds for stationary sources and land use development projects. After completion of the public process, the proposed interim thresholds for land use development projects were brought to SCAQMD's Governing Board, but were not formally adopted, while the threshold involving industrial permitting projects where SCAQMD is lead agency was adopted.

For industrial process, the SCAQMD has formally adopted a 10,000 $MTCO_2e$ threshold for industrial (i.e., permitted) facilities where SCAQMD is the lead agency. This industrial source threshold is not appropriate for use on commercial or civic projects, such as the proposed project, since it is not associated with industrial processes.

SCAQMD noted that the proposed interim GHG significance thresholds for evaluation of land use development projects was only a recommendation for lead agencies and not a mandatory requirement. The GHG significance threshold may be used at the discretion of the local lead agency. The draft GHG guidance identified a tiered approach for determining the significance of GHG

[1] Board Agenda Item 31 data available at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf

emissions, one of which included the use of numerical screening thresholds. With respect to numerical GHG significance thresholds, the SCAQMD proposed two different approaches to be taken by lead agencies when analyzing GHG emissions:

- **Option #1** includes using separate numerical thresholds for residential projects (3,500 $MTCO_2e$/year), commercial projects (1,400 MTCO2e/year), and mixed-use projects (3,000 MTCO2e/year).
- **Option #2** includes use of a single numerical threshold for all nonindustrial projects of 3,000 $MTCO_2e$/year. SCAQMD's most recent recommendation per its September 2010 meeting minutes is to use option #2.

SCAG 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

SCAG is the metropolitan planning organization (MPO) for the six-county region that includes Los Angeles, Orange, Riverside, Ventura, San Bernardino, and Imperial counties. The 2016–2040 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) includes commitments to reduce emissions from transportation sources to comply with SB 375. GHG emissions-reduction goals and policies included in the 2016–2040 RTP/SCS consist of adding density in proximity to transit stations, utilizing mixed-use development, and encouraging active transportation (i.e., non-motorized transportation, such as bicycling).

SCAG promotes the following policies and actions related to active transportation to help the region confront congestion and mobility issues and consequently reduce emissions:

- Implement transportation demand management (TDM) strategies, such as promoting bicycling and public transportation through the installation and use of folding bikes on bus programs, triple racks on buses, and dedicated racks on light and heavy rail vehicles;
- Encourage and support local jurisdictions in developing active transportation plans for their jurisdiction if they do not already have one;
- Expand the Compass Blueprint Project program to support member cities in the development of bicycle plans;
- Expand the Toolbox Tuesdays program to encourage local jurisdictions to direct enforcement agencies to focus on bicycling and walking safety to reduce multimodal conflicts;
- Support local advocacy groups and bicycle-related businesses to provide bicycle-safety curricula to the general public;
- Encourage children, including those with disabilities, to walk and bicycle to school;
- Encourage local jurisdictions to adopt and implement the proposed Regional Bikeways Network Active Transportation Policy; and
- Support local jurisdictions in connecting all cities within the SCAG region via bicycle facilities.

SB 375 requires CARB to develop regional CO_2 emission reduction targets, compared to 2005 emissions, for use on cars and light trucks only for 2020 and 2035 for each MPO. SB 375 also requires that each MPO prepare an SCS as part of the RTP to reduce CO_2 by better aligning transportation, land use, and housing. For SCAG, the SCS targets through September 30, 2018, require SCAG to reduce per capita emissions 8 percent below 2005 levels by 2020 and 13 percent below 2005 levels by 2035 (SCAG 2016). The 2016–2040 RTP/SCS states that the region will meet

or exceed the SB 375 per capita targets, lowering regional per capita GHG emissions below 2005 levels by 8 percent by 2020 and 18 percent by 2035. The 2016–2040 RTP/SCS also states that regional 2040 per capita emissions would be reduced by 22 percent, although CARB has not established a 2040 per capita emissions target. After September 30, 2018, SCAG's SCS targets were increased, requiring SCAG to reduce per capita GHG emissions from passenger vehicles by approximately 8 percent by 2020 and 19 percent by 2035 over base year 2005 (CARB 2019).

3.7.2.4 Local

Los Angeles County Community Climate Action Plan and Municipal Climate Action Plan

In October 2015, the County of Los Angeles adopted the Los Angeles County Community Climate Action Plan (CCAP), which describes the County's plan for achieving the goal of reducing GHG emissions from community activities in the unincorporated areas of Los Angeles County by at least 11 percent below 2010 levels by 2020. The CCAP includes specific strategy areas for each of the major emissions sectors and provides details on the 2010 and projected 2020 emissions in the unincorporated areas. The CCAP is a component of Los Angeles County's General Plan.

Additionally, the County is currently developing a Municipal Climate Action Plan (MCAP), which will include various programs and policies for reducing municipal GHG emissions to 15 percent below current levels. The MCAP focuses on GHG emissions that result from the County's municipal operations and does not include GHG emissions generated by the community; these emissions are included in the CCAP. The MCAP includes municipal emissions from the following sectors: building energy, cogeneration facilities, vehicle fleets, owned landfills, refrigerants, wastewater treatment plants, street and outdoor lighting, water pumps, water conveyance, waste generation, employee commutes, and miscellaneous direct emissions.

The MCAP and CCAP are distinct plans with separate approval processes and timelines. However, there may be some minor overlap in the emissions that are accounted for in both plans, particularly in the wastewater, water, lighting, and employee commute emissions sectors where County facilities and actions occur in the unincorporated areas. The emissions in these sectors may be counted as both municipal and community emissions. For example, employee commute emissions are counted as municipal emissions and included in the MCAP, but may also occur in the unincorporated areas and would therefore be included in vehicle miles traveled data for the unincorporated areas. As such, there may also be some overlap in the associated actions to reduce these emissions. Because many of the County's operations take place within the jurisdiction of cities and pertain only to municipal operations, the County's municipal emissions have little overlap with community emissions in the unincorporated areas. To the extent that any overlap of programs or policies may occur, the County anticipates working with all appropriate departments and stakeholders to ensure that these programs and policies are developed as efficiently as possible, while still meeting the goals of both plans.

3.7.3 Environmental Setting

This section provides a discussion of the existing conditions related to GHG and climate change.

3.7.3.1 Global Climate Change

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface viable for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thus enhancing the greenhouse effect and amplifying the warming of Earth to temperatures that may have a lasting, deleterious effect.

Since the Industrial Revolution in the early nineteenth century, increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere (Intergovernmental Panel on Climate Change [IPCC] 2007). Atmospheric concentrations of GHGs in excess of natural levels result in increasing global surface temperatures, a phenomenon commonly referred to as *global warming.* Higher global surface temperatures, in turn, result in changes to Earth's climate system, including increased ocean temperature and acidity, reduced sea ice, variable precipitation, and increased frequency and intensity of extreme weather events (IPCC 2018). Large-scale changes to Earth's system are collectively referred to as *climate change*.

The IPCC was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached approximately 1 degree Celsius (°C) above pre-industrial levels in 2017, increasing at 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100, with warming to continue afterwards (IPCC 2018). Large increases in global temperatures could have substantial adverse effects on the natural and human environments worldwide and in California.

3.7.3.2 Potential Climate Change Effects

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea level rise globally and regionally, as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to any changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change is expected to occur in the future, although the precise extent will take further research to define. Specifically, significant impacts from global climate change worldwide and in California include:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates with a corresponding increase in atmospheric water vapor, due to the atmosphere's ability to hold more water vapor at higher temperatures (California Natural Resources Agency 2018);
- Rising average global sea levels, primarily due to thermal expansion and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets (IPCC 2018);
- Changing weather patterns, including fluctuations to precipitation, ocean salinity, and wind patterns, as well as more energetic aspects of extreme weather, including droughts, heavy

precipitation, heat waves, extreme cold, and the intensity of tropical cyclones (Intergovernmental Panel on Climate Change 2013);

- Declining snowpack levels in the Sierra Nevada range, which account for approximately half of the surface water storage in California, could be reduced by 70 percent to as much as 90 percent over the next 100 years (California Natural Resources Agency 2018);
- Increasing the number of days conducive to ozone formation (e.g., clear days with intense sun light) by 25 percent to 85 percent (depending on the future temperature scenario) by the end of the twenty-first century in high ozone areas, including Southern California (California Natural Resources Agency 2018);
- Increasing potential for the erosion of California's coastlines and intrusion of seawater into the Sacramento Delta and associated levee systems due to the rise in sea level (California Natural Resources Agency 2018); and
- Exacerbating the severity of drought conditions in California such that durations and intensities are amplified, ultimately increasing the risk of wildfires and consequential damage incurred (California Natural Resources Agency 2018).
- Lowering agricultural crop yields due to extreme heat waves and heat stress, increasing water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats (California Natural Resources Agency 2018).

The impacts of climate change, such as increased heat-related events, droughts, and wildfires, pose direct and indirect risks to public health, as people will experience earlier death and worsening illnesses. Indirect impacts on public health include increased vector-borne diseases, stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement (California Natural Resources Agency 2018).

3.7.3.3 Greenhouse Gases

The principle anthropogenic (human-made) GHGs listed by the IPCC that contribute to global warming are CO_2, CH_4, nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride (SF_6), HFCs, and perfluorocarbons (PFCs). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic sources. California law and the State CEQA Guidelines contain a similar definition of GHGs (Health and Safety Code Section 38505(g); 14 CCR Section 15364.5).

The primary GHGs of concern associated with the proposed project are CO_2, CH_4, and N_2O. Principal characteristics of these pollutants are discussed below.

- **Carbon dioxide** enters the atmosphere through fossil fuels (i.e., oil, natural gas, and coal) combustion, solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method of comparing GHG emissions is the GWP methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2 (by definition CO_2 has a global warming potential of 1). The GWP values used in this report are based on the IPCC Fourth Assessment Report (AR4) and United Nations Framework Convention on Climate Change reporting guidelines (IPCC 2007). The AR4 GWP values are consistent with those used in CARB's most recent GHG inventory and the 2017 Scoping Plan Update.

Table 3.7-1 lists the global warming potential of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

Table 3.7-1. Lifetimes and Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)[1]
CO_2	1	50–200
CH_4	25	9–15
N_2O	298	121

[1] Defined as the half-life of the gas.
Source: California Air Resources Board 2018a.

3.7.3.4 Statewide Greenhouse Gas Emissions Trends

A GHG inventory is a quantification of all GHG emissions and sinks[2] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources.

CARB has prepared a statewide emissions inventory covering 2000 to 2016, which demonstrates that GHG emissions have decreased by approximately 11 percent over that period (CARB 2018b). The largest reductions in GHG emissions have come from the electricity sector, which continues to decrease as a result of the state's climate policies that have led to a growth in wind generation and solar power. Emissions in 2016 from the transportation sector, which represents California's largest source of GHG emissions and contributed 39 percent of total annual emissions, increased by two percent from 2015. Table 3.7-2 shows statewide GHG emission estimates from 2006 to 2016 in California. Note that the 2020 target (1990 levels) is 426.6 million metric tons of CO_2e ($MMTCO_2e$) while the 2030 target (40 percent below 1990 levels) is currently set at 260 $MMTCO_2e$.

[2] A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

Table 3.7-2. California Greenhouse Gas Emissions Inventory 2006–2016

Sector	Annual CO_2e Emissions (million metric tons)										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Transportation	189	189	178	170	165	162	161	161	162	166	169
Industrial	93	90	91	88	92	91	91	94	94	92	90
Electric Power	105	114	120	101	90	88	95	90	88	84	69
Commercial/Residential	43	43	44	44	45	46	43	44	37	38	39
Agriculture	35	36	36	34	34	35	36	35	36	34	34
High Global Warming Potential	10	11	12	12	14	15	16	17	18	19	20
Recycling and Waste	8	8	8	8	8	8	8	9	9	9	9
Emissions Total[1]	**483**	**490**	**487**	**457**	**448**	**444**	**450**	**448**	**444**	**441**	**429**

[1] Totals may not add exactly due to rounding.
Source: CARB 2018b.

3.7.4 Environmental Impact Analysis

This section describes the impact analysis related to GHG emissions for the two tiers of development that could occur under the proposed project. It describes the methods used to determine the impacts of Tier I (i.e., near-term projects) and Tier II (i.e., projects occurring beyond 2035) developments and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate significant impacts accompany each impact discussion, when necessary.

3.7.4.1 Methods

As discussed in Chapter 2, *Project Description*, of this Final EIR, the environmental impacts of Tier I development are analyzed at a project level, while the impacts of Tier II development, which are more speculative due to the fact that they would occur much further in the future and the likelihood that the County's program needs will evolve and change over time, are analyzed qualitatively at a programmatic level. As a consequence, it is anticipated that subsequent environmental documents will need to be prepared, in compliance with CEQA regulations, for individual Tier II projects when they are proposed and better defined.

Implementation of the proposed project would generate GHG emissions during construction activities and associated operations. Tier I developments would be implemented over a 17-year period (or through the year 2035), resulting in over 600,000 square feet of new development and improvements to the existing hospital. Tier II developments would occur beyond 2035 and would include up to 992,000 square feet of new development, along with renovation and reuse of the existing inpatient hospital. Overall, if build-out of the campus occurs as envisioned under the Master Plan, the net increase in building square footage would be approximately 1.3 million square feet, which would occur throughout the campus.

Construction of the proposed project would generate emissions of CO_2, CH_4, and N_2O associated with mobile and stationary construction equipment exhaust and employee and haul truck vehicle exhaust. GHG emissions associated with the project's Tier I developments were estimated using the

California Emissions Estimator Model (CalEEMod), version 2016.3.2, and the methods applied to the analysis of criteria pollutant emissions for the proposed project that are summarized in Section 3.2, *Air Quality*, of this Final EIR. In accordance with SCAQMD guidance, the project's construction-related GHG emissions were amortized over a 30-year period and added to operational emissions.

Operation of the proposed project would generate long-term emissions of CO_2, CH_4, and N_2O associated with area sources, energy consumption, motor vehicles, waste generation, and water consumption. Area sources include landscaping activities and consumer products (e.g., personal care products). Energy sources include electricity consumption and natural gas combustion for lighting and heating requirements. Mobile sources include vehicle trips generated by patients and visitors to the medical center and campus employees driving to and from work. The waste category refers to decomposition of waste generated from the new campus developments. The water category includes electricity consumption associated with the supply, treatment, and distribution of water for the new campus developments. In addition, the existing hospital facilities are regulated under the cap-and-trade program. For stationary sources, GHG emissions from calendar year 2016 cap-and-trade reporting was first scaled up by 24 percent to capture the increase in development in the Tier I boundary (823,900 square feet to 1,170,491 square feet with completion of Tier 1), as well as the reduction in energy-use intensity associated with new construction. According to the Master Plan, energy use intensity of new buildings planned would fall from the current 450 kilo British thermal unit [kBtu]/square feet per year (sf/yr) to approximately 250 kBtu/sf-yr. Electricity emissions are based on the Los Angeles Department Water and Power (LADWP)'s 2016 carbon intensity as identified in its 2017 Power Strategic Long-Term Resource Plan. Emissions from all operational sources are calculated annually and added to amortized construction emissions.

3.7.4.2 Thresholds of Significance

For the purposes of the analysis in this Final EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

GHG-1 Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG-2 Conflict with any applicable plan, policy, regulation, or recommendation of an agency adopted for the purpose of reducing emissions of GHGs.

With respect to GHG emissions, CEQA Guidelines Section 15064.4 provides guidance to lead agencies for determining the significance of impacts from GHG emissions. Section 15064.4(a) provides that a lead agency will make a good-faith effort based, to the extent possible, on scientific and factual data to describe, calculate, or estimate the amount of GHG emissions resulting from a project. Section 15064.4(a) further provides that a lead agency will have the discretion to determine, within the context of a particular project, whether to: (1) quantify GHG emissions resulting from a project, and/or (2) rely on qualitative analysis or performance-based standards. Pursuant to the CEQA Guidelines in Section 15064.4(a), the analysis presented herein quantifies GHG emissions resulting from the project, provides a good-faith effort to describe, calculate, and estimate those emissions, and compares them with the chosen threshold level.

CEQA Guidelines Section 15064.4(b) provides that when assessing the significance of impacts from GHG emissions, a lead agency should focus the analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change and consider a timeframe that is appropriate for the project. The lead agency's analysis should reasonably reflect evolving scientific knowledge and state regulatory schemes and consider (1) the extent to which the project may increase

or reduce GHG emissions compared with existing conditions, (2) whether the project's GHG emissions exceed a threshold of significance that the lead agency determines applies to the project, and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The analysis of the potential impacts from the project's GHG emissions follows this approach.

CEQA Guidelines do not provide numeric or qualitative thresholds of significance for evaluating GHG emissions. Instead, they leave the determination of threshold significance up to the lead agency and authorize it to consider thresholds of significance previously adopted or recommended by other public agencies or experts, provided that the lead agency's decision is supported by substantial evidence (CEQA Guidelines Sections 15064.7[b] and 15064.7[c]). Additionally, any public agency may also use an environmental standard as a threshold of significance, as it would promote consistency in significance determination and integrate environmental review with other environmental program planning and regulations (CEQA Guidelines Section 15064.7[d]).

As discussed under Section 3.7.2, *Regulatory Setting*, of this Final EIR, AB 32 establishes the requirement for reducing statewide GHGs to 1990 emissions levels by 2020. A number of air quality management agencies throughout the state have drafted or adopted various threshold approaches and guidelines for analyzing 2020 operational GHG emissions in CEQA documents. The different thresholds include (1) compliance with a qualified GHG reduction strategy, (2) performance-based reductions, (3) numeric "bright-line" thresholds, (4) compliance with regulatory Golden Door programs[3], and (5) efficiency-based thresholds. The California Supreme Court's 2010 Newhall Ranch decision (*Center for Biological Diversity v. California Department of Fish and Wildlife*) confirmed that, when an agency chooses to rely completely on a single quantitative method to justify a no-significance finding, "CEQA demands the agency research and document the quantitative parameters essential to that method" (Justia 2016). The California Supreme Court's 2018 Golden Door case (*Golden Door Properties v. Co. of San Diego*) reinforced the message from the Newhall Ranch decision that analyses need to provide substantial evidence to support significance thresholds selected for use in the CEQA analysis (Justia 2018). Furthermore, the Appeal Court ruling in *City of Long Beach v. City of Los Angeles* (Justia 2018) held that a qualitative analysis of consistency with state GHG reductions plans is adequate and projects that generate a significant amount of GHG emissions may still be consistent with state and local GHG reduction plans.

Tier I developments would be implemented over a 17-year period through 2035; Tier II developments would occur beyond 2035. There are currently no adopted quantitative thresholds relevant to the project. The County of Los Angeles has neither drafted nor adopted threshold approaches and guidelines for analyzing GHG emissions and climate change in CEQA documents. Although the County adopted its CCAP in 2015, the plan was prepared to comply with the 2020 GHG reduction goal established by AB 32, and thus would not be applicable to use in evaluating GHG emissions of the proposed project beyond the 2020 timeframe. Therefore, the GHG emissions analysis for the proposed project herein cannot rely on a qualitative tiering analysis with the County's CCAP. Additionally, although SCAQMD has adopted a 10,000-metric-ton (MT) per year significance threshold level for industrial projects, this threshold would not be applicable to the proposed project because the project is a mixture of hospital and medical office uses that do not fit into the industrial project category; SCAQMD has not adopted a threshold level for hospital and medical office uses. SCAQMD has drafted separate numerical thresholds for residential projects (3,500 $MTCO_2e$/year), commercial projects (1,400 $MTCO_2e$/year), and mixed-use and all non-industrial projects (3,000 $MTCO_2e$/year).

[333] See https://ceqaportal.org/ceqacase.cfm?cq_id=1899 for more information.

The proposed project is not a residential, commercial, or mixed-use project. Consequently, these draft numerical thresholds from SCAQMD are inapplicable to the proposed project.

The Courts have ruled that although there are various potential thresholds and methodologies for evaluating project-level GHG emissions consistent with CEQA, use of statewide emission reduction goals is a permissible criterion of significance, so long as substantial evidence and reasoned explanation is provided to close the analytical gap between the level of effort required at one scale (state level) to the level of effort required at another scale (e.g., proposed plan level). The plan to achieve these statewide emission reduction goals is provided by the Scoping Plan (and future updates); exhibiting consistency with the Scoping Plan will demonstrate that the County is doing its fair share toward achieving statewide reduction targets.

As noted, recent case law has identified the need to analyze both near-term and post-2020 emissions, as applicable, with the court stating that an "EIR taking a goal-consistency approach to CEQA significance may in the near future need to consider the project's effects on meeting longer-term emissions reduction targets." Moreover, analyses must use the best scientific information available and to determine whether planning decisions are consistent with state goals. All current CEQA GHG numerical threshold concepts recommended by expert agencies are based on AB 32's requirement to reduce statewide GHG emissions to 1990 levels by 2020. However, SB 32 establishes a statewide GHG reduction goal of 40 percent below 1990 levels by 2030. State and local air district guidance on addressing project-level GHG impacts in relation to the 2030 target outlined under SB 32 is forthcoming. Although not legally binding on local land use agencies, EO S-03-05 has set forth a longer-term reduction target to reduce GHG emissions to 80 percent below 1990 levels by 2050 (see Section 3.7.2, *Regulatory Setting*, of this Final EIR). Of the threshold options discussed above, the approach used in this analysis is compliance with regulatory programs, which is appropriate in addressing the proposed project's post-2020 developments on the campus. Under this threshold approach, the proposed project's GHG emissions are evaluated for each major emission sector (e.g., energy, water, waste, mobile, and stationary) to determine whether the project's emissions would conflict with applicable sector-specific reduction targets and strategies.

Note that GHGs and climate change are exclusively cumulative impacts: there are no non-cumulative GHG emissions impacts from a climate change perspective (CAPCOA 2008). Therefore, in accordance with the scientific consensus regarding the cumulative nature of GHGs, the analysis herein analyzes the cumulative contribution of project-related GHG emissions.

3.7.4.3 Impacts and Mitigation Measures

Impact GHG-1: Would the Proposed Project Generate GHG Emissions, Either Directly or Indirectly, that May Have a Significant Impact on the Environment?

Construction Impacts

Tier I

Construction of the proposed project would generate GHG emissions from the use of heavy-duty construction equipment, construction worker vehicle trips, material deliveries, and trips by heavy-duty haul trucks. As mentioned above in Section 3.7.4.2, *Thresholds of Significance*, of this Final EIR, GHG emissions are measured exclusively as cumulative impacts; therefore, the proposed project's construction emissions are considered part of total GHG emissions for the project lifecycle, which also includes GHG emissions during operations. In accordance with SCAQMD guidance, the project's

construction emissions are amortized over a 30-year period, and the resulting annual emissions are combined with the project's annual operational GHG emissions.

As presented in Table 3.7-3, below, construction of the Tier I development projects under the proposed Master Plan is estimated to generate a total of 1,708 $MTCO_2e$ over the construction period. When amortized over a 30-year period, the construction GHG emissions from the Tier I developments would be approximately 57 $MTCO_2e$ per year. Because construction emission sources would cease once construction is complete, they are considered short term. It should be noted that total and annual construction GHG emissions represent a conservative assessment because GHG emissions would decrease in future years as the construction industry shifts toward implementation of cleaner fuels (i.e., electrified equipment) and more efficient technologies. As such, the annual construction GHG emissions associated with the proposed project would decrease with time and are likely to be lower than assumed herein.

Nonetheless, in an effort to reduce the proposed project's construction GHG emissions to the maximum extent feasible, mitigation measure **MM-GHG-C1**, discussed under Tier II, below, will be implemented during all project construction activities at the campus.

Table 3.7-3. Tier I Construction GHG Emissions

Construction Source	GHG Emissions ($MTCO_2e$)
Restorative Care Village	282
Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/Supplies Services Building, and Central Plant East	1,426
Total Emissions	**1,708**
Annual Emissions (Amortized over 30 years)	**57**

Note: Emissions estimates use CalEEMod version 2016.3.2 (see Appendix C of this Final EIR).

Tier II

Tier II would involve the development of a new hospital, research and development facilities, retail, and utility plant uses predominantly on the western portion of the campus, as well as the demolition of some existing uses. Because Tier II construction schedules and activities are unknown and because Tier II development would likely occur far in the future (i.e., after 2035), GHG emissions associated with construction activities have not been quantified. Nonetheless, as discussed above for Tier I, the implementation of the Tier II would result in the generation of GHG emissions from heavy-duty construction equipment, construction worker vehicle trips, material deliveries, heavy-duty haul truck trips, earthwork activities, and other construction activities. Although the proposed new development projects under Tier II would result in more building square footage than those under Tier I and may result in greater overall construction emissions, it should be noted that construction-related GHG emissions would also decrease in future years as cleaner fuels and more efficient technology is implemented by the construction industry. Additionally, implementation of **MM-GHG-C1** will further reduce the proposed project's GHG emissions resulting from construction activities to the maximum extent feasible.

Mitigation Measures

The following measure is proposed to mitigate Impact **GHG-1**, above.

MM-GHG-C1: The County (or its contractors) will implement the following diesel emission-reduction measures during project construction:

- All equipment and delivery truck idling times will be limited by shutting down equipment when not in use and reducing the maximum idling time to less than 3 minutes. Clear signage will be installed at all delivery driveways and loading areas regarding the limitation on idling time.
- All construction equipment will be maintained and properly tuned in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the County's construction contractors will verify that all vehicles and equipment have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the project site. A report by the certified mechanic of the condition of the construction and operations vehicles and equipment will be submitted to the County prior to their use.
- Alternative-fuel (e.g., biodiesel, electric, compressed natural gas) construction vehicles/equipment (comprising at least 15 percent of the fleet) will be used, to the extent feasible.
- Renewable diesel fuel will be used for all diesel-powered heavy construction equipment and on-road vehicles to the extent that it is readily available from a local supplier in the Southern California region.
- Local building materials (at least 10 percent) and recycled products, including cement and concrete made with recycled products, will be used, to the extent feasible.
- A construction waste management plan will be implemented to divert landfilled waste by requiring the recycling of a minimum of 65 percent of all non-hazardous construction waste.

Level of Significance after Mitigation

The significance determination is based on the combined GHG emissions generated by both project construction activities and operational activities.

Operational Impacts

Tier I

Project operations would result in GHG emissions from multiple sources of emissions, including energy, mobile, area, water, wastewater, waste, and permitted (stationary) sources. Table 3.7-4 presents the net increase in GHG emissions over existing conditions from implementation of the Tier I developments under the proposed project.

Table 3.7-4. Annual GHG Emissions Associated with Tier I Development

Source	Annual GHG Emissions ($MTCO_2e$)
Existing	
Operations	
Area	<1
Energy	1,178

Source	Annual GHG Emissions ($MTCO_2e$)
Mobile	11,190
Waste	200
Water/Wastewater	424
Stationary	17,832
Total	30,825
Restorative Care Village	
Operations	
Area	<1
Energy	945
Mobile	1,499
Waste	453
Water/Wastewater	74
Total	2,972
Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/ Supply Services Building, and Central Plant East	
Operations	
Area	<1
Energy	5,325
Mobile	14,282
Waste	1,742
Water/Wastewater	635
Stationary	22,112
Total	44,096
Tier I Total	47,068
Net Project Operational Emissions	16,243
Project Construction Emissions	57
Total Net Emissions Increase	**16,300**

Source: Emissions estimates using CalEEMod version 2016.3.2 (see Appendix C of this Final EIR) 2019.

As shown, implementation of the Tier I development projects at the project site would result in a net increase in GHG emissions of 16,300 $MTCO_2e$ annually over existing conditions.

An evaluation of each project emissions source is presented below.

Energy

The Governor's Office of Planning and Research (OPR)'s 2018 CEQA and Climate Change Advisory recommends that a land use development project that "achieves applicable building energy efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation" (Governor's Office of Planning and Research 2018). Although the proposed project would likely require natural gas use for the medical buildings/facilities, development under the proposed project would comply with all applicable County and state

building measures at the time of their development, including Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency, commonly referred to as CALGreen (California Code of Regulations, Part 11). As part of the proposed project's sustainability goals, an energy usage intensity (EUI) analysis for each new building would be conducted and the solar potential of each building site would be estimated to guide the design of the campus. Additionally, all of the new buildings and major renovations on the campus would be mandated by the County to be certified under the Leadership in Energy and Environmental Design (LEED) Rating System, with a minimum certification of LEED Silver, which can potentially include features associated with building energy efficiency. As the LEED rating system would continue to evolve over time, in an effort to promote green building to the highest standard possible, future developments under the proposed project would be certified under the LEED version that is current at that time. **MM-GHG-O1** requires implementation of these measures. Therefore, the project's operational characteristics with respect to electricity would meet most of OPR's recommendations. Furthermore, the estimate of energy emissions in Table 3.7-4, above, which includes emissions from electricity and natural gas use, does not factor in all efficiency measures that would be pursued as part of the project, nor does it reflect implementation of state and local measures to reduce GHG emissions associated with electricity (e.g., SB 100). Relative to the energy emissions estimated in Table 3.7-4, the portion of GHG emissions associated with electricity use would decrease annually in future years from statewide implementation of SB 100, which sets an RPS target of 60 percent by 2030 and 100 percent by 2045. Based on the requirements of SB 100, it is reasonable to conclude that there would be zero emissions associated with the project's electricity consumption by 2045. However, as shown in Table 3.7-4, above, the annual increase in electricity-related GHG emissions are estimated to be 5,092 $MTCO_2e$ over existing conditions, which is an approximately 46 percent increase. Note that this emissions estimate is based on LADWP's 2016 emissions intensity. **MM-GHG-O1** will ensure energy-efficiency measures will be implemented, including the use of Energy Star rated appliances, the preference for electric-only appliances and HVAC, high-efficiency lighting, high-performance glazing on new buildings containing more than 10,000 gross square feet (gsf), and installation of a cool roof on new buildings to the extent feasible. Although the proposed Master Plan has established an objective of achieving energy efficiency in the new and renovated facilities at the campus, the actual energy efficiency that will be achieved from project implementation cannot be determined at this time without quantifiable reduction targets being established by the proposed Master Plan.

Mobile

With respect to mobile emissions, there is a nexus between SB 743 and the state's goals to reduce GHG emissions; one of the criteria under SB 743 for determining the significance of the transportation impacts of a project is a reduction in GHG emissions. In response to SB 743, OPR released the Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory in April 2018 (Governor's Office of Planning and Research 2018). The advisory presents screening thresholds for land use projects so that agencies can quickly determine whether a project would result in a less-than-significant transportation impact. The advisory states:

> Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a SCS or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.

Because the activities that could occur under Tier I development are expected to generate a net increase of 3,841 daily trips to, from, and within the campus, the mobile emissions associated with the proposed project would exceed OPR's screening threshold of 110 trips per day. Additionally, as shown in Table 3.7-4, emissions associated with mobile sources would total 15,881 MT of CO_2e per

year, which is an approximate 41 percent increase over the 11,190 MT of CO_2e per year the occurs under existing conditions. It should be noted that the estimate of mobile emissions in Table 3.7-4 does not reflect implementation of state and local measures to reduce GHG emissions associated with transportation (e.g., SB 375). **MM-GHG-O1** will ensure various measures to reduce vehicle miles traveled (VMT) and mobile source emissions will be implemented, including requiring VMT measures for employees, bicycle parking, preferential carpool spaces, and parking spaces be designated for clean-air vehicles and equipped with electric vehicle charging equipment. Nonetheless, given the substantial increase in daily vehicle trips resulting from the proposed project, the Master Plan potentially could be inconsistent with the long-term GHG reduction goals of reducing VMTs in the region.

Area

As shown in Table 3.7-4, emissions associated with area sources, which include gasoline-powered landscaping equipment (e.g., trimmers, mowers), would total less than 1 MT of CO_2e per year. Area-source emissions are based on CalEEMod's default assumptions and represent a conservative estimate of equipment usage, according to the square footage of the proposed building space. In addition, the landscaping designs under the proposed project would take into account sustainability and water conservation, resiliency to fire and flood, and viability. As opposed to the existing landscape character of the campus, which currently features nonnative vegetation unsuited to Southern California's Mediterranean climate, the planting guidelines for the proposed project would use landscaped palettes of California native plant species that help reduce water consumption, maintenance, and hardscape repair costs. Plantings would be appropriate to the region's microclimate and the function of the space in which they are installed. Given that the landscape improvements would feature low-maintenance plants that require minimal care, the use of trimmers and mowers is also anticipated to be minimal. Moreover, **MM-GHG-O1** will require, to the extent feasible, that non-fossil-fuel powered landscaping equipment be used at the campus. Although there are no relevant measures in the Scoping Plan related to area sources, the Master Plan's focus on producing minimal area emissions and using California native plants that require little maintenance would be in line with the Scoping Plan's overall goal of reducing emissions.

Water Use and Wastewater Generation

Based on the data shown in Table 3.7-4, the GHG emissions associated with water use and wastewater generation would increase by approximately 285 MT of CO_2e per year over existing conditions. However, the proposed project has identified water efficiency as a priority for the campus, and the Master Plan states that new construction and major renovations would demonstrate a reduction in indoor water usage by a minimum of 35 percent from baseline. To achieve this reduction, the new developments under the proposed project would install water-conserving plumbing fixtures, such as low-flow and/or dual flush water closets for all buildings, sensory-type lavatory faucets, ultra-low-flow urinals for acute care, and waterless urinals in other uses. The proposed project also prioritizes the selection of medical equipment that could be air-cooled rather than being cooled by water and considers either replacing the current cogeneration system, which requires a tremendous amount of water for cooling the equipment, or using recycled gray water in the cooling towers. With respect to outdoor water use, the proposed Master Plan indicates that the campus as a whole should demonstrate a reduction in outdoor water usage by 50 percent from baseline and engage in strategies that eliminate the use of potable water for landscaping. Efforts to achieve this reduction in outdoor water use include planting native and drought-tolerant plants that require little to no irrigation, and use of gray-water systems that

involve onsite capture, treatment, and reuse of water that would otherwise be discarded offsite for treatment. Furthermore, the project's new developments would comply with all applicable County and state water conservation (indoor and outdoor) measures, including Title 24, Part 6, California Energy Code baseline standard requirements for energy efficiency. **MM-GHG-C1** and **MM-GHG-O1** will ensure these measures are implemented to the extent feasible. Nonetheless, the GHG emissions associated with water use and wastewater generation from the Tier I developments would represent a 67 percent increase over existing conditions. Although the proposed Master Plan has established an objective of achieving water efficiency in the new and renovated facilities at the campus, the actual water efficiency that will be achieved from project implementation cannot be determined at this time without quantifiable reduction targets being established by the proposed Master Plan.

Waste Generation

As shown in Table 3.7-4, emissions associated with waste would total approximately 2,195 MT of CO_2e per year, compared to 200 MTCO_2e per year under existing conditions. California law requires reducing, recycling, or composting 75 percent of solid waste generated by 2020. The state also has specific goals for diverting organic waste, which decomposes in landfills to produce the super pollutant methane. State law also directs edible food go to hungry families rather than being discarded. Although the proposed Master Plan would aim to integrate sustainable elements that include waste recycling, the actual waste reduction that will be achieved from project implementation cannot be determined at this time without quantifiable reduction targets being established by the proposed Master Plan. **MM-GHG-C1** requires construction waste recycling and that local building materials, cement, and concrete be made with recycled products to the extent feasible. **MM-GHG-O1** requires solid waste diversion during operations, implementation of a food waste diversion program, and implementation of an onsite recycling program. These mitigation measures would ensure operational emissions would decrease, the extent of which is unknown.

Stationary Sources

As shown in Table 3.7-4, emissions associated with stationary permitted sources would total approximately 22,112 of CO_2e per year, compared to 17,832 MTCO_2e per year under existing conditions. The existing medical and hospital facilities adhere to CARB's cap-and-trade regulation, as are approximately 80 percent of California's emissions. The existing permitted sources will support future uses, but associated emissions will be regulated by CARB and not the County. The proposed project will implement various sustainability goals for reducing resource consumption, which will help reduce the need to expand permitted facilities. Cap-and-trade regulations set a firm limit on GHGs and minimize the compliance costs of achieving 2020 and 2030 reduction goals. The cap-and-trade program is a principal component of the Scoping Plan. The project by default will be consistent with this program, but specific emission levels are unknown.

Summary

Overall, because no quantifiable reduction targets have been established under the proposed project, it cannot be determined with certainty whether the project would conflict with applicable sector-specific reduction targets and strategies for GHG emissions. Given that implementation of the Tier I developments under the proposed project would result in an increase of 16,243 MT of CO_2e per year over existing conditions, this impact would be potentially significant. Although implementation of **GHG-O1** would reduce the project's GHG emissions, it cannot be stated with certainty that emissions

would be reduced to a level that would comply with the long-term GHG reduction targets and goals of applicable regulatory programs. As such, impacts would be significant and unavoidable.

Tier II

Operation of Tier II would involve GHG emissions from building natural gas use, stationary sources, worker and visitor vehicle trips, and other sources. Because details about Tier II are unknown, GHG emissions associated with operational activities under Tier II have not been quantified. However, because development under Tier II would be greater than Tier I, the GHG emissions could also potentially conflict with applicable sector-specific reduction targets and strategies. Although **MM-GHG-O1** would be implemented to ensure that impacts are minimized to the extent feasible, it cannot be stated with certainty that emissions would be reduced to a level that would comply with the long-term GHG reduction targets and goals of applicable regulatory programs. As such, impacts would be significant and unavoidable.

Mitigation Measures

The following measure is proposed to mitigate Impact **GHG-1**, above.

MM-GHG-O1: The County will implement the following GHG reduction measures for all new development within the campus:

- The County (or its contractors) will implement the following water conservation measures, which are in addition to those required by codes and ordinances:
  - Install public bathroom faucet aerators (non-residential & residential over 6 stories) with a flow rate of 0.4 gallons per minute (gpm);
  - Install cooling tower conductivity controllers or cooling tower pH conductivity controllers;
  - Install rotating sprinkler nozzles for landscape irrigation 0.5 to 1.0 gpm;
  - Install drip/subsurface irrigation (i.e., micro-irrigation);
  - Implement proper hydro-zoning (i.e., groups plants with similar water requirements together);
  - Install zoned irrigation;
  - Contour landscaping to minimize precipitation runoff;
  - Install drought tolerant plants in 50 percent of total new landscaping;
  - Install water conserving turf in 100 percent of new turf added to landscaping; and
  - Use recycled water for stationary equipment that requires water cooling, to the extent feasible.
- Install a stormwater retention and filtration system.
- Pursue a net zero water building design for new campus buildings, to the extent feasible.
- Develop a recycled water strategy and implementation plan that increases the campus's use of alternative water sources, such as rainwater, greywater, stormwater, and recycled water.
- Achieve a minimum solid waste diversion rate of 85 percent by 2035 by implementing measures including, but not necessarily limited, to:

  - Installing a food waste diversion program at the campus; and
  - Installing an onsite recycling program at the campus.
- Incentivize the use of recycled materials in new and renovated campus buildings.
- Prioritize the use of food vendors with certifications for sustainable agricultural practices related to water and energy use, to the extent feasible.
- Provide plant-based menu options at new and existing campus food facilities, to the extent feasible.
- Pursue zero waste certification requirements for the campus, to the extent feasible.
- Install Energy Star-rated appliances.
- Install electric-only appliances and HVAC (e.g., no natural gas heating or cooling) systems, to the extent feasible. Where natural gas appliances need to be installed, these appliances will meet high-efficiency standards.
- Establish an energy and water use data collection program to benchmark and report energy and water use at the campus, demonstrating an increase in energy and water efficiency over the lifetime of the project.
- Implement TDMs for employees, including, but not necessarily limited to measures such as:
  - Providing bicycle parking for at least 5 percent of full-time-equivalent campus employees; or
  - Providing preferential carpool spaces within proposed parking structures on the campus.
- Dedicate 5 percent of new parking spaces for clean-air vehicles and equip those spaces with electric vehicle charging equipment.
- Purchase new zero-emission passenger vehicles for use by the campus.
- Install a high-efficiency lighting system that takes advantage of natural daylighting, augmented by daylighting controls and occupancy sensors that turn off the lights in unoccupied spaces.
- Maximize the installation of solar systems on new and renovated buildings to the extent these systems are cost-effective.
- Install, in proposed new buildings containing more than 10,000 gsf of space, high-performance glazing with a low solar heat gain coefficient value that reduces the amount of solar heat allowed into the building, without compromising natural illumination.
- Install cool roofs with an R value (i.e., the measurement of the effectiveness of thermal insulating materials) of 30 or better on proposed new buildings, to the extent feasible.
- Implement a net zero carbon building design for all new building developments and building renovations at the campus, to the extent feasible.
- Develop an urban heat island mitigation strategy and implementation plan to guide all future development of the campus.
- Increase urban tree canopy cover to provide shade to a minimum of 40 percent of the length of sidewalks on all campus streets.

- Use electric powered landscaping equipment, rather than fossil-fuel powered landscaping equipment, to the extent feasible.
- Focus selection on native plants and trees to provide new, water-wise landscaping that blends the campus with the ecology of the surrounding natural environment.
- Provide ongoing sustainability education and training for campus employees.

Level of Significance after Mitigation

Implementation of **MM-GHG-C1** would reduce construction-related GHG emissions, and **MM-GHG-O1** would reduce operational GHG emissions across the area, energy, mobile, water/wastewater, and waste sectors. However, because it cannot be determined with certainty that **MM-GHG-O1** would be sufficient to render the proposed project consistent with the County's and state's long-term GHG reduction goals, impacts are considered significant and unavoidable after mitigation.

Impact GHG-2: Would the Proposed Project Conflict with an Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing Emissions of GHGs.

Construction and Operational Impacts

Tiers I and II

Three plans relevant to the proposed project have been adopted for the purposes of reducing GHG emissions: the County of Los Angeles CCAP, the AB 32 Scoping Plan, and the 2017 Scoping Plan. The proposed project's consistency with these plans is reviewed below.

As demonstrated in the following analysis, the proposed project would not conflict with the County of Los Angeles CCAP, AB 32 and its Scoping Plan, and SB 32 and the 2017 Scoping Plan. Implementation of **GHG-C1** and **GHG-O1** would reduce, to the extent feasible, the proposed project's GHG emissions to a level that would render these emissions to be consistent with the GHG emissions reduction trajectory for 2050. Thus, with mitigation, implementation of the proposed project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, making this impact less than significant.

Consistency with County of Los Angeles CCAP

As discussed above, the County of Los Angeles adopted a CCAP in 2015 to reduce community GHG emissions (County of Los Angeles 2015). The County's CCAP is a roadmap that outlines the County's path to achieve its 2020 GHG reduction goal of 11 percent below 2010 GHG emissions levels. The CCAP's GHG reduction measures feature 26 local actions grouped into five strategy areas: green building and energy, land use and transportation, water conservation and wastewater, waste reduction, reuse, and recycling, and land conservation and tree planting. Because the CCAP analysis was prepared for the County's 2020 GHG reduction goal, its use in quantitatively evaluating the significance of the GHG emissions of the proposed project is not applicable. Buildout of the proposed Tier I developments is anticipated in 2035, which is a 15-year later timeline than that of the CCAP, while buildout of the proposed Tier II developments can potentially occur after 2050. Consequently, the CCAP is used qualitatively for this analysis to determine if the proposed project would be consistent with the CCAP measures.

The consistency of the proposed project with the measures in the County's CCAP is analyzed in Table 3.7-5, below.

Table 3.7-5. Consistency of Proposed Project with CCAP Measures

Local Actions	Proposed Project Conformance
Green Building and Energy	
BE-1 (Green Building Development): Promote and incentivize at least Tier 1 voluntary standards within CALGreen for all new residential and nonresidential buildings. Develop a heat island reduction plan and facilitate green building development by removing regulatory and procedural barriers.	As part of the proposed project's sustainability goals, an EUI analysis for each new building would be conducted, and the solar potential of each building site would be estimated to guide the design of the campus. Additionally, all new buildings and major renovations on the campus would be mandated by the County to be certified as LEED Silver, which can potentially include features associated with building energy efficiency. The proposed Master Plan also identifies landscape improvements associated with the provision of tree-lined streets along with the provision of parking spaces under cover to reduce the heat island effect on the campus.
BE-2 (Energy Efficiency Programs): Energy efficiency retrofits for at least 25 percent of existing commercial buildings over 50,000 square feet and at least 5 percent of existing single-family residential buildings.	As part of the proposed project, the existing 534,300-square-foot inpatient hospital building would be renovated as required to meet the energy efficiency provisions of the latest California Building Code.
BE-3 (Solar Installations): Promote and incentivize solar installations for new and existing homes, commercial buildings, carports and parking areas, water heaters, and warehouses.	Recognizing that the size and topography of the project site offers a huge opportunity for solar-generated renewable energy; thus the implementation of the proposed project would include a EUI analysis of each building, and the solar potential of each site would be estimated in order to inform the design of the campus.
BE-4 (Alternative Renewable Energy Programs): Implement pilot projects for currently feasible wind, geothermal, and other forms of alternative renewable energy.	This action is applicable to the County's renewable energy programs. The proposed project would consider the solar potential of all new development buildings on the campus.
BE-5 (Wastewater Treatment Plant Biogas): Encourage renewable biogas projects.	This action is not applicable to the proposed project.
BE-6 (Energy Efficiency Retrofits of Wastewater Equipment): Encourage the upgrade and replacement of wastewater treatment and pumping equipment.	Development of the proposed project would require new or upgraded sewer, water, storm drains, and telecommunications infrastructure. Approximately 482,400 square feet of utility improvements would occur under Tier I.
BE-7 (Landfill Biogas): Partner with the owners and operators of landfills with at least 250,000 tons of waste-in-place to identify incentives to capture and clean landfill gas to beneficially use the biogas to generate electricity, produce biofuels, or otherwise offset natural gas or other fossil fuels.	The proposed Master Plan has identified waste recycling as a sustainable element that would be incorporated at the campus. Mitigation Measure **GHG-O1** also requires that the campus achieve a solid waste diversion goal of a minimum of 85 percent by 2035 by implementing measures such as, but not limited to, onsite recycling and food waste diversion programs.

Local Actions	Proposed Project Conformance
Land Use and Transportation	
LUT-1 (Bicycle Programs and Supporting Facilities): Construct and improve bicycle infrastructure to increase biking and bicyclist access to transit and transit stations/hubs. Increase bicycle parking and end-of-trip facilities.	Tier II development would include the extension of pedestrian, bicycle, and equestrian trails throughout the campus. The proposed Master Plan has also identified the need to provide dedicated secure bicycle parking (e.g., bike cages, bike lockers, or indoor secure parking) and maintenance stations at the campus for filling up tires and making minor repairs.
LUT-2 (Pedestrian Network): Construct and improve pedestrian infrastructure to increase walking and pedestrian access to transit and transit stations/hubs. Program the construction of pedestrian projects toward the goal of completing 15,000 linear feet of new pedestrian improvements/amenities per year.	The proposed project would include improvements to walking and pedestrian access throughout the campus. Various walking, biking, and equestrian paths would be developed to make the campus more inviting and easily traversed. Under Tier I, proposed pedestrian, equestrian, and bike paths would be sited along Olive View Drive and, under Tier II, would ultimately be incorporated throughout the campus.
LUT-3 (Transit Expansion): Collaborate with the Los Angeles County Metropolitan Transportation Authority (Metro) on a transit program prioritizes transit by creating bus priority lanes, improving transit facilities, reducing transit-passenger time, and providing bicycle parking near transit stations. Construct and improve bicycle, pedestrian and transit infrastructure to increase bicyclist and pedestrian access to transit and transit stations/hubs.	This action is not directly applicable to the proposed project. However, the proposed project would include improvements to pedestrian activities throughout the campus. Various walking, biking, and equestrian paths would be developed to make the campus more inviting and easily traversed.
LUT-4 (Travel Demand Management): Encourage ride- and bike-sharing programs and employer sponsored vanpools and shuttles. Encourage market-based bike sharing programs that support bicycle use around and between transit stations/hubs. Implement marketing strategies to publicize these programs and reduce commute trips.	The proposed Master Plan indicates that the campus would be required to meet SCAQMD Rule 2202, which requires the campus to meet emission reduction targets by implementing a trip reduction program. Additionally, mitigation measure **MM-GHG-O1** would require the provision and implementation of a TDM program for campus employees under the project.
LUT-5 (Car-Sharing Program): Implement a car-sharing program to allow people to have on demand access to a shared fleet of vehicles.	The proposed Master Plan indicates that the campus would be required to meet SCAQMD Rule 2202, which requires the campus to meet emission reduction targets by implementing a trip reduction program. Additionally, Mitigation Measure **MM-GHG-O1** would require the provision of a TDM program for campus employees, which may include the provision of preferential carpool spaces within the proposed parking structures in the campus.
LUT-6 (Land Use Design and Density): Promote sustainability in land use design, including diversity	The landscaping improvements under the proposed project would integrate the natural

Local Actions	Proposed Project Conformance
of urban and suburban developments.	setting of the campus into its design. Proposed landscaping designs will take sustainability and water conservation, resiliency to fire and flood, and viability into account. Plantings and landscaping would also be provided to help easily identify building entrances and assist in wayfinding, as well as provide shade and hierarchy throughout the site. Outdoor healing gardens, courtyard gardens, and gathering spaces would be developed. Landscaping would also be used to create screens and buffers for parking areas, storage areas, trash and recycle enclosures, and to provide separation between uses or activities. Proper lighting in surrounding trails and campus would facilitate wayfinding throughout the project site.
LUT-7 (Transportation Signal Synchronization Program): Improve the network of traffic signals on the major streets throughout LA County.	This action is not directly applicable for the proposed project.
LUT-8 (Electric Vehicle Infrastructure): Install 500 electric vehicle (EV) charging facilities at County-owned public venues (e.g., hospitals, beaches, stand-alone parking facilities, cultural institutions, and other facilities) and ensure that at least one-third of these charging stations will be available for visitor use.	Under mitigation measure **MM-GHG-O1**, the proposed project would dedicate five percent of new parking spaces on the campus for clean-air vehicles and have them be equipped with electric vehicle charging equipment.
LUT-9 (Idling Reduction Goal): Encourage idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specifications.	Under mitigation measure **MM-GHG-C1**, an idling limit of 3 minutes for heavy-duty construction equipment would be implemented during project construction at the campus.
LUT-10 (Efficient Goods Movement): Support regional efforts to maximize the efficiency of the goods movement system throughout the unincorporated areas.	This action is not directly applicable to the proposed project.
LUT-11 (Sustainable Pavements Program): Reduce energy consumption and waste generation associated with pavement maintenance and rehabilitation.	As part of the sustainable planting guidelines that would be implemented as part of the proposed project, new plantings would be selected that help minimize excessive maintenance and reduce hardscape repair costs. This would entail the selection of non-invasive root systems at paved areas, especially trees that would not lift the hardscape (pavement), and plantings with little leaf, flower, or fruit drop adjacent to paved surfaces.
LUT-12 (Electrify Construction and Landscaping Equipment): Utilize electric equipment wherever feasible for construction projects. Reduce the use of gas-powered landscaping equipment.	Under mitigation measure **MM-GHG-O1**, the use of fossil-fuel powered landscaping equipment at the campus would be prohibited to the extent feasible.

Local Actions	Proposed Project Conformance
Water Conservation and Wastewater	
WAW-1 (Per Capita Water Use Reduction Goal): Meet the State established per capita water use reduction goal, as identified by SB X7-7 (The Water Conservation Act of 2009) for 2020.	The proposed project has identified water efficiency as a priority for the campus, and new developments would install water-conserving plumbing fixtures, such as low-flow and/or dual-flush water closets for all buildings, ultra-low-flow urinals for acute care, waterless urinals for other uses, and sensory-type lavatory faucets. With respect to outdoor water use, the Master Plan states that the campus would engage in strategies that eliminate the use of potable water for landscaping. Efforts to achieve this reduction in outdoor water include planting native and drought-tolerant plants that require little to no irrigation and using gray-water systems that involve the onsite capture, treatment, and reuse of water that would otherwise be discarded offsite for treatment. Additionally, **MM-GHG-O1** would require the additional implementation of water conservation measures that exceed those required by codes and ordinances.
WAW-2 (Recycled Water Use, Water Supply Improvement Programs, and Storm Water Runoff): Promote the use of wastewater and gray water to be used for agricultural, industrial, and irrigation purposes. Manage stormwater, reduce potential treatment, and protect local groundwater supplies.	As part of the efforts to reduce water use, the proposed project would prioritize the selection of medical equipment that could be air cooled rather than being cooled by water and would consider either replacing the current cogeneration plant system, which requires a tremendous amount of water for cooling the equipment, or using recycled gray water to cool the cooling towers. Efforts to reduce outdoor water use at the campus also include the use of gray-water systems for plant irrigation that involve the onsite capture, treatment and the reuse of water that would otherwise be discarded offsite for treatment. Implementation of **MM-GHG-O1** would require the use of 100 percent recycled water for any stationary equipment that requires water cooling, to the extent feasible, the installation of a stormwater retention and filtration system at the campus, and the installation of low-water plantings and drip irrigation.
Waste Reduction, Reuse, and Recycling	
SW-1 (Waste Diversion Goal): For the County's unincorporated areas, adopt a waste diversion goal to comply with all state mandates associated with diverting from landfill disposal at least 75 percent of the waste by 2020.	The proposed Master Plan would aim to integrate sustainable elements that would incorporate waste recycling at the campus. Implementation of **MM-GHG-O1** would require that the project achieve a minimum solid waste diversion rate of 85 percent by

Local Actions	Proposed Project Conformance
	2035.
Land Conservation and Tree Planting	
LC-1 (Develop Urban Forests): Support and expand urban forest programs within the unincorporated areas.	This action is not directly applicable to the proposed project. However, the proposed project would implement landscape improvements that integrate the natural setting of the campus into its design. The planting guidelines for the proposed project would use plant palettes of California native species and plants that help reduce water consumption, maintenance, and hardscape repair costs. Plantings would be appropriate to the microclimate and function of the space in which they are developed.
LC-2 (Create New Vegetated Open Space): Restore and re-vegetate previously disturbed land and/or unused urban and suburban areas.	This action is not directly applicable to the proposed project. However, the Master Plan outlines the implementation of landscape improvements to integrate the natural setting of the campus into its design.
LC-3 (Promote the Sale of Locally Grown Foods and/or Products): Establish local farmers markets and support locally grown food.	This action is not directly applicable to the proposed project.
LC-4 (Protect Conservation Areas): Encourage the protection of existing land conservation areas.	This action is not directly applicable to the proposed project.

Source: ICF 2019.

As shown in Table 3.7-5, the proposed project would be consistent with all applicable and relevant actions in the County's CCAP. Eight of the actions are not applicable to the proposed project, and thus consistency with these measures does not apply. Because the proposed project is consistent with all applicable CCAP actions, it would not conflict with the County's CCAP.

Consistency with AB 32 Scoping Plan

AB 32 codifies the state's GHG emissions reduction targets for 2020. Because buildout of the proposed project is anticipated in 2035 for Tier I developments and beyond 2050 for Tier II developments, consistency with the AB 32 Scoping Plan is discussed primarily for informational purposes. For a comprehensive evaluation of GHG impacts, a discussion is needed with respect to the proposed project's consistency with guidance documents and regulations with timelines more consistent with the buildout years of 2035 and 2050 and beyond.

CARB adopted the Climate Change Scoping Plan in 2008, incorporating its First Update (2014) as a framework for achieving the AB 32 targets. The Scoping Plan and First Update outline a series of technologically feasible and cost-effective measures for reducing statewide GHG emissions. Some reductions would require changes pertaining to vehicle emissions and mileage standards, some of which would result from changes to sources of electricity and increased energy efficiency at existing facilities. The remainder would need be based upon state and local plans, policies, or regulations that would lower carbon emissions, relative to business-as-usual conditions.

The Master Plan has identified sustainability goals to minimize GHG emissions associated with future development at the campus. One of the main objectives for the proposed project is to identify feasible opportunities for exceeding state energy requirements and pursuing green building sustainable design to the maximum extent feasible. To ensure that GHG emissions reduction would be achieved by the proposed project, **MM-GHG-C1** and **MM-GHG-O1** would be implemented that, to the extent feasible, directly addresses water and energy conservation, solid waste diversion, VMT reduction, use of renewable energy, and vegetative plantings. The reduction in GHG emissions achieved by these mitigation measures are consistent with strategies identified in the 2008 Scoping Plan and First Update, as well as statewide goals to improve energy efficiency, reduce building energy consumption, and increase renewable energy generation. Accordingly, the proposed project would not conflict with the AB 32 Scoping Plan.

Consistency with 2017 Scoping Plan

In general, future developments at the campus outlined in the Master Plan would be built around the concept of sustainability. This is manifested through green building principles, including an emphasis on energy efficiency, water conservation, and waste reduction, and sustainable landscaping practices. Although the measures included in the updated scoping plan are necessarily broad, the proposed project is generally consistent with the goals and desired outcomes of the First Update (i.e., increasing energy efficiency, water conservation, waste diversion, transportation sustainability, etc.). The consistency of the Master Plan with the policies outlined in the 2017 Climate Change Scoping Plan Update for achieving 2030 GHG targets is analyzed in Table 3.7-6.

Table 3.7-6. Consistency of Proposed Project with Climate Change Scoping Plan[a] Policies

Policy	Primary Objective	Proposed Project Consistency Analysis
SB 350	Reduce GHG emissions in the electricity sector through the implementation of the 50 percent RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan process.	This policy is a state program that requires no action at the local or project level. Nonetheless, as part of the proposed project's sustainability goals, an EUI analysis for each new building would be conducted, and the solar potential of each building site would be estimated to guide the design of the campus. Additionally, the County would mandate that all new buildings and major renovations be certified as LEED Silver, which can potentially include features associated with building energy efficiency.
Low Carbon Fuel Standard	Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	This policy is a state program that requires no action at the local or project level. Nonetheless, the proposed project would reduce mobile-source GHG emissions by including improvements to walking routes throughout campus. Various walking, biking, and equestrian paths would be developed to make the campus more inviting and easily traversed. Future development at the campus would also be required to meet SCAQMD Rule 2202, which requires that the campus meet emission reduction targets by

Policy	Primary Objective	Proposed Project Consistency Analysis
		implementing a trip reduction program. Additionally, mitigation measure **MM-GHG-O1** would require the provision and implementation of a TDM program for campus employees, which may include the provision of preferential carpool spaces within the proposed parking structures in the campus.
Mobile Source Strategy (Cleaner Technology and Fuels [CTF] Scenario)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of vehicle miles traveled.	This policy is a state program that requires no action at the local or project level. Nonetheless, the proposed project would reduce mobile-source GHG emissions by including improvements to walking distances throughout campus. Various walking, biking, and equestrian paths would be developed to make the campus more inviting and easily traversed. Future development at the campus would also be required to meet SCAQMD Rule 2202, which requires the campus to meet emission reduction targets by implementing a trip reduction program. Additionally, mitigation measure **MM-GHG-O1** would require the provision and implementation of a TDM program for campus employees, which may include the provision of preferential carpool and clean air vehicle spaces within the proposed parking structures on the campus.
SB 1383	Approve and Implement Short-Lived Climate Pollutant strategy to reduce highly potent GHGs.	This policy is a state program that requires no action at the local or project level and thus does not apply to the Master Plan.
California Sustainable Freight Action Plan	Improve freight efficiency, transition to zero-emission technologies, and increase competitiveness of California's freight system.	This policy is a state program that requires no action at the local or project level and thus does not apply to the Master Plan.
Post-2020 Cap-and-Trade Program	Reduce GHGs across largest GHG emissions sources.	This policy is a state program that requires no action at the local or project level. However, a portion of the project site is regulated under the Post-2020 Cap-and-Trade Program. All proposed uses would implement building energy efficiency to reduce the need for new or expanded permitted uses.

[a] The Scoping Plan policies included in this table are those representing the state strategy for meeting the 2030 GHG target of SB 32.
Source: ICF 2019

As shown, the proposed Master Plan would not conflict with or hinder the implementation of the policies the 2017 Climate Change Scoping Plan Update.

Consistency with SB 32 and Executive Order EO S-3-05

As discussed above, SB 32 adopted a GHG reduction target of 40 percent below 1990 levels by 2030, and EO S-3-05 established a long-term goal of reducing statewide GHG emissions to 80 percent below 1990 levels by 2050. Achieving these long-term GHG reduction policies will require systemic changes in how energy is produced and used, which, if legislatively adopted, will require significant policy, technical, and economic solutions. Decarbonization of the transportation fuel supply will require that electric and plug-in hybrid electric vehicles comprise the vast majority of light-duty vehicles. Some changes, such as the use of alternative fuels (e.g., biofuels) to replace petroleum for aviation, cannot be accomplished without action by the federal government. Furthermore, achieving the 2050 GHG reduction goals will require California to dramatically increase the amount of electricity that is generated by renewable generation sources and, correspondingly, advance significantly the deployment of energy storage technology and smart-grid strategies, such as price-responsive demand and the smart charging of vehicles. This would entail a significant redesign of California's electricity system, which can only be accomplished through state action.

In evaluating the proposed project's emissions for consistency with SB 32 and EO S-3-05, it is important to note that many of these broad-scale shifts in how energy is produced and used are unknown at this time and ultimately outside of the scope of the proposed project. Consequently, the extent to which the proposed project's GHG emissions and resulting impacts would be mitigated through implementation of such statewide (or nationwide) changes is not known. Furthermore, implementation of such additional policy and regulatory changes lies within the jurisdiction of state-level agencies (e.g., CARB) and federal-level agencies, not the County or the proposed project. However, some of the measures recommended as part of SB 32 and EO S-3-05 (e.g., decarbonization, energy efficiency, reduced fossil-fuel-based VMT, etc.) can be facilitated to some extent through implementation of specific GHG reduction measures in large, plan-level developments such as the proposed project. The sustainability goals of the proposed project and **MM-GHG-C1** and **MM-GHG-O1**, for instance, would require that the proposed project implement feasible GHG reduction measures within its control to put the project on the path toward the 2050 reduction goal of EO S-3-05. Thus, the proposed project's emissions would be consistent with the goals in SB 32 and EO S-3-05 with implementation of mitigation measures, rendering the impact less than significant.

3.7.5 Cumulative

GHG emissions and climate change are exclusively cumulative impacts; non-cumulative GHG emissions impacts from a climate change perspective do not exist as climate change is, by definition, the result of cumulative global emissions. No single project, when considered in isolation, can cause climate change because a single project's emissions are not enough to change the radiative balance of the atmosphere. Because climate change is the result of GHG emissions, and GHGs are emitted by innumerable sources worldwide, global climate change will have a significant cumulative impact on the natural environment, as well as human development and activity. As such, GHGs and climate change are cumulatively considerable, even though the contribution may be individually limited. CARB and SCAQMD methodology and thresholds are thus cumulative in nature.

As discussed above, the project would be inconsistent with statewide targets in the post-2030 timeframe. Although the proposed project would not conflict with the GHG emission reduction measures and objectives outlined in the County of Los Angeles CCAP or the AB 32 Scoping Plan and Update, due to the lack of a details regarding buildout long-term, the proposed project's incremental contribution to cumulative impacts related to GHG emissions and reduction targets and plans would be cumulatively considerable after the implementation of **MM-GHG-C1** and **MM-GHG-O1**. Therefore,

it cannot be stated with certainty that the proposed project would result in emissions that would represent a fair share of the requisite reductions to achieve statewide reduction targets.

3.8 Hazards and Hazardous Materials

3.8.1 Introduction

This section describes the existing conditions related to hazards and hazardous materials, the regulatory framework associated with hazards and hazardous materials, the impacts related to hazards and hazardous materials that would result from the proposed project, and the mitigation measures that would reduce these impacts. The information presented is summarized from a Phase I Hazardous Materials Assessment (March 11, 2016) prepared by Ninyo & Moore (see Appendix G of this Final EIR).

3.8.2 Regulatory Setting

3.8.2.1 Federal

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established an Environmental Protection Agency (EPA)-administered program to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the cradle to grave system of regulating hazardous waste.

Cortese List

U.S. Code 65962.5 (commonly referred to as the Cortese List) includes Department of Toxic Substances Control (DTSC)-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the State Water Resources Control Board as having underground storage tank leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

Department of Transportation Hazardous Materials Regulations (49 CFR 100–185)

U.S. Department of Transportation (DOT) Hazardous Materials Regulations cover all aspects of hazardous materials packaging, handling, and transportation. Parts 107 (Hazard Materials Program), 130 (Oil Spill Prevention and Response), 172 (Emergency Response), and 177 (Highway Transportation), would all apply to the proposed project and/or surrounding uses.

3.8.2.2 State

California Health and Safety Code

DTSC, a department of the California Environmental Protection Agency (Cal-EPA), is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous

waste primarily under the authority of the Federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Division 20, Chapter 6.5, of the California Health and Safety Code deals with hazardous waste control through regulations pertaining to transportation, treatment, recycling, disposal, enforcement, and permitting of hazardous waste. Division 20, Chapter 6.10, contains regulations applicable to the cleanup of hazardous materials releases. Title 22, Division 4.5, contains the environmental health standards for the management of hazardous waste. This includes standards for identification of hazardous waste (Division 20, Chapter 11) and standards applicable to transporters of hazardous waste (Division 20, Chapter 13).

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), as defined in California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9, consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of the environmental and emergency response programs and provides authority to the Certified Unified Program Agency (CUPA). The CUPA is designed to protect public health and the environment from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials and wastes. This is accomplished via inspections, emergency response, enforcement, and site mitigation oversight. The CUPA for the proposed project is the Los Angeles County Fire Department (LACFD)'s Health Hazardous Materials Division.

California Code of Regulations, Title 8—Industrial Relations

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) and the federal Occupational Safety and Health Administration (OSHA) are the agencies responsible for ensuring worker safety in the workplace. Cal/OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices; these standards would be applicable to the construction and operation of the project. The standards included in Cal/OSHA's Title 8 include regulations pertaining to hazard control (including administrative and engineering controls), hazardous chemical labeling and training requirements, hazardous exposure prevention, hazardous material management, and hazardous waste operations.

California Labor Code (Division 5, Parts 1 and 7)

The California Labor Code is a collection of regulations that include the regulation of the workplace to ensure appropriate training on the use and handling of hazardous materials and the operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5, ensures that employees in charge of the handling of hazardous materials are appropriately trained on, and informed of, the materials they are handling. Division 5, Part 7, ensures employees who work with volatile flammable liquids are outfitted in appropriate safety gear and clothing.

State Water Resources Control Board Construction Storm Water Program

Dischargers whose projects disturb 1 or more acres of soil or whose projects disturb less than 1 acre, but are part of a larger common plan of development that in total disturbs 1 or more acres, are

required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity, Construction General Permit Order 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling or excavation. The Construction General Permit requires the completion and implementation of a site-specific Storm Water Pollution Prevention Plan (SWPPP).

3.8.2.3 Local

City of Los Angeles General Plan

The following City of Los Angeles General Plan goals are relevant to the proposed project:

- **Goal 1**: A city where potential injury, loss of life, property damage, and disruption of the social and economic life of the city due to fire, water-related hazard, seismic event, geologic conditions, or release of hazardous materials disasters is minimized.
    - **Policy 1.1.4**: Health/environmental protection. Protect the public and workers from the release of hazardous materials and protect city water supplies and resources from contamination resulting from accidental release or intrusion resulting from a disaster event, including protection of the environment and the public from potential health and safety hazards associated with program implementation.
- **Goal 2**: A city that responds with the maximum feasible speed and efficiency to disaster events so as to minimize injury, loss of life, property damage, and disruption of the social and economic life of the city and its immediate environs.
    - **Policy 2.1.2**: Health and environmental protection. Develop and implement procedures to protect the environment and public, including animal control and care, to the greatest extent feasible within the resources available, from potential health and safety hazards associated with hazard mitigation and disaster recovery efforts.

Los Angeles County General Plan

The following Los Angeles County General Plan goals and policies are relevant to the proposed project:

- **Goal S4**: Effective County emergency response management capabilities.
    - **Policy S 4.1**: Ensure that residents are protected from the public health consequences of natural or man-made disasters through increased readiness and response capabilities, risk communication, and the dissemination of public information.
    - **Policy S 4.3**: Coordinate with other County and public agencies, such as transportation agencies and health care providers, on emergency planning and response activities and evacuation planning.

Operational Area Emergency Response Plan

Under the County of Los Angeles Office of Emergency Management (OEM), the Operational Area Emergency Response Plan (OAERP) addresses how the County of Los Angeles carries out centralized emergency management, should an emergency go beyond day-to-day response capabilities. It ensures the successful coordination of the response and the initiation of recovery operations among County departments in response to incidents in the unincorporated areas and/or the incorporated

areas of the County Operational Area (OA). The OAERP also addresses interagency coordination of information, operations, and aid among the local governments within the OA.

3.8.3 Environmental Setting

The proposed project is located at 14445 Olive View Drive on land owned by the County of Los Angeles. The campus is located within the community of Sylmar, at the north end of the San Fernando Valley, in the city of Los Angeles, California.

The proposed project is an approximately 230-acre parcel of land, occupied by the Olive View–UCLA Medical Center community mental health center, office and administrative buildings, residential structures (office use), storage buildings, a hazardous waste storage area, a helipad, a power plant, police department, parking lots, and various roads. The proposed project abuts the foothills of the San Gabriel Mountains. Horse trails and hiking trails run along the northern edge of the campus. Predominantly single-family residential neighborhoods are located to the east of the campus. A mix of single-family (including homes with equestrian facilities) residences, multifamily residences, and some commercial uses are located to the south of the campus across Olive View Drive. Residential uses are also located just west of the campus and north of I-210.

3.8.3.1 Hazardous Materials

A site reconnaissance, review of historical land uses, environmental database search, and online records review were conducted by Ninyo & Moore in February 2016 to identify recognized environmental conditions (RECs), which are defined as the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property. The results of that effort are summarized below. Currently, the proposed project site uses and stores various hazardous materials in the hospital building, central utility plant, and associated cooling towers.

Hazardous Materials Records and Site Reconnaissance

Proposed Project Site

The proposed project site was identified in multiple environmental databases including: Los Angeles County Industrial Waste and Underground Storage Tank Sites (Los Angeles County HMS), Underground Storage Tank (UST), Facility and Manifest Data (HAZNET), California Hazardous Material Incident Report System (CHMIRS), Resource Conservation and Recovery Act Large Quantity Generator (RCRA-LQG), Aerometric Information Retrieval System Facility Subsystem (US AIRS AFS), Emissions Inventory Data (EMI), Facility Index System/Facility Registry System (FINDS), Statewide Environmental Evaluation and Planning System (SWEEPS UST), and National Pollutant Discharge Elimination System (NPDES). Also, the old Los Angeles County Fire Station #04 (located within the proposed project's Tier I project boundary, facing Olive View Drive) was listed on the Leaking Underground Storage Tanks (LUST) database with a status as of 1995 of "leak being confirmed" and affecting soil. This fire station was decommissioned shortly after 1995, but is currently used for hazmat purposes and office space. Additional data were not provided; thus, current site status is unknown.

Hazardous materials and hazardous waste were observed at the loading dock of the hospital. Jet fuel, turbine oil, diesel fuel, and other petroleum products were observed in storage areas at the loading dock (including two 20,000-gallon diesel USTs), as well as at the turbine room of the central utility plant. Biomedical waste and medical gas are also stored in storage rooms at the loading dock;

the biomedical waste is stored in an autoclave before being transported offsite. Hazardous waste manifests provided to Ninyo & Moore show that the majority of hazardous waste disposed offsite is generated from the pathology lab of the hospital, as well as sharps generated throughout the hospital. This waste is stored at the site grounds to the west of the hospital when there is an overflow of waste. Two liquid oxygen ASTs were observed at the cooling towers of the hospital. Observed at the loading dock of the site was one four-stage clarifier (of unknown capacity), which treats wastewater created from the sorption unit of the Central Utility Plant. According to the South Coast Air Quality Management District (SCAQMD), an active permit for a spray paint booth was issued for the site in 1990. Evidences of releases or spills were not observed during site reconnaissance and are therefore not considered environmental concerns. The presence of USTs at the loading dock and an active permit for a spray paint booth represent potential environmental concerns (PECs) for the site.

Based on the construction date of many of the site buildings (prior to 1980), asbestos-containing materials (ACMs) and lead-based paint (LBP) may be present on building materials at the site.

Table 3.8-1 summarizes the materials that were identified as stored on the campus with approximate quantities and their locations.

Table 3.8-1. Campus Materials Storage Facilities

Location	Material	Approximate Quantities and Type of Storage
Hospital Loading Dock	Diesel	(2) 20,000-gallon USTS
	Jet fuel	(6) 55-gallon drums
	Cleaner/degreaser	(1) 55-gallon drum
	Waste oil	(4) 55-gallon drums
	Compressed nitrogen	(24) 150-cubic-foot cylinders
	Motor oil	(8) 55-gallon drums
	Turbine oil	(12) 5-gallon buckets
	Sharps, chemotherapy waste, unidentifiable biohazard waste	Variable
	Misc. gases: carbon dioxide, oxygen, nitrogen, helium, argon, nitrous oxide	Variable
Hospital Central Utility Plant	Engine oil	(2) 100-gallon tanks
	Diesel oil	(1) 55-gallon drum
	Jet fuel	(2) 55-gallon drum
	Waste oil	(1) 55-gallon drum
	Compressed refrigerant	(13) 55-pound cylinders
Hospital Pathology Laboratory	Paraffin waste	(10) 1-gallon containers
	Xylene	(70) 1-gallon containers (2) 55-gallon drums
	Ethyl alcohol	(4) 55-gallon drum
	Formaldehyde	(2) 55-gallon drum
	Methanol	(25) 1-gallon containers
Cooling Towers	Liquid oxygen	(1) 400-gallon AST (1) 5,000-gallon AST
	Nitrous oxide	(30) 150-cubic-foot cylinders
	Anti-corrosion water treatment	(12) cylinders (3) drums*

Note: *Container size not disclosed in ESA.
Source: Ninyo & Moore 2016.

Surrounding Sites

During the environmental database search, various sites were identified within a 1-mile radius of the proposed project site. As concluded in the Environmental Site Assessment (ESA) these surrounding properties were not considered potential impacts to the proposed project site.

Nearby Schools

The nearest school to the proposed project site, PUC Lakeview Charter High School, is located approximately 0.60 mile to the southwest. Other schools in the vicinity include Olive Vista Middle School and The Concordia Schools–Sylmar Campus, located 0.77 mile south and 0.95 mile southeast of the proposed project site, respectively.

Emergency Planning

LACFD is responsible for emergency medical services and fire protection in the project area. In the event of an emergency, LACFD implements all appropriate emergency procedures outlined in the Los Angeles County Operational Area Emergency Response Plan, approved on February 17, 1998, by the County Chief Executive Office. The plan was implemented to provide effective life safety measures and reduce property loss, provide for the rapid resumption of affected business and community services, and provide accurate documentation and records for cost recovery.

3.8.4 Environmental Impact Analysis

This section describes the potential construction and operational impacts of the proposed project and measures required to mitigate any significant impacts.

3.8.4.1 Methods

A Phase I Hazardous Materials Assessment (HMA) (see Appendix G of this Final EIR) was conducted by Ninyo & Moore in February and March of 2016. The purpose of the HMA was to identify and evaluate potential issues of concern that could affect or be affected by the proposed project.

3.8.4.2 Thresholds of Significance

For the purposes of the analysis in this Final EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

HAZ-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

HAZ-3 Emit hazardous emissions or involve handling hazardous or acutely hazardous materials (i.e., hazardous material found to be fatal to humans in low doses), substances, or waste within 0.25 mile of an existing or proposed school.

HAZ-4 Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

HAZ-5 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The County, as the CEQA lead agency, determined in the Notice of Preparation/Initial Study (NOP/IS) (see Appendix A of this Final EIR) for this Final EIR that the proposed project would not result in either of the following impacts:

- For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area.
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires, including in areas where wildlands are adjacent to urbanized

areas or where residences are intermixed with wildlands. For a discussion of those impacts, please see Section 3.18, *Wildfire Hazards*, in this Final EIR.

Therefore, no further analysis of these issues is required. Please refer to the NOP/IS for additional information regarding these issue areas.

3.8.4.3 Impacts and Mitigation Measures

Impact HAZ-1: Would the Proposed Project Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials?

Construction Impacts

Tier I

Tier I development would include construction of Restorative Care Village facilities, an ambulatory care center, and a community center, improvements to the existing hospital, new parking facilities, and other campus improvements. As such, proposed project construction would involve routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and fuels. Such transport, use, and disposal must be compliant with applicable regulations, such as those outlined in Section 3.8.2, *Regulatory Setting*, of this Final EIR and with construction best management practices (BMPs) implemented in accordance with a site-specific SWPPP required as part of the NPDES Construction General Permit. Although solvents, paints, oils, grease, fuel, and other materials would be transported, used, and disposed of during the construction phase of the proposed project, these materials are typically used in construction projects and would not represent the transport, use, and disposal of acutely hazardous materials. Because compliance with existing regulations and the Construction General Permit is mandatory, the proposed project is not expected to create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. No impacts or less-than-significant impacts would occur.

Tier II

Potential construction impacts associated with Tier II development would be similar to potential construction impacts as part of Tier I. As such, the analysis for Tier I above would apply for the implementation of Tier II. No impacts or less-than-significant impacts would occur.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

No impacts or less-than-significant impacts would occur.

Operational Impacts

Tier I

As summarized under Section 3.8.3, *Environmental Setting*, several hazardous materials are stored onsite at various locations. The hospital loading dock and pathology laboratory, as well as the

central utility plant and associated cooling tower locations, were all identified in the ESA as currently storing hazardous materials. Tier I development would include improvements to the aforementioned hospital in addition to the relocation of the central plant to the north side of the existing hospital building (to be known as Central Plant East, as there will be a second utility plant added as part of Tier II development). Additionally, an ambulatory care center (ambulatory care center operations would range from primary care practice to outpatient surgery), Restorative Care Village, and materials management building would be constructed as part of Tier I development. As noted in Chapter 2, *Project Description*, of this Final EIR, the materials management building would handle pharmaceutical supplies and regulated medical waste. These facilities could increase the use of hazardous materials; however, it is expected they would use, store, and handle hazardous material in a manner similar to how they are used by existing campus facilities, including the hospital, and thus their handling and storage would be subject to all hazardous materials laws and regulations already being adhered to. Continued compliance with existing laws and regulations would result in less-than-significant impacts from the routine transport, use, or disposal of hazardous materials.

Tier II

As described in Chapter 2, *Project Description*, of this Final EIR, Tier II development could include a new hospital and a supply services building containing maintenance shops. As such, the new hospital under Tier II would be expected to handle and store hazardous materials similar to what is being stored in the existing hospital (materials summarized in Section 3.8.3, *Environmental Setting*). The supply services building is expected to house routine hazardous materials used for day-to-day maintenance. These materials would be used similarly to existing conditions, and any releases involving these materials would be localized and cleaned up as it occurs. Furthermore, continued compliance with existing laws and regulations related to the routine transport, use, or disposal of hazardous materials would result in less-than-significant operational impacts..

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Impact HAZ-2: Would the Proposed Project Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and Accident Conditions Involving the Release of Hazardous Materials into the Environment?

Construction Impacts

Tier I

As discussed above for impact **HAZ-1**, construction activities associated with the proposed project would require transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and fuels, which could result in upset or accidents that could release hazardous materials into the environment. Such transport, use, and disposal must be compliant with applicable regulations such as the regulations discussed in Section 8.2, *Regulatory Setting*, of this Final EIR, and with construction BMPs implemented in accordance with a site-specific SWPPP required as part of the NPDES Construction General Permit. As discussed above, the proposed project would not create

a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; therefore, the risk of upset and accidents involving the release of hazardous materials into the environment would be less than significant.

The proposed project site was identified in multiple environmental databases (summarized above in Section 8.3, *Environmental Setting*, of this Final EIR). According to the ESA, there were no violations associated with the aforementioned listings. However, the Los Angeles County Fire Station #04, located within the proposed project footprint, was listed in the LUST database as having contaminated soil and no current site status. It is unknown whether the soil remains onsite. Although no Recognized Environmental Concerns (RECs) were identified during the completion of the ESA, the presence of the LUST case on the proposed project site was identified as a Potential Environmental Concern (PEC). In addition, the presence of the USTs in the hospital loading dock and the presence of a paint and solvent spray booth were also identified as PECs (spray booth location was not disclosed in the ESA). As such, there is a possibility that contaminated soils could exist within one of these areas, which could be exposed during project construction, a potential significant impact. Implementation of mitigation measures **MM-HAZ-1** and **MM-HAZ-2** (below) would reduce potential impacts associated with contaminated soils to less than significant.

Demolition of structures built prior to 1980 may result in the exposure of the public and/or the environment to LBP and/or ACMs in buildings, a potentially significant impact. **MM-HAZ-C2c** (below) would reduce potential impacts to less than significant.

Tier II

Similar to Tier I, construction activities associated with the proposed program would require transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and fuels. Such transport, use, and disposal must be compliant with applicable regulations as discussed in Section 3.8.2, *Regulatory Setting*, and with construction BMPs implemented in accordance with a site-specific SWPPP. Thus, the proposed program would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; therefore, the risk of upset and accidents involving the release of hazardous materials into the environment would be less than significant.

The proposed project site was identified in multiple environmental databases, but no violations were associated with the listings. Additionally, none of the PECs identified in the Phase I ESA were located within the Tier II footprint. However, because Tier II development is scheduled to occur beyond 2035 and environmental conditions can change within the footprint and in the surrounding environment, implementation of **MM-HAZ-4** (below) would reduce construction personnel and the environment's risk of exposure to contaminated media from future environmental conditions.

Mitigation Measures

The following measures are proposed to mitigate impact **HAZ-2**, above.

MM-HAZ-1: Encountering Contaminated Soils: If odiferous, stained, or discolored soil is encountered near the fire station, USTs, or spray booth, a professional environmental consultant specializing in the identification and handling of hazardous materials will be retained by the County to assess the site. Identification of possible hazardous materials would typically involve soil samples and laboratory analysis. The suspect soil will be isolated, covered, and avoided by construction personnel until analytical results are reviewed by qualified personnel. Soils identified as hazardous or contaminated will be handled, transported, and treated in accordance

with all federal, state, and local existing hazardous materials regulations (as mentioned under Section 3.8.2, *Regulatory Setting*) and based on the professional environmental consultant's recommendations. Only when the site has been released by the professional environmental consultant and the applicable oversight agencies (such as the LACFD's Health Hazardous Materials Division) will construction activities be allowed to continue on the affected site.

MM-HAZ-2: Engineering Controls and Best Management Practices during Construction: To minimize human exposure to potentially contaminated soils during construction, contractors will employ the use of engineering controls and BMPs. Engineering controls and construction BMPs will include, but are not limited to, the following:

- Contractor employees working onsite handling potentially contaminated media will be certified in the Occupational Health and Safety Administration's 40-hour Hazardous Waste Operations and Emergency Response training.
- Contractors will water or mist soil as it is being excavated and stockpiled or loaded onto transportation trucks.
- Contractors will place any stockpiled soil in areas shielded from prevailing winds or cover stockpiles with staked and/or anchored sheeting.

MM-HAZ-3: Encountering Asbestos-Containing Materials and Lead Based Paint: In order to minimize exposure, a Hazardous Building Materials Survey (HBMS) and evaluations for asbestos-containing materials and lead-based paint will be conducted prior to demolition activities in buildings that are to be demolished or renovated. Abatement measures will be implemented in accordance with the recommendations of these evaluations. Asbestos surveys will be conducted in accordance with SCAQMD Rule 1403, which specifies that all surveys are to be carried out by a Cal/OSHA-certified asbestos consultant and will follow established survey protocols, notification, and work practice requirements. Lead-based paint surveys will be carried out by California Department of Public Health(CDPH)-certified inspector/assessor. If necessary, a lead abatement plan would be prepared by the CDPH-certified project monitor or supervisor, and demolition activities would be performed by CDPH-certified workers.

MM-HAZ-4: Project-Level Hazardous Materials Sites Assessment Prior to Construction Activities: To avoid exposure of construction workers, the public, or the environment to contaminated media, prior to any ground-disturbing activities, contractors will be required to retain a professional environmental consultant specializing in hazardous materials impact assessment to conduct a project-level analysis to determine if there are existing hazardous materials conditions in the vicinity of the construction site and if there is potential for existing hazardous materials conditions to affect construction. This assessment will consist of a search for environmental-related information present in publicly accessible databases. The information will be reviewed to determine if the construction footprint or adjacent properties are listed in the databases. If the construction footprint or adjacent properties are listed in the databases, the professional environmental consultant will determine the potential risk to construction workers, the public, or the environment from rehabilitation activities and identify all necessary avoidance, abatement, remediation, cleanup, disposal, monitoring, reporting, notifications, and/or other measures to prevent significant impacts. The contractor will implement all measures as directed by the professional environmental consultant.

Level of Significance after Mitigation

Less than significant after implementation of **MM-HAZ-1**, **MM-HAZ-C2**, **MM-HAZ-3**, and **MM-HAZ-4**.

Operational Impacts

Tier I

Hazardous material use in the hospital and central plant locations are expected to remain similar to existing conditions. The Ambulatory Care Center, Restorative Care Village, and Materials Management/Supply Services Building would handle, and therefore increase, the amounts of onsite hazardous materials. The materials used in the ambulatory care center and residential care facilities are expected to be similar to what is currently being used in the hospital, and their handling and storage would be subject to all hazardous materials laws and regulations currently being adhered to. As discussed, the materials management building would handle pharmaceutical supplies and regulated medical waste. The handling of these materials is also part of the existing hospital operations and would comply with laws and regulations being adhered to. Continued compliance with existing laws and regulations would reduce potential operational impacts to the public or the environment. Furthermore, it is expected that any spills that may occur would be limited in scope and spill area and would be cleaned up soon after they occur. Impacts would be less than significant.

Tier II

Tier II development could include a new hospital and supply services building. The new hospital would be expected to handle and store hazardous materials similar to what is being stored in the existing hospital (materials summarized in Section 3.8.3, *Environmental Setting*, of this Final EIR). The supply services building is expected to house routine hazardous materials used for day-to-day maintenance. These materials would be used similar to existing conditions and any releases involving these materials would be localized and cleaned up as it occurs. Furthermore, continued compliance with existing laws and regulations related to the routine transport, use, or disposal of hazardous materials would reduce potential operational impacts to less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Impact HAZ-3: Would the Proposed Project Emit Hazardous Emissions or Involve Handling Hazardous or Acutely Hazardous Materials, Substances, or Waste within 0.25 Mile of an Existing or Proposed School?

Construction Impacts

Tier I

The closest existing school is PUC Lakeview Charter High School, approximately 0.60 mile to the southwest of the proposed project site. Other schools in the vicinity include Olive Vista Middle School and The Concordia Schools–Sylmar Campus, located 0.77 mile south and 0.95 mile to the southeast, respectively. As such, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials within 0.25 mile of a school. No impacts would occur.

Tier II

There are no schools located within 0.25 miles of the proposed Tier II development. No impacts would occur.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

No impacts would occur.

Operational Impacts

Tier I

There are no schools located within 0.25 miles of the proposed Tier I structures. No impacts would occur.

Tier II

There are no schools located within 0.25 miles of the proposed Tier II structures. No impacts would occur.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

No impacts would occur.

Impact HAZ-4: Would the Proposed Project Be Located on a Site that Is Included on a List of Hazardous Materials Sites Compiled Pursuant to Government Code Section 65962.5 and, as a Result, Create a Significant Hazard to the Public or the Environment?

Construction and Operational Impacts

Tier I

As previously mentioned, the Olive View–UCLA Medical Center Campus was found in multiple environmental databases. Although the current Olive View–UCLA Medical Center Campus is listed in these databases, there were no reports of any past or present violations. However, the Los Angeles County Fire Station #04, located within the proposed project footprint (at 14425 Olive View Drive), was listed on the LUST database as having contaminated soil. No current site status was provided. As such, the presence of a LUST case on the proposed project site was identified as a PEC and the potential to encounter contaminated soil during construction activities exists. Implementation of **MM-HAZ-1** and **MM-HAZ-2** would reduce potential impacts related to encountering contaminated soil (in the area near the fire station) during construction activities to less than significant.

Also, during the environmental database research portion of the Phase I ESA, various sites were identified as being located within a 1-mile radius of the proposed project site. However, these surrounding properties were not considered potential impacts to the proposed project site by the

ESA. Therefore, implementation of the proposed project would not create any significant impacts associated with being included on list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Impacts would be less than significant.

Tier II

The Olive View–UCLA Medical Center Campus was listed in multiple environmental databases. According with the Phase I ESA, there were no violations associated with these listings. The Los Angeles County Fire Station #04 found within the proposed project footprint was identified in the LUST database, but is found within the proposed Tier I development.

Because Tier II development is scheduled to occur beyond 2035, and environmental conditions can change within the footprint and in the surrounding environment, implementation of **MM-HAZ-4** would reduce the risk of exposure to contaminated media from future environmental conditions. Impacts would be less than significant.

Mitigation Measures

MM-HAZ-1 and **MM-HAZ-2** are proposed to mitigate potential Tier I impacts. **MM-HAZ-4** is proposed to mitigate potential Tier II impacts.

Level of Significance after Mitigation

Less than significant after implementation of **MM-HAZ-1**, **MM-HAZ-2**, and **MM-HAZ-4**.

Impact HAZ-5: Would the Proposed Project Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan?

Construction Impacts

Tier I

Implementation of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project would not result in any substantial traffic queuing along Olive View Drive and would not allow any construction vehicles or equipment to park or remain stationary within the roadway. Moreover, proposed project construction would occur in the existing Olive View–UCLA Medical Center Campus footprint, which does not include any characteristics (e.g., permanent road closures, long-term blocking of road access) that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity. All large construction vehicles entering and exiting the site would be guided by the use of personnel using signs and flags to direct traffic. The nearest County designated emergency/disaster routes to the project site are the SR 210 freeway and Glenoaks Boulevard, both of which are located south of the campus (County of Los Angeles 2012). Although construction traffic may use these roadways, the volume of traffic is not expected to be sufficient to substantial impair or adversely affect operation of these roadways.

During construction activities, the proposed project would be required to comply with applicable requirements set forth by the Los Angeles County Operational Area Emergency Response Plan, the LACFD, and the Los Angeles County Sherriff's Department. Project features, such as not allowing construction vehicles and equipment to park or stop along Olive View Drive, the use of flag personnel to ensure the continued flow of traffic, and compliance with the aforementioned Plan and

facilitating agencies' requirements, would reduce the potential impact on emergency response to less than significant.

Tier II

Potential construction impacts associated with Tier II development would be similar to potential construction impacts as part of Tier I. As such, the analysis for Tier I above would apply for the implementation of Tier II.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Operational Impacts

Tier I

As mentioned under the construction discussion above, implementation of the proposed project would occur on the existing Olive View–UCLA Medical Center Campus footprint and does not include any (short- or long-term) characteristics that would physically interfere with emergency response or evacuation in the project vicinity. Tier I facilities would continue to comply with applicable requirements set forth by the Los Angeles County Operational Area Emergency Response Plan during an emergency. No or less-than-significant impacts would occur.

Tier II

Potential operational impacts associated with Tier II development would be similar to potential operational impacts under Tier I. As such, the analysis for Tier I above would apply for the implementation of Tier II.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

No or less-than-significant impacts would occur.

3.8.5 Cumulative Impacts

The study area for cumulative hazardous materials impacts has been defined as the area within approximately 0.25 mile of the boundaries of the project site because it is unlikely that the hazardous materials impacts of the proposed project would extend beyond the immediate project vicinity. Construction associated with ongoing and future projects in the project area could result in cumulative impacts through the release of hazardous materials to soils and/or groundwater during site excavation and grading and building demolition and renovation. It is anticipated that construction and operation of the related projects in the study area would comply with all applicable hazardous materials regulations governing the transport, use, and disposal of hazardous materials. Consequently, construction and operation of the related projects are not expected to result in significant cumulative hazards to the public or the environment. If a hazardous materials

release were to occur as a result of proposed project implementation, impacts would be site-specific (and typically in small, localized quantities), and are therefore unlikely to combine with other hazardous material impacts in the surrounding area. Additionally, construction and operation of proposed Master Plan facilities would comply with all applicable hazardous waste laws and regulations. Given that fact, the limited potential for impacts to extend beyond the boundaries of the project site, and the implementation of the mitigation measures described above, development of the Master Plan would not contribute to a cumulatively considerable impact related to hazardous materials.

As noted in the discussion of impact **HAZ-5,** above, during construction activities, the proposed project would be required to comply with applicable requirements set forth by the Los Angeles County Operational Area Emergency Response Plan, the LACFD, and the Los Angeles County Sherriff's Department. Project features, such as not allowing construction vehicles and equipment to park or stop along Olive View Drive, using flag personnel to ensure the continued flow of traffic, and compliance with the aforementioned Plan and facilitating agencies' requirements would reduce the potential impact on emergency response to less than significant. Consequently, the proposed project is not expected to contribute to any cumulative impacts on emergency responses or evacuation plans.

3.9 Hydrology/Water Quality

3.9.1 Introduction

This section describes the affected environment and regulatory setting for hydrology and water quality. It also describes impacts on hydrology and water quality that would result from implementation of the proposed project, as well as proposed mitigation measures to reduce any identified significant impacts. The information in this section is based on available literature, including the *Hydrology Technical Memorandum for the Los Angeles County Olive View–UCLA Medical Center EIR* (Appendix H of this Final EIR), which was prepared for the proposed project by Watearth (2016) and updated April 26, 2019. Hydrologic and low impact development (LID) analyses are based on the Tier I development concept and layout described in the Master Plan. Tier II development is addressed at a conceptual, less detailed level without calculations as development plans are less solidified and would occur over a longer timeframe.

3.9.2 Regulatory Setting

3.9.2.1 Federal

Clean Water Act

The Clean Water Act (CWA) is the primary federal law that protects the quality of the nation's surface waters, including lakes, rivers, and coastal wetlands. It is based on the principle that all discharges into the nation's waters are unlawful unless specifically authorized by a permit. Permit review is the CWA's primary regulatory tool. The CWA requires states to adopt water quality standards for receiving waters. Water quality standards designate beneficial uses for receiving waters and include the criteria required to support such uses. Water quality criteria are either narrative statements related to the quality of the water that support a particular use or maximum concentration levels for pollutants (i.e., bacteria, etc.). As part of the CWA, when monitoring data indicate that a concentration level for a pollutant has been exceeded, the receiving water is classified as *impaired* and placed on the CWA Section 303(d) List of Water Quality–Limited Segments Requiring TMDLs (303[d] list). A Total Maximum Daily Load (TMDL) is then developed for the pollutant(s) that caused the impairment. The purpose of the TMDL is to limit the volume of pollutants discharged into the receiving water from all sources (i.e., stormwater runoff, wastewater, agriculture).

Federal Antidegradation Policy

The Federal Antidegradation Policy requires states to develop statewide antidegradation policies and identify methods for implementing them (EPA 2010). Pursuant to the Code of Federal Regulations, state antidegradation policies and implementation methods must, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of the nation's drinking water. (U.S. Code 1996). Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers that implement those standards. SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and groundwater wells.

National Pollutant Discharge Elimination System General Construction Permit

The National Pollutant Discharge Elimination System (NPDES) was established per 1972 amendments to the Federal Water Pollution Control Act to control discharges of pollutants from point sources (Section 402). The 1987 amendments to the CWA created a section devoted to stormwater permitting (Section 402[p]), with individual states designated for administration and enforcement of the provisions of the CWA and the NPDES permit program. The State Water Resources Control Board (SWRCB) issues both Construction General Permits and Individual Permits under this program.

Projects that will disturb more than 1 acre of land during construction are required to file a Notice of Intent (NOI) with the SWRCB to be covered under the NPDES Construction General Permit for discharges of stormwater associated with construction activity. The project proponent must develop measures that are consistent with the Construction General Permit. Furthermore, a Stormwater Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered under the Construction General Permit. The SWPPP describes the best management practices (BMPs) the discharger will use to protect stormwater runoff and reduce potential impacts on surface water quality through the construction period.

The SWPPP must contain the following:

- A visual monitoring program;
- A chemical monitoring program for nonvisible pollutants (to be implemented if a BMP failure occurs); and
- A sediment monitoring plan if the site discharges directly to a water body on the 303(d) list for sediment.

The area that would be disturbed under the proposed project exceeds 1 acre; therefore, the project would be required to comply with the Construction General Permit.

3.9.2.2 State

Porter–Cologne Water Quality Control Act of 1969

The Porter–Cologne Water Quality Control Act (Porter–Cologne or the Act) established the SWRCB and divided the state into nine regional basins, each with a Regional Water Quality Control Board (RWQCB). The SWRCB is the primary state agency with responsibility for protecting the quality of the state's surface water and groundwater.

The act authorizes the SWRCB to draft policies regarding water quality in accordance with CWA Section 303. In addition, the Act authorizes the SWRCB to issue waste discharge requirements

(WDRs) for projects that would discharge to state waters. Porter–Cologne requires the SWRCB or the RWQCB to adopt water quality control plans, otherwise referred to as *basin plans*, for the protection of water quality.

A basin plan must:

- Identify beneficial uses for the water to be protected;
- Establish water quality objectives for the reasonable protection of the beneficial uses; and
- Establish an implementation program for achieving the water quality objectives.

Basin plans also provide the technical basis for determining WDRs, taking enforcement actions, and evaluating clean water grant proposals. Basin plans are updated and reviewed every 3 years in accordance with Article 3 of Porter–Cologne and CWA Section 303(c).

California Antidegradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California, was adopted by the SWRCB in 1968. Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the state, not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual basin plans, such high quality will be maintained and discharges to that water body will not unreasonably affect present or anticipated beneficial use of such water resource.

California Toxics Rule

In 2000, the California Environmental Protection Agency (Cal-EPA) promulgated the California Toxics Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the state (EPA 2001). Cal-EPA promulgated this rule based on its determination that the numeric criteria are necessary in the state to protect human health and the environment. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water, such as inland surface waters and enclosed bays and estuaries that are designated by the Los Angeles Regional Water Quality Control Board (LARWQCB) as having beneficial uses protective of aquatic life or human health.

National Pollutant Discharge Elimination System

For compliance with the CWA within California, the SWRCB and RWQCBs are responsible for assessing water quality monitoring data for surface waters every 2 years to determine if they contain pollutants that exceed the levels established in water quality standards. The SWRCB administers water rights, water pollution control, and water quality functions throughout the state, while the RWQCBs conduct planning, permitting, and enforcement activities. The proposed project is located within the jurisdiction of the LAWQCB.

The SWRCB and RWQCBs implement, monitor, and enforce the NPDES permitting requirements within their jurisdictions. In general, the regulations require all communities with populations of more than 50,000 to develop programs for reducing pollutants carried by stormwater runoff into waters of the United States. As with WDRs, the SWRCB and RWQCBs can issue individual NPDES

permits to cover individual dischargers or general permits (state or regional) to cover a category of dischargers.

Construction General Permit

Pursuant to CWA Section 402(p), and as related to the goals of the Porter–Cologne Water Quality Control Act, the SWRCB has issued a statewide NPDES General Permit (Construction General Permit) for Stormwater Discharges Associated with Construction Activity (Order No. 2009-009-DWQ, NPDES No. CAS000002, as amended by Order 2010-014-DWQ and 2012-06-DWQ), adopted September 2, 2009. Every construction project that disturbs 1 or more acres of land surface, or that is part of a common plan of development or sale that disturbs more than 1 acre of land surface, requires coverage under the Construction General Permit. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least 1 acre of total land area.

Municipal General Permit

CWA Section 402 mandates permits for municipal stormwater discharges, which are regulated under the NPDES General Permit for MS4s. Phase I MS4 permit regulations cover medium-sized municipalities (between 100,000 and 250,000 people) and large municipalities (more than 250,000 people). Phase II MS4 permit regulations require that stormwater management plans/programs be developed by municipalities with populations of less than 100,000, including non-traditional small MS4s, which are facilities such as military bases, public campuses, and prison and hospital complexes.

3.9.2.3 Local

Water Quality Control Plan, Los Angeles Region

The Porter–Cologne Water Quality Control Act authorizes the regional waster boards to adopt, review, and revise policies for all waters of the state (including surface and groundwater) and directs them to develop regional basin plans. Section 13170 of the California Water Code also authorizes the SWRCB to adopt basin plans on its own initiative. RWQCBs are required, by law, to develop, adopt, and implement a basin plan for the entire region. Water quality standards are set forth in the regional basin plan.

According to Section 13050 of the California Water Code, basin plans consist of designation or establishment of beneficial uses to be protected, water quality objectives to protect those uses, and a program of implementation needed for achieving the objectives for the waters within a specified area. Because beneficial uses, together with their corresponding water quality objectives, can be defined per federal regulations as water quality standards, the basin plans are regulatory references for meeting the state and federal requirements for water quality control.

County of Los Angeles Hydrology Manual

Drainage and flood control in the city are subject to review and approval by the Department of Public Works, Bureau of Engineering (Bureau of Engineering). Storm drains within the city are constructed by both the city and the Los Angeles County Flood Control District (County Flood Control). The County Flood Control constructs and has jurisdiction over regional facilities such as

major storm drains and open flood control channels, while the city constructs and is responsible for local interconnecting tributary drains.

Per the city's Special Order No. 007-1299 of December 3, 1999, the city has adopted the Los Angeles County Department of Public Works (LACDPW)'s *Hydrology Manual* as its basis of design for storm drainage facilities. The *Hydrology Manual* requires that a storm drain conveyance system be designed for a 25-year storm event and that the combined capacity of a storm drain and street flow system accommodate flow from a 50-year storm event. Areas with sump conditions are required to have a storm drain conveyance system capable of conveying flow from a 50-year storm event. The County also limits the allowable discharge into existing storm drain facilities based on the MS4 Permit and is enforced on all new developments that discharge directly into the County's storm drain system.

Drainage and flood control structures and improvements within the city are subject to review and approval by the city's Department of Public Works, Bureau of Engineering, and Department of Building and Safety. As required by the Department of Public Works, all public storm facilities must be designed in conformity with the standards set forth by Los Angeles County. The Department of Public Works reviews and approves storm drain plans prior to construction.

Storm Water Program

The Watershed Protection Division of the city of Los Angeles Department of Public Works, Bureau of Sanitation (BOS), is responsible for stormwater pollution control throughout the city in compliance with the Los Angeles County Municipal NPDES Permit. The Watershed Protection Division administers the city's stormwater program, which has two major components: pollution abatement and flood control. The Watershed Protection Division publishes a two-part handbook that provides guidance to developers for compliance with the County's Municipal NPDES permit through the incorporation of water quality management into development planning. *The Development Best Management Practices Handbook, Part A: Construction Activities* (3rd edition, September 2004) reiterates the policies contained within the Construction General Permit, provides specific minimum BMPs for all construction activities, and requires the preparation of a SWPPP and the filing of an NOI to comply with the State NPDES Construction General Permit requirements with the LARWQCB. *The Development Best Management Practices Handbook* provides guidance to developers to ensure the post-construction operation of newly developed and redeveloped facilities comply with the developing planning program regulations of the city's stormwater program.

Low Impact Development

The LACPWD prepared the *Low Impact Design Standards Manual* (LACPWD 2014) to comply with the requirements of the 2012 MS4 Permit and supersede the County Standard Urban Stormwater Mitigation Plan. The *LID Standards Manual* provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges. Unlike traditional stormwater management, which collects and conveys stormwater runoff through storm drains, pipes, or other conveyances to a centralized stormwater facility, LID uses site design and stormwater management to maintain the site's pre-development runoff rates and volumes. The goal of LID is to mimic a site's predevelopment hydrology by using design techniques that infiltrate, filter, store, evaporate, and detain runoff close to the source of rainfall.

Los Angeles County Municipal Stormwater NPDES Permit (MS4 Permit)

The current MS4 permit for Los Angeles County (Order No. R4-2012-175) was adopted on November 8, 2012, became effective December 28, 2012, and expired on December 28, 2017. In accordance with Section 2235.4 of Title 23 of the California Code of Regulations, the terms and conditions of an expired permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on continuation of expired permits are complied with. Accordingly, if a new order is not adopted by the expiration date above, then the permittees will continue to implement the requirements of Order No. R4-2012-175 until a new one is adopted. Order No. R4-2012-175 is the fourth iteration of the stormwater permit for the MS4s in the Los Angeles region, which includes the Los Angeles County Flood Control District, Los Angeles County, and 84 incorporated cities (including the city of Los Angeles) within the County watersheds, excluding the city of Long Beach. The permit contains the requirements necessary to improve efforts to reduce the discharge of pollutants in stormwater runoff to the maximum extent practicable and achieve water quality standards. This permit requires runoff issues to be addressed during major phases of urban development (planning, construction, and operation) to reduce the discharge of pollutants from stormwater to the MEP, effectively prohibit non-stormwater discharges, and protect receiving waters.

3.9.3 Environmental Setting

3.9.3.1 Surface Water Quality

The Olive View–UCLA Medical Center Campus is located in Sylmar, west of single-family housing, north of residential and commercial-industrial land uses, east of the Santa Susana Mountains, and south of the San Gabriel Mountains. The location of the project site is considered part of the San Fernando Valley, within the city of Los Angeles. More specifically, the site is bounded by the Angeles National Forest on the north, Olive View Drive on the, south Wilson Canyon Channel on the east, and Bucher Avenue to the west. The Olive View project site is an institutional space with elevations ranging from 1,415 feet at the southern edge of the campus to 1,540 feet at its highest elevation. This range is due to the mountain landscape within the Angeles National Forest just north of and adjacent to the campus. The project site is mostly developed, and current land use consists of medical and administrative buildings, paved roadways and parking lots, and tracts of vegetated open space throughout, with an existing impervious cover of approximately 65 percent of the area within the Tier I development boundaries (eastern part of campus). There are currently large tracts of open space in and around the campus, consisting of various types of vegetation (e.g., trees, shrubs, turf grass, bare soil) in the Tier II area (western part of campus). Land uses at the project site include a mix of public facilities and landscape/open space uses. Land uses in the area surrounding the campus are largely composed of open space with a few single-family homes in the immediate vicinity. The area north of the site is mostly vacant/undifferentiated open space containing flood waterways and electrical power facilities-powerlines. The areas directly to the east and west of the site are also vacant/undifferentiated open space. The area south of the campus, across Olive View Drive, contains low-rise apartments, low-density single-family homes, and freeways/major roads and is considered retail/commercial land use for the water quality analysis.

The existing site does not include water quality or stormwater controls, such as stormwater BMPs, LID features, or hydromodification management facilities, nor are stormwater detention or other flood control features present onsite. Instead, the existing site manages rainfall and stormwater

runoff by overland sheet flow toward Wilson Canyon and primarily toward a series of onsite catch basins and discharges to the city of Los Angeles storm drain line at Olive View Drive.

Stormwater Runoff (Typical Pollutants from Project Site)

Stormwater runoff from the existing site is typical of developed areas, which include moderate amounts of pollutants. Total suspended solids (TSS) and trash are common in single-family residential and commercial areas. Additionally, nutrients from fertilizers, as well as herbicides and pesticides associated with landscape maintenance, are also likely to be present in stormwater runoff from the vicinity into Wilson Canyon. Many of the drainage inlets in roadways adjacent to the site include grates or screens to prevent or limit trash from entering the storm drain system and discharging to the receiving water (i.e., Wilson Canyon). The site drains to Wilson Drain and Schoolhouse Drain, but most flows to the Olive View Drive storm drain system. Urban runoff and human activities may generate bacteria and other pollutants around Wilson Canyon and Schoolhouse Canyon.

Table 3. 9-1 summarizes typical pollutants of concern based on land use. The majority of the pollutants identified are from the LADPW's *Low Impact Development Standards Manual* (City of Los Angeles 2011). Also included in this table are other pollutants that the U.S. EPA recognizes to be typically associated with land use present on the project site.

Table 3.9-1. Pollutants of Concern by Land Use

Land Use	Pollutants of Concern													
	Suspended Solids[2]	Total Phosphorus[2]	Total Nitrogen[2]	Total Kjedahl Nitrogen[2]	Cadmium, Total[2]	Chromium, Total[2]	Copper Total[2]	Lead Total[2]	Zinc, Total[2]	Biological Oxygen Demand[5]	Chemical Oxygen Demand[5]	Fecal Coliform[5]	Hydrocarbons[5]	Trash[5]
Commercial	x	x	x	x	[4]	[4]	x	x	x	–	–	–	–	–
Industrial	x	x	x	x	[4]	[4]	x	x	x	–	–	–	–	–
Transportation (streets, roads)	x	x	x	x	[4]	[4]	x	x	x	–	–	–	–	–
Institutional (educational facilities)	x	–	–	–	[4]	[4]	x	–	x	–	–	–	–	–
Vacant/ Undeveloped[5]	x	x	x	x	–	–	–	x	x	–	–	–	–	–
Project Site	x	x	x	x	x	x	x	x	x	x	x	x	x	x

[1] Adapted from Table A-3 of the *Technical Manual for Stormwater Best Management Practices in the County of Los Angeles* (2004) and Southern California Coastal Water Research Project Land Use-Specific Stormwater Monitoring Data (Southern California Coastal Water Research Project 2008). X= exceedance of "standard" by observed median/average concentration; blank = no exceedance of "standard" by observed median/average concentration.

[2] Derived from Table 11 of the 2012 Los Angeles County MS4 Permit (page 104).

[3] Critical facilities include automobile dismantling (SIC 50xx), automobile repair (SIC 75xx), metal fabrication (SIC 34xx), motor freight (SIC 42xx), automobile dealerships (SIC 55xx), chemical manufacturing (SIC 28xx), and machinery manufacturing (SIC 35xx).

[4] No available data exists to determine if these pollutants of concern originate from this land use. Pollutant is assumed to be produced by this land use unless otherwise proven by the project applicant.

[5] Based on *Guide to Stormwater Pollutant Concentrations* (EPA 2006).

Source: Watearth 2016.

Pollutants of Concern Based on Receiving Water Impairment

The CWA requires that states adopt water quality standards for receiving waters. Water quality standards designate beneficial uses for the receiving water and include criteria required to support those beneficial uses. Water quality criteria are either narrative statements related to the quality of water to support a particular use or maximum concentrations of levels of pollutants (i.e., bacteria, etc.). As part of the CWA, when monitoring data indicates that a pollutant level is exceeded, the receiving water is classified as impaired and placed on the CWA Section 303(d) List of Water Quality Limited Segments Requiring TMDLs (303(d) List). A total maximum daily load (TMDL) is then developed for the pollutant(s) causing the impairment. The purpose of the TMDL is to limit the amount of pollutant(s) discharged to the receiving water from all sources (i.e., stormwater runoff, wastewater, agriculture).

There are several pollutants of concern related to the receiving body of water, including those with a

developed TMDL requirement, other pollutants listed on the 303(d) List, and pollutants of concern for the Sylmar watershed management area, based on the *Water Quality Compliance Master Plan for Urban Runoff 2009*. The project is located adjacent to Wilson Canyon, just upstream of the confluence with Schoolhouse Canyon. Table 3.9-2 includes data from the SWRCB, based on the combined California 2010 303(d) List and includes pollutants that have a completed TMDL, require development of a TMDL, and that are being addressed by actions other than a TMDL. The project area is located within the Lower Pacoima Watershed, which was not listed in the 303(d) List. It is, however, within the Tujunga Wash Watershed shown in the *Water Quality Compliance Master Plan for Urban Runoff*. The table specifically addresses the Tujunga Watershed and Reach 4 of the Los Angeles River, into which runoff from the Lower Pacoima Watershed eventually discharges.

Table 3.9-2. Los Angeles River Impaired Waters 303(d) List[1]

Water Body Name	Pollutant	Pollutant Category	TMDL Status	USEPA TMDL Approval Date
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Copper	Metals/ Metalloids	Completed	29-Oct-08
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Lead	Metals/ Metalloids	Completed	29-Oct-08
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Ammonia	Nutrients	Completed	18-Mar-04
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Nutrients (Algae)	Nutrients	Completed	18-Mar-04
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Coliform Bacteria	Pathogens	Completed	23-Mar-12
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Trash	Trash	Completed	24-Jul-08
Tujunga Wash (LA River to Hansen Dam)	Copper	Metals/ Metalloids	Completed	29-Oct-08
Tujunga Wash (LA River to Hansen Dam)	Ammonia	Nutrients	Completed	18-Mar-04
Tujunga Wash (LA River to Hansen Dam)	Coliform Bacteria	Pathogens	Completed	23-Mar-12
Tujunga Wash (LA River to Hansen Dam)	Trash	Trash	Completed	24-Jul-08

Source: EPA 2010; Watearth 2016.

The project site is located within the Tujunga Water Management Area, according to Figure 2-6 of the County of Los Angeles *LID Handbook*. Multiple TMDLs are in effect for the Tujunga Watershed Management Area for the following pollutants:

- Metals (copper and lead)
- Nutrients (algae and ammonia)
- Trash

[1] 2010 EPA approved 303(d) Final List.

- Coliform Bacteria

Table 3.9-3 shows pollutant and other constituent concentrations as measured at the Los Angeles mass emissions site, as identified in Section 5 of the Los Angeles River Watershed Report (2005).

Table 3.9-3. Annual Mean Concentration for Constituents Measured at the Los Angeles River Mass Emission Site, 2004–2005

Constituent	Units	Annual Mean Concentration	Pollutant Category
Alkalinity	ug/l	78.40	Metals/Metalloids
Total Aluminum	ug/l	2,378.00	Metals/Metalloids
Ammonia	ug/l	1.26	Other Organics
Total Arsenic	ug/l	2.27	Metals/Metalloids
Bicarbonate	ug/l	93.30	Other Organics
BOD	ug/l	29.60	Other Organics
Total Cadmium	ug/l	0.64	Metals/Metalloids
Calcium	ug/l	25.20	Other Organics
Total Organic Carbon	ug/l	14.49	Other Organics
Chloride	ug/l	31.00	Other Organics
COD	ug/l	50.39	Other Organics
Total Coliform	ug/l	1,600,260.00	Bacteria
Total Copper	ug/l	36.80	Metals/Metalloids
Cyanide	ug/l	0.26	Other Inorganics
Dissolved Oxygen	ug/l	7.80	Other Organics
Dissolved Phosphorus	ug/l	0.23	Other Organics
Total Dissolved Solids	ug/l	199.00	Other Organics
Enterococcus	ug/l	248,100.00	Bacteria
Fecal Coliform	ug/l	190,034.00	Bacteria
Fluoride	ug/l	0.24	Other Organics
Hardness	ug/l	85.00	Hardness
Total Lead	ug/l	29.90	Metals/Metalloids
Magnesium	ug/l	5.43	Metals/Metalloids
MBAS	ug/l	0.18	Other Organics
NH3-N	ug/l	1.03	Other Organics
Nitrate	ug/l	5.83	Other Organics
Oil and Grease	ug/l	2.10	Other Inorganics
Total Phenols	ug/l	1.96	Other Inorganics
pH	ug/l	7.16	pH
Total Phosphorus	ug/l	0.42	Other Organics
Potassium	ug/l	5.69	Metals/Metalloids
Total Selenium	ug/l	2.57	Metals/Metalloids
Sodium	ug/l	30.34	Other Organics
Specific Conductivity	ug/l	300.00	Conductivity
Total Suspended Solids	ug/l	376.00	Other Organics
Sulfate	ug/l	39.38	Other Organics

Constituent	Units	Annual Mean Concentration	Pollutant Category
Turbidity	ug/l	52.00	Turbidity
Total Zinc	ug/l	127.00	Metals/Metalloids

Source: Watearth 2016.

Table 3.9-4 lists the pollutants of concern for the Los Angeles River Watershed Management Area in which the project site occurs.

Table 3.9-4. Tier 3 Pollutants of Concern for the Los Angeles River Watershed Management Area

Parameter
pH
E. coli Bacteria
Total Coliform Bacteria[1]
Fecal Coliform Bacteria[1]
Enterococcus Bacteria[1]
Chloride
Nitrite Nitrogen, Total (as N)
Sulfate
Total Dissolved Solids
Turbidity
Aluminum, Total Recoverable
Cyanide, Total Recoverable
Copper, Total Recoverable
Mercury, Total Recoverable
Selenium, Total Recoverable

[1] Applies only to discharges to estuaries and the ocean.
Source: Watearth 2016.

As mentioned, a TMDL is a regulatory term in the U.S. CWA, describing the value of the maximum amount of a pollutant that may enter a water body while still meeting water quality standards. There are several listed TMDLs for the Los Angeles River area, which are identified in Table 3.9-5, below, from the Los Angeles Region's Basin Plan and from the 2010 US EPA approved 303d list. Among those listed are: trash, cadmium, copper, lead, selenium, zinc, chlordane, dichlorodiphenyltrichloroethane (DDTs), total PCBs, *E. coli* bacteria, fecal coliform, Enterococcus, and total coliform. The loading capacities for each pollutant are listed in Table 3.9-5.

Table 3.9-5. TMDLs for Los Angeles River

Pollutant	Loading Capacity (ug/L)
Trash	0.00
Total Recoverable Metals	
Copper	18.00
Lead	55.00
Selenium	5.00
Zinc	119.00
Toxic Pollutants (Sediment)	
Cadmium	1.20
Copper	34.00
Lead	46.70
Silver	1.00
Chlordane	0.50
DDT	1.58
Total PCBs	22.70
Total PAH	4,022.00
E. Coli (MPN)	126.00
Fecal Coliform (MPN)	200.00

Source: Watearth 2016.

Table 3.9-6 summaries potential pollutants from the site, based on land use along with pollutants of concern from the various sources described above, and Table 3.9-7 summarizes pollutants of concern specific to the Los Angeles River.

Table 3.9-6. Summary of Potential Pollutants and Pollutants of Concern[1]

Nutrients	Metals	Organics	Other	Pathogens	Sediment/Solids
Kjedahl Nitrogen Total Nitrogen Total Phosphorous Ammonium Magnesium Nitrate Nitrite Algae Potassium	Cadmium Chromium Copper Lead Selenium Silver Zinc Aluminum Arsenic Mercury	BOD COD DDT DO Hydrocarbons TOC PAH PCB Phenols	Chlordane pH Sulfate Trash Chlordane Calcium Bicarbonate Chloride Cyanide Fluoride Hardness MBAS Sodium	Coliform Bacteria Viruses E. coli Bacteria	Suspended Solids Total Dissolved Solids Turbidity

[1] Pollutants from the 2010 U.S. EPA approved 303(d) list.
Source: Watearth 2016.

Table 3.9-7. Pollutants of Concern for Los Angeles River

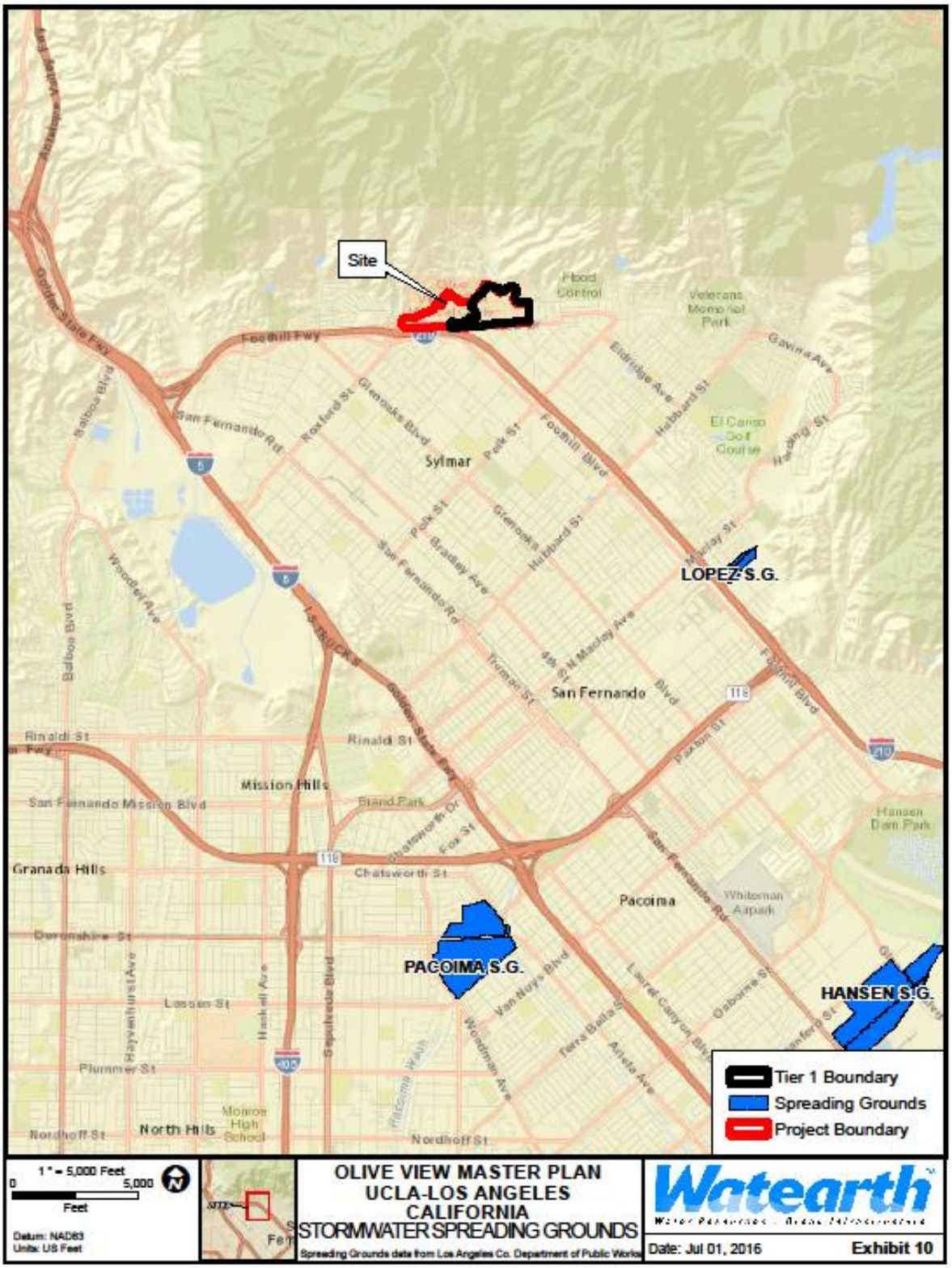
Pollutant	Constituent of Concern	Comparison to 303(d) List
Cyanide	x	
Enterococcus	x	x
Fecal Coliform	x	x
Total Coliform	x	x
Algae		x
Ammonia		x
Oil and Grease		x
Total Aluminum	x	x
Total Copper	x	
Total Lead	x	x
Total Zinc	x	x
Dissolved Cadmium		x
Dissolved Copper	x	x
Dissolved Lead	x	x
Dissolved Zinc	x	x
Chlordane		x
Dichloroethylene		x
Tetrachloroethylene		x
Trichloroethylene		x
Alkalinity		x
Bicarbonate		x

Source: Watearth 2016.

Groundwater

The project site is located along the northeastern edge of the Sylmar water basin, which is a sub-basin of the Upper Los Angeles River Area basins, a significant distance from existing stormwater spreading grounds, as shown in Figure 3.9-1, below. As such, stormwater runoff from the site will not provide recharge into existing stormwater spreading grounds or introduce pollutants into these spreading grounds.

Figure 3.9-1. Stormwater Spreading Grounds



The Olive View–UCLA Medical Center Campus is within the geographic boundaries of the Sylmar Groundwater Basin (Sylmar Basin) of the Upper Los Angeles River Area (ULARA) basins. According to the ULARA Watermaster website, the Sylmar Basin, located in the northern portion of ULARA, consists of 5,600 acres of land with a storage capacity of 310,000 acre-feet, making up 4.6 percent of the ULARA valley fill. The basin contains flows generally toward to the southeast, with levels ranging from 15 to 100 feet below ground surface. Water levels in this basin have been fairly stable over about the past 20 years, since adjudication of the basin. There are no significant contaminant plumes in the local Sylmar Basin (*City of Los Angeles Granada Hills–Knollwood & Sylmar Community Plans EIR* 2012). According to the 2007 *Groundwater Assessment Study* by The Metropolitan Water District of Southern California, the Sylmar Basin is recharged through the Lopez, Pacoima, and Branford spreading grounds along Pacoima Wash and the Hansen and Tujunga spreading grounds along Tujunga Wash. All spreading grounds are located south of the site.

Water Supply

Based on preliminary utility research presented in the Master Plan, water service for the Olive View–UCLA Medical Center is provided by the city of Los Angeles Department of Water and Power (LADWP). Based on the Los Angeles County Utility System annual billing summary, existing water use for the 2014–2015 fiscal year was approximately 74.58 million gallons.

As discussed in Section 3.17, *Utilities/Service Systems*, of this Final EIR, the County of Los Angeles coordinated with LADWP to prepare a Water Supply Assessment (WSA) for the proposed Master Plan, which was based on the net increases in building square footage on the campus that could occur under the Master . Based on this projected water demand, as well as water conservation design measures implemented as part the Master Plan, LADWP has determined that there are sufficient water supplies to meet project demand as well as LADWP's other existing and future commitments for water service.

According to the Water Quality section of the LADWP's website, approximately 15 percent of the water provided to the project area is obtained from local groundwater wells. Remaining water supply sources includes approximately 60 percent from the Eastern Sierra via the Los Angeles Aqueduct system and from the Metropolitan Water District's Colorado and Feather River supplies. Approximately 80 percent of the groundwater utilized is from the San Fernando basin.

The LADWP is allotted 3,570 acre-feet of water per year for safe yield from the Sylmar Basin (ULARA Watermaster). Water pumped from the Sylmar Basin accounted for approximately 4 percent of the groundwater utilized for drinking and approximately 0.5 percent of all drinking water sources in 2001 (City of Los Angeles Granada Hills–Knollwood & Sylmar Community Plans EIR Oct 2012).

Depth to Groundwater

According to the *Preliminary Geotechnical Evaluation* prepared by Ninyo & Moore (2016a) for this Final EIR, the groundwater at the site has a historic high of 120 feet below ground surface, with levels ranging on average from 120 to 200 feet below ground surface. The evaluation also stated that:

> Groundwater levels may be influenced by seasonal variations, precipitation, irrigation, soil/rock types, groundwater pumping, and other factors and are subject to fluctuations. Onsite infiltration of

storm water related to LID guidelines may have an impact on existing and planned site improvements and should be evaluated during the detailed design phase of the project.

Due to its depth, groundwater is not expected to have a significant impact on excavation or other construction activities. However, the *Preliminary Geotechnical Evaluation* suggested that portions of the site located in the northeast region of the project area near the mouth of Wilson Canyon are potentially susceptible to liquefaction due to sections of shallow groundwater.

Recharge

Soils within the project site are Ramona, Hanford Gravelly Sandy, and Hanford Fine Sandy loams. On the northern portion of the site, Los Angeles River soil is present, which consists mainly of recent alluvial deposits. The *Preliminary Geotechnical Evaluation* categorized the northern and western portions of the site as being "underlain by Pacoima Formation and older alluvium composed of weakly consolidated sand and gravel." The evaluation also notes that the southern region of the site, the location of existing improvements, and the area at the base of Wilson Canyon in the east, are "underlain by young (Holocene[2]) alluvial deposits generally composed of gravel, sand, and clay sediments."

These soil types have a relatively high conductivity; based on the continuous simulation modeling results, approximately 3.8 inches per year or 33 percent of the annual rainfall on the Tier I area infiltrates under existing conditions. As such, recharge is expected to occur into the Sylmar Basin within the Tier I boundaries under existing conditions. Additionally, recharge is anticipated to similarly occur into the Sylmar Basin within the Tier II area under existing conditions.

Due to soils with poor cohesion, pre-existing undeveloped areas, and steep slopes present at the site, the *Preliminary Geotechnical Evaluation* (Ninyo and Moore 2016a) concluded there is a potential for erosion, especially along the northern edge of the campus where steeper slopes are found.

Groundwater Contamination

Based on the *Phase 1 Hazardous Materials Assessment* prepared by Ninyo & Moore (2016b) there were no reports of groundwater contamination in the Sylmar Basin. No other sources or locations of groundwater contamination were found as part of the data review for this project.

Hydrology

Elevations within the Olive View–UCLA Medical Center Campus range from a low of approximately 1,415 feet in the southwestern portion of the campus to a high of approximately 1,540 feet in the northwestern portion. Overland flow within the site is generally from north to south. The San Gabriel Mountains run along the northern extent of the campus, surrounding the site in trees and understory vegetation.

The Wilson Canyon Channel, a concrete structure that serves as a major flood control facility for the site and surrounding areas, runs parallel to the eastern site boundary; overland flow in this vicinity is generally south-southwest toward Olive View Drive and ultimately into the Wilson Canyon Channel, which joins the underground storm drain system at the intersection of Astoria Street and Dronfield Avenue.

[2] The Holocene is second and most recent epoch of the Quaternary period, which began 10,000 years ago at the end of the Pleistocene period.

There are currently two watersheds north of project site, the Wilson Canyon Channel watershed and the Mansfield Channel watershed, with an average 50-year storm event of 4,690 cubic feet per second (cfs) (Master Plan). The runoff from these areas is conveyed through the Schoolhouse Canyon Diversion to the Pacoima Wash, located at the southeast corner of Pacoima and May canyons. The Wilson Canyon Channel watershed is 1,959 acres and has a 3,758 cfs 50-year storm event discharge (Master Plan). The Mansfield Channel watershed is 455 acres and has a 932 cfs 50-year storm event discharge (Master Plan).

As discussed, the existing site does not appear to include water quality or stormwater controls, such as stormwater BMPs, LID features, or hydromodification management facilities. Additionally, stormwater detention and other flood control features were not observed onsite. Instead, the existing site manages rainfall and stormwater runoff with vertical roof drains, catch basins and drain inlets, underground storm drain systems, curbs, gutters, overland sheet flow, driveways, and other means of conveyance into the onsite and offsite storm drain system.

Impervious cover at the site is 65 percent in Tier I and currently undetermined in Tier II. Additionally, stormwater management and runoff is typical of urbanized runoff from other sites with a similar period of construction. According to the preliminary geotechnical survey, "Storm water catch basins and drains were observed throughout the site during the site reconnaissance. Storm water channels trending north-south were observed at the western and eastern ends of the site."

Stormwater runoff for proposed undeveloped conditions from Wilson Canyon drainage area and the Olive View Drive storm drainage area in Tier I is estimated at 37.2 in (1.0 in/year), based on continuous simulation analysis of the period of record from 1970–2006 (37 years). For existing conditions, stormwater runoff is 184.5 in (5.0 in/year) for the same timeframe due to the high percentage of impervious area (65 percent) in Tier I.

Due to the high percentage of undeveloped land at the project site, there is a high probability of erosion and sedimentation coming from the northern portion of the site, where the campus meets the Angeles Forest. Visual observation at the site noted prior attempts to mitigate erosion and direct flows through the use of dirt mounds and k-rails.

Hydraulics

From the Master Plan and visual observations during site reconnaissance, the existing storm drain system for the Olive View–UCLA Medical Center Campus utilizes vertical roof drains, underground storm drain pipes, overland sheet flow, curbs, gutters, catch basins, and driveways to convey stormwater runoff to the existing public system owned and operated by Los Angeles County Flood Control District (LACFCD).

The city of Los Angeles owns and maintains the Olive View Drive storm drain, which ranges in size from 30 inches to 60 inches in diameter and discharges to a LACFCD Foothill freeway 5-foot x 5-foot reinforced concrete box. There are currently two storm drain laterals to the site: one ties into the catch basin downstream of Mansfield Channel, and the other ties into an existing 36-inch reinforced concrete pipe from the hospital site. The Olive View Drive storm drain system is estimated to have a minimum existing capacity of 26 cfs and is assumed to have adequate capacity for existing peak discharges from the site. The Schoolhouse Debris Basin, tied into the Mansfield Channel, is designed to store 19 acre-feet of debris and drain an area of 0.28 square miles. The Wilson Debris Basin is designed to store 84 acre-feet of debris and drain an area of 2.6 square miles.

Hydrology and hydraulics models for the open channel systems were not provided by the County, and the existing capacity of these systems is not known from available data. However, the 100-year, 24-hour design storm event is mapped in an approximate Zone A as being contained within the Wilson Canyon drain. The Schoolhouse Canyon drain is not a FEMA-studied stream, and information on capacity is not available. The open channel systems are assumed to have adequate capacity for existing peak discharges from the site.

In the event that sheet flow leaves the project site, inlets are regularly spaced within the public roadways bordering the campus. Some of these inlets include the benefits provided by grates that help prevent trash from entering the storm drain system and the Los Angeles River watershed.

Flood Plain

The project site is located within Zone X on the FEMA Flood Insurance Rate Map, which indicates that the area would not be flooded in a 100-year storm. The site is located on Panel 1075F, updated September 26, 2008, between the Wilson Canyon and Schoolhouse drainage channels, which have a 1 percent annual chance of flood discharge. However, the area due north of the site is labeled as Zone D, meaning there are possible, but undetermined, flood hazards due to lack of analysis of the area.

Dam Failure/Tsunamis/Seiches

As shown in the "Dam Locations Within the Planning Area" map included as Figure 7-1 in the *City of Los Angeles Hazard Mitigation Plan*, adopted in January 2018, the project site is not located within a potential inundation area for dam failure. The nearest dam is the Pacoima Dam, and the possible inundation area is located east of the medical center campus site. Similarly, the project site is not located within a potential tsunami inundation area or seiche. However, due to its foothill location, the site is potentially subject to liquefaction/landslides.

3.9.4 Environmental Impact Analysis

3.9.4.1 Methods

The following analysis evaluates potential hydrology and water quality impacts that could result from implementation of the proposed project. It assesses impacts under existing conditions and determines whether they would exceed any of the thresholds listed below. The analysis is based on the conclusions found in the *Hydrology Technical Memorandum for the Los Angeles County Olive View–UCLA Medical Center EIR* prepared for the project by Watearth (2016) and updated April 26, 2019. The potential for Tier I impacts is evaluated in detail and the potential for Tier II impacts is evaluated on a conceptual level, due to the longer timeframe for Tier II improvements.

3.9.4.2 Thresholds of Significance

For the purposes of the analysis in this Final EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

HYD-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

HYD-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:

A) Result in substantial erosion or siltation on- or offsite;

B) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;

C) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

D) Impede or redirect flood flows.

HYD-4 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.

HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

3.9.4.3 Impacts and Mitigation Measures

Impact HYD-1: Would the Proposed Project Violate Any Water Quality Standards or Waste Discharge Requirements or Otherwise Substantially Degrade Surface or Groundwater Quality?

Construction Impacts

Tier I

The Tier I project site soil is predominantly Hanford fine sandy loam with a zone of Hanford gravelly sandy loam in the eastern corner. The soil is underlain by poorly consolidated alluvium (Ninyo and Moore 2016b). Both the soils and the underlying geology are susceptible to erosion. Slopes along the northern edge of the proposed Tier I project site range from approximately 5 to 13 percent, further increasing the site susceptibility to erosion. The Tier II project site has similar slopes and soils as Tier I.

During construction, site grading activities and exposed surfaces could cause erosion, temporarily increasing the amount of suspended solids in sheet flow or runoff, which would enter the storm drain system. However, the proposed project would be required to obtain and comply with the Construction General Permit from the SWRCB. This permit and associated NPDES requirements include development and implementation of a SWPPP, with associated monitoring and reporting. Stormwater BMPs are required to limit erosion, minimize sedimentation, and control stormwater runoff water quality during construction activities. Additional source-control BMPs would also be required to prevent runoff contamination by potentially hazardous materials and eliminate non-stormwater discharges.

Compliance with the Construction General Permit, SWPPP, NPDES requirements, and local regulations that require construction-phase BMPs would ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters.

Construction-related activities could include the use of materials such as fuels, lubricating fluids, solvents, and other materials that could result in polluted runoff. However, the potential consequences of any spill or release of these types of materials would generally be small because of the localized, short-term nature of the releases. Furthermore, the NPDES Construction General Permit and SWPPP require measures regarding the handling of these types of materials and protocols for actions taken if a spill or release does occur. Therefore, impacts associated with these types of pollutants would be less than significant.

Tier II

Similar to Tier I, Tier II would comply with the Construction General Permit, SWPPP, NPDES requirements, and local regulations that require construction-phase BMPs, which would ensure that construction activities would not degrade water quality and impacts, therefore, are expected to be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Operational Impacts

Tier I

The Master Plan incorporates the use of bioretention and permeable pavement LID features. The features would meet the requirements found in the city of Los Angeles Department of Sanitation *Development Best Management Practices Handbook*.

Tier I of the proposed project contains two drainage areas: the eastern half of Tier I drains to the Wilson Canyon open channel, and the western half into Olive View Drive storm drain system, into which Tier II also drains, and ends in the Mansfield Channel. Tier I pollutant effluent concentrations were modeled for both drainage areas. TSS, total nitrogen, copper, lead, zinc, and fecal coliform were modeled for 2-year, 24-hour design storm event and a 37-year continuous simulation model to represent average annual conditions. The results for Wilson Canyon drainage (DA1) and Olive View Drive storm drainage (DA2) are in Tables 9a and 9b in Appendix C of Watearth's *Hydrology Technical Memorandum for the Los Angeles County Olive View–UCLA Medical Center EIR* (see Appendix H of this Final EIR). All pollutants concentrations decreased under both model scenarios, and, in certain cases, such as nitrogen and lead in DA2, were completely removed. According to the city of Los Angeles Department of Sanitation Development's *Best Management Practices Handbook*, the minimum storage required for bioretention is 2.1 acre-ft. Tier I had 4.3 acre-feet of bioretention storage. Thus, the post construction water quality impacts of Tier I development are expected to be less than significant.

Drainage area discharge model results for 2-year, 10-year, and 100-year 24-hour storm events are provided in Tables 5a and 5b in Appendix C of Watearth's *Hydrology Technical Memorandum for the Los Angeles County Olive View–UCLA Medical Center EIR* (see Appendix H of this Final EIR). Discharge model results for continuous simulation runs are in Tables 6a and 6b of the same report. The Wilson Canyon drainage peak discharge flow rates decrease between 12 percent and 20 percent, with the greatest decrease occurring in the 100-year, 24-hour design storm event. The DA2 Tier I drainage peak discharge flow decreases between 40 percent and 100 percent with the greatest decrease from the 2-year, 24-hour design storm event. No models resulted in an increase in discharge. Post construction impacts on discharge from Tier I development would be less than significant.

Once the project is operational, materials such as fuels or solvents may be stored onsite, similar to existing conditions. This is not anticipated to be a source of polluted stormwater runoff or dryweather runoff. As under existing conditions, the medical center would continue to adhere to all applicable regulations. Consequently, impacts would be less than significant.

Tier II

Similar to Tier I, Tier II development includes plans for bioretention and permeable pavement. Based on the performance of Tier I water quality and discharge results, it is likely Tier II would also have less than significant impacts on water quality and discharge. Impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Impact HYD-2: Would the Proposed Project Substantially Decrease Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That the Project May Impede Sustainable Groundwater Management of the Basin?

Construction Impacts

Tier I

The groundwater table 1.5 miles south of the project site ranged from 125 to 200 feet over a 20-year period (Ninyo and Moore 2016a). The Olive View–UCLA Medical Center is located at the base of the San Gabriel foothills where the valley alluvium meets the mountains. It is possible the groundwater is shallower than 125 feet within the Tier I project boundary. The northeastern section of Tier I is identified in the preliminary geotechnical report as a zone that may have groundwater within 50 ft. This area of the project is mapped as potentially liquefiable, and coincides with the Sylmar Basin, suggesting that the groundwater may be significantly shallower at this location. However, since it is expected that most Tier I construction would occur at depths that are not likely to encounter groundwater, it is not expected that substantial dewatering would be required. Should groundwater be encountered during Tier I construction, dewatering would be conducted in accordance with NPDES requirements. Mitigation measure **MM-HYD-C1**, below, is also proposed to reduce potential dewatering impacts.

Additionally, any water used during Tier I construction (e.g., mixing of construction materials or watering of the site to reduce dust) would be temporary and limited in quantity; therefore, construction is not expected to result in the substantial depletion of local groundwater supplies. Tier I construction activities would also not substantially increase the amount of impervious surfaces during the construction period, and consequently would not substantially interfere with groundwater recharge. Impacts would be less than significant.

Tier II

Although greater than 50 percent of the Tier I proposed project area is within the Sylmar groundwater basin, much of the north/northwestern portions of the Tier II project area do not fall within a groundwater basin. The Sylmar groundwater basin is restricted to the southern edge in the proposed Tier II project boundary. It is located in an area that would be primarily landscaping. Water used during Tier II construction would be temporary and limited in quantity. Similar to Tier I, construction impacts on groundwater supplies or groundwater recharge are expected to be less than significant.

Operational Impacts

Tier I

Proposed new development and landscaping under Tier I would result in an increase in the amount of water consumed on the campus, which could affect local groundwater basins, as well as other sources of water supply. As discussed in Section 3.17, *Utilities*, of this Final EIR, it is estimated that Tier I activities could increase water consumption by 158,999 gallons per day, compared to existing conditions. As described above in Section 3.9.3, *Environmental Setting*, approximately 15 percent of the water provided in the project area is obtained from local groundwater wells. Consequently, Tier I activities could increase the amount of water withdrawn from local groundwater resources by approximately 138,640 gallons or 155.30 acre-feet per year. This represents an approximately 4 percent of the 3,570 acre-feet of water per year for safe yield from the Sylmar Basin. Consequently, Tier I would not substantially delete groundwater supplies or impede sustainable groundwater management of the Sylmar Basin. Additionally, **MM-HYD-01** would further reduce water consumption.

After Tier I completion, impermeable surfaces would decrease from 65 percent to 50 percent. Landscaped areas (including LID bioretention) in Tier I would increase by 50 percent. Infiltration would increase by 4.6 in (121 percent) across the 72.6-acre Tier I area or by 25.2 acre-feet on an annual basis. The increase in Tier I water demands would exceed the increase in infiltration by approximately 130.1 acre-feet per year, which could affect groundwater depletion. By incorporating reclaimed water, gray water, and harvested rainwater for irrigation, the increased demand for groundwater for irrigation could be reduced. For these reasons, water demand associated with the proposed project would not deplete groundwater supplies substantially. The project would increase groundwater recharge and would not interfere substantially with recharge. Therefore, the impacts on groundwater supplies or recharge during operation would be less than significant, the project would not substantially deplete groundwater supplies or substantially interfere with groundwater recharge. Impacts would be less than significant.

Tier II

Most of the north/northwestern portions of the Tier II project area do not fall within a groundwater basin. Nonetheless, proposed new development and landscaping under Tier II, would result in an increase in the amount of water consumed on the campus, which could affect local groundwater basins, as well as other sources of water supply. As discussed in Section 3.17, *Utilities*, of this Final EIR, it is estimated that Tier II could increase water consumption 376,913 gallons per day, compared to existing conditions. If all water demands are met by the Sylmar Basin, Tier II would increase the water demand from this basin by approximately 11 percent.

Tiers I and II combined would increase the water demand from the Sylmar Basin (if all demands were met by this basin) by approximately 15 percent. This incremental increase would have a marginal effect on groundwater supplies. Impacts would be less than significant. **MM-HYD-01** would further reduce groundwater supply impacts.

Mitigation Measures

The following measures are proposed to minimize potential construction and operational groundwater impacts identified in Impact **HYD-2**, above.

MM-HYD-C1: Where groundwater seepage could occur, permanent monitoring wells will be installed during construction within and around the perimeter of each building to monitor the groundwater level and evaluate the performance of the dewatering system. Before starting dewatering operations, a baseline conditions survey will be made of all adjacent foundations and structures to assess the impact of deep excavation dewatering on adjacent structures. All signs of existing distress will be recorded.

MM-HYD-O1: Irrigation water demands above existing irrigation demands will be met by alternative supply sources to the maximum extent technically and financially feasible. The use of alternative water supply sources for irrigation will be maximized to reduce the use of potable water for irrigation and approximate existing irrigation demands. Alternative water supply sources include, but are not limited to, gray water and harvested rainwater (stormwater).

Level of Significance after Mitigation

Impacts would be less than significant after mitigation.

Impact HYD-3: Would the Proposed Project Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, or Through the Addition of Impervious Surfaces, in a Manner that Would Result in Substantial Erosion or Siltation, Flooding On- or Offsite, Exceed the Capacity of Existing or Planned Stormwater Drainage Systems, Impede or Redirect Flood Flows?

Construction Impacts

Tier I

The Olive View–UCLA Medical Center Campus sits between the Schoolhouse and Wilson Canyon debris dams and basins. Minor alterations of the existing drainage patterns on the project site may occur as a result of the implementation of the campus-wide stormwater management system and

due to construction of new facilities and campus improvements, but no change to the course of a stream or river would occur. Grading and excavation would be required for building foundations, which could affect drainage on the project site; however, careful design would prevent substantial alterations to drainage patterns and/or erosion within the project site. Additionally, standard construction-phase BMPs would minimize the potential for any significant erosion or sedimentation from soil disturbance during construction. The County/construction contractor would also be required to submit a grading plan for County approval prior to the commencement of any construction activities, develop a SWPPP, and comply with regional requirements to meet state water quality objectives as part of NPDES Construction General Permit that would be required for Master Plan construction projects. Pending revisions, the NPDES permitting process may require development of a rain-event action plan prior to permit approval. Compliance with regulatory and permit requirements would ensure erosion impacts would be less than significant.

Although implementation of the Master Plan would result in grading throughout the campus, construction activities would not substantially alter the overall topography and drainage patterns; no streams or rivers would be altered to accommodate project construction.

Water would be used during the temporary construction phase of the project (e.g., for dust suppression); however, this water would be mechanically and precisely applied and would, in general, infiltrate or evaporate. Additionally, the pervious nature of the project site would not be significantly altered. Therefore, the rate or amount of surface runoff resulting from project construction activities would be similar to the amount under existing conditions. As such, the project would not result in a substantial increase in the rate or amount of surface runoff or flooding on- or offsite. Impacts would be less than significant.

Tier II

Construction of Tier II would be similar to Tier I. The amount of impervious cover would not increase during construction, and at various stages of construction, it would even be less than the existing amount. Impacts would be less than significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

Operational Impacts

Tier I

Tier I would include new and improved storm drainage pipes and the installation of LID features (bioretention and permeable pavement) to accommodate new development and facilities. These improvements would decrease stormwater discharge rates and sediment loads into local storm drains. According to calculations and model simulations conducted by Watearth, TSS loads (lbs/year) into the Wilson Canyon drain system are expected to decrease by 92 percent based on a 2-year 24-hr storm event and 96 percent based on 37-year continuous simulation run. TSS loads (lbs/year) into the Olive View Drive storm drain system are expected to decrease by 100 percent based on a 2-year 24-hr storm event and a 37-year continuous simulation run.

Due to the planned decrease in impervious surfaces (impervious cover would decrease from 65 percent to 50 percent), storm drain improvements, and proposed LID features under Tier I, development of Master Plan campus facilities and infrastructure would not increase the amount of surface runoff. To determine peak discharges to the Wilson Canyon and Olive View Drive storm drainages, three storm events, the 2- year, 10-year and 100-year, 24-hour design storms, were modeled by Watearth. The peak discharge to the Wilson Canyon drainage system would decrease from 9.8 to 8.7 cfs, 19.6 to 17.1 cfs, and 36.1 to 30.2 cfs, for the 2-year, 10-year and 100-year, 24-hour design storm events, respectively. The peak discharge to the Olive View Drive storm drainage would decrease from 16.0 to 0 cfs, 32.4 to 1.8 cfs, and 57.3 to 34.0 cfs for the 2-year, 10-year and 100-year, 24-hour storm events, respectively.

Tier II

Similar to Tier I, Tier II would include new storm drainage facilities and LID features, which would decrease TSS loads and discharge rates. Drainage and erosion/sedimentation impacts would be less than significant.

Tier II was not modeled. However, similar to Tier I, due to the planned decrease in impervious surfaces and proposed LID features, Tier II development would also likely result in reduced peak stormwater discharges. Thus, the proposed project would not result in flooding on or offsite due to increased surface run-off. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

HYD-4: Would the Proposed Project be Located in Flood Hazard, Tsunami, or Seiche Zones and Risk Release of Pollutants Due to Project Inundation?

Construction Impacts

Tier I

The project site is located approximately 28 miles from the Pacific Ocean, so there is no risk to the site from tsunamis, and the project would not exacerbate tsunami hazards. The Pacoima Reservoir, located 4.5 miles east of campus, is unlikely to produce seiches that would affect the project site, and the proposed project would not exacerbate seiche hazards at the reservoir.

The campus is nestled against the San Gabriel Mountains, and several areas at the northern border of the project site are landslide hazard areas. The Wilson Canyon drainage system, which transects the Tier I portion of the campus, is mapped as containing liquefaction hazards, as well as landslide hazards, directly upstream of the Tier I project boundaries. Areas susceptible to liquefaction in Tier I are primarily landscaped regions, tree-lined streets, and parking lots; however, the eastern corner of the proposed administration building and a portion of the Restorative Care Village facilities do fall within the mapped liquefaction hazard area. This makes mudflows a potential hazard to the site, but mitigation of mudflows upstream of the project is already in place via the Wilson Canyon Debris Dam and Basin upstream of the project site.

During construction, erosion of surface materials could increase TSS and other pollutants, as mentioned in the discussion under Impact **HYD-1**, above. Sedimentation and siltation of runoff during the construction period would be addressed through the implementation of standard construction-phase BMPs and compliance with permit and regulatory requirements. Impacts would be less than significant.

Tier II

Similar to Tier I, Tier II could increase TSS and other pollutants during construction. As mentioned above, implementation of standard construction-phase BMPs and compliance with permit and regulatory requirements would reduce impacts to less than significant.

Operational Impacts

Tier I

Pollutant loads into the Wilson Canyon and Olive View Drive storm drainages with implementation of Tier I development and improvements would not increase, as discussed above under Impact **HYD-1** (also see Tables 9a and 9b in Exhibit C of Watearth's *Hydrology Technical Memorandum for the Los Angeles County Olive View–UCLA Medical Center EIR*). According to Watearth, modeled pollutant loads for a 2-year, 24-hour storm event into the Wilson Canyon drainage would decrease for TSS, nitrogen, copper, lead, and zinc by 92 percent, 57 percent, 69 percent, and 78 percent, respectively. Modeled pollutant loads for a 2-year, 24-hour storm event into the Olive View Drive storm drainage from Tier I would decrease by 100 percent during a 2-year, 24-hour modeled storm event for TSS, nitrogen, copper, lead, and zinc. Fecal coliform would decrease by 7.4 percent and 130 percent for a 2-year, 24-hour modeled storm event into the Wilson Canyon and Olive View Drive storm drainages, respectively. Annual pollutant loads were based on a 37-year continuous simulation model. Annual pollutant loads into the Wilson Canyon drainage would decrease by 96 percent, 76 percent, 82 percent, 87 percent, 91 percent, and 8 percent for TSS, nitrogen, copper, lead, zinc, and fecal coliform, respectively. Annual pollutant loads into the Olive View Drive storm drainage would decrease by 100 percent for TSS, nitrogen, copper, lead, and zinc; fecal coliform would decrease by 28 percent. In addition to the decreased peak discharge and pollutant loadings, drainage from proposed site improvements would be conveyed through a new storm drain system that would be sized for proposed stormwater runoff from the site. The proposed project would not significantly affect the capacity or hydraulic integrity of the proposed onsite storm drain system, the existing Olive View Drive storm drain system, or the Wilson Canyon or Schoolhouse Drain open channel systems or provide substantial additional sources of pollution to these receiving systems. Impacts would be less than significant.

Tier II

Operation of Tier II would be similar to Tier I. Because details about Tier II are unknown, Tier II pollutant loadings were not modeled. However, pollutant loads are expected to remain at existing levels or to decrease below existing levels. Impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Level of Significance after Mitigation

Impacts would be less than significant.

HYD-5: Would the Proposed Project Conflict With or Obstruct Implementation of a Water Quality Control Plan or Sustainable Groundwater Management Plan?

Construction Impacts

Tier I

The proposed project would include improvements to stormwater quality through the implementation of a campus-wide stormwater management system. Furthermore, construction-phase BMPs would be implemented in accordance with the County of Los Angeles Department of Public Works *Construction Site BMPs Manual* (2007) and the SWPPP prepared in accordance with the requirements of the NPDES Stormwater General Permit. Construction-phase BMPs for the proposed project may involve scheduling, silt fencing, street sweeping and vacuuming, storm drain protection, stabilized construction entrances/exits, water conservation practices, paving and grinding operations, as well as procedures and practices pertaining to vehicle equipment cleaning, fueling, and maintenance. As noted above, the proposed project would be required to adhere to NPDES drainage control requirements during construction and operation, as well as to County drainage control requirements. Otherwise, the proposed project would not include any other waste discharges that could conflict with the basin plan. Therefore, with compliance with NPDES requirements and County drainage control requirements, construction of the proposed project would not result in discharge that would violate any water quality control plan or sustainable groundwater management plan, and impacts would be less than significant.

Tier II

Construction of Tier II would be similar to Tier I. Compliance with NPDES requirements and County drainage control requirements would not result in discharges that would violate any water quality control plan or sustainable groundwater management plan, and impacts would be less than significant

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

Impacts **HYD-1** to **HYD-4** discusses potential impacts associated with the degradation of water quality during operation. Prior to the commencement of construction activities, the project proponent would be required to prepare and submit drainage plans to the County, which would include post-construction structural and nonstructural BMPs. Routine structural BMPs are intended to address water quality impacts related to drainage, which are inherent in development.

As discussed previously, the LID features proposed under the Master Plan would mitigate pollutant loadings into the storm drainage system and reduce water quality impacts from runoff to a less-than-significant level. However, maintenance would be required to sustain the effectiveness and extend the life cycle of the LID features. For most LID features, sediment removal is one of the most important and significant maintenance activities: once LID features clog or reach the end of their life cycle, major rehabilitation or reconstruction may be needed. Regular inspection of LID features is also a key component of a successful operations and maintenance (O&M) plan.

Bioretention maintenance requirements include removing sediment, trash, and debris to maintain the infiltration capacity. Shredded hardwood mulch should also be removed and replaced annually to remove sediment and any accumulated metals captured by the mulch. Vegetation may require pruning and replanting of dead vegetation. Additionally, irrigation is typically required during the summer months. Because bioretention provides stormwater quality benefits, weeding should be done by hand, and fertilizers, pesticides, and herbicides should not be used. Additionally, mulch and compost should not contain any manure or other animal products that may contribute nutrients to the stormwater runoff.

The maintenance activities associated with permeable pavement are geared toward removal of sediment and debris that may clog the pavement. Sweeping of leaf litter, debris, and sediment is needed to prevent organic materials from decomposing and clogging the pavement. For minor clogging, pressure washing may be used, while vacuum sweeping is recommended twice annually or more for areas with high sediment loads. Any weeds within the permeable pavement should be removed manually, and herbicides should not be used.

While it is preferable to avoid constructing LID features in areas of potential liquefaction, some Tier I LID features could fall within a liquefaction risk area. Any LID features within or adjacent to liquefaction zones should include structural design modifications to ensure continued hydrologic and water quality performance after a liquefaction event. In the event that LID features are damaged by a liquefaction event, repair, maintenance, and/or reconstruction may be needed, based on the results of a field inspection.

There are no other methods by which water quality could be degraded as a result of operations on the project site. Therefore, with implementation of **MM-HYD-O2** and **MM-HYD-O3**, impacts associated with degrading water quality during operation would be less than significant.

Tier II

Similar to Tier I, Tier II routine structural BMPs are intended to address water quality impacts related to drainage, which are inherent in development. Adherence to **MM-HYD-O2** and **MM HYD-O3** will further reduce impacts associated with degrading water quality.

Mitigation Measures

The following measures are proposed to ensure water quality impacts, as described under Impact **HYD-5**, above, would remain less than significant.

> **MM-HYD-O2:** An O&M plan will be developed for LID features at the site during the design of the initial development projects and expanded as development progresses and different LID features are added. The plan will consider impacts on water quality and address issues related to integrated pest management or organic maintenance practices, including those for hand weeding.

MM-HYD-O3: For any proposed LID features located within an area of potential liquefaction, structural design modifications will be included to mitigate the potential impacts of liquefaction on the performance and operation of the LID features and to maintain the water quality performance as originally designed. The O&M plan should include provisions for inspection, repair, maintenance, and/or reconstruction after liquefaction events for any LID features located within an area of potential liquefaction.

Level of Significance after Mitigation

Impacts would be less than significant after mitigation.

3.9.5 Cumulative Impacts

The study area for cumulative impacts related to hydrology and water quality encompasses the area within a 1-mile radius of the project site for localized cumulative impacts, as well as the watersheds (Lower Pacoima and Tujunga Wash watersheds) that encompass the areas and drain into the major storm drain facilities serving the project site. In Chapter 2 of this Final EIR, *Project Description,* Table 2-2, Related Projects, lists the related projects in the vicinity of the campus. The locations of the related projects are depicted in Figure 2-9.

With the exception of the construction of six modular trailers at the corner of Bucher Avenue and Sycamore Avenue on the campus and a 7,500-square-foot retail establishment planned for a site approximately .5 miles southwest of the campus, there are no related projects currently planned within a 1-mile radius of the campus. As a consequence, and because regulatory requirements would further minimize the related projects' erosion and water quality impacts during construction and operation, no cumulative adverse impacts to local hydrologic conditions, groundwater recharge, or water quality are expected to occur as a result of the related projects identified in Chapter 2, *Project Description*, of this Final EIR. Therefore, the proposed Master Plan would not contribute to any significant cumulative localized hydrologic and water quality impacts.

Projected growth and development within the larger cumulative impacts study area (i.e., the Lower Pacoima and Tujunga Wash Watersheds) could result in the cumulative erosion and transfer of sediments to storm drains and surface water resources within the watersheds. Cumulative development could also result in an increase in impervious surface areas, resulting in increased stormwater runoff and flows to study area storm drains and potential increases in pollutant loads on receiving waters within the watersheds. Although adverse cumulative impacts could occur, it is beyond the scope of this Final EIR to quantify the extent and determine the significance of potential impacts within the watershed for the life of the Master Plan. However, given that the proposed Master Plan and many of the cumulative development projects within the study area would be required to implement BMPs, LID features, and other measures to comply with regulatory and permit requirements, it is likely that cumulative hydrology and water quality impacts would be less than significant. Therefore, it is anticipated that the proposed Master Plan would not result in cumulatively considerable contributions to significant cumulative hydrology or water quality impacts within the watershed areas.

3.10 Land Use/Planning

3.10.1 Introduction

This section describes the land use impacts of the proposed project, including any conflicts with applicable land use plans, policies, or regulations. To assess potential land use impacts, an overview of existing land uses, land use designations, and applicable land use plans and policies is provided. All land use decisions pertaining to the proposed project fall under the jurisdiction of the County of Los Angeles (County) because the land on which the Olive View–UCLA Medical Center Campus is situated is owned and maintained by the County.

3.10.2 Regulatory Setting

3.10.2.1 Federal

No federal land use regulations are applicable to the proposed project or land use impact analysis.

3.10.2.2 State

No land use regulations are applicable to the proposed project or land use impact analysis.

3.10.2.3 Regional

Southern California Association of Governments Regional Comprehensive Plan

The Southern California Association of Governments (SCAG) is designated by the federal government as the Southern California region's Metropolitan Planning Organization and Regional Transportation Planning Agency. SCAG's jurisdiction includes Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura counties. SCAG addresses regional planning issues through various plans and programs, including the *2008 Regional Comprehensive Plan* (RCP), which addresses regional issues, such as housing, traffic/transportation, water, and air quality issues, and serves as an advisory document for local agencies in the Southern California region to use when preparing local plans and handling local issues of regional significance.

The RCP contains the following land use and housing, transportation, and air quality goals that are relevant to the project:

- Land Use and Housing
  - Successfully integrate land and transportation planning and achieve land use and housing sustainability.
- Transportation
  - Provide a more efficient transportation system that reduces and better manages vehicle activity.
  - Provide a cleaner transportation system that minimizes air quality impacts and is energy efficient.

- Air Quality
  - Reduce emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable.
  - Reverse current trends in greenhouse gas (GHG) emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas.
  - Expand green building practices to reduce energy-related emissions from developments and increase economic benefits to businesses and residents.

SCAG 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy

On April 7, 2016, SCAG's Regional Council adopted the 2016–2040 Regional Transportation Plan/ Sustainable Communities Strategy (2016 RTP/SCS or Plan). The Plan is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The Plan charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably.

The 2016 RTP/SCS goals are as follows (Southern California Association of Governments 2016):

- Align Plan investments and policies with improving regional economic development and competitiveness.
- Maximize mobility and accessibility for all people and goods in the region.
- Ensure travel safety and reliability for all people and goods in the region.
- Preserve and ensure a sustainable regional transportation system.
- Maximize the productivity of our transportation system.
- Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking).
- Actively encourage and create incentives for energy efficiency, where possible.
- Encourage land use and growth patterns that facilitate transit and active transportation.

3.10.2.4 Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.[1]Local

Los Angeles County 2035 General Plan

The Los Angeles County 2035 General Plan (2035 General Plan) was adopted by the Los Angeles County Board of Supervisors on October 6, 2015 (County of Los Angeles 2015). The 2035 General Plan provides the policy framework for how and where the unincorporated county will grow through 2035 while recognizing and celebrating the county's wide diversity of cultures, abundant natural resources, and status as an international economic center. The 2035 General Plan accommodates new housing and jobs within the unincorporated areas in anticipation of population growth in the county and the region.

[1] SCAG does not yet have an agreed-upon security performance measure.

The following policies are applicable to the proposed project:

Land Use Element

- **Policy LU 2.2:** Ensure broad outreach, public participation, and opportunities for community input in community-based planning efforts.
- **Policy LU 2.3:** Consult with and ensure that applicable County departments, adjacent cities, and other stakeholders are involved in community-based planning efforts.
- **Policy LU 2.8:** Coordinate with the Los Angeles County Department of Public Works and other infrastructure providers to analyze and assess infrastructure improvements that are necessary for plan implementation.
- **Policy LU 5.2:** Encourage a diversity of commercial and retail services and public facilities at various scales to meet regional and local needs.
- **Policy LU 6.2:** Encourage land uses and developments that are compatible with the natural environment and landscape.
- **Policy LU 10.1:** Encourage community outreach and stakeholder agency input early and often in the design of projects.
- **Policy LU 10.4:** Promote environmentally sensitive and sustainable design.

Mobility Element

- **Policy M 2.6:** Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible.

City of Los Angeles General Plan

The City of Los Angeles General Plan is a comprehensive, long-term declaration of purposes, policies, and programs for development in Los Angeles. It sets forth goals, objectives, and programs to provide a guideline for day-to-day land use policies and meet the existing and future needs and desires of the community while integrating a range of state-mandated elements, including transportation, noise, safety, housing, and conservation elements. In place of a Land Use Element, the City of Los Angeles includes community plans that establish policies and standards for each of the 35 geographic areas in the city. As such, the community plans are oriented toward specific geographic areas that locally define the general plan's more general citywide policies and programs.

The project site is within the Sylmar Community Plan, a part of the City of Los Angeles General Plan (City of Los Angeles Department of City Planning 2015). The properties that compose the Olive View–UCLA Medical Center Campus are zoned for public facilities (PF), with the portion that includes Wilson Canyon Debris Basin and Channel zoned for open space (OS) by the city of Los Angeles.

The following objectives are applicable to the proposed project:

- **Objective 1-2.** L new housing appropriately in a manner that reduces vehicular trips and increases accessibility to services and facilities.
- **Objective 1-3.** P and enhance the varied and distinct residential character and integrity of existing single- and multifamily neighborhoods.
- **Objective 1-4.** Pe and enhance structures that have a distinctive and significant historical character.

- **Objective 5-1.** P existing open space resources and, where possible, develop new open space.
- **Objective 8-1.** P adequate police facilities and personnel to correspond with population and service demands in order to provide adequate police protection.
- **Objective 9-1.** Ensure that fire facilities and fire protection services are sufficient for the existing and future population and land uses of Sylmar.
- **Objective 10-1.** Comply with citywide performance standards for acceptable levels of service and ensure that necessary road access and street improvements are provided to accommodate traffic generated by all new development.
- **Objective 15-1.** Promote an adequate system of safe bikeways for commuter, school, and recreational use.
- **Objective 15-2.** Promote pedestrian-oriented mobility and the utilization of the bicycle for commuter, school, recreational use; economic activity; and access to transit facilities.
- **Objective 15-4.** Provide for the development of equestrian trails for recreational use.
- **Objective 16-1.** Provide parking in appropriate locations in accord with citywide standards and community needs.
- **Objective 17-1.** Ensure that the community's historically significant resources are protected, preserved, and/or enhanced.
- **Objective 18-1.** Enhance and capitalize on the contribution of existing cultural and historical resources in the community.

The land on which the Olive View–UCLA Medical Center Campus is situated is owned by the County and therefore not subject to regulation by the City of Los Angeles General Plan. However, because the general plan is applicable to off-site impacts and off-site improvements that might be required to mitigate project impacts, it is included in this section.

City of Los Angeles General Plan Framework

The City of Los Angeles General Plan Framework Element is the citywide plan that establishes how Los Angeles will grow in the future (City of Los Angeles n.d.). Adopted in 1996, and re-adopted in 2001, the Framework Element is a strategy for long-range growth and development, setting a citywide context for the update of community plans and citywide elements. The Framework Element responds to state and federal mandates to plan for the future by providing goals, policies, and objectives on a variety of topics, such as land use, housing, urban form, open space, transportation, infrastructure, and public services. Many of the Framework Element's key guiding principles can be advanced at the community level through community plans.

The following objectives would be applicable to the project:

- **Objective 3.1.** Accommodate a diversity of uses that support the needs of the city's existing and future residents, businesses, and visitors.
- **Objective 3.3.** Accommodate projected population and employment growth within the city and each community plan area and plan for the provision of adequate supporting transportation and utility infrastructure and public services.

City of Los Angeles Planning and Zoning Code

The City of Los Angeles Planning and Zoning Code includes standards for different land uses and identifies which land uses are allowed in various zoning districts (City of Los Angeles Department of City Planning 2019). Specifically, the zoning code consolidates and coordinates all existing zoning regulations and provisions to designate, regulate, and restrict locations and land uses. The project site has a City of Los Angeles (Sylmar Community Plan) zoning designation of PF1, which allows public health facilities, including clinics and hospitals. PF-1 zoning does not have restrictions regarding the heights of buildings or any specific front-, side-, or rear-yard setbacks. The Wilson Canyon Debris Basin and Channel, which runs through the project site, is classified as an OS-1 Open Space Zone.

The County's development of County-owned land on the Olive View–UCLA Medical Center Campus is not subject to regulation by the City of Los Angeles Planning and Zoning Code. However, as noted above, any off-site improvements required to mitigate project impacts would be subject to City of Los Angeles regulations. Figure 3.10-1 shows the City of Los Angeles zoning for the project site and surrounding area.

3.10.3 Environmental Setting

The Olive View–UCLA Medical Center Campus at 14445 Olive View Drive is on several parcels of land owned by the County of Los Angeles. The campus is within the community of Sylmar, at the north end of the San Fernando Valley, in the city of Los Angeles, California. Specifically, the site is bounded by the Angeles National Forest and Wilson Canyon Debris Basin and Channel on the north, Olive View Drive on the south, Los Angeles County Flood Control District facilities and Wilson Canyon Park on the east, and Bucher Avenue on the west. Kennedy Road and Cobalt Street intersect the project site. The site is east of Interstate 5 and north of Interstate 210.

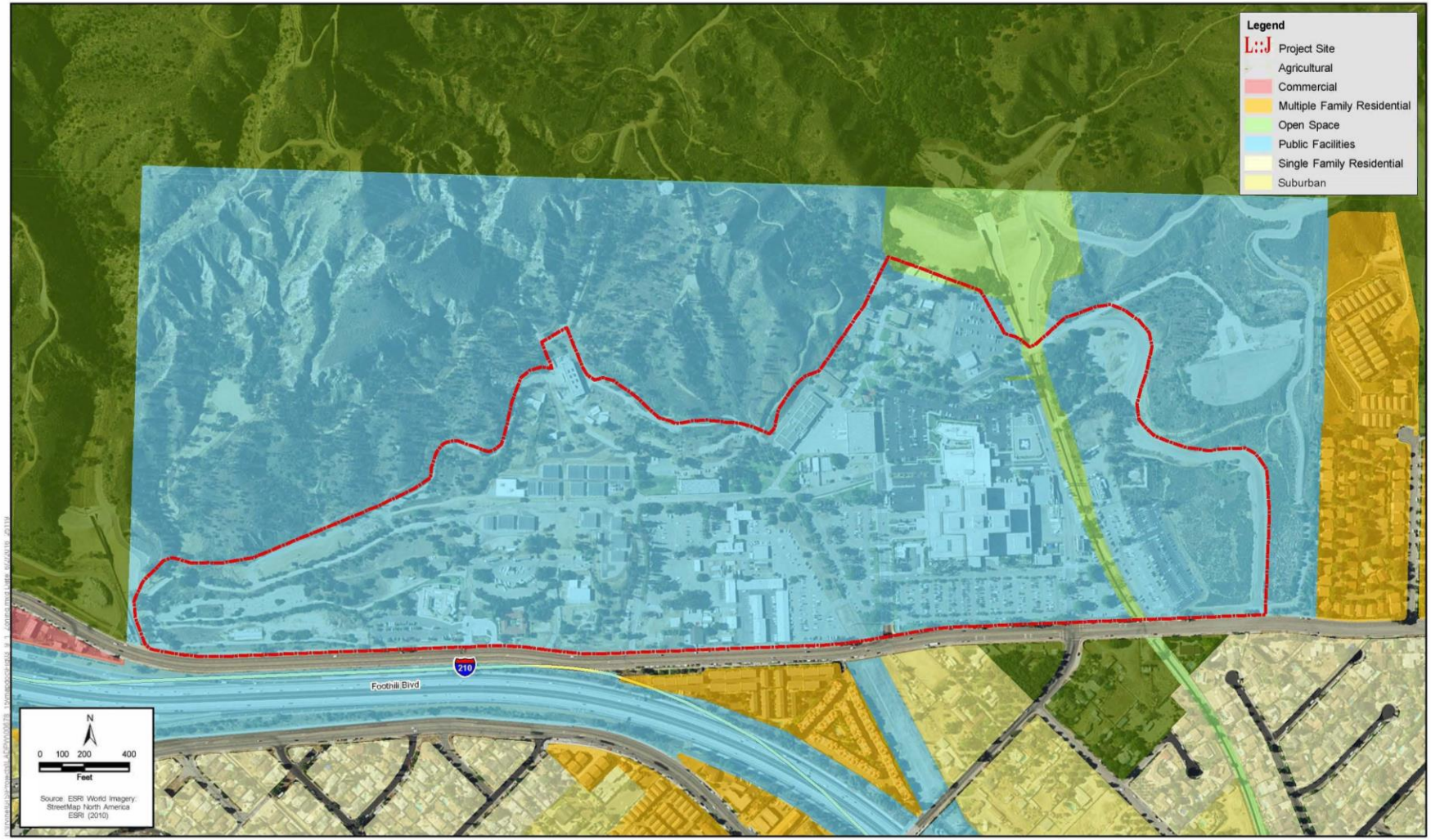
The 230-acre project site is located in an area that is generally surrounded by open space uses to the north and a variety of developed uses to the south, east, and west.

3.10.3.1 Project Site

The Olive View–UCLA Medical Center Campus occupies the project site, which is developed with medical and office uses, surface parking, open spaces, and maintenance facilities. The site is occupied with buildings that are in use as well as some that are currently vacant. Specifically, the campus currently consists of 31 permanent buildings and 29 trailers and other modular structures. The buildings range in age from 5 to 80 years old and therefore exhibit a wide range of architectural styles. The oldest buildings, particularly the bungalows in the northern part of campus, have been repurposed for campus support uses. The modular structures and trailers, which provide space and additional storage for the campus, are scattered throughout the campus. In addition, the Wilson Canyon Debris Basin and Channel runs through the site.

The existing campus consists of a main hospital tower with one- or two-story support buildings in the surrounding areas. The main hospital building is six stories, with an area of 530,000 square feet. Completed in 1987, the hospital tower is clad in quarter-inch tempered glass with a reflective solar cool bronze coating on all exterior façades, from the third floor to the sixth. The first and second floors have ribbed concrete on all sides. The emergency services building and Isolation Unit are the latest additions to the medical center. The imaging center is also attached to the hospital and serves the Radiology Department. Support buildings, such as the supply chain warehouse, education building, and finance building, are relatively close to the hospital.

Figure 3.10-1. Zoning Designations of the Project Site and Surrounding Area



The central utility plant, which is attached to the hospital building, serves the aforementioned hospital and surrounding support buildings. The plant and associated facilities have approximately 67,400 square feet of space. Also located on the campus are a number of single-story wooden structures, some of which date back to the 1920s. Some of the original buildings, such as the old administration building, are vacant and not currently utilized. Administrative uses total approximately 99,400 square feet, while community uses total approximately 9.300 square feet. Approximately 65,600 square feet of vacant uses are also on the campus. The campus currently contains approximately 2,672 surface parking spaces. No parking structures are located on the campus.

Table 3.10-1 provides a breakdown of existing uses, by square footage, on the project site.

Table 3.10-1. Existing Land Uses on the Project Site

Building Program	Square Feet (Beds)
Inpatient hospital	534,300
Community center[1]	9,300
Administration	108,000
Mental health	11,000
Materials management	32,500
Central utility plant	51,000
Support services buildings	16,800
Storage trailers (vacant during survey)	61,000
Parking facilities	2,672 spaces
Surface stalls	2,672
Surface square footage	1,090,000
Total (does not include parking surface)	**823,900**

[1] Existing, recently built childcare center.
Source: The Smith Group, County of Los Angeles, 2016.

3.10.3.2 Surrounding Land Uses

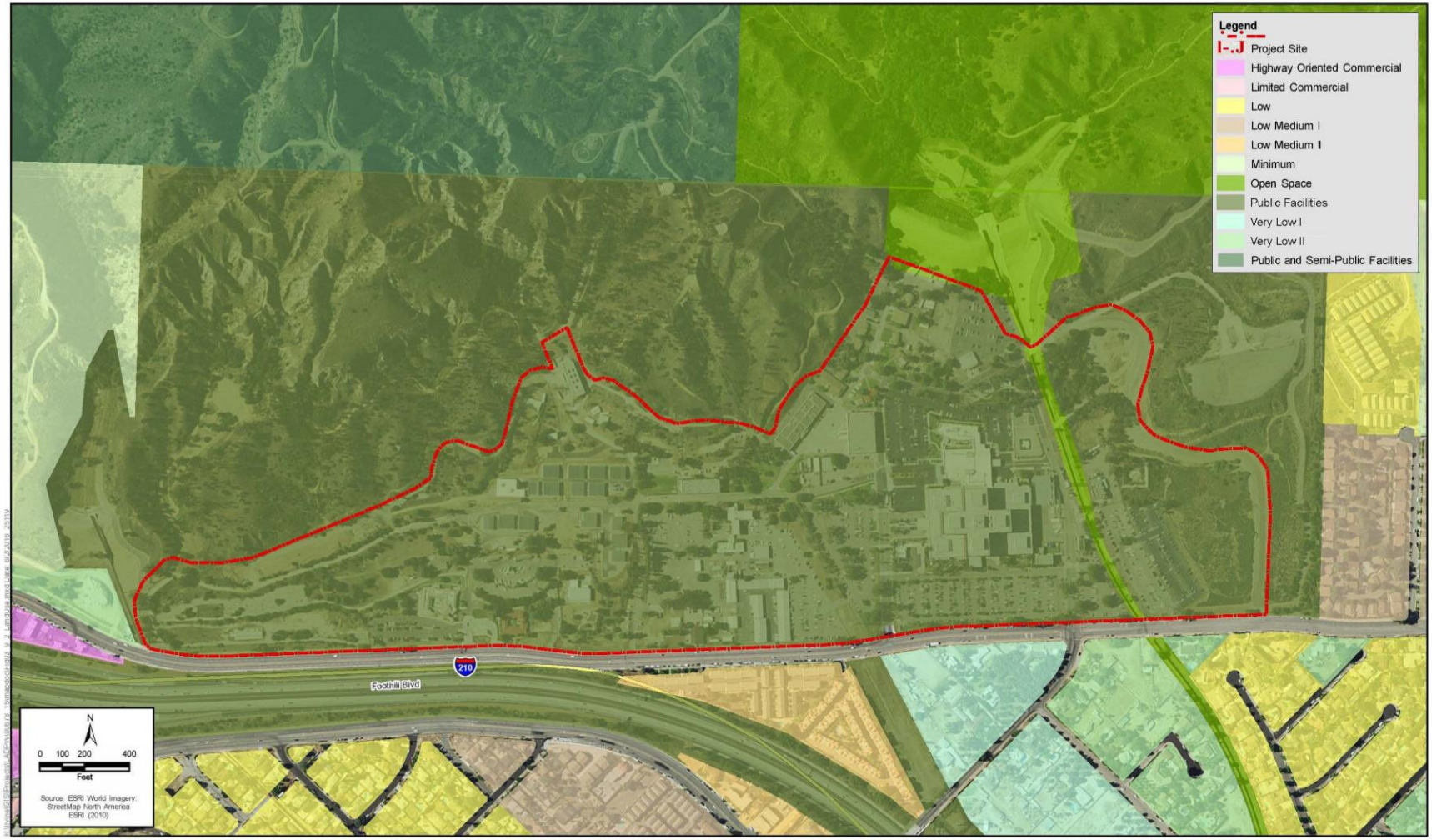
The 230-acre Olive View–UCLA Medical Center Campus abuts the foothills of the San Gabriel Mountains, which are a part of the Angeles National Forest. The project site is surrounded by a mix of undeveloped natural areas and residential, equestrian, and other recreational (e.g., hiking) uses. The medical center is surrounded by forests and vegetation, mostly to the north. Unique to the campus are the equestrian and hiking trails that run along the northern edge of the campus. Wilson Canyon Park is less than 1 mile northwest of the campus. Stetson Ranch Park is less than 1 mile to the west.

Residential uses surround the project site to the east, west, and south. Predominantly single-family residential neighborhoods are east of the campus. The Oakridge Mobile Home Park is west of the campus. A mix of single-family residences, including ranch-style homes with equestrian facilities, multifamily residences, and some commercial uses are south of the campus across Olive View Drive.

Several institutional and recreational uses are also located in the surrounding area. El Cariso Golf Course is approximately 2 miles southeast of the project site. Pioneer Memorial Cemetery is approximately 0.5 mile south of the campus. Several schools are also within the surrounding area;

specifically, Olive Vista Middle School and Sylmar High School are approximately 1.5 miles south of the project site, and Herrick Avenue Elementary School is approximately 2 miles southeast of the campus. Figure 3.10-2, to follow, depicts the designated land uses on the project site and in the surrounding area.

Figure 3.10-2. Land Uses of the Project Site and Surrounding Area



3.10.4 Environmental Impact Analysis

3.10.4.1 Methods

Local plans and policies, including general plans, specific plans, zoning ordinances, land use and zoning maps, etc., were reviewed to analyze the consistency of the proposed project with such plans.

3.10.4.2 Thresholds of Significance

For the purposes of this environmental impact report (EIR), and in accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

LU-1 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The lead agency determined in the notice of preparation/initial study (NOP/IS) (see Appendix A) that the proposed project would not result in an impact in the following areas, which were therefore screened from further review in this Final EIR (please refer to Appendix A of this Final EIR for a copy of the NOP/IS and additional information regarding these issue areas):

- Physically divide an established community, and
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

3.10.4.3 Impacts and Mitigation Measures

Impact LU-1: Would the Proposed Project Cause a Significant Environmental Impact Due to a Conflict With Any Land Use Plan, Policy, or Regulation Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect?

Construction and Operational Impacts

Tiers I and II

Table 3.10-2, below, identifies relevant environmental policies and objectives of local land use plans and discusses whether the proposed project would conflict with those policies and objectives. The reader is also referred to other sections in this chapter for descriptions of potential adverse impacts (e.g., impacts related to air quality, aesthetics, biological resources, noise, cultural resources, geology and soils, hazards and hazardous materials, public services, utilities, transportation/traffic) on land uses in the vicinity of the project site and conflicts with applicable regulations governing those impacts.

Table 3.10-2. Proposed Project's Consistency with Applicable Land Use Plans

Policy/Objective Number	Discussion	Conflict – Yes/No?
SCAG RTP		
Align the plan investments and policies with improving regional economic development and competitiveness.	The proposed Master Plan would guide future development of the campus and improve the delivery of health care services to the region. Proposed new development would provide short-term construction and new long-term jobs, which would have a beneficial effect on the regional economy.	No
Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	The Master Plan proposes new pedestrian, equestrian, and bike paths throughout the campus. Also, see Section 3.2, *Air Quality*, and Section 3.15, *Transportation/Traffic*, of this Final EIR.	No
Actively encourage and create incentives for energy efficiency, where possible.	One of the objectives of the proposed project is to identify feasible opportunities to exceed state energy requirements and pursue sustainable designs to the maximum extent possible. The Master Plan also includes sustainable building and landscape design guidelines to reduce energy and water consumption.	No
Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	The campus is currently and will continue to be served by bus transit. Also, as noted above, the Master Plan proposes new pedestrian, bicycle, and equestrian trails throughout the campus.	No
County of Los Angeles General Plan		
Land Use Element		
Policy LU 6.2: Encourage land uses and developments that are compatible with the natural environment and landscape.	The proposed Master Plan provides guidelines for new development to reclaim the natural setting and scale of the campus and the surrounding region. In addition, landscaping improvements under the Master Plan are intended to integrate the natural setting of the campus into its design.	No
Policy LU 10.4: Promote environmentally sensitive and sustainable design.	The Master Plan includes sustainable design guidelines that promote efficient energy and water use. Also, as noted above, one of the objectives of the proposed project is to identify feasible opportunities to exceed state energy requirements and pursue sustainable designs to the maximum extent possible.	No

Policy/Objective Number	Discussion	Conflict – Yes/No?
Mobility Element		
Policy M 2.6: Encourage the implementation of future designs concepts that promote active transportation, whenever available and feasible.	The Master Plan proposes new pedestrian, equestrian, and bike paths throughout the campus.	No
City of Los Angeles Sylmar Community Plan		
Objective 1-3: To preserve and enhance the varied and distinct residential character and integrity of existing single- and multifamily neighborhoods.	The proposed project does not include new development within or immediately adjacent to residential neighborhoods that could adversely affect the varied and distinct residential character and integrity of existing single- and multifamily neighborhoods. The proposed Master Plan does include development of new community facilities and open spaces that would benefit residents in the project area.	No
Objective 1-4: To preserve and enhance structures that have a distinctive and significant historical character.	No historical structures would be removed or altered with implementation of the proposed Master Plan.	No
Objective 5-1: To preserve existing open space resources and, where possible, develop new open space.	The landscaping improvements under the Master Plan would integrate the natural setting of the campus into its design. Outdoor healing gardens, courtyard gardens, and gathering spaces would be developed under the proposed project. Proposed pedestrian, equestrian, and bike paths would be provided along Olive View Drive under Tier I and ultimately incorporated throughout the campus (under Tier II).	No
Objective 8-1: To provide adequate police facilities and personnel to correspond with population and service demands in order to provide adequate police protection.	As described in Section 3.13, *Public Services*, of this Final EIR the proposed project would require implementation of mitigation measure **PS-1** to ensure that impacts on police services during construction would be less than significant. Mitigation measure **PS-2** would ensure that impacts due to increased demand for police protection services resulting from development and operation of Master Plan facilities would be less than significant. Please see Section 3.13, *Public Services*, of this Final EIR, for further discussion of impacts on police (and fire) services.	No

Policy/Objective Number	Discussion	Conflict – Yes/No?
Objective 9-1: Ensure that fire facilities and protective services are sufficient for the existing and future population and land uses.	Please see the discussion for Objective 8-1, above, and Section 3.13, *Public Services,* of this Final EIR for more information.	No
Objective 10-1: To comply with citywide performance standards for acceptable levels of service and ensure that necessary road access and street improvements are provided to accommodate traffic generated by all new development.	Implementation of development under Tier I would not result in significant traffic impacts at any of the study intersections within the city of Los Angeles.	No
Objective 15-4: Provide for the development of equestrian trails for recreational use.	Pedestrian, equestrian, and bike paths would be provided along Olive View Drive under Tier I and ultimately incorporated throughout the campus (under Tier II) (Figure 2-6). Each path would have a separate, distinguished lane to ensure safety by avoiding conflicts between users. The intent of the Wellness Trails is to bring community and patients closer to nature while providing transitions between vehicular traffic and hospital facilities that are safer and more convenient.	No
Objective 16-1: To provide parking in appropriate locations in accord with citywide standards and community needs.	The Master Plan includes improvement of parking and vehicle circulation at the Olive View–UCLA Medical Center Campus. New parking structures and surface lots are proposed, as are drop-off areas at each main building entry to help reduce walking distances. Under Tier I, 674 spaces would be housed within a new parking facility north of the Ambulatory Care Center. An additional 1,369 spaces in surface lots would remain on campus under Tier I.	No
Objective 17-1: To ensure that the community's historically significant resources are protected, preserved, and/or enhanced.	Implementation of the Master Plan would not result in demolition or alteration of any identified historical resources.	No
Objective 18-1: To enhance and capitalize on the contribution of existing cultural and historical resources in the community.	See the response to Objective 17-1, above.	No

Source: ICF 2018.

Consistency with Local Plans and Policies

As described above, the project site is owned by the County, and the facilities at the Olive View–UCLA Medical Center Campus are exempt from local land use regulations. Specifically, the proposed project would not be required to be consistent with the City of Los Angeles General Plan land use

designations and zoning. Nonetheless, new construction, renovation, and additions proposed under the Master Plan would be consistent with the current land use designation of Public Facilities and zoning designation of PF. The Public Facilities land use designation allows for public facilities such as fire stations, libraries, and schools. The PF zone allows public health facilities, including clinics and hospitals. As shown in Table 3.10-2, above, the proposed project would be generally supportive of, or consistent with, the relevant environmental policies and objectives of the County of Los Angeles General Plan Land Use Element and Mobility Element and the City of Los Angeles Sylmar Community Plan. Therefore, the proposed Master Plan would not result in a significant land use impact due to conflicts with applicable land use plans, policies, or regulations that have been adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

No impact.

3.10.5 Cumulative

As described above, the proposed project would not conflict with applicable environmental land use plans, policies, or regulations; therefore, it would not contribute to any cumulative land use impacts.

The reader is also referred to the cumulative discussions in other sections of this chapter for a discussion of cumulative adverse impacts on land uses in the vicinity of the project site due to the combined effects of the proposed project and related growth and cumulative development.

3.11 Noise

3.11.1 Introduction

This section describes the potential noise and vibration impacts of the proposed project. It includes a discussion of existing regulatory requirements, the existing noise setting within the project area, and noise and vibration impacts that would result from implementation of the proposed project.

3.11.1.1 Noise Fundamentals and Terminology

Noise is commonly defined as unwanted sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as sound that is objectionable because it is disturbing or annoying. In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

The following sections provide an explanation of key concepts and acoustical terms used in the analysis of environmental and community noise.

Frequency, Amplitude, and Decibels

Continuous sound can be described by *frequency* (pitch) and *amplitude* (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. The amplitude of a sound is typically described in terms of *sound pressure level* (SPL), which refers to the root-mean-square (rms) pressure of a sound wave and can be measured in units called microPascals (μPa). One μPa is approximately one hundred-billionth (0.00000000001) of normal atmospheric pressure. Sound pressure levels for different kinds of noise environments can range from less than 100 to over 100,000,000 μPa. Because of this large range of values, sound is rarely expressed in terms of μPa. Instead, a logarithmic scale is used to describe the sound pressure level (also referred to simply as the sound level) in terms of decibels, abbreviated dB. Specifically, the decibel describes the ratio of the actual sound pressure to a reference pressure and is calculated as follows:

$$SPL = 20 \times \log_{10}\left(\frac{X}{20\mu Pa}\right)$$

where X is the actual sound pressure and 20 μPa is the standard reference pressure level for acoustical measurements in air.

The threshold of hearing for young people is about 0 dB, which corresponds to 20 μPa.

Decibel Addition

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one excavator produces a sound pressure level of 80 dB, two excavators would not produce 160 dB. Rather, they would combine to produce 83 dB. The cumulative sound level of any number of sources, such as excavators, can be determined using decibel addition. The same decibel addition is used for A-weighted decibels described below.

Perception of Noise and A-Weighting

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound pressure level in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels in various frequency bands are adjusted (or *weighted*), depending on human sensitivity to those frequencies. The resulting sound pressure level is expressed in A-weighted decibels, abbreviated dBA. When people make judgments regarding the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted sound levels of those sounds. Table 3.11-1 describes typical A-weighted sound levels for various noise sources.

Studies have shown that under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, the healthy human ear can detect changes of about 2 dBA; however, it is widely accepted that changes of 3 dBA in the normal environment are considered just noticeable to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) resulting in a 3-dB increase in sound would generally be barely detectable.

Noise Descriptors

Because sound levels can vary markedly over a short period of time, various descriptors or noise *metrics* have been developed to quantify environmental and community noise. These metrics generally describe either the average character of the noise or the statistical behavior of the variations in the noise level. The most common of these metrics are described below in Table 3.11-1.

Table 3.11-1. Typical A-Weighted Sound Levels

Common Outdoor Noise Source	Sound Level (dBA)	Common Indoor Noise Source
	— 110 —	Rock band
Jet flying at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013a.

Equivalent Sound Level (L_{eq})

The equivalent sound level is the most common metric used to describe short-term average noise levels. Many noise sources produce levels that fluctuate over time; examples include mechanical equipment that cycles on and off, or construction work, which can vary sporadically. The equivalent sound level (L_{eq}) describes the average acoustical energy content of noise for an identified period of time, commonly 1 hour. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustical energy over the duration of the exposure. For many noise sources, the L_{eq} will vary depending on the time of day: a prime example is traffic noise that rises and falls depending on the amount of traffic on a given street or freeway.

Maximum Sound Level (L_{max}) and Minimum Sound Level (L_{min})

L_{max} and L_{min} refer to the maximum and minimum sound levels, respectively, that occur during the noise measurement period. More specifically, they describe the rms sound levels that correspond to the loudest and quietest 1-second intervals that occur during the measurement.

Percentile-Exceeded Sound Level ($L_{\%}$)

The percentile-exceeded sound level, $L_{\%}$, is the sound level exceeded for the stated percentage of the noise measurement period. For example, L_{25} is the sound level exceeded 25 percent of the time, and L_{50} is the sound level exceeded 50 percent of the time. The percentile-exceeded noise level is most commonly assessed based on a 1-hour period, such that the L_{25} would correspond to 15 minutes in an hour, and the L_{50} would correspond to 30 minutes in an hour.

Community Noise Equivalent Level (CNEL)

It is recognized that a given level of noise may be more or less tolerable depending on the duration of the exposure experienced by an individual, as well as the time of day during which the noise occurs. The community noise equivalent level (CNEL) is a measure of the cumulative 24-hour noise exposure that considers not only the variation of the A-weighted noise level but also the duration and the time of day of the disturbance. The CNEL is derived from the 24 A-weighted 1-hour L_{eq}s that occur in a day, with penalties applied to the L_{eq}s occurring during the evening hours (7 p.m. to 10 p.m.) and nighttime hours (10 p.m. to 7 a.m.) to account for increased noise sensitivity during these hours. Specifically, the CNEL is calculated by adding 5 dBA to each of the evening L_{eq}s, adding 10 dBA to each of the nighttime L_{eq}s, and then taking the average value for all 24 hours.

Day-Night Sound Level (L_{dn})

Much like CNEL, above, L_{dn} is also a measure of the cumulative 24-hour noise exposure that considers not only the variation of the A-weighted noise level, but also the duration and the time of day of the disturbance. The L_{dn} is derived in exactly the same way as CNEL, except that no penalty is applied to the evening hours of 7 p.m. to 10 p.m. Specifically, the L_{dn} is calculated from the 24 A-weighted 1-hour L_{eq}s that occur in a day by adding 10 dBA to each of the nighttime (10 p.m. to 7 a.m.) L_{eq}s and then taking the average value for all 24 hours.

It is noted that various federal, state, and local agencies have adopted CNEL or L_{dn} as the measure of community noise. While not identical, CNEL and L_{dn} are normally within 1 dBA of each other when measured in typical community environments, and many noise standards/regulations use the two interchangeably.

Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on the following important factors.

Geometric Spreading

Sound from a single source (i.e., a *point* source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. Highway noise is not a single stationary point source of sound. The movement of vehicles on a highway makes the source of the sound appear to emanate from a line (i.e., *line* source), rather than from a point. This results in cylindrical spreading, rather than the spherical spreading resulting from a point source. The change in sound level (i.e., *attenuation*) from a line source is 3 dBA per doubling of distance.

Ground Absorption

Usually the noise path between the source and the observer is very close to the ground. The excess noise attenuation from ground absorption occurs due to acoustic energy losses on sound wave reflection. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of less than 200 feet, prediction results based on this scheme are sufficiently accurate. For acoustically *hard* sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or a smooth body of water), no excess ground attenuation is assumed because the sound wave is reflected without energy losses. For acoustically absorptive or *soft* sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.

Atmospheric Effects

Research by the California Department of Transportation (Caltrans) and others has shown that atmospheric conditions can have a major effect on noise levels. Wind has been shown to be the single most important meteorological factor within approximately 500 feet, whereas vertical air temperature gradients are more important over longer distances. Other factors, such as air temperature, humidity, and turbulence, also have major effects. Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lower noise levels. Increased sound levels can also occur because of temperature inversion conditions (i.e., increasing temperature with elevation, with cooler air near the surface, where the sound source tends to be, and the warmer air above, which acts as a cap, causing a reflection of ground level-generated sound).

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receptor, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor with the specific purpose of reducing noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. A higher barrier may provide as much as 20 dB of noise reduction.

3.11.1.2 Groundborne Vibration Fundamentals and Terminology

Groundborne vibration is an oscillatory motion of the ground with respect to the equilibrium position. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or the slamming of doors. However, when vibration occurs as a result of groundborne transmission from exterior sources, it can be a serious concern for residents and tenants, causing buildings to shake and rumbling sounds to be heard. Typical outdoor sources of perceptible groundborne vibration are heavy construction equipment (e.g., earthmoving, blasting, and pile driving), steel-wheeled trains, and heavy trucks on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible.

The following sections provide an explanation of key concepts and terms used in the analysis of groundborne vibration.

Displacement, Velocity, and Acceleration

Groundborne vibration can be described in terms of displacement, velocity, or acceleration. Displacement is the easiest descriptor to understand: it is simply the distance that a vibrating point moves from its static position (i.e., its resting position when the vibration is not present). The velocity describes the instantaneous speed of the movement and acceleration is the instantaneous rate of change of the speed. Although displacement is fundamentally easier to understand than velocity or acceleration, it is rarely used for describing groundborne vibration, for the following reasons: 1) human response to ground-borne vibration correlates more accurately with velocity or acceleration; 2) the effect on buildings and sensitive equipment is more accurately described using velocity or acceleration; and, 3) most transducers used in the measurement of ground-borne vibration actually measure either velocity or acceleration. For evaluating the potential environmental impacts of groundborne vibration, velocity is the fundamental measure that is typically used.

The frequency of vibration is expressed in the same unit, Hz, as described under section 3.11.1.1, *Noise Fundamentals and Terminology*, in this Final EIR, for noise. One Hz is equal to 1 cycle per second, and 1 kHz is equal to 1,000 cycles per second. The description of the vibration amplitude depends on the metric being used, as described below under *Groundborne Vibration Descriptors*. If a person is engaged in any type of physical activity, vibration tolerance increases considerably.

Perception of Groundborne Vibration

There are three primary types of receivers that can be adversely affected by ground vibration: people, structures, and equipment.

People may perceive both primary and secondary effects of groundborne vibration. Primary effects occur when groundborne vibration is felt directly through the ground or the building structure. Secondary effects include phenomena such as the rattling of fixtures or the movement of hanging objects. Any effect (primary perceptible vibration, secondary effects, or a combination of the two) can lead to annoyance. The degree to which a person is annoyed depends on the activity in which they are participating at the time of the disturbance. For example, someone sleeping or reading will be more sensitive than someone who is engaged in any type of physical activity. Reoccurring primary and secondary vibration effects often lead people to believe that the vibration is damaging their home, although vibration levels are well below minimum thresholds for damage potential.

Vibration generated by construction activity has the potential to damage structures. This damage could be structural damage (e.g., cracking of floor slabs, foundations, columns, beams, or wells) or cosmetic architectural damage (e.g., cracked plaster, stucco, or tile). Ground vibration also has the potential to disrupt the operation of vibration-sensitive research and advanced technology equipment, such as optical microscopes, cell probing devices, magnetic resonance imaging (MRI) machines, scanning electron microscopes, photolithography equipment, micro-lathes, and precision milling equipment. The degree to which this equipment is disturbed depends on the type of equipment, how it used, and its support structure.

Groundborne Vibration Descriptors

Peak Particle Velocity (PPV)

Peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The unit of measurement is inches per second (in/s). PPV can be used to assess both human response to groundborne vibration and the potential for building damage. PPV is related to the stresses that are experienced by buildings subjected to groundborne vibration.

3.11.2 Regulatory Setting

3.11.2.1 Federal and State

There are no federal and state regulations that are applicable and relevant to the proposed project.

3.11.2.2 Local

Los Angeles County Code

Construction noise is addressed in Section 12.08.440 of the Los Angeles County Code, as follows:

12.08.440 Construction Noise

A) Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.

B) Noise Restrictions at Affected Structures. The contractor will conduct construction activities in such a manner that the maximum noise levels will not exceed those listed:

(1) At Residential Structures.

(a) Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than 10 days) of mobile equipment:

	Single-Family Residential	Multifamily Residential	Semi-Residential Commercial
Daily, except Sundays and legal holidays, 7 a.m. to 8 p.m.	75 dBA	80 dBA	85 dBA
Daily, 8 p.m. to 7 a.m. and all day Sunday and legal holidays	60 dBA	64 dBA	70 dBA

(b) Stationary Equipment. Maximum noise level for repetitively scheduled and relatively long-term operation (periods of 10 days or more) of stationary equipment:

	Single-Family Residential	Multifamily Residential	Semi-Residential Commercial
Daily, except Sundays and legal holidays, 7 a.m. to 8 p.m.	60 dBA	65 dBA	70 dBA
Daily, 8 p.m. to 7 a.m. and all day Sunday and legal holidays	50 dBA	55 dBA	60 dBA

(2) At Business Structures.

(a) Mobile equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation of mobile equipment:

(b) Daily, including Sunday and legal holidays, all hours: maximum of 85 dBA.

C) All mobile or stationary internal combustion engine-powered equipment or machinery will be equipped with suitable exhaust and air-intake silencers in proper working order.

D) In case of a conflict between this chapter and any other ordinance regulating construction activities, provisions of any specific ordinance regulating construction activities will control.

The County code includes the following standard, in Section 12.08.560, related to groundborne vibration:

12.08.560 Vibration

Operating or permitting the operation of any device that creates vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property or at 150 feet (46 meters) from the source if on a public space or public right-of-way is prohibited. The perception threshold will be a motion velocity of 0.01 in/sec over the range of 1 to 100 Hz.

County of Los Angeles General Plan

The Noise Element of the Los Angeles County 2035 General Plan (General Plan) provides a number of policies related to community noise, but does not provide any quantitative standards that are directly applicable to the project.

City of Los Angeles CEQA Thresholds Guide

The *Los Angeles CEQA Thresholds Guide* (City of Los Angeles 2006) defines noise-sensitive land uses as residences, transient lodgings, schools, day-care facilities, libraries, churches, hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks, and provides noise/land use compatibility guidelines, as summarized in Table 3.11-2.

The *Los Angeles CEQA Thresholds Guide* also establishes significance criteria for four different types of noise sources (construction, operational, railroad, and airport), as summarized below:

Construction Noise

A project would normally have a significant impact on noise levels from construction if:

- Construction activities lasting more than one day would exceed existing ambient exterior noise levels by 10 dBA or more at a noise-sensitive use;
- Construction activities lasting more than 10 days in a three-month period would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use; or
- Construction activities would exceed the ambient noise level by 5 dBA at a noise-sensitive use between the hours of 9:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, or at any time on Sunday.

Operational Noise (including project-generated traffic)

A project would normally have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses to increase by

3 dBA in CNEL to or within the *normally unacceptable* or *clearly unacceptable* category, or any 5-dBA or greater noise increase.

Table 3.11-2. *LA CEQA Thresholds Guide* Land Use Noise Compatibility Guidelines

Land Use	Community Noise Exposure CNEL, dB			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Single-family, duplex, mobile homes	50–60	55–70	70–75	above 70
Multifamily homes	50–65	60–70	70–75	above 70
Schools, libraries, churches, hospitals, nursing homes	50–70	60–70	70–80	above 80
Transient lodging: motels, hotels	50–65	60–70	70–80	above 80
Auditoriums, concert halls, amphitheaters	–	50–70	–	above 65
Sports arena, outdoor spectator sports	–	50–75	–	above 70
Playgrounds, neighborhoods parks	50–70	–	67–75	above 72
Golf courses, riding stables, water, recreation, cemeteries	50–75	–	70–80	above 80

[1] *Normally Acceptable*: Specified land use is satisfactory, based on the assumption that any buildings involved are of normal conventional construction and without any special noise insulation requirements.

[2] *Conditionally Acceptable*: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air-conditioning, will normally suffice.

[3] *Normally Unacceptable*: New construction or development generally should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

[4] *Clearly Unacceptable*: New construction or development generally should not be undertaken.

Source: City of Los Angeles 2006.

Railroad Noise

A project would normally have a significant impact with regard to exterior noise levels resulting from railroad operations if the project causes noise measured at the property line of a noise-sensitive receptor to increase by 3 dBA in CNEL, to or within the *normally unacceptable* or *clearly unacceptable* category, or any 5-dBA or greater noise increase.

Airport Noise

A significant impact on ambient noise levels would normally occur if noise levels at a noise-sensitive use attributable to airport operations exceed 65 dB CNEL and the project increases ambient noise levels by 1.5 dB CNEL or greater.

City of Los Angeles Municipal Code

Construction Noise

Section 41.40 (a) of the City of Los Angeles Municipal Code prohibits the use, operation, repair, or servicing of construction equipment, as well as job-site delivery of construction materials, between the hours of 9:00 p.m. and 7:00 a.m., where such activities would disturb "persons occupying sleeping quarters in any dwelling hotel or apartment or other place of residence." Construction noise emanating from property zoned for manufacturing or industrial uses is exempted from the Section 41.40(a) standards. In addition, Section 41.40(c) prohibits construction, grading, and related job-site deliveries on or within 500 feet of land developed with residential structures before 8:00 a.m. or after 6:00 p.m. on any Saturday or national holiday or at any time on Sunday.

Section 112.05 of the municipal code places limits on the maximum noise levels (75 dBA at a distance of 50 feet for typical construction equipment) that may be produced by powered equipment or tools in, or within 500 feet of, any residential zone between the hours of 7 a.m. and 10 p.m. The proscribed limits will not apply where compliance is technically infeasible, but the burden of proving that compliance is technically infeasible is on the person or persons charged with a violation of the standard. Technical infeasibility will mean that the noise limit cannot be complied with despite the use of mufflers, shields, sound barriers, and/or other noise reduction devices or techniques during the operation of the equipment.

Operational Noise

Chapter XI, *Noise Regulation*, of the City of Los Angeles Municipal Code regulates noise from non-transportation noise sources such as commercial or industrial operations, mechanical equipment, or residential activities. It is noted that while these regulations do not apply to vehicles operating on public rights-of-way, they do apply to noise generated by vehicles on private property, such as truck operations at commercial or industrial facilities. The exact noise standards vary depending on the type of noise source, but the allowable noise levels are generally determined relative to the existing ambient noise levels at the affected location. Section 111.01(a) defines the ambient noise as "the composite of noise from all sources near and far in a given environment, exclusive of occasional and transient intrusive noise sources and of the particular noise source or sources to be measured. Ambient noise will be averaged over a period of at least 15 minutes."

Section 111.03 provides minimum ambient noise levels for various land uses, as described in Table 3.11-3, below. In the event that the actual measured ambient level at the subject location is lower than that provided in the table, the level in the table will be assumed. At the boundary line between two zones, the allowable noise level of the quieter zone will be used. The allowable noise levels are then adjusted if certain conditions apply to the alleged offensive noise, as follows:

- For steady tone noise with an audible fundamental frequency or overtones (except for noise emanating from any electrical transformer or gas metering and pressure control equipment existing and installed prior to September 8, 1986), reduce allowable noise level by 5 dBA.
- For repeated impulsive noise, reduce allowable noise level by 5 dBA.
- For noise occurring less than 15 minutes in any period of 60 consecutive minutes between the hours of 7:00 a.m. and 10:00 p.m., increase allowable noise level by 5 dBA.

Table 3.11-3. City of Los Angeles Assumed Minimum Ambient Noise Levels

Zone	Assumed Minimum Ambient Noise (L_{eq}), dBA	
	Daytime (7 a.m.–10 p.m.)	Nighttime (10 p.m.–7 a.m.)
A1, A2, RA, RE, RS, RD, RW1, RW2, R1, R2, R3, R4, and R5	50	40
P, PB, CR, C1, C1.5, C2, C4, C5, and CM	60	55
M1, MR1, and MR2	60	55
M2 and M3	65	65

Source: City of Los Angeles 2013.

The city's noise ordinance is not explicit in defining the length of time over which an average noise level should be assessed. However, based on the noted reference to *60 consecutive minutes*, above, it is concluded that the 1-hour L_{eq} metric should be used.

Section 112.02 of Chapter XI addresses noise from air conditioning, refrigeration, heating, pumping, and filtering equipment. It states that such equipment may not generate noise that would exceed the ambient noise level at any adjacent property by more than 5 dBA.

Section 114.02 of Chapter XI addresses noise from motor driven vehicles (it is noted that the code only addresses vehicles on private property and does not address vehicles while operated on public highways). It states that such vehicles may not generate noise that would exceed the ambient noise level at any occupied residential property by more than 5 dBA.

City of Los Angeles Noise Element

The Noise Element of the city of Los Angeles General Plan (city General Plan) defines the following land uses to be noise-sensitive: single- and multifamily dwellings, long-term care facilities (including convalescent and retirement facilities), dormitories, motels, hotels, transient lodgings, and other residential uses, houses of worship, hospitals, libraries, schools, auditoriums, concert halls, outdoor theaters, nature and wildlife preserves, and parks.

The Noise Element contains the following polices that are relevant to the proposed project:

- **Policy 5:** Continue to enforce, as applicable, city, state, and federal regulations intended to abate or eliminate disturbances of the peace and other intrusive noise.
- **Policy 6:** When processing building permits, continue to require appropriate project design and/or insulation measures, in accordance with the California Noise Insulation Standards (Building Code Title 24, Section 3501 et seq.) or any amendments thereto or subsequent related regulations, so as to assure that interior noise levels will not exceed the minimum ambient noise levels, as set forth in the city's noise ordinance (LAMC Section 111 et seq., and any other insulation related code standards or requirements) for a particular zone or noise-sensitive use, as defined by the California Noise Insulation Standards.
- **Policy 11:** For a proposed development project that is deemed to have a potentially significant noise impact on noise-sensitive uses, as defined by this chapter, require mitigation measures, as appropriate, in accordance with California Environmental Quality Act (CEQA) and city procedures.

- **Policy 12:** When issuing discretionary permits for a proposed noise-sensitive use (as defined by this chapter) or a subdivision of four or more detached single-family units and which use is determined to be potentially significantly impacted by existing or proposed noise sources, require mitigation measures, as appropriate, in accordance with procedures set forth in CEQA.

3.11.3 Environmental Setting

3.11.3.1 Existing Noise Environment

The primary source of noise that currently affects the project vicinity is traffic on State Route (SR-) 210 and surrounding streets. Existing noise levels due to these roadways are estimated as part of the analyses provided in Section 3.11.4.3, below (see Impact NOI-3). Secondary sources of noise include day-to-day neighborhood noise (e.g., landscaping and barking dogs), occasional aircraft overflights, and operations at the existing Olive View-UCLA Medical Center Campus (including mechanical and utility plant equipment, parking lots, ambulance sirens, and occasional heliport operations for air ambulances); a Union Pacific railroad line is located approximately 1.5 miles southwest of the project site.

The closest noise-sensitive receptors to the project site include homes (single- and multifamily) located approximately 200 feet east, 100 feet south (across Olive View Drive), and 900 feet west of the boundaries of the campus. Wilson Canyon Park and Saddletree Open Space are both located north of the campus.

Noise Monitoring

To document the existing noise environment, measurements were obtained at 10 locations throughout the study area. Two long-term (approximately 24 hours) noise measurements were obtained adjacent to residences east and west of the proposed project site. Short-term noise measurements (approximately 15 to 20 minutes) were obtained at seven locations in the surrounding community and at one location on the project site. Both long-term measurements were obtained between approximately 10:30 a.m. on Wednesday, June 15, 2016, and 1:00 p.m. on Thursday, June 16, 2016. Short-term measurements were gathered on Wednesday, June 15, and Thursday, June 16, 2016. The locations are identified in Figure 3.11-1; additional details and a summary of the measurement results are provided in Table 3.11-4 and Table 3.11-5.

Figure 3.11-1. Noise Monitoring Locations

ICF

Figure 3.11-1
Noise Monitoring Locations
Olive View-UCLA Medical Center Master Plan

Source: (ICF 2016)

Table 3.11-4. Summary of Short-Term Noise Measurements

Location #, Description (Date, Time)	Measured Noise Levels, dBA							
	L_{eq}	L_{max}	L_{min}	L_2	L_8	L_{25}	L_{50}	L_{90}
ST-1, In front of single-family residence at 13800 Glen Oaks Street (6/16/2016, 11:54 a.m.–12:09 a.m.)	57.8	70.9	48.4	65.8	62.6	57.7	53.4	50.5
ST-2, At fence of abandoned property at 15300 Roxford Street (6/16/16, 12.23 p.m.–12:39 p.m.)	71.2	96.0	45.7	74.2	70.1	69.6	64.0	52.9
ST-3, At picnic area northeast of worship space at 13425 Glen Oaks Boulevard (6/16/16, 11:04 a.m.–11:25 a.m.)	62.6	83.1	42.3	72.0	67.7	62.5	54.3	45.3
ST-4, At fence of yard facing Foothill Boulevard at 14734 Bromont Avenue (6/15/2016, 3:24 p.m.–3:39 p.m.)	64.6	72.0	54.5	69.0	67.3	65.6	63.9	60.4
ST-5, West corner of school at 14550 W Bledsoe Street (6/15/2016, 3:57 p.m.–4:13 p.m.)	59.9	74.6	47.0	68.8	64.1	59.5	55.7	49.8
ST-6, On project site adjacent to child center (6/15/2016, 2:05 p.m.–2:21 p.m.)	60.8	64.4	56.8	63.3	62.4	61.5	60.4	59.1
ST-7, At 14500 Olive View Drive, Apartment #142 facing hospital campus (6/15/2016, 12:45 p.m.–1:05 p.m.)	63.7	74.1	53.4	70.9	68.5	64.8	60.2	56.0
ST-8, In front of driveway at 14301 Bledsoe Street (6/16/2016, 10:20 a.m.–10:36 a.m.)	60.7	79.7	47.4	70.2	64.4	58.3	53.0	49.4

Source: ICF 2016.

Table 3.11-5. Summary of Long-Term Noise Measurements

Location #, Description	Day, Dates	CNEL	Time Period	Range of Hourly Average Levels, L_{eq} (1h), dBA	Range of Hourly Minimum Levels, L_{min}, dBA	Range of Hourly Maximum Levels, L_{max}, dBA
LT-1, On access road at edge of neighboring community west of Medical Center campus	Wednesday, 6/15/2016 and Thursday, 6/16/2016	70.8	Daytime (7 a.m.–7 p.m.)	61.3–69.0 Average: 66.2	53.3–64.4	68.4–80.5
			Evening (7 p.m.–10 p.m.)	64.1–68.6 Average: 66.8	56.5–61.4	71.6–86.3
			Nighttime (10 p.m.–7 a.m.)	61.0–65.1 Average: 63.3	46.3–58.7	70.2–78.6
LT-2, Beside trail next to neighboring community east of Medical Center campus	Wednesday, 6/15/2016 and Thursday, 6/16/2016	55.9	Daytime (7 a.m.–7 p.m.)	46.3–59.7 Average: 52.4	39.2–48.0	56.3–79.3
			Evening (7 p.m.–10 p.m.)	47.2–51.2 Average: 50.1	39.4–44.0	60.9–80.1
			Nighttime (10 p.m.–7 a.m.)	45.0–51.1 Average: 48.4	37.8–42.1	53.2–69.6

Source: ICF 2016.

3.11.4 Environmental Impact Analysis

This noise impact analysis evaluates the temporary noise and groundborne vibration associated with proposed project construction activities, the changes in noise levels in the study area that would occur as a result of the proposed project (including onsite operations and project-generated traffic), and the effects of noise on the proposed project.

3.11.4.1 Methods

Potential noise and vibration impacts associated with project construction activities were evaluated using an assumed construction equipment schedule, and noise and vibration source levels and modeling methodologies provided by the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM) (FHWA 2008).

Traffic noise was analyzed using a proprietary traffic noise model with calculations based on data from the FHWA Traffic Noise Model (TMN) Version 2.5 Look-Up Tables (FHWA 2004). The inputs used in the traffic noise modeling included average daily traffic (ADT) volumes derived from data provided in the Traffic Impact Analysis for the project and by Caltrans (Caltrans 2014a); traffic speeds based on the posted speed limits; and traffic mix (the percentage of automobiles versus medium trucks and heavy trucks) based on published data for typical roadways (County of Orange 1984) and freeways (Caltrans 2014b).

Additional noise sources related to the project were analyzed qualitatively or based on noise measurements of existing or similar facilities, or applicable published noise data.

3.11.4.2 Thresholds of Significance

Because the project site is a County of Los Angeles facility, the County's noise and vibration standards will take precedence in establishing thresholds of significance for potential onsite

impacts. The surrounding community is within the city of Los Angeles, so the city's noise and vibration standards will take precedence in establishing thresholds of significance for potential offsite impacts. With this in mind, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant impact on the environment if it:

NOI-1 Generates a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance, or applicable standards of other agencies. This impact will occur if:

1. Any project construction activity takes place outside the hours of 7 a.m. to 7 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays (based on the permitted construction hours specified by the city and County government codes);
2. Any project construction activity generates maximum noise levels that exceed 75 dBA at any offsite residential receptor (based on the City of Los Angeles Municipal Code). The 1-hour L_{eq} from project construction activities would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use (based on the *L.A. CEQA Thresholds Guide*);
3. Any project construction activity generates maximum noise levels that exceed 70 dBA at onsite residential uses (e.g., long-term care or supportive housing), or 85 dBA at other onsite noise-sensitive buildings (based on County code). Noise-sensitive buildings include those where patient care as well as onsite child-care facilities are present;
4. Project operations generate noise levels at any offsite noise-sensitive receptors in excess of those permitted by the City of Los Angeles Noise Ordinance (see Section 111.02);
5. Project traffic or onsite operations increase the CNEL at any offsite noise-sensitive receptor by 3 dB or more to or within the "normally unacceptable" or "clearly unacceptable" noise level range for the receptor's land use, as summarized in Table 3.11-2; or,
6. Project traffic or onsite operations increase the CNEL at any offsite receptor by 5 dB or more.

NOI-2 Generates excessive groundborne vibration or groundborne noise levels. This impact will occur if vibration from construction activities exceeds a PPV of 0.01 at any sensitive building, including onsite medical center buildings that house patients (based on County code).

NOI-3 Is located within the vicinity of a private airstrip or an airport land use plan area, or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport and exposes people residing or working in the project area to excessive noise levels.

The project site is more than 4 miles from the nearest public airport, Whiteman Airport in Pacoima. Therefore, no impacts are anticipated relative to a public airport or public use airport, and that issue is not considered further in this section.

3.11.4.3 Impacts and Mitigation Measures

Notes Regarding Tier I and Tier II Analysis

The following sections address a range of potential noise and vibration impacts from a variety of sources. In some cases, the impact analysis and/or assessment is very similar for Tier I and Tier II development. Therefore, the discussion of each potential impact is organized to minimize redundant or repetitive information. For example, in some cases common information that applies to both Tier I and Tier II is presented before an individual discussion of each Tier. In other cases the analysis for both Tiers is so similar that they are discussed together.

Impact NOI-1: Would the Proposed Project Generate a Substantial Temporary or Permanent Increase in Ambient Noise Levels in the Vicinity of the Project in Excess of Standards Established in a Local General Plan or Noise Ordinance or Applicable Standards of other Agencies?

Construction Impacts–Maximum Noise Levels

In accordance with the County and city of Los Angeles Municipal Code, construction would take place between the hours of 7 a.m. to 7 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays. There are no known plans to construct outside of these hours or at any time on Sundays or legal holidays. If, during development of the final construction schedule, it is deemed necessary to work outside of the permitted hours, the County will follow the necessary procedures to obtain an appropriate variance. All internal combustion engine-powered equipment or machinery would be equipped with suitable exhaust and air-intake silencers in proper working order.

Project construction would be broken down into phases. The phases of construction and anticipated construction equipment are summarized in Table 3.11-6, along with the associated L_{max} at a reference distance of 50 feet. As noted previously, the thresholds of significance, which were established based on the County and city noise standards, are 70 dBA L_{max} at onsite residential buildings (e.g., the long-term care or supportive housing proposed as part of Tier II project development), 85 dBA L_{max} at other onsite noise-sensitive medical center buildings (i.e., buildings where patient care occurs, and child-care facilities), and 75 dBA at offsite residential receptors. Therefore, the maximum distance from each piece of equipment at which these noise levels would occur are also provided in the table. The analysis of construction noise impacts was based on the same construction assumptions used in the air quality impact analysis (see Section 3.2, *Air Quality*, of this Final EIR) for Tier I. Because Tier II development is more speculative, construction details and schedules have not been established. However, to provide an analysis of potential impacts, it is assumed that the types of construction equipment and activities would be the same as those required for Tier I. As such, the various impact distances described in Table 3.11-6 are used in the assessment of construction noise from both Tier I and Tier II developments.

In addition to the equipment shown in Table 3.11-6, it is possible that pile driving would be necessary at some point in the construction process. Typical maximum pile driving noise levels are 101 dBA at 50 feet, and would be reduced to 85 dBA, 75 dBA, and 70 dBA at distances of 325 feet, 1,027 feet, and 1,826, respectively. Use of driven piles would typically be limited to foundation support for new buildings, as opposed to surface improvements such as driveways and parking lots.

Table 3.11-6. Construction Phasing and Maximum Equipment Noise Levels

Construction Phase	Equipment Item	L_{max} at 50 ft./dBA[1]	Distance Required to Reduce L_{max} to: 85 dBA/ft.[2]	75 dBA/ft.[2]	70 dBA/ft.[2]
Demolition	Concrete/Industrial Saws	89.6	85	267	475
	Excavator	80.7	31	96	171
	Rubber Tired Dozer	81.7	34	108	192
Site Preparation	Rubber Tired Dozer	81.7	34	108	192
	Tractor	84.0	45	141	250
	Loader	79.1	26	80	142
	Backhoe	77.6	22	68	120
Grading	Excavator	80.7	31	96	171
	Grader	85.0	50	158	280
	Rubber Tired Dozer	81.7	34	108	192
	Tractor	84.0	45	141	250
	Loader	79.1	26	80	142
	Backhoe	77.6	22	68	120
Building Construction	Crane	80.6	30	95	169
	Forklift	77.6	22	68	120
	Generator Set	80.6	30	95	169
	Tractor	84.0	45	141	250
	Loader	79.1	26	80	142
	Backhoe	77.6	22	68	120
	Welder	74.0	15	45	79
Paving	Paver	77.2	21	65	114
	Paving equipment	77.2	21	65	114
	Roller	80.0	28	89	158
Architectural Coating	Air compressor	77.7	22	68	121

[1] Obtained or estimated from FHWA 2008 (RCNM).

[2] All noise levels assumed to attenuate at a rate of 6 dB per doubling of distance.

Tier I

Standard Construction (no pile driving)

Referring to Table 3.11-6, above, the worst-case (i.e., largest) impact distance for offsite sensitive receptors is 267 feet and is associated with noise from concrete/industrial saws anticipated in the demolition phase. Therefore, construction noise impacts at residences more than 267 feet from the Tier I construction activities would be less than significant. However, maximum noise levels could exceed 75 dBA at offsite noise-sensitive receptors within 267 feet of the Tier I construction, including:

- Homes (single- and multifamily) on the south side of Olive View Drive, between SR-210 and El Casco Street.

- The first row of single-family homes east of the Olive View campus (i.e., homes on the west side of Fenton Lane).

Therefore, noise levels at these locations due to Tier I construction are potentially significant. In addition, demolition of existing facilities and construction of new onsite facilities could occur in close proximity to existing noise-sensitive medical center buildings. Referring to Table 3.11-6, maximum noise levels could exceed 85 dBA at sensitive onsite buildings if construction activity occurs within 15 to 85 feet. This would be a significant impact.

Pile Driving

If pile driving occurs, maximum noise levels could exceed 75 dBA at offsite noise-sensitive receptors within 1,027 feet of proposed Tier I buildings:

- Homes (single- and multifamily) on the south side of Olive View Drive, between SR-210 and Wheeler Avenue.
- Multifamily homes on the south side of SR-210, north of Foothill Boulevard and Bledsoe Street.
- Single-family homes east of the Olive View campus, west of Fenton Avenue.

Therefore, noise levels at these locations due to Tier I construction are potentially significant, if pile driving is used at the site.

In addition, pile driving could occur within 325 feet of noise-sensitive medical center buildings, resulting in noise levels that would exceed 85 dBA, which would be a significant impact.

Tier II

Standard Construction (no pile driving)

Based on current information, Tier II development would occur predominantly on the western portion of the campus and would be more than 267 feet from the closest offsite noise-sensitive receptors. As such, construction noise impacts at offsite receptors would be less than significant unless additional Tier II construction is proposed closer to offsite homes in the future.

Demolition of existing facilities and construction of new onsite facilities during Tier II development could occur in close proximity to noise-sensitive medical center buildings. Referring to Table 3.11-6, maximum noise levels could exceed 85 dBA at sensitive onsite buildings if construction activity occurs within 79 to 475 feet. These would be significant impacts.

Depending on the timing of future construction, construction activities could also occur in close proximity to proposed onsite residential uses (e.g., long-term care or supportive housing). Referring to Table 3.11-6, maximum noise levels could exceed 70 dBA if construction activity occurs within 79 to 85 feet. These would be significant impacts.

Pile Driving

If pile driving occurs, maximum noise levels could exceed 75 dBA at offsite noise-sensitive receptors within 1,027 feet of proposed Tier II buildings:

- Homes (single- and multifamily) on the south side of Olive View Drive, between SR-210 and Reagan Drive.
- Homes (single- and multifamily) on the south side of SR-210, both north and south of Foothill Boulevard, between Roxford Street and Bledsoe Street.

Therefore, noise levels at these locations due to Tier II construction are potentially significant if pile driving is used at the site.

In addition, pile driving could occur within 325 feet of existing onsite noise-sensitive buildings. Resulting noise levels would exceed 85 dBA at sensitive onsite buildings which would be a significant impact.

Depending on the timing of future construction, pile driving could also occur within 1,826 feet of onsite residential uses (e.g., long-term care or supportive housing), resulting in noise levels that would exceed 70 dBA, which would be a significant impact.

Construction Impacts–Ambient Noise Increases

Table 3.11-7, below, summarizes the phases of construction, anticipated construction equipment, and the calculation of the L_{eq} for each construction phase at a reference distance of 50 feet. Existing average daytime ambient noise levels (1-hour L_{eq}) at noise-sensitive offsite receptors in the immediate vicinity of the project site are available in Tables 3.11-4 and 3.11-5, above. All the closest sensitive receptors are homes. At homes west of the project site (measurement LT-1), the average daytime ambient noise levels are approximately 66 dBA L_{eq}. At homes south of the project site (measurement ST-7), the average daytime ambient noise levels are approximately 64 dBA L_{eq}. At homes east of the project site (measurement LT-2), the average daytime ambient noise levels are approximately 52 dBA L_{eq}. Based on the established threshold, a significant impact would occur if the 1-hour L_{eq} from project construction activities would exceed existing ambient exterior noise levels by 5 dBA or more at a noise-sensitive use. Therefore, construction noise levels of 71 dBA L_{eq} (66+5=71 dBA), 69 dBA L_{eq} (64+5=69 dBA), and 57 dBA L_{eq} (52+5=57 dBA) could cause a significant impact at homes to the west, south, and east, respectively. Table 3.11-8, below summarizes the 71 dBA L_{eq}, 69 dBA L_{eq}, and 57 dBA L_{eq} noise contour distances from each phase of construction.

In addition to the equipment shown in Table 3.11-7, it is possible that pile driving would be necessary during the construction phase of some buildings. Typical 1-hour L_{eq} pile driving noise levels are 94 dBA at 50 feet, and would be reduced to 71 dBA, 69 dBA, and 57 dBA at distances of 770 feet, 980 feet, and 3,900 feet, respectively.

Tier I

Standard Construction (no pile driving)

Homes to the west of the project site are over 2,500 feet from the closest proposed Tier I development. This is well outside the applicable 71 dBA L_{eq} noise contour distances for all phases of construction. Therefore, impacts at these receptors would be less than significant.

Homes to the south of the project site are approximately 100 feet from the closest proposed Tier I development. This is less than the applicable 69 dBA L_{eq} noise contour distances for all phases of construction except Architectural Coating. Therefore, impacts at these receptors would be potentially significant (for all phases except Architectural Coating).

Homes to the east of the project site are approximately 200 feet from the closest proposed Tier I development. This is less than the applicable 57 dBA L_{eq} noise contour distances for all phases of construction. Therefore, impacts at these receptors would be potentially significant.

Table 3.11-7. Construction Phasing and Average Equipment Noise Levels

Construction Phase/ Equipment Item	L_{max} at 50 feet, dBA[1]	Usage Factor[1,2]	Number of Each Equipment Item	L_{eq} at 50 feet
Demolition				
Concrete/Industrial Saws	89.6	0.2	1	82.6
Excavator	80.7	0.4	3	81.5
Rubber Tired Dozer	81.7	0.4	2	80.7
Combined				**86.5**
Site Preparation				
Rubber Tired Dozer	81.7	0.4	3	82.5
Tractor	84.0	0.4	1	80.0
Loader	79.1	0.4	2	78.1
Backhoe	77.6	0.4	1	73.6
Combined				**85.6**
Grading				
Excavator	80.7	0.4	1	76.7
Grader	85.0	0.4	1	81.0
Rubber Tired Dozer	81.7	0.4	1	77.7
Tractor	84.0	0.4	1	80.0
Loader	79.1	0.4	1	75.1
Backhoe	77.6	0.4	1	73.6
Combined				**85.9**
Building Construction				
Crane	80.6	0.16	1	72.6
Forklift	77.6	0.4	3	78.4
Generator Set	80.6	0.5	1	77.6
Tractor	84.0	0.4	1	80.0
Loader	79.1	0.4	1	75.1
Backhoe	77.6	0.4	1	73.6
Welder	74.0	0.4	1	70.0
Combined				**84.9**
Paving				
Paver	77.2	0.5	2	77.2
Paving equipment	77.2	0.5	2	77.2
Roller	80.0	0.2	2	76.0
Combined				**81.6**
Architectural Coating				
Air compressor	77.7	0.4	1	73.7
Combined				**73.7**

[1] Obtained or estimated from FHWA 2008 (RCNM).

[2] Usage Factor = percentage of time equipment is operating in noisiest mode while in use.

Source: ICF 2019.

Table 3.11-8. Estimated Noise Contour Distances for Significant Noise Increases

Construction Phase	L_{eq} at 50 feet, dBA[1]	71 dBA L_{eq}[3] Noise Contour Distance, feet[2]	69 dBA L_{eq}[4] Noise Contour Distance, feet[2]	57 dBA L_{eq}[5] Noise Contour Distance, feet[2]
Demolition	86.5	310	390	1,580
Site Preparation	85.6	280	360	1,430
Grading	85.9	290	370	1,470
Building Construction	84.9	260	330	1,320
Paving	81.6	180	220	900
Architectural Coating	73.7	70	90	360

[1] From Table 3.11-7, based on FHWA 2008 (RCNM).

[2] All noise levels assumed to attenuate at a rate of 6 dB per doubling of distance.

[3] 71 dBA L_{eq} is the noise impact threshold at homes west of the project site.

[4] 69 dBA L_{eq} is the noise impact threshold at homes south of the project site.

[5] 57 dBA L_{eq} is the noise impact threshold at homes east of the project site.

Source: ICF 2019.

It is noted that, due to the size of the project site, much of the Tier I construction activity would take place farther from the nearest homes than the noise contour distance identified in Table 3.11-8. Impacts from construction at these distances would be less than significant.

Pile Driving

Homes to the west of the project site are over 2,500 feet from proposed the closest Tier I development. This is well outside the applicable 71 dBA L_{eq} noise contour distance (770 feet) for pile driving. Therefore, impacts at these receptors would be less than significant if pile driving is used during Tier I construction.

Homes to the south of the project site are approximately 100 feet from the closest proposed Tier I development. This is less than the applicable 69 dBA L_{eq} noise contour distance (980 feet) for pile driving. Therefore, impacts at these receptors would be potentially significant if pile driving is used during Tier I construction.

Homes to the east of the project site are approximately 200 feet from the closest proposed Tier I development. This is less than the applicable 57 dBA L_{eq} noise contour distance (3,900 feet) for pile driving. Therefore, impacts at these receptors would be potentially significant if pile driving is used during Tier I construction.

It is noted that, due to the size of the project site, some of the possible pile driving could take place farther from the nearest homes to the west and south than the calculated noise contour distances. Impacts from pile driving at these distances would be less than significant.

Tier II

Standard Construction (no pile driving)

Homes to the west of the project site are approximately 850 feet from the closest proposed Tier II development. This is outside the applicable 71 dBA L_{eq} noise contour distances for all phases of construction. Therefore, impacts at these receptors would be less than significant.

Homes to the south of the project site are approximately 100 feet from the closest proposed Tier II development. This is less than the applicable 69 dBA L_{eq} noise contour distances for all phases of construction except Architectural Coating. Therefore, impacts at these receptors would be potentially significant (for all phases except Architectural Coating).

Homes to the east of the project site are approximately 2,250 feet from the closest proposed Tier II development. This is outside the applicable 57 dBA L_{eq} noise contour distances for all phases of construction. Therefore, impacts at these receptors would be less than significant.

It is noted that, due to the size of the project site, much of the Tier II construction activity would take place farther from the nearest homes than the noise contour distance identified in Table 3.11-8. Impacts from construction at these distances would be less than significant.

Pile Driving

Homes to the west of the project site are approximately 850 feet from the closest proposed Tier II development. This is outside the applicable 71 dBA L_{eq} noise contour distance (770 feet) for pile driving. Therefore, impacts at these receptors would be less than significant if pile driving is used during Tier II construction.

Homes to the south of the project site are approximately 100 feet from the closest proposed Tier II development. This is less than the applicable 69 dBA L_{eq} noise contour distance (980 feet) for pile driving. Therefore, impacts at these receptors would be potentially significant if pile driving is used during Tier II construction.

Homes to the east of the project site are approximately 2,250 feet from the closest proposed Tier II development. This is less than the applicable 57 dBA L_{eq} noise contour distance (3,900 feet) for pile driving. Therefore, impacts at these receptors would be potentially significant if pile driving is used during Tier II construction.

It is noted that, due to the size of the project site, possible pile driving could take place farther from the nearest homes to the west, south, and east than the calculated noise contour distances. Impacts from pile driving at these distances would be less than significant.

Mitigation Measures

The following measure is proposed to mitigate construction noise Impact **NOI-1**, above.

MM-NOI-C1: Reduce Construction Noise to the Extent Possible. The County will implement the following noise reduction measures during construction:

- Construction activities will be limited to between the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday and 8 a.m. to 6 p.m. on Saturdays and will not occur at any time on Sundays or legal holidays. Construction personnel will not be permitted on the job site, and material or equipment deliveries and collections will not be permitted outside of these hours.

- To the fullest extent practicable, the quietest available type of construction equipment will be used. Newer equipment is generally quieter than older equipment. The use of electric powered equipment typically is quieter than diesel- or gasoline-powered equipment, and hydraulic-powered equipment typically is quieter than pneumatic power.
- Where possible, impact pile driving will be replaced with other piling techniques, such as vibratory pile driving, or vibration- and percussive-free methods (e.g., hydraulic press-in piles or cast-in-drilled-hole piles).
- All mobile and fixed noise-producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency will comply with such regulation while in the course of project activity.
- All construction equipment will be properly maintained. Poor maintenance of equipment can cause excessive noise levels.
- All construction equipment, stationary and mobile, will be equipped with properly operating and maintained mufflers, air inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specification. Mobile or fixed package equipment (e.g., arc welders, air compressors) will be equipped with shrouds and noise-control features that are readily available for that type of equipment.
- All noisy equipment will be operated only when necessary and will be switched off when not in use.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only. To the extent practicable, temporary barriers will be employed around the project site and/or around noisy construction equipment. For barriers to be effective they will break the line-of site between the equipment and any noise-sensitive receiver. These barriers may be constructed as follows:
    - From commercially available acoustical panels lined with sound absorbing material (i.e., the sound absorptive faces of the panels will face the construction equipment);
    - From common construction materials such as plywood and lined with sound absorptive material (i.e., the sound absorptive material will face the construction equipment); and
    - From acoustical blankets hung over or from a supporting frame. The blankets will provide a minimum sound transmission class (STC) rating of 28 and a minimum noise reduction coefficient (NRC) of 0.80 and will be firmly secured to the framework with the sound absorptive side of the blankets oriented toward the construction equipment. The blankets will be overlapped by at least 6 inches at seams and taped so that no gaps exist. The largest blankets available will be used in order to minimize the number of seams. The blankets will be draped to the ground to eliminate any gaps at the base of the barrier.
- Construction contractors will ensure that construction employees are trained in the proper operation and use of the equipment.
- Storage, staging, parking, and maintenance areas will be located away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies will be positioned in a manner that will function as a noise barrier to the closest sensitive receivers.

- Stationary noise sources, such as generators and compressors, will be positioned as far away as possible from noise-sensitive areas.
- Construction equipment will be stored on the project site while in use. This will eliminate noise associated with repeated transportation of the equipment to and from the site.
- To the extent possible, haul roads should not be designated through noise-sensitive areas.

Level of Significance after Mitigation

While **MM-NOI-C1** would reduce construction noise levels, it would not eliminate the predicted significant noise impacts entirely; therefore, for the purposes of this Final EIR, construction noise impacts are considered significant and unavoidable after mitigation.

Operational Impacts

Project operational noise sources would include traffic on the surrounding streets and onsite noise sources such as mechanical equipment, parking lot activities, deliveries, and activities at proposed outdoor spaces such as trails and gardens. Each of these is discussed below.

Traffic Noise

Tier I

To analyze noise increases associated with project-generated traffic, four different traffic scenarios were analyzed: (1) existing, (2) existing plus project, (3) cumulative base, and (4) cumulative plus project. *Cumulative scenarios* refer to year 2035. The *cumulative base scenario* describes traffic without implementation of the project, but including cumulative growth from non-project sources. *Cumulative plus project* includes both cumulative growth and project-related growth from Tier I development.

Using the results of these analyses, it was possible to determine the effects of the project by comparing the existing noise levels to the existing plus project noise levels, and the cumulative base noise levels to the cumulative plus project noise levels. The traffic noise modeling results are provided in Appendix I of this Final EIR and summarized in Table 3.11-9. Referring to the table, project-generated traffic would increase traffic noise levels in the project vicinity by between 0 and 1.6 dB CNEL. This is less than both the 3-dB and 5-dB thresholds and the impact would be less than significant.

Table 3.11-9. Estimated Traffic Noise Levels

Roadway/Segment	Estimated Traffic Noise Levels at 50 feet from Roadway Centerline, dB CNEL					
	Existing	Existing Plus Project	Increase Over Existing	Cumulative Base	Cumulative Plus Project	Increase Over Cumulative Base
Bledsoe Street						
North of Olive View Dr.	55.4	57.0	1.6	55.6	57.2	1.6
Olive View Dr. to Foothill Blvd.	58.0	58.5	0.5	58.4	58.8	0.4
Foothill Blvd. to Glenoaks Blvd.	61.4	61.5	0.1	61.7	61.8	0.1
South of Glenoaks Blvd.	62.4	62.4	0.0	63.1	63.1	0.0
Foothill Boulevard						
West of Glenoaks Blvd.	67.3	67.5	0.2	67.7	67.9	0.2
Glenoaks Blvd. to Roxford St..	65.6	65.9	0.3	66.1	66.3	0.2
Roxford St. to Bledsoe St.	66.8	66.8	0.0	67.2	67.2	0.0
Bledsoe St. to Polk St.	69.4	69.5	0.1	69.8	70.0	0.2
E of Polk St.	70.4	70.5	0.1	71.3	71.3	0.0
Glenoaks Boulevard						
N of Foothill Blvd.	58.5	58.5	0.0	58.8	58.8	0.0
Foothill Blvd. to Roxford St.	61.5	61.5	0.0	61.9	61.9	0.0
Roxford St. to Bledsoe St.	65.4	65.4	0.0	66.1	66.2	0.1
E of Bledsoe St.	66.4	66.4	0.0	66.7	66.7	0.0
Olive View Drive						
W of Bledsoe St.	63.8	65.0	1.2	64.1	65.3	1.2
E of Bledsoe St.	62.4	63.0	0.6	62.7	63.3	0.6
Polk Street						
North of I-210 WB Ramps	68.2	68.2	0.0	69.2	69.2	0.0
I-210 WB Ramps to I-210 EB Ramps	69.1	69.1	0.0	70.0	70.0	0.0
I-210 EB Ramps to Foothill Blvd.	70.2	70.2	0.0	71.0	71.1	0.1
South of Foothill Blvd.	68.8	68.8	0.0	69.2	69.2	0.0
Roxford Street						
Olive View Dr to I-210 WB Ramps	65.9	67.0	1.1	66.2	67.2	1.0
I-210 WB Ramps to I-210 EB Ramps	65.8	66.6	0.8	66.5	67.1	0.6
I-210 EB Ramps to Foothill Blvd.	66.3	66.6	0.3	67.3	67.5	0.2
Foothill Blvd. to Glenoaks Blvd.	65.0	65.2	0.2	66.2	66.4	0.2
Glenoaks Blvd. to San Fernando Rd.	66.2	66.4	0.2	66.8	67.0	0.2
San Fernando Rd. to Encinitas Ave/I-5 NB Ramps	67.7	67.8	0.1	68.4	68.5	0.1
Encinitas Ave/I-5 NB Ramps to I-5 SB Ramps	68.3	68.4	0.1	68.9	69.0	0.1
San Fernando Road						
West of Roxford St.	65.9	65.9	0.0	67.6	67.6	0.0
East of Roxford St.	66.6	66.7	0.1	67.4	67.4	0.0

Source: Appendix I of this Final EIR.

Tier II

Tier II development would occur in the long-term future, beyond 2035. A quantitative transportation analysis of Tier II traffic was not prepared because no specific entitlements for development of that long-term vision for the medical center are currently sought. Therefore, a full quantitative traffic noise analysis has not been prepared for Tier II development.

Parking Lot Activity

Tier I and Tier II

Based on trip generation data provided in the project traffic study, there could be up to 1,067 vehicle trips (total including both inbound and outbound trips) during the daily peak hour at the project site with Tier I development and up to 1,593 vehicle trips during the daily peak hour at the project site with Tier I and II development combined. Noise generated by these vehicles while on site would not be sufficient to exceed city noise standards at offsite noise-sensitive receptors for the following reasons:

- These vehicles would be spread out between various parking facilities throughout the project site, including parking structures located on the north side of campus away, from the closest noise-sensitive receptors.
- Typical noise sources within parking lots are of very short duration (engines starting, doors slamming, etc.) and do not contribute significantly to overall noise levels when averaged over a 1-hour period.
- Proposed new parking areas and structures would be shielded from the closest noise-sensitive receptors by intervening medical center buildings.
- There is substantial distance between proposed parking areas and the closest noise-sensitive receptors. Based on the conceptual Master Plan layout, the closest distance between any proposed parking spot and the nearest noise-sensitive receptor would be approximately 100 feet. Average distances between noise-sensitive receptors and onsite parking lots or structures would be in the range of 200 to 1000 feet.

Therefore, noise impacts from the parking lots associated with the project would be less than significant.

Mechanical Equipment

Tier I and Tier II

The project would introduce a variety of new mechanical equipment throughout the project site. This would include rooftop heating, ventilation and air conditioning (HVAC) equipment, and new central plant equipment. Due to the size of the project site, much of this equipment would be located at large distances from offsite sensitive receptors and/or would be shielded by intervening structures and would not be expected to exceed the applicable noise standards of the city of Los Angeles municipal code. However, because the Master Plan is conceptual and programmatic in nature, the final type, location, and configuration of mechanical equipment is unknown, and the possibility exists that some onsite mechanical equipment would increase ambient noise levels and exceed the applicable noise standards at offsite sensitive receptors, which would be a significant impact.

Emergency Vehicles

Tier I and Tier II

Sirens from emergency vehicles (i.e., ambulances) are an existing source of daytime and nighttime noise source associated with the Olive View–UCLA Medical Center Campus. Emergency vehicles currently access the site from the campus driveway at the intersection of Olive View Drive and Bledsoe Street, to take patients directly to the emergency services building. Under Tier I of the Master Plan, the emergency services building would remain in its current location and emergency vehicles would continue to use the same access route. While sirens generate very high short-term noise levels (measurements conducted adjacent to another County medical center in Los Angeles indicated maximum noise levels of 103 dBA at a distance of approximately 40 feet), they are generally excluded from local noise standards and would not be considered a violation of the city's municipal code. Furthermore, implementation of the project would not expand onsite emergency room facilities and is not anticipated to increase the number of emergency ambulances accessing the site (relative to numbers existing without the project) or alter their routes to the site. Therefore, the project would not cause an increase in emergency vehicle noise levels, or the frequency of their occurrence, in the surrounding community and the impacts would be less than significant.

Deliveries and Unloading

Tier I and Tier II

Tier I development includes a proposed 30,500-square-foot Materials Management/Supply Services Building. Linen, food, and pharmacy supplies would be delivered to this building, and then stored or sent out to other locations on the campus. There are no plans to construct similar facilities as part of Tier II development, so it is assumed this building would also serve Tier II buildings. The Materials Management/Supply Services Building would include a loading dock that would generate noise from sources such as delivery trucks, refrigeration units, and general loading/unloading noise (e.g., opening and closing truck doors and loading dock doors, use of forklifts or dollies, dropping of boxes or pallets, etc.). Noise would also be generated during the loading and operation of trash compactors at the building. At its proposed location northwest of the existing hospital, the building would be more than 700 feet from the closest noise-sensitive receptors (homes south of Olive View Drive); in addition, the loading dock would be located on the opposite side of the building (i.e., the north side). The noise reduction provided by the large distances and shielding would reduce noise from deliveries and unloading to less than significant.

Outdoor Activities

Tier I and Tier II

The proposed project includes community open space, such as healing gardens, courtyard gardens, a fitness and therapy area, and sculpture gardens. It would also include wellness trails, consisting of pedestrian, equestrian, and bike paths, as well as a recreation area in the proposed woodland on the far eastern area of the campus. A green amphitheater for community engagement would be located in the circular drop-off adjacent to the Ambulatory Care Center and existing hospital. Noise generated by passive day-to-day use of the outdoor spaces would be limited primarily to the intermittent sounds of people talking, laughing, yelling, etc. Large events, such as concerts with amplified music, are not proposed as part of the project. Based on the nature of the proposed outdoor activities, as well as the relatively large distances between activity areas and the closest

homes to the east, south, and west, outdoor activity noise levels would not be expected to exceed the applicable noise standards of the city of Los Angeles Municipal Code at offsite noise-sensitive receptors; impacts would be less than significant.

Mitigation Measures

The following measures are proposed to mitigate operational noise Impact **NOI-1**, above.

> **MM-NOI-O1:** Design Project Facilities to Ensure all Mechanical Equipment Complies with Chapter XI of the City of Los Angeles Municipal Code. During the architectural and engineering design phase of each new facility (building, central plant, etc.) that would introduce new mechanical equipment to the project site, and prior to the issuance of any building permits for the facility, the County will retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that the mechanical equipment complies with Chapter XI of the City of Los Angeles Municipal Code. Such recommendations may include, but are not limited to: changes in equipment locations, upgrades to central plant buildings, rooftop parapet walls, acoustical louvers or screens, or intake and exhaust silencers.

Level of Significance after Mitigation

All operational noise impacts would be less than significant after mitigation.

Impact NOI-2: Would the Proposed Project Generate Excessive Groundborne Vibration or Groundborne Noise Levels?

Construction Impacts

Heavy construction equipment has the potential to produce groundborne vibration levels that are perceptible to people in the surrounding area.

Referring to the equipment schedule provided above, in Table 3.11-6, various pieces of heavy equipment such as graders and excavators would be used at the project site. Based on data published by Caltrans (Caltrans 2013b), this type of equipment typically produces PPV vibration levels of 0.089 in/s at a distance of 25 feet. If pile driving is conducted at the project site, source vibration levels would be increased to 0.65 in/s at 25 feet.

Vibration levels from construction equipment attenuate as they radiate from the source. The equation to determine vibration levels at a specific distance states that

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.3}$$

where PPV_{ref} is the PPV at a reference distance of 25 feet, and D is the distance from the equipment to the sensitive receptor, and the value of 1.3 is s a value related to the vibration attenuation rate through the ground (Caltrans, 2013b).[1]

Using this equation, it was calculated that heavy construction equipment (e.g., graders, excavators, etc.) would generate groundborne vibration levels of 0.01 in/s or greater at distances of up to 140 feet. If pile driving is used, this impact distance would increase to 645 feet.

[1] Geological data for the site (Ninyo & Moore 2016) indicates construction would occur primarily on soils characterized by alluvial deposits generally composed of gravel, sand, and clay sediments; some new construction may also occur on older alluvium comprised of weakly consolidated sand and gravel.

Tier I

Standard Construction (no pile driving)

Referring to the analysis above, the impact distance (at which the PPV would be 0.01 in/s or greater) is 140 feet for standard construction. Therefore, construction vibration impacts at offsite sensitive buildings more than 140 feet from the Tier I construction activities would be less than significant. However, vibration levels could exceed 0.01 in/s PPV at offsite sensitive receptors within 140 feet of the Tier I construction; these receptors are homes (single- and multifamily) on the south side of Olive View Drive, between SR-210 and El Casco Street. Therefore, groundborne vibration levels at these locations due to Tier I construction are potentially significant.

In addition, demolition of existing facilities and construction of new onsite facilities would occur within 140 feet of existing sensitive medical center buildings and would cause a significant impact.

Pile Driving

If pile driving occurs, the resulting impact distance (at which the PPV would be 0.01 in/s or greater) would increase to 645 feet. Therefore, construction vibration impacts at offsite sensitive buildings more than 645 feet from the Tier I construction activities would be less than significant. However, vibration levels could exceed 0.01 in/s PPV at offsite sensitive receptors within 645 feet of Tier I building construction; these receptors are homes (single- and multifamily) on the south side of Olive View Drive, in the area bounded by Olive View Drive, SR-210, and Bledsoe Street. Therefore, groundborne vibration levels at these locations due to Tier I construction are potentially significant if pile driving is used.

In addition, construction of new onsite buildings would occur within 645 feet of existing sensitive medical center buildings and would cause a significant impact if pile driving is used.

Tier II

Standard Construction (no pile driving)

As noted above, the impact distance for standard construction is 140 feet. Based on the proposed site plan, there are no sensitive buildings within 140 feet of proposed Tier II construction. Groundborne vibration levels at offsite receptors would be less than 0.01 in/s PPV and impacts would be less than significant.

Depending on the ultimate details of the Tier II site plan and the sequence of construction, demolition of existing facilities and construction of new onsite facilities could occur within 140 feet of sensitive medical center buildings, which would cause a significant impact.

Pile Driving

As noted above, the impact distance for pile driving is 645 feet. Therefore, construction vibration impacts at offsite sensitive buildings more than 645 feet from the Tier II construction activities would be less than significant. However, vibration levels could exceed 0.01 in/s PPV at offsite sensitive receptors within 645 feet of the Tier II building construction; these receptors are:

- Homes (single- and multifamily) on the south side of Olive View Drive, in the area bounded by Olive View Drive, SR-210, and Bledsoe Street.
- Homes on the south side of SR-210 and Foothill Boulevard, between Dronfield Place and Cambria Way.

Therefore, groundborne vibration levels at these locations due to Tier II construction are potentially significant if pile driving is used.

In addition, construction of new onsite buildings would occur within 645 feet of existing sensitive medical center buildings and would cause a significant impact if pile driving is used.

Mitigation Measures

The following measure is proposed to mitigate Impact **NOI-2**, above.

MM-NOI-C2: Reduce Construction-Generated Groundborne Vibration to the Extent Possible. The County will implement the following vibration reduction measures during construction:

- Where possible, impact pile driving will be replaced with other piling techniques, such as vibratory pile driving or, preferably, vibration- and percussive-free methods (examples include hydraulic press-in piles or cast-in-drilled-hole piles).
- To the extent possible, heavy construction equipment will not be operated within 140 feet of onsite or offsite sensitive receptors.

Level of Significance after Mitigation

While **MM-NOI-C2** would reduce construction vibration levels, it may not eliminate the predicted significant impacts entirely; therefore, for the purposes of this Final EIR, construction vibration impacts are considered significant and unavoidable.

Operational Impacts

There are no proposed operational activities at the project site that would generate substantial groundborne vibration or generate groundborne vibration that would be perceptible at any surrounding land uses. Therefore, there would be no impact from operation of the project.

Mitigation Measures

No mitigation measures are required for project operation.

Level of Significance after Mitigation

No mitigation is required and there would be no impact.

Impact NOI-3: Would the Proposed Project Be Located in the Vicinity of a Private Airstrip or an Airport Land Use Plan Area, or, Where Such a Plan has not Been Adopted, Within Two Miles of a Public Airport or Public Use Airport, and Expose People Residing or Working in the Project Area to Excessive Noise Levels?

Construction and Operational Impacts

Tier I and Tier II

The existing Olive View–UCLA Medical Center Campus includes a helipad for the transportation of patients to the emergency services building by air ambulance. The helipad is located immediately northeast of the existing hospital and emergency services buildings and would remain in the same location under the proposed project. Flight paths associated with the helipad are not anticipated to

change, and the overall number of helipad operations is not expected to increase as a result of the project. In addition, individual landings and takeoffs would be relatively short in duration. For these reasons, the long-term average noise levels generated by helicopters are expected to be relatively low compared to other existing noise sources and are not expected to change as a result of the project. Therefore, the noise impacts associated with the helipad would be less than significant.

Furthermore, the project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise from airports and no impacts would occur.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Impacts would remain less than significant.

3.11.5 Cumulative Impacts

The study area for cumulative noise and vibration impacts consists of the area in the general vicinity of the medical center campus that could be affected by the combined effects of the proposed project and other nearby related projects. For the purposes of this analysis, a radius of 2,000 feet from the project site boundaries was considered.

3.11.5.1 Construction

There are no related projects within 2,000 feet of the project site. The closest related project is a retail development at 13530 Glenoaks Boulevards, approximately 0.5 mile (2,640 feet) southwest of the Olive View–UCLA Medical Center Campus. As a result, noise and vibration levels would be significantly attenuated by both the distance and the shielding effects of intervening buildings, and construction noise or vibration contributions from related projects would be negligible at any receptors that might be affected by project construction activities. Therefore, there would be no significant cumulative impacts.

3.11.5.2 Operational Noise

Traffic

The traffic data used in the analysis of cumulative conditions includes growth attributable to cumulative projects in the area that would increase traffic over time. Based on the traffic noise analysis described under Impact **NOI-3**, above, estimated cumulative traffic noise levels for Tier I development are provided in Appendix I of this Final EIR and summarized in Table 3.11-10, along with the noise increases relative to both existing and cumulative base conditions. Referring to the table, cumulative traffic would increase traffic noise levels in the project vicinity by between 0.3 and 1.8 dB CNEL. This is less than both the 3-dB and 5-dB thresholds and the impact would be less than significant. The Tier I project contribution to cumulative traffic noise increases would be between 0.0 and 1.6 dB CNEL.

Table 3.11-10. Estimated Cumulative Traffic Noise Levels

Roadway/Segment	Estimated Traffic Noise Levels at 50 feet from Roadway Centerline, dB CNEL				
	Existing	Cumulative Base	Cumulative Plus Project	Increase Over Cumulative Base	Cumulative Increase Over Existing
Bledsoe Street					
North of Olive View Dr.	55.4	55.6	57.2	1.6	1.8
Olive View Dr. to Foothill Blvd.	58.0	58.4	58.8	0.4	0.8
Foothill Blvd. to Glenoaks Blvd.	61.4	61.7	61.8	0.1	0.4
South of Glenoaks Blvd.	62.4	63.1	63.1	0.0	0.7
Foothill Boulevard					
West of Glenoaks Blvd.	67.3	67.7	67.9	0.2	0.6
Glenoaks Blvd. to Roxford St.	65.6	66.1	66.3	0.2	0.7
Roxford St. to Bledsoe St.	66.8	67.2	67.2	0.0	0.4
Bledsoe St. to Polk St.	69.4	69.8	70.0	0.2	0.6
East of Polk St.	70.4	71.3	71.3	0.0	0.9
Glenoaks Boulevard					
North of Foothill Blvd.	58.5	58.8	58.8	0.0	0.3
Foothill Blvd. to Roxford St.	61.5	61.9	61.9	0.0	0.4
Roxford St. to Bledsoe St.	65.4	66.1	66.2	0.1	0.8
East of Bledsoe St.	66.4	66.7	66.7	0.0	0.3
Olive View Drive					
West of Bledsoe St.	63.8	64.1	65.3	1.2	1.5
East of Bledsoe St.	62.4	62.7	63.3	0.6	0.9
Polk Street					
North of I-210 WB Ramps	68.2	69.2	69.2	0.0	1.0
I-210 WB Ramps to I-210 EB Ramps	69.1	70.0	70.0	0.0	0.9
I-210 EB Ramps to Foothill Blvd.	70.2	71.0	71.1	0.1	0.9
South of Foothill Blvd	68.8	69.2	69.2	0.0	0.4
Roxford Street					
Olive View Dr. to I-210 WB Ramps	65.9	67.3	67.5	0.2	1.3
I-210 WB Ramps to I-210 EB Ramps	65.8	66.2	66.4	0.2	1.3
I-210 EB Ramps to Foothill Blvd.	66.3	66.8	67.0	0.2	1.2
Foothill Blvd. to Glenoaks Blvd.	65.0	68.4	68.5	0.1	1.4
Glenoaks Blvd. to San Fernando Rd.	66.2	68.9	69.0	0.1	0.8
San Fernando Rd. to Encinitas Ave./I-5 NB Ramps	67.7	67.3	67.5	0.2	0.8
Encinitas Ave./I-5 NB Ramps to I-5 SB Ramps	68.3	66.2	66.4	0.2	0.7
San Fernando Road					
West of Roxford St.	65.9	67.6	67.6	0.0	1.7
East of Roxford St.	66.6	67.4	67.4	0.0	0.8

Source: Appendix I.

Onsite Operations

No new impacts associated with onsite operations are expected as a result of the cumulative effects of related projects because all related projects are at least 0.5 mile from the project site and would be shielded by large numbers of intervening buildings. As such, noise, as well as groundborne vibration, from related projects would be negligible (typically inaudible or not perceptible) at any noise-sensitive or vibration-sensitive receptors that might be exposed to noise or vibration from the proposed project.

Onsite operations would have no significant cumulative noise or vibration impacts.

3.12 Population/Housing

3.12.1 Introduction

This section provides information regarding general neighborhood population and housing characteristics and projected population growth for the study area, which includes areas of the city and County of Los Angeles. This section describes potential population and housing impacts due to development that could occur under the proposed Master Plan and identifies mitigation measures, if required.

3.12.2 Regulatory Setting

3.12.2.1 Federal

There are no federal regulations that apply to this project.

3.12.2.2 State

CEQA Guidelines Section 15126.2(d)—Growth-Inducing Effects

Pursuant to Section 15126.2(d) of the State CEQA Guidelines, an EIR must discuss whether a project will directly or indirectly foster growth (Association of Environmental Professionals 2016). Section 15126.2(d), Consideration and Discussion of Significant Environmental Impacts, Growth-Inducing Impact of the Proposed Project, reads as follows:

> Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

3.12.2.3 Local

Southern California Association of Governments

The Regional Comprehensive Plan (RCP), a major advisory plan prepared by the Southern California Association of Governments (SCAG), addresses important regional issues and responds to the SCAG Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's inter-related housing, traffic, water, air quality, and other challenges. The RCP serves as an advisory document to local agencies in the Southern California region for their information and voluntary use when preparing local plans and handling local issues of regional significance and includes goals and outcomes to measure progress toward a sustainable region.

The most recent RCP's (2008) Land Use and Housing chapter, which outlines the Compass Blueprint growth vision, 2% Strategy, and the Goals, Outcomes and Action Plan, promotes sustainable

planning for land use and housing in Southern California by maximizing the efficiency of the existing and planned transportation network, providing the necessary amount and mix of housing for the region's growing population, enabling a diverse and growing economy, and protecting important natural resources (SCAG 2009).

SCAG is also responsible for developing regional and subarea growth forecasts. Therefore, SCAG makes projections related to three major growth indicators in the region: population, number of households, and employment. The regional growth forecast represents the most likely future growth scenario for the Southern California region, taking into account a combination of recent and past trends, reasonable key technical assumptions, and regional growth policies. The regional growth forecast is the basis for the Regional Transportation Plan, Sustainable Communities Strategy (RTP/SCS), and the Regional Housing Needs Assessment (SCAG 2016). The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental and public health goals.

For subareas, SCAG develops socioeconomic estimates and growth projections pertaining to population, the number of households, and employment for cities and transportation analysis zones in the SCAG region. These estimates and projections provide the analytical foundations for SCAG's transportation planning and other programs (SCAG 2016).

Los Angeles County General Plan

The Los Angeles County General Plan 2035 (General Plan), adopted October 6, 2015, provides the policy framework for how and where the unincorporated County will grow through the year 2035, while recognizing and celebrating the County's wide diversity of cultures, abundant natural resources, and status as an international economic center. The General Plan guides growth through goals, policies, and programs that discourage sprawling development patterns; protects areas with hazard, environment, and resource constraints; encourages infill development in areas near transit, services, and infrastructure; and makes a strong commitment to ensuring services and infrastructure. The General Plan identifies 11 Planning Areas and is composed of 10 elements, including Land Use and Housing elements. The Olive View–UCLA Medical Center campus is located within the San Fernando Valley Planning Area.

As discussed in the General Plan's Los Angeles County Housing Element, 2014–2021, denser and more compact housing types are necessary in unincorporated areas to accommodate the housing needs of the growing senior citizen population, younger individuals who live alone, low-income households, and others who need and/or desire apartments, condominiums, and smaller, more affordable housing units (County of Los Angeles 2014).

City of Los Angeles General Plan

The City of Los Angeles General Plan is a comprehensive, long-range declaration of purposes, policies, and programs for the development of the city of Los Angeles. The Housing Element of the city's general plan outlines a strategy for short-term housing development, establishing a citywide context that guides all housing activities in the city. The primary goal of the Housing Element is to provide a range of housing opportunities that meet evolving household types and sizes and include a greater variety of price points affordable to people at all income levels (City of Los Angeles 2013).

Sylmar Community Plan

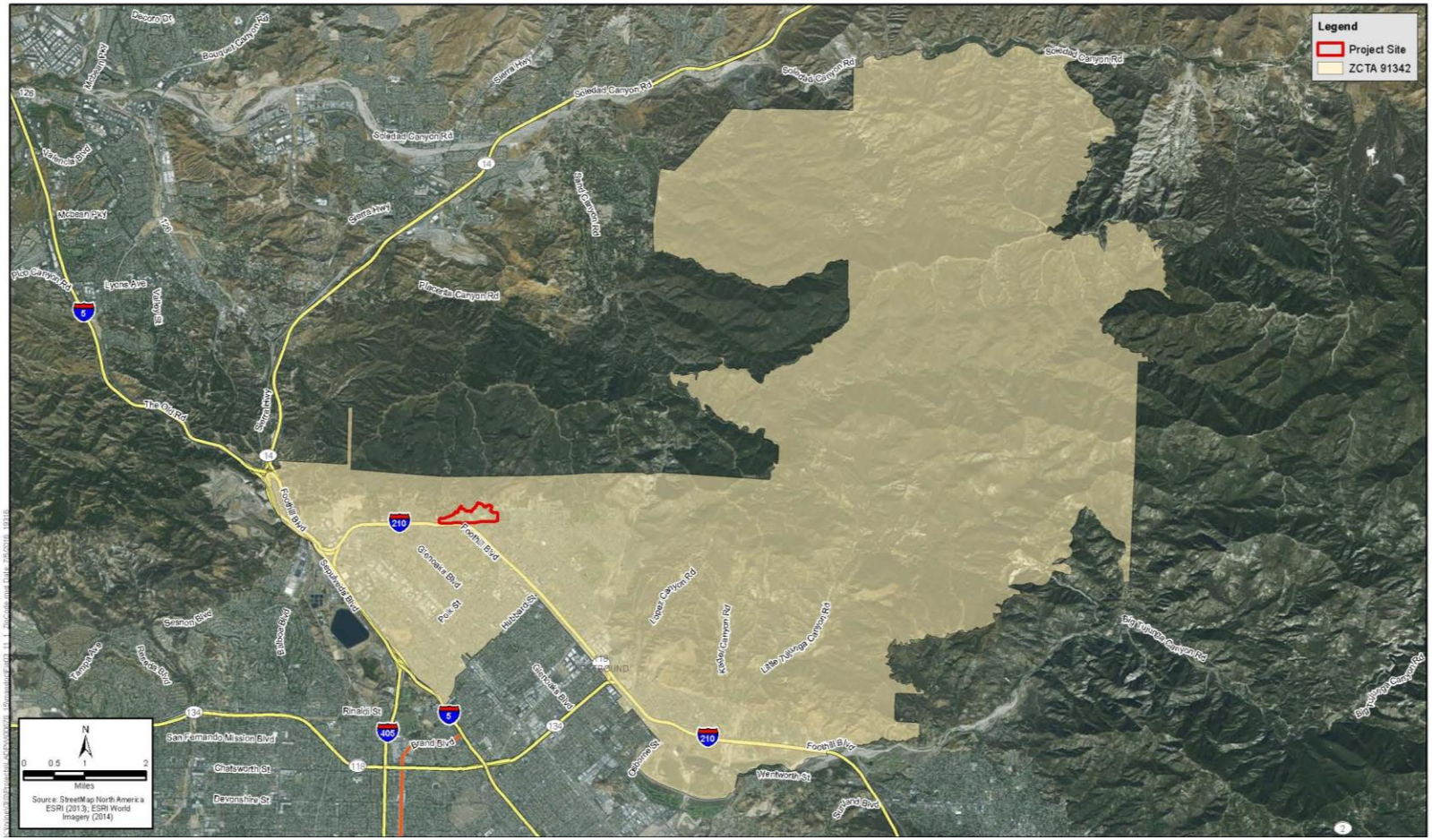
The Sylmar Community Plan (Sylmar Plan), which is included in the city of Los Angeles's General Plan (2016), provides a framework for future growth and development within the community. According to the Sylmar Plan, patterns of residential land use vary greatly in the Sylmar community, with development density driven by topography, population characteristics, housing markets, age of housing, and degree of existing development in the area. As discussed in the Sylmar Plan, the preservation of existing housing, as well as the development of new housing, is needed to meet the diverse economic and physical needs of Sylmar residents. The Sylmar Plan also puts forth guidelines for residential site planning, design, and parking. The Sylmar Plan generally maintains the existing land use pattern and housing density, aiming to preserve residential and equine-keeping areas and limit residential development along the foothills and open space areas.

3.12.3 Environmental Setting

The Olive View–UCLA Medical Center campus is located in the city of Los Angeles, on Los Angeles County-owned land, within the Sylmar community, a largely semi-rural area located in the foothills of the San Gabriel Mountains, at the northern edge of the San Fernando Valley. The majority of residents live in single-family residential neighborhoods, while the remainder reside in multifamily dwellings.

The project site lies within the zip code tabulation area (ZCTA) for Sylmar, California. Population information regarding race and ethnicity for the city of Los Angeles, the County of Los Angeles, and Sylmar (ZCTA 91342) were used to create Table 3.12-1, below, which summarizes the characteristics of the regional and local population for the 5-year estimate between 2010 and 2014. Data regarding ZCTA 91342 diverge from the city- and County-wide demography. In this area, 75 percent of respondents identified themselves as belonging to the Hispanic or Latino group, compared with 48.1 percent and 48.6 percent within the County and city, respectively. Figure 3.12-1 shows the Sylmar ZCTA boundaries.

Figure 3.12-1: Sylmar ZCTA Boundaries



Source: ICF 2019

The majority of the population in the city of Los Angeles is female, with males representing just under 50 percent of residents (U.S. Census Bureau 2014a). Most people who live in the city (77 percent) are over the age of 18. The city maintains a normal distribution of ages within its population, with 21.6 percent between the ages of 35 and 49, 17.1 percent between the ages of 25 and 34, and 16.9 percent between the ages of 50 and 64. Of the remaining population over the age of 18, 8.3 percent is between the ages of 20 and 24, and 10.9 percent is over the age of 65 (U.S. Census Bureau 2014a).

According to the U.S. Census Bureau's 2010–2014 American Community Survey (ACS), the population of the city of Los Angeles as of the time of the ACS was 3,862,210. This 5-year estimate found that Hispanic/Latino was the largest ethnic group in the city of Los Angeles, with 1,876,711 individuals, or 48.6 percent of the total population, identifying themselves as such. Of the remaining population, 28.5 percent identified themselves as White, 11.4 percent as Asian, and 8.9 percent as African-American. American Indian/Alaska Native, Native Hawaiian/Pacific Islander, Other, and Two or More Races were also represented, accounting for 0.2 percent, 0.2 percent, 0.3 percent, and 2.1 percent of the gross population, respectively. These statistics are relatively consistent with County data from the same survey, as shown in Table 3.12-1.

Table 3.12-1. Regional and Local Race/Ethnicity Distribution

	County of Los Angeles		City of Los Angeles		ZCTA 91342 (Sylmar)	
Race/Ethnicity	**Population**	**%**	**Population**	**%**	**Population**	**%**
Hispanic/Latino	4,800,491	48.1	1,876,711	48.6	68,783z	75.0
White	2,711,665	27.2	1,100,413	28.5	12,868	14.0
Asian	1,377,333	13.8	439,382	11.4	5,241	5.7
African American	802,132	8.0	341,960	8.9	3,368	3.7
American Indian/Alaska Native	18,207	0.2	6,323	0.2	392	0.4
Native Hawaiian/Other Pacific	23,921	0.2	5,969	0.2	59	0.1
Some Other Race	24,807	0.2	10,749	0.3	112	0.1
Two or More Races	215,647	2.2	80,703	2.1	878	1.0
Totals	**9,974,203**	**99.9**	**3,862,210**	**100.2**	**91,701**	**100.0**

Source: U.S. Census Bureau 2014b.

Housing information regarding occupancy rates and types for the city of Los Angeles, the County of Los Angeles, and ZCTA 91342 was also used to create the two tables below. Table 3.12-2 summarizes the occupancy rates and Table 3.12-3 summarizes the occupancy type (i.e., owner- versus renter-occupied) for the study area, using the U.S. Census Bureau 2010–2014 ACS. In the city of Los Angeles, there were approximately 1,427,355 housing units within city limits, of which 93.1 percent were occupied. Of the occupied units, 37.2 percent were owner occupied, and the remaining 835,503 units (62.8 percent) were occupied by renters. The renter-occupied percentage at the County level is somewhat lower (53.6 percent). The renter-occupied units in ZCTA 91342 were substantially lower, at 31 percent. Persons per household was also tabulated, with the County average at 3.2 persons per household for owner-occupied units and 2.87 persons per household for renter-occupied units. The city average was 3.05 persons per household for owner-occupied units and 2.72 persons per household for renter-occupied units. The average for ZCTA 91342 was 3.75

persons per household for owner-occupied units and 3.87 persons per household for renter-occupied units (U.S. Census Bureau 2014c).

Table 3.12-2. Existing Regional and Local Housing Characteristics—Occupancy Rate

Area	Occupied Units	Owner-Occupied Units	Owner-Occupied %	Renter-Occupied Units	Renter-Occupied %
County of Los Angeles	3,462,075	3,242,391	93.7	219,684	6.3
City of Los Angeles	1,427,355	1,329,372	93.1	97,983	6.9
ZCTA 91342	25,207	23,787	94.4	1,420	5.6

Source: U.S. Census Bureau 2014c.

Table 3.12-3. Existing Regional and Local Housing Characteristics—Occupancy Type

Area	Occupied Units	Owner-Occupied Units	Owner-Occupied %	Renter-Occupied Units	Renter-Occupied %
County of Los Angeles	3,242,391	1,503,915	46.4	1,738,476	53.6
City of Los Angeles	1,329,372	493,869	37.2	835,503	62.8
ZCTA 91342	23,787	16,421	69.0	7,366	31.0

Source: U.S. Census Bureau 2014c.

In accordance with the policies of the RCP, SCAG has adopted forecasts regarding the estimated and projected future population, housing, and employment numbers for Southern California cities. The estimates are for the years 2012, 2020, 2035, and 2040. For the city of Los Angeles, the population is expected to grow by 19.9 percent between the 2012 baseline estimate and 2040 (see the forecasts in Table 3.12-4). For the County of Los Angeles, population is expected to grow at the slightly lower rate of 16.0 percent over the same period. Similarly, housing and employment in the County are projected to increase at a lower rate than in the city.

Table 3.12-4. Projected Regional Population, Housing and Employment

Area	Data Type	2012	2020	2035	2040[1]	Growth %
County of Los Angeles	Population	9,922,600	10,326,200	11,145,100	11,514,800	16.0
	Housing	3,493,700	3,493,700	3,809,300	3,946,600	13.0
	Employment	4,246,600	4,662,500	5,062,100	5,225,800	23.1
City of Los Angeles	Population	3,845,500	4,017,000	4,442,500	4,609,400	19.9
	Housing	1,325,500	1,441,400	1,618,900	1,690,300	27.5
	Employment	1,696,400	1,889,500	2,104,100	2,169,100	27.9

[1] 2040 projections compared to 2012 baseline.
Source: SCAG 2016.

As proposed, the project site encompasses 230 acres of County-owned land in a completely developed area that supports a variety of land uses. According to the draft Master Plan, there are 2,938 full-time equivalent employees at the campus.

3.12.4 Environmental Impact Analysis

3.12.4.1 Methods

Potential population and employment increases due to development that could occur under the Master Plan were calculated and compared with existing and projected population data to determine potential project impacts. The analysis presented below also discusses whether the proposed project would displace existing housing and residents.

3.12.4.2 Thresholds of Significance

For the purposes of this Final EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would result in a significant environmental impact if it would:

POP-1 Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure).

POP-2 Displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing elsewhere.

3.12.4.3 Impacts and Mitigation Measures

Impact POP-1: Would the Proposed Project Induce Substantial Population Growth in an Area, either Directly (e.g., by Proposing New Homes and Businesses) or Indirectly (e.g., Through the Extension of Roads or Other Infrastructure?

Construction Impacts

Tier I

Under Tier I, the proposed project would include development of the Ambulatory Care Center, administration building, the Community Center, the Restorative Care Village (which would include the Recuperative Care Center, Residential Treatment Programs facility, Mental Health Urgent Care Center, and Mental Health Wellness Center), Central Utility Plant, Materials Management/Supply Services Building, appurtenant parking facilities, and partial renovation of the existing hospital. Construction activities would include demolition of some on-site buildings and structures, site preparation and grading, and construction of new and renovated facilities. The number of construction workers employed and working on-site would vary over the course of the construction period and over the lifetime of the Master Plan. The County has a large pool of construction labor from which to draw within commuting distance of the project site. Additionally, because of the highly specialized nature of most construction projects, workers are likely to be employed on the job site only for as long as their skills are needed to complete a particular phase of the construction process. For those reasons, it is reasonable to assume that most construction workers would not relocate their households to work on proposed Master Plan development and improvement projects. Therefore, construction activities would not induce substantial population growth. Impacts would be less than significant.

Tier II

Tier II development would include a new hospital, central plant, Materials Management/Supply Services Building, mental health facility, retail space, a fitness center, county buildings, and two parking structures. Impacts under Tier II would be similar to those described above under Tier I, and would be less than significant.

Mitigation Measures

Impacts are less than significant; thus, no mitigation measures are needed.

Operational Impacts

Tier I

Under Tier I, the proposed Master Plan would include the development of a 48-bed Recuperative Care Center which would provide temporary housing for individuals who are discharged from the hospital and need additional time to recuperate and recover from minor physical injuries or illnesses, and an 80-bed residential treatment program facility, which would provide a short-term treatment alternative to inpatient psychiatric services for person experiencing a psychiatric crisis. These services are designed to resolve the immediate crisis and improve the functioning level of the individuals to allow them to return to less intensive community living. Both facilities would provide short-term (less than 3 months) housing. The growth inducement impacts of this relatively small increase in the residential population would be less than significant. In addition, under Tier I, the proposed Master Plan would include new and renovated facilities and would result in a net increase in the square footage of medical office, retail, and other building space. Given the net increase in square footage (see Table 3.12-5), it is estimated that development of Tier I of the Master Plan could generate a net increase of 1,997 employees.

Table 3.12-5. Tier I Employee Projections

Type Description	Employee Generation Factor	Building Size (sq. ft.)	Number of Employees
Existing uses to be demolished			
Administration	3.29 employees/1,000 sq. ft.	52,300	(172)
Materials management	2.16 employees/1,000 sq. ft.	32,500	(70)
Central utility plant	2.16 employees/1,000 sq. ft.	51,000	(110)
Total			**(352)**
Proposed uses			
Ambulatory Care Center	4.83 employees/1,000 sq. ft.	296,000	1,430
Community Center	2 employees/1,000 sq. ft.	20,000	40
Administration	3.29 employees/1,000 sq. ft.	96,000	316
Materials Management/Supply Services Building	2.16 employees/1,000 sq. ft.	30,500	66
Central utility plant	2.16 employees/1,000 sq. ft.	77,000	166
Recuperative Care Center	30 employees: 8 a.m.–4:30 p.m. 15 employees: 4 p.m.–12:30 a.m. 15 employees: 12 a.m.–8:30 a.m.	N/A[1]	60
Residential Treatment Programs Facility	10 employees: 7 a.m.–3:30 p.m. 90 employees: 8 a.m.–5 p.m. 62 employees: 3 p.m.–11 p.m. 25 employees: 11 p.m.–7:30 a.m.	N/A[1]	187
Mental Health Urgent Care Center	4.83 employees/1,000 sq. ft.	10,000	48
Mental Health Wellness Center	4.83 employees/1,000 sq. ft.	7,500	36
Total			**2,349**
Net Increase			**1,997**

[1] The inpatient hospital would be renovated under Tier I for SB1953 NPC 4 and 5 compliance upgrades and would not add or remove licensed beds; therefore, the number of employees would remain unaffected.

Note: Employee Generation Factor for employees/bed uses Structural and Geographical Information for Large Hospitals provided by the U.S. Energy Information Administration.

Source: Institute of Transportation Engineers Trip Generation Handbook 2017.

SCAG projections anticipate citywide employment growth of 24 percent by 2035 (27.9 percent by 2040) and County growth of 19.2 percent by 2035 (23.1 percent by 2040). The increase in employee population that could occur with anticipated development under Tier I of the Master Plan would represent a relatively small percentage of the employment growth SCAG has projected for the city and the County. Additionally, the proposed project does not include the extension of roads or other infrastructure improvements in undeveloped areas outside the boundaries of the campus that would indirectly induce substantial population growth in those areas. Therefore, employment growth impacts would be less than significant.

Tier II

Given the net increase in square footage (see Table 3.12-6, below), it is estimated that development of Tier II of the Master Plan could generate a net increase of 1,632 employees. When considered in

conjunction with Tier I development, buildout of the Master Plan (Tier I plus Tier II development) could result in a net increase of 3,629 employees, which represents 0.44 percent of the forecasted increase in employment in Los Angeles County between 2008 and 2035 and 0.37 percent of the forecasted employment increase between 2008 and 2040 (see Table 3.12-4, above, for employment projections). Additionally, retail space proposed under Tier II may draw visitors to the campus and could potentially foster economic growth in the area.

Impacts under Tier II would be similar to those described above under Tier I, and the combined effect of Tier I and Tier II development on population growth would be less than significant.

Table 3.12-6. Tier II Employee Projections

Type Description	Employee Generation Factor	Area/Beds	Number of Employees
Existing uses to be demolished[1]			
Administration	3.29 employees/1,000 sq. ft.	55,700	(183)
Mental health	4.83 employees/1,000 sq. ft.	11,000	(53)
Support services	2.16 employees/1,000 sq. ft.	16,800	(36)
Total			**(272)**
Proposed uses			
Inpatient hospital	3.65 employees/bed	355	1,296
Research and development	2.47 employees/1,000 sq. ft.	120,000	296
Retail	2 employees/1,000 sq. ft.	40,000	80
Materials management	2.16 employees/1,000 sq. ft.	30,500	66
Central utility plant	2.16 employees/1,000 sq. ft.	77,000	166
Total			**1,904**
Net Increase			**1,632**

[1] Storage Trailers were vacant during survey, as such, the number of employees would remain unaffected.
Note: Employee Generation Factor for employees/bed uses Structural and Geographical Information for Large Hospitals provided by the U.S. Energy Information Administration.
Source: Institute of Transportation Engineers Trip Generation Handbook 2017.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Impact POP-2: Would the Proposed Project Displace Substantial Numbers of Existing Housing Units, Necessitating the Construction of Replacement Housing Elsewhere?

Construction and Operational Impacts

As mentioned above, all development and facilities proposed under the Master Plan would be constructed within the existing boundaries of the medical center campus. There are currently no permanent housing units on campus. Thus, no displacement of existing housing would occur as a result of anticipated development under the Master Plan.

Mitigation Measures

No housing displacement impacts would occur. No mitigation measures are required.

3.12.5 Cumulative

The proposed project would not displace local housing or people; therefore, it would not contribute to any cumulative displacement impacts. However, implementation of the proposed Master Plan would result in additional development and an increase in the employee population on the campus, as described above. Therefore, the cumulative impact analysis below focuses on induced population growth due to the proposed project and cumulative development in the project area and the region.

The study areas for the cumulative growth-inducement impacts analysis would consist of the community of Sylmar, the city of Los Angeles, and the County of Los Angeles. The approach to the cumulative impacts analyses is based on the list of related projects for the immediate project area (see Table 2-2 in Chapter 2, *Project Description*, of this Final EIR) and local and regional plans/projections for the city and County of Los Angeles.

According to Table 2-2, 14 related projects are located within approximately 2 miles of the campus, including 646 residential units, approximately 25,900 square feet of office space, 26,176 square feet of retail space, and 225,000 square feet of industrial space, as well as a new high school for 500 students and a 9.9-acre recreational facility. Although the proposed and related projects would increase employee and residential populations within the immediate project area and this growth could result in impacts on the environment (see the discussions in other sections of Chapter 3, *CEQA Environmental Impact Assessment*, of this Final EIR, as well as the environmental documents for the related projects referenced above), the cumulative growth would occur within a developed suburban/urban area currently well served by existing infrastructure and would be consistent with the growth projections within the Sylmar Plan. According to that plan, the population in the plan area is expected to increase from 71,794 in 2005 to 85,993 in 2030, and employment is expected to increase from 19,616 in 2005 to 25,660 in 2030. The cumulative growth due to the proposed and related projects also would be subject to existing zoning regulations that regulate the density of development. Therefore, the proposed and related projects would not result in substantial induced growth beyond the growth anticipated and accommodated by local plans. As a consequence, the proposed project would not result in cumulatively considerable contribution to a significant cumulative induced-growth impact in the immediate project area.

With regards to the city and County of Los Angeles, the projected increases in residential and employee populations (see Table 3.12-4, above), and the accompanying development for accommodating those population increases, would result in impacts to the environment. However, because population increases resulting from the proposed project and other development in the region are expected to be within regional growth forecasts and are accounted for in the existing general plans for the city and County (as well as the SCAG RCP), the proposed project would not result in cumulatively considerable contribution to a significant cumulative induced-growth impact in the region.

3.13 Public Services

3.13.1 Introduction

This section discusses the public services (fire, police, schools, libraries, and parks) that serve the project site. Public service providers are identified and potential impacts on public services that could occur as a result of construction and operation of the proposed project are evaluated.

3.13.2 Regulatory Setting

The following identifies the various codes, regulations, and policies applicable to public service agency operations and the project.

3.13.2.1 Federal

There are no federal regulations that apply to the project.

3.13.2.2 State

California State Fire and Building Codes

By state law, the State Fire Marshal (SFM) is responsible for coordination of the state's fire and life safety codes. The SFM must review the proposed regulations of state agencies that promote fire and life safety before the regulations can be submitted for approval. The SFM Code Development and Analysis Program staff regularly reviews Title 19 of the California Code of Regulations, titled Public Safety (which discusses fire safety standards), for relevancy, necessity, conflict, duplication, and overlap. They also implement legislative mandates to develop regulations related to fire and life safety involving the various occupancy classifications under the authority of the California SFM. This encompasses the actual administrative processing of regulations from concept to promulgation in the California Code of Regulations (California Building Standards Commission 2014).

Government Code 51175-89 directs the California Department of Forestry and Fire Protection (CAL FIRE) to identify areas of fire hazard severity zones within State Responsibility Areas (SRAs) and Local Responsibility Areas (LRAs). Within SRAs, fire hazard areas are designated as moderate, high, and very high Fire Hazard Severity Zones (FHSZ) and are based on relevant factors such as fuels, terrain, and weather. These zones provide the basis for application of various mitigation strategies to reduce risks to buildings associated with wildland fires (CAL FIRE 2007). Within LRAs, mapping of Very High Fire Hazard Severity Zones (VH FHSZ) is based on data and models of potential fuels over a 30- to 50-year time horizon and their associated expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure (including firebrands) to buildings (CAL FIRE 2011).

In late 2005, and effective as of 2008, the California Building Commission adopted California Building Code Chapter 7A requiring new buildings in VH FHSZs to use ignition resistant construction methods and materials. These new codes include provisions to improve the ignition resistance of buildings, especially from firebrands. The updated VH FHSZs are used by building officials for new building permits in LRAs. The updated zones will also be used to identify property whose owners must comply

with natural hazards disclosure requirements at time of property sale and 100-foot defensible space clearance (CAL FIRE 2011).

Senate Bill 50, the Leroy F. Greene School Facilities Act of 1998

The Leroy F. Greene School Facilities Act of 1998 (Senate Bill [SB] 50) was signed into law August 1998 and became fully effective with the approval of Proposition 1A on November 3, 1998. SB 50 describes three levels of fees that can be statutorily levied against a project for mitigation of school facilities and declares that payment of the specified development fees, where necessary, is full and complete mitigation for impacts on school facilities. It also prohibits a public agency from denying a legislative or adjudicative act on the basis of refusal to provide school facilities mitigation that exceeds the amounts authorized under the bill.

3.13.2.3 Local

Los Angeles County General Plan 2035

The Los Angeles County General Plan 2035 provides the policy framework for how and where the unincorporated areas will grow through 2035 and establishes goals, policies, and programs to foster healthy, livable, and sustainable communities (County of Los Angeles 2015). As a County-run facility operated on County-owned land, the Olive View–UCLA Medical Center is subject to elements of the General Plan.

Chapters 10, 12, and 13 of the General Plan address parks and recreation, safety, and public services and facilities, respectively. The purpose of the Parks and Recreation Element is to assess existing park acreage and future recreation needs; identify goals, objectives, and policies for appropriate future actions; and provide recommendations based on needs, goals, and public involvement to guide the future direction of parks and recreation. For example, pursuant to the Parkland Development goal, Policy P/R 3.8 states that new parks should be sited near schools, libraries, senior centers, and other community facilities where possible. The Safety Element identifies the goals and policies that reduce the potential risk of death, injuries, and economic damage resulting from natural and human-made hazards. Also, the State Board of Forestry and CAL FIRE have drafted a comprehensive document for wildland fire protection in California. The Forestry Division's Fire Plan Unit is in charge of implementing the California Fire Plan in Los Angeles County. Finally, the Public Services and Facilities Element summarizes some of the major public services and facilities that serve the unincorporated areas, and establishes policies that guide the provision of public services and facilities in conjunction with projected growth.

City of Los Angeles Municipal Code

The city of Los Angeles Municipal Code, last amended on December 31, 2015, contains 18 chapters, including Chapter 5, Public Safety and Protection, which focuses on fire and police protection (City of Los Angeles 2013a). Article 2, Police and Special Officers, contains regulations governing administrative issues, such as requirements for police badges and uniforms, and Article 7, Fire Protection and Prevention, contains the fire code for the city. The Los Angeles Fire Code prescribes laws that may be enforced by the Los Angeles Fire Department (LAFD) to help safeguard life and property from fire, explosion, panic, or other hazardous conditions that may arise. The fire code includes information pertaining to administrative issues, such as the requirements for filling out and submitting Hazardous Materials Release Response Plans and Inventory Statements, and technical

requirements associated with the storage, management, and disposal of hazardous materials, such as underground chemical storage tanks, asbestos-containing materials/asbestos-containing building material, and various other combustible and flammable materials.

City of Los Angeles General Plan

The city of Los Angeles General Plan, approved by the city of Los Angeles Planning Commission and the mayor and adopted by the City Council, is a comprehensive, long-range declaration of purposes, policies, and programs for development in the city.

The Safety Element sets forth specific policies and objectives that emphasize hazard mitigation, emergency response, and disaster recovery. Fire prevention, fire protection, and emergency medical services within the city operate under the Fire Protection and Prevention Plan, which is an element of the city's General Plan. The Fire Protection and Prevention Plan serves as a guide for the construction, maintenance, and operation of fire protection facilities in the city. It sets forth policies and standards for fire station distribution and location, fire suppression water flow (or "fire flow"), fire hydrant standards and locations, firefighting equipment access, emergency ambulance services, and fire prevention activities. Population density, nature of onsite land uses, and traffic flow are also considered by LAFD in evaluating the adequacy of fire protection services for a specific area.

The city of Los Angeles General Plan also includes a Parks and Recreation Element that defines the or land use various park types and sets forth guidelines for developing and locating public facilities to provide the greatest benefit to the greatest number of people with the least cost and environmental impact. An overall provision of 10 acres of land per 1,000 persons for total recreational facilities is recommended (City of Los Angeles 2002).

Sylmar Community Plan

As part of the city of Los Angeles General Plan, the Sylmar Community Plan is one of 35 community plans that compose its Land Use Element. The plan encompasses the area generally bounded by the Los Angeles City boundary line on the north and east, the City of San Fernando on the south and southeast, and the San Diego (Interstate [I-] 405) and Golden State (I-5) Freeways on the west. The Angeles National Forest and the City of Santa Clarita lay directly north of the community. The 7,900-acre area (12.1 square miles) is occupied by roughly 80,000 inhabitants living in a collection of communities and neighborhoods. Sylmar continues to develop into a low- to moderate-density urban community, while maintaining an agricultural heritage. The general purpose of the plan is to preserve and enhance the character of Sylmar while providing a variety of new opportunities and growth in the area, including housing, transportation, and public utility improvements. The plan contains specific goals, objectives, and policies for park and recreation facilities, schools, libraries, and police protection and fire protection to ensure a livable community environment and the adequate provision of public services and facilities for its resident population (City of Los Angeles 2013b).

3.13.3 Environmental Setting

Public services for the proposed project site and the surrounding communities are provided by the County of Los Angeles Fire Department (LACFD), LAFD, the Los Angeles Police Department (LAPD), Los Angeles County Sheriff's Department (LASD), Los Angeles Unified School District (LAUSD), Los Angeles Public Library (LAPL), and the Los Angeles Department of Recreation and Parks. Public services have been actively developing in tandem with growth in the communities and the region. A

discussion of the current provisions to deliver public services within the Olive View–UCLA Medical Center and surrounding areas is provided below, along with any planning efforts to accommodate increases in demand due to future growth.

Figure 3.13-1 identifies the location of the fire stations, police stations, libraries, and parks in the vicinity of the proposed project. Figure 13.2-2 provides the locations of all public schools within the vicinity of the proposed project.

3.13.3.1 Fire Protection and Prevention and Emergency Services

Due to the campus' location abutting the foothills of the San Gabriel Mountains and Angeles National Forest immediately to the north, the campus is subject to wildland fire hazards and is designated as a VH FHSZ within an LRA on CAL FIRE maps (CAL FIRE 2011). The area immediately north of the campus is within a designated VH FHSZ in an SRA (CAL FIRE 2007).

The most recent wildland fire that resulted in damage to campus buildings was the Sayre Fire in November of 2009. The Sayre Fire damaged or destroyed 48 structures on the campus. Other recent fires that have occurred in the vicinity include the Creek Fire, which started on December 5, 2017, and resulted in the destruction of 60 residential and 63 outbuildings and damaged another 55 residential and 26 outbuildings, as of December 11, 2017 (CAL FIRE 2017). The fire encompassed 15,619 acres and was located approximately 2 miles east/southeast of the campus.

State and Federal Agencies

CAL FIRE provides fire protection and stewardship of over 31 million acres of California's privately-owned wildlands. In addition, CAL FIRE provides varied emergency services in 36 of the state's 58 counties via contracts with local governments. CAL Fire facilities include 21 operational units, 237 stations, and 575 local government fire stations operated by CAL FIRE via contract (CAL FIRE 2016). CAL FIRE's Southern Region Operations Headquarters, which is the primary operations coordination center for all emergency responses directed to CAL FIRE in the southern half of the state, is in the City of Riverside in Riverside County.

The Department's firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year. Those fires burn more than 172,000 acres annually. Beyond its wildland fire fighting role, CAL FIRE answers the call more than 350,000 times for other emergencies each year.

The Southern California Geographic Area Coordination Center is the focal point for coordinating the mobilization of resources for wildland fire and other incidents throughout the geographic area. The Center also provides Intelligence and Predictive Services related-products designed to be used by the internal wildland fire community for purposes of wildland fire and incident management decision-making (Southern California Geographic Area Coordination Center 2017).

Figure 3.13-1. Public Service Locations Map

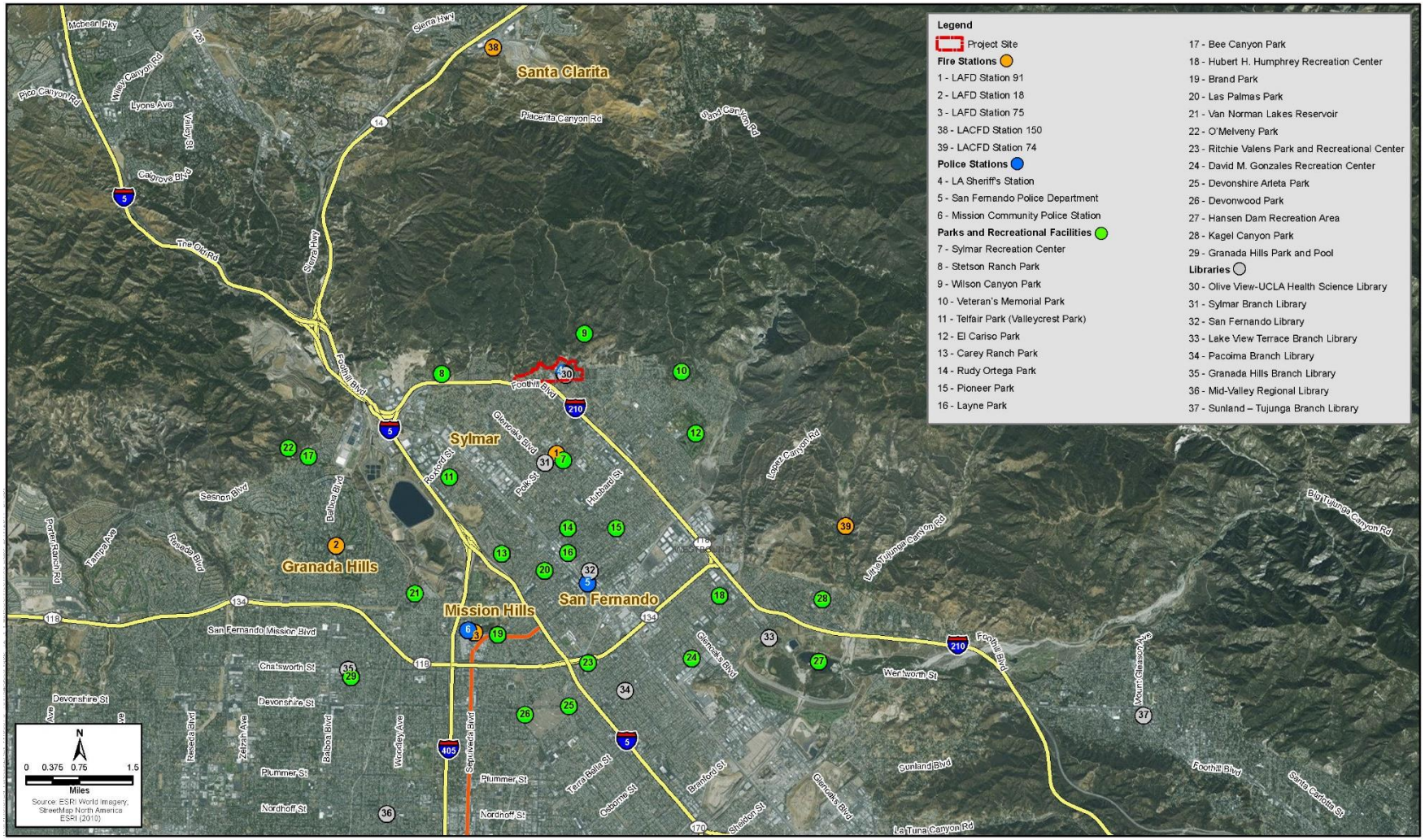
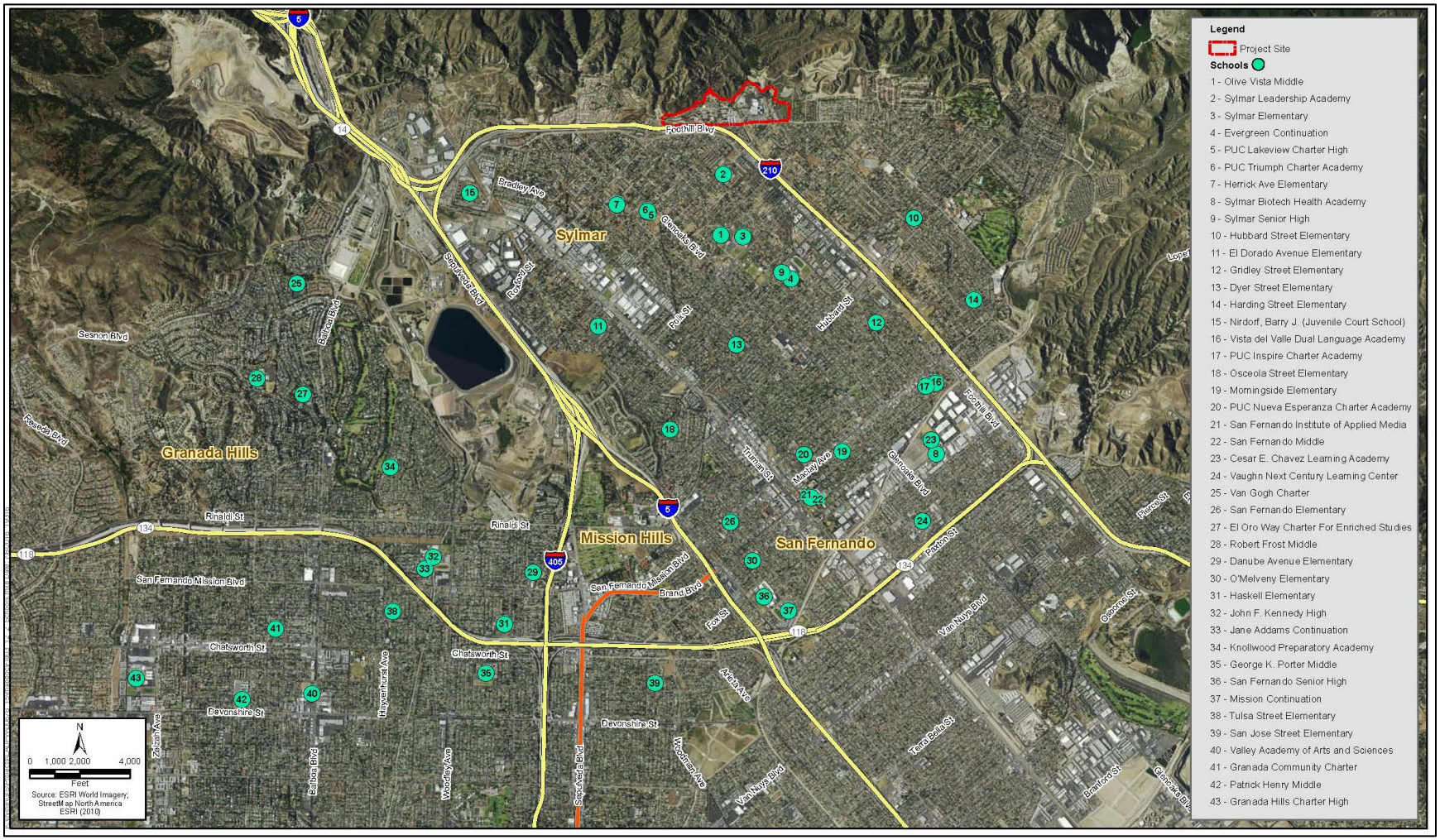


Figure 3.13-2. Public School Locations Map



Source: ICF 2017.

The California Wildland Fire Coordinating Group (CWFCG) was established to provide an interagency approach to wildland fire management and all-risk support on all land ownerships within the State of California. CWFCG includes representatives from CAL FIRE, the National Park Service (Pacific West Region), Governor's Office of Emergency Services, California Bureau of Land Management, U.S. Forest Service (Pacific Southwest Region), U.S. Fish and Wildlife Service (Pacific Southwest Region), and Bureau of Indian Affairs. The purpose of CWFCG is to further interagency cooperation, communications, and coordination, and to provide interagency fire management direction and all-risk support for the northern and southern California geographical areas (CWFCG 2017).

County of Los Angeles Fire Department

The LACFD provides fire, safety, and emergency medical services to the unincorporated areas of Los Angeles County. Additionally, many cities within Los Angeles County contract with the LACFD for fire protection services. There are three major geographic regions serviced by the LACFD, which are divided into nine divisions and 22 battalions. Division 3 covers the unincorporated area to the north and east of the project site as well as the cities of Santa Clarita and La Canada Flintridge. There are three battalions located within this service area with 22 stations. The nearest battalions to the project site are Battalion 6 and Battalion 4. The southern border of Battalion 6 lies immediately north of the project site and has five fire stations, one Division headquarters, and one Battalion and regional headquarters. The LACFD station nearest to the project area in Battalion 6 is County Fire Station #150 located at 19190 Golden Valley Road in Santa Clarita, approximately 4.5 miles to the north. Battalion 4 covers the unincorporated area east of the project site including the City of La Canada Flintridge and has six fire stations and one Battalion headquarters. The LACFD station nearest to the project area in Battalion 4 is County Fire Station #74 located at 12587 Dexter Park Road in San Fernando, approximately 5.25 miles east of the project site. It should be noted that while the LACFD would be the first responder to a brush fire in the unincorporated areas to the north and east of the project site, LAFD would be the first responder to an emergency on the project site.

Los Angeles Fire Department

LAFD provides fire protection and prevention and emergency services to and around the project site. LAFD is a full-spectrum life-safety agency that serves people who live and work in the city of Los Angeles. Its 3,246 uniformed fire personnel and 353 professional support personnel are responsible for fire prevention, firefighting, emergency medical care, technical rescue, hazardous materials mitigation, disaster response, public education, and community service (Los Angeles Fire Department 2017a). LAFD maintains 106 fire stations across the department's 471-square-mile jurisdiction, and has continued to see rises in emergency responses, both pertaining to fire and emergency medical services (EMS) (Los Angeles Fire Department 2017b). LAFD has a breadth of command, fire rescue, and EMS resources, enabling the department to serve a complex region.

Fire stations with proximity to the Olive View–UCLA Medical Center are listed in Table 3.13-1. For the purposes of this analysis, fire stations serving the project site and surrounding communities (Sylmar, Granada Hills, Mission Hills, and San Fernando) were identified. The locations of each station are shown on Figure 3.13-1. The primary responding fire station for the proposed project site would be LAFD Fire Station 91, located at 14430 Polk Street, approximately 1.5 miles south of the project site. The station maintains one engine, one ambulance, four engine crew members, and two ambulance crew members (Duff pers. comm.). According to LAFD's FireStatLA, Station 91's response metrics from January to December 2018 was an average of 52 seconds for turnout and 5 minutes and 27 seconds for

travel time for 5,477 EMS incidents.[1] Non-EMS response metrics were 50 seconds for turnout and 5 minutes, 37 seconds for travel time for 940 incidents (Los Angeles Fire Department 2018). A summary of the emergency and non-emergency calls and average response times for Fire Station 91 is provided in Table 3.13-2.

The National Fire Protection Association (NFPA) is a voluntary association of fire and emergency service organizations that seeks to establish and maintain standards for organizational, deployment and operational activities as well as recommended practices and benchmarks. NFPA maintains that the response time standard (turnout + travel) for the first fire resources is 5 minutes and 20 seconds (City of Los Angeles 2012). Fire Station 91's average emergency response time is outside the NFPA's 5-minute and 20-second national benchmark (turnout + travel), and also outside the 4- to 6-minute average response time suggested for all LAFD stations (Table 3.13-2).

Table 3.13-1. Fire Stations in the Vicinity of the Proposed Project

Map ID	Facility	Address	Distance from Project Site[1]
1	Fire Station 91	14430 Polk Street Sylmar, CA 91342	1.5 miles
2	Fire Station 18	12050 Balboa Boulevard Granada Hills, CA 91344	5.5 miles
3	Fire Station 75	15345 San Fernando Mission Boulevard Mission Hills, CA 91345	7.1 miles

[1] The Distance from Project Site metric represents the driving distance between facilities rather than the actual distance.
Source: City of Los Angeles Fire Department 2018.

Table 3.13-2. LAFD Station 91 Response Times (January–March 2019)

Call Type	Number of Incidents (EMS)	Average Turnout Time	Average Travel Time
Emergency	1,334	51 seconds	5 minutes, 33 seconds
Non-emergency	206	48 seconds	5 minutes, 37 seconds

Source: City of Los Angeles Fire Department 2019.

3.13.3.2 Police Protection

The Olive View–UCLA Medical Center Campus is patrolled by the LASD, and the surrounding community is within the service area of LAPD's Mission District of the Valley Bureau.

Table 3.13-3 lists police stations in the vicinity of the project site and provides their addresses and respective distances from the Olive View–UCLA Medical Center Campus. For the purposes of this analysis, police stations serving the project site and surrounding communities (Sylmar, Mission Hills, San Fernando, and Granada Hills) were identified. The locations of each station are shown on Figure 3.13-1.

[1] *Turnout* is the time from when the station acknowledges notification of the emergency until the time the response apparatus leaves the station.

Table 3.13-3. Police Stations in the Vicinity of the Proposed Project

Map ID	Facility Name	Address	Distance from Project Site[1]
4	LASD Satellite Station	14445 Olive View Drive Sylmar, CA 91342	On campus
5	San Fernando Police Department	910 1st Street San Fernando, CA 91340	4.0 miles
6	Mission Community Police Station	11121 N. Sepulveda Boulevard Mission Hills, CA 91345	6.1 miles

[1] The Distance from Project Site metric represents the driving distance between facilities rather than the actual distance.
Source: Los Angeles Police Department 2016.

Los Angeles County Sheriff's Department

Headquartered in Monterey Park, LASD maintains 23 stations across the southern California region to patrol 40 contract cities; 90 unincorporated communities; 216 facilities, hospitals, and clinics; 9 community colleges, the Metropolitan Transit Authority, and 47 Superior Courts. Its members are responsible for providing protection and service to almost 10 million people within a 4,084-square-mile area (Los Angeles County Sheriff's Department 2017a, 2017b).

The LASD station nearest to the project site is located on campus at 14445 Olive View Drive in Sylmar, in Trailer L1. The station maintains 6 squad cars and 16 sworn officers, and oversees an additional 9 non-sworn private security staff (Benning pers. comm.). These personnel operate 24 hours per day in three separate shifts and patrol the campus by way of radio dispatched cruisers, foot patrol, bicycles, and T-3 motorized vehicles. On average, they responded to 20 to 30 calls and 20 to 30 incidents per day with an average response time of 2 to 5 minutes. The nature of the incidents include emergencies, psychiatric needs, assault, vehicle crimes, vandalism, theft, parking issues, moving vehicle violations, and assisting citizens (Benning pers. comm.). The performance standard maintained for Sheriff services is a response time of 20 minutes for priority calls (Benning pers. comm.).

Los Angeles Police Department

LAPD's 21 community police stations, 10,007 sworn officers, and 2,819 civilian officers are the responsible local law enforcement agency for the city of Los Angeles's 4.0 million people, covering 468 square miles (Los Angeles Police Department 2017a). The community police station closest to the Olive View–UCLA Medical Center is the Mission Community Police Station, located approximately 6.1 miles to the southwest at 11121 N. Sepulveda Boulevard.

The Mission Community Police Station serves an area that has a population greater than 225,849 and covers 25.1 square miles. The station serves the communities of Arleta, Mission Hills, North Hills, Panorama City, and Sylmar and is under the jurisdiction of the LAPD's Valley Bureau (Los Angeles Police Department 2017b). A summary of recent crime statistics for the Mission area is shown in Table 3.13-4.

As mentioned above, LASD has jurisdiction over the project site; thus, any activities on site that require police protection services are handled by LASD. Activities requiring the LAPD on the project site involve transporting a patient to the hospital or responding to a call that occurred on city land.

Table 3.13-4. Mission Area Crime Statistics (through December 2, 2017)

Crime Type	YTD 2015	YTD 2016	YTD 2017	percent Change (2015–2017)
Total Violent	906	1,164	1,165	28.6 percent
Total Property	4,050	4,157	3,931	-2.9 percent

Source: COMPSTAT 2019.

3.13.3.3 Schools

The Los Angeles County Office of Education (LACOE) and Los Angeles Unified School District (LAUSD) provide facilities and resources for K–12 education and supplemental programming to the community surrounding the Olive View–UCLA Medical Center.

The Los Angeles County Office of Education

LACOE is a regional provider of services to students within the communities surrounding the proposed project site and throughout Los Angeles County. LACOE oversees educational programs and supports 80 local school districts and other agencies with academic, business, administrative, and consulting services related to special education, computer applications, and teaching strategies (Los Angeles County Office of Education 2011).

In addition to providing educational services to the County's 2 million preschool and school-age children, LACOE administers programs that benefit those who are unable to attend conventional school facilities, such as the physically and mentally disabled, wards of the juvenile court, preschool children, and students in job training programs (Los Angeles County Office of Education 2011).

Los Angeles Unified School District

The LAUSD area of service covers over 710 square miles and includes the city of Los Angeles as well as some parts of smaller municipalities and unincorporated areas within Los Angeles County. More than 640,000 students in kindergarten through 12th grade are enrolled in the district, which comprises more than 900 schools and 224 public charter schools (Los Angeles Unified School District 2017). There are 42 LAUSD campuses located within the vicinity of the project site.

Table 3.13-5 lists schools near the project site and provides the addresses, school type, and most recent enrollment information for each individual facility. For the purposes of this analysis, educational facilities serving the project site and surrounding communities (Sylmar, Mission Hills, San Fernando, and Granada Hills) were identified. Their locations are shown on Figure 3.13-2.

Table 3.13-5. Educational Facilities

Map ID	School Name	Address	School Type	2014–2015 Enrollment	Distance from Project Site[1]
1	Olive Vista Middle	14600 Tyler Street Sylmar, CA 91342-282	6–8	1,195	1.2 miles
2	Sylmar Leadership Academy	14550 Bledsoe Street Sylmar, CA 91342-141	6–12	952	1.3 miles
3	Sylmar Elementary	13291 Phillippi Avenue Sylmar, CA	K–5	607	1.5 miles

Map ID	School Name	Address	School Type	2014–2015 Enrollment	Distance from Project Site[1]
4	Evergreen Continuation	13101 Dronfield Avenue Sylmar, CA 91342-436	9–12	105	1.7 miles
5	PUC Lakeview Charter High	13361 Glenoaks Boulevard Sylmar, CA 91342-211	9–12	312	1.7 miles
6	PUC Triumph Charter Academy	13361 Glenoaks Boulevard Sylmar, CA 91342-211	K–8	292	1.7 miles
7	Herrick Avenue Elementary	13350 Herrick Avenue Sylmar, CA 91342	K–5	583	1.8 miles
8	Sylmar Biotech Health Academy	13050 Borden Avenue Sylmar, CA 91342-425	9–12	N/A	1.8 miles
9	Sylmar Senior High	13050 Borden Avenue Sylmar, CA 91342-425	K–5	2,306	1.8 miles
10	Hubbard Street Elementary	13325 Hubbard Street Sylmar, CA 91342-322	K–5	731	2.1 miles
11	El Dorado Avenue Elementary	12749 El Dorado Avenue Sylmar, CA 91342	K–5	572	2.2 miles
12	Gridley Street Elementary	1907 Eighth Street San Fernando, CA 91340-1009	K–5	725	2.3 miles
13	Dyer Street Elementary	14500 Dyer Street Sylmar, CA 91342	K–5	788	2.4 miles
14	Harding Street Elementary	13060 Harding Street Sylmar, CA 91342-481	K–5	501	2.5 miles
15	Nirdorf, Barry J. (Juvenile Court School)	16350 Filbert Street Sylmar, CA 91342	9–12	156	2.8 miles
16	Vista del Valle Dual Language Academy	12441 Bromont Avenue San Fernando, CA 91340-1306	K–5	452	2.8 miles
17	PUC Inspire Charter Academy	919 Eighth Street. San Fernando, CA 91340-1312	6–8	N/A	3.2 miles
18	Osceola Street Elementary	14940 Osceola Street Sylmar, CA 91342	K–5	349	3.5 miles
19	Morningside Elementary	576 North Maclay Avenue San Fernando, CA 91340-2497	K–5	706	3.6 miles
20	PUC Nueva Esperanza Charter Academy	1218 North Fourth Street San Fernando, CA 91340-2314	6–12	346	3.6 miles
21	San Fernando Institute of Applied Media	130 North Brand Boulevard San Fernando, CA 91340-2901	6–8	406	4.0 miles
22	San Fernando Middle	130 North Brand Boulevard San Fernando, CA 91340-2996	6–8	842	4.0 miles
23	Cesar E. Chavez Learning Academy	1001 Arroyo Avenue San Fernando, CA 91340-1817	9–12	521	4.1 miles

Map ID	School Name	Address	School Type	2014–2015 Enrollment	Distance from Project Site[1]
24	Vaughn Next Century Learning Center	13330 Vaughn Street San Fernando, CA 91340-2216	P–12	2,603	4.2 miles
25	Van Gogh Charter	17160 Van Gogh Street Granada Hills, CA 91344-1217	K–5	495	4.7 miles
26	San Fernando Elementary	1130 Mott Street San Fernando, CA 91340-4126	K–5	651	4.8 miles
27	El Oro Way Charter For Enriched Studies	12230 El Oro Way Granada Hills, CA 91344-1600	K–5	475	5.5 miles
28	Robert Frost Middle	12314 Bradford Place Granada Hills, CA 91344-1918	6–8	1,542	5.8 miles
29	Danube Avenue Elementary	11220 Danube Avenue Granada Hills, CA 91344-4319	K–5	464	6.6 miles
30	O'Melveny Elementary	728 Woodworth Street San Fernando, CA 91340-4219	K–5	577	6.8 miles
31	Haskell Elementary	15850 Tulsa Street Granada Hills, CA 91344-5525	K–5	568	7.0 miles
32	John F. Kennedy High	11254 Gothic Avenue Granada Hills, CA 91344-3709	9–12	2,119	7.2 miles
33	Jane Addams Continuation	16341 Donmetz Street Granada Hills, CA 91344-3773	9–12	188	7.3 miles
34	Knollwood Preparatory Academy	11822 Gerald Avenue Granada Hills, CA 91344-2849	K–5	449	7.7 miles
35	George K. Porter Middle	15960 Kingsbury Street Granada Hills, CA 91344-7144	6–8	1,665	8.1 miles
36	San Fernando Senior High	11133 O'Melveny Avenue San Fernando, CA 91340-4426	9–12	2,390	8.2 miles
37	Mission Continuation	11015 O'Melveny Avenue San Fernando, CA 91340-4424	9–12	93	8.5 miles
38	Tulsa Street Elementary	10900 Hayvenhurst Avenue Granada Hills, CA 91344-5121	K–5	521	8.5 miles
39	San Jose Street Elementary	14928 Clymer Street Mission Hills, CA 91345-2111	K–5	707	8.7 miles
40	Valley Academy of Arts and Sciences	10445 Balboa Boulevard Granada Hills, CA 91344-7323	9–12	1,220	9.1 miles
41	Granada Community Charter	17170 Tribune Street Granada Hills, CA 91344-4899	K–5	410	9.8 miles
42	Patrick Henry Middle	17340 San Jose Street Granada Hills, CA 91344-6131	6–8	954	9.8 miles
43	Granada Hills Charter High	10535 Zelzah Avenue Granada Hills, CA 91344-5902	9–12	4,273	10.4 miles

[1] The Distance from Project Site metric represents the driving distance between facilities rather than the actual distance.
N/A = Enrollment data not available.
Source: Public Schools Database (U.S. Department of Education 2016).

3.13.3.4 Parks

Within the vicinity of the project site, there are 18 neighborhood and community parks and 5 recreation centers (City of Los Angeles Department of Recreation and Parks 2015). The California Department of Parks and Recreation and the city of Los Angeles Department of Recreation and Parks are in charge of facility maintenance. The City of San Fernando Recreation and Community Services is responsible for the maintenance of the parks within their jurisdiction. The parks provide a wide variety of recreational and community services, including early childhood classes, special interest classes, workout classes, adult sports leagues and tournaments, recreation for people with special needs, senior recreation, and fine arts programs.

Table 3.13-6 lists the parks and recreational facilities near the proposed project site and provides their addresses, amenities, and respective distances to the Olive View–UCLA Medical Center Campus. For the purposes of this analysis, parks within 5 miles of the project site were identified. Their locations are shown on Figure 3.13-1.

Table 3.13-6. Parks and Recreational Facilities in the Project Area

Map ID	Park or Recreational Facility	Address	Amenities	Distance from Project Site[1]
7	Sylmar Recreation Center	13109 Borden Avenue Sylmar, CA 91342	Two gymnasiums (also serve as auditoriums), baseball diamond (lighted), basketball courts (lighted/outdoor), children's play area, community room, indoor gym (without weights), picnic tables, soccer field (unlighted), tennis courts (lighted), summer pool (unheated/outdoor)	1.2 miles
8	Stetson Ranch Park	13877 Glenoaks Boulevard Sylmar, CA 91342	Equestrian trails, horse ranch, riding arenas, shows, stables	1.3 miles
9	Wilson Canyon Park	14450 Olive View Drive Sylmar, CA 91342	Equestrian trails, hiking, bike paths,	0.4 mile
10	Veteran's Memorial Park	13000 Sayre Street Sylmar, CA 91342	Green space with picnic and camping areas	1.9 miles
11	Telfair Park (Valleycrest Park)	15721 Cobalt Avenue Sylmar, CA 91342	Picnic tables, walk away, water fountain	2.2 miles
12	El Cariso Park	13100 Hubbard Street Sylmar, CA 91342	Picnics, tennis courts, and public pool	2.4 miles

Map ID	Park or Recreational Facility	Address	Amenities	Distance from Project Site[1]
13	Carey Ranch Park	15021 Briarhill Drive Sylmar, CA 91342	Baseball field	2.8 miles
14	Rudy Ortega Park	2025 Fourth Street San Fernando, CA 91340	Tea house, walking trail (heritage park)	3.0 miles
15	Pioneer Park	828 Harding Street San Fernando, CA 91340	Baseball fields, outdoor basketball court, outdoor tennis courts, playground, picnic areas, public barbecues, concession stand	3.1 miles
16	Layne Park	120 North Huntington Street San Fernando, CA 91340	Outdoor basketball court, playground, picnic areas	3.5 miles
17	Bee Canyon Park	13150 Sesnon Boulevard Granada Hills, CA 91344	Children's play area, picnic tables, hiking trails	3.7 miles
18	Hubert H. Humphrey Recreation Center	12560 Filmore Street Pacoima, CA 91331	Barbecue pits, baseball diamond (lighted), basketball courts (lighted/outdoor), children's play area, football field (lighted), handball courts (lighted), indoor gym (without weights), picnic tables, soccer field (lighted), volleyball courts (lighted)	3.7 miles
19	Brand Park	15174 San Fernando Mission Road Mission Hills, CA 91345	Baseball diamond (unlighted), soccer (unlighted), historical site	3.8 miles
20	Las Palmas Park	505 S Huntington Street San Fernando, CA 91340	Multipurpose rooms, indoor gymnasium, baseball fields (4), outdoor basketball courts (6), playground, outdoor fitness area, picnic areas, public barbecues, concession stand	3.8 miles
21	Van Norman Lakes Reservoir	15800 Rinaldi Street Granada Hills, CA 91344	Baseball diamond (unlighted)	3.8 miles
22	O'Melveny Park	17300 Sesnon Boulevard Granada Hills, CA 91344	Baseball diamond (unlighted), soccer (unlighted), historical site	3.9 miles

Map ID	Park or Recreational Facility	Address	Amenities	Distance from Project Site[1]
23	Ritchie Valens Park and Recreational Center	10731 Laurel Canyon Boulevard Pacoima, CA 91331	Auditorium, basketball courts (lighted/indoor/outdoor), baseball diamond (lighted), children's play area, community room, handball courts (unlighted), indoor gym (without weights), picnic tables, soccer field (unlighted), tennis courts (lighted), summer pool (unheated/outdoor)	4.2 miles
24	David M. Gonzales Recreation Center	10943 Herrick Avenue Arleta, CA 91331	Auditorium, baseball diamond (lighted), basketball courts (lighted/indoor/outdoor), children's play area, community room, handball courts (lighted), indoor gym (without weights), outdoor gym (with weights), picnic tables, soccer field (lighted)	4.4 miles
25	Devonshire Arleta Park	14215 West Devonshire Street Pacoima, CA 91331	Children's play area, picnic tables	4.7 miles
26	Devonwood Park	10230 Woodman Avenue Panorama City, CA 91345	Children's play area, picnic tables	4.8 miles
27	Hansen Dam Recreation Area	11770 Foothill Boulevard Lakeview Terrace, CA 91040	Barbecue pits, baseball diamond (unlighted), children's play area, picnic tables, soccer field (unlighted), swim lake and aquatic center/pool, skate park	4.8 miles
28	Kagel Canyon Park	11435 Kagel Canyon Street Lakeview Terrace, CA 91342	Barbecue pits, children's play area, picnic tables	4.9 miles

Map ID	Park or Recreational Facility	Address	Amenities	Distance from Project Site[1]
29	Granada Hills Park and Pool	16730 Chatsworth Street Granada Hills, CA 91344	Summer pool (outdoor/unheated), auditorium, barbecue pits, baseball diamond (lighted/unlighted), basketball courts (lighted/indoor/outdoor), children's play area, community room, indoor gym (without weights), picnic tables, tennis courts (lighted)	5.0 miles

[1] The Distance from Project Site metric represents the driving distance between facilities rather than the actual distance.

Source: City of Los Angeles Department of Recreation and Parks 2018.

3.13.3.5 Library Facilities

LAPL, with support from the Library Foundation of Los Angeles, maintains the Central Library and its 73 branches. With millions of books, audiobooks, periodicals, DVDs, and CDs, the LAPL system hosts more than 16 million visitors annually who check out more than 15 million items (Los Angeles Public Library 2014). There are six public libraries within the vicinity of the Olive View–UCLA Medical Center. The LAPL branch closest to the proposed project site is the Sylmar Branch Library, at 14561 Polk Street (1.7 miles away).

Table 3.13-7 lists the libraries in the vicinity of the proposed project site and provides their addresses and respective distances from the Olive View–UCLA Medical Center Campus. For the purposes of this analysis, libraries serving the project site and surrounding communities (Sylmar, San Fernando, Mission Hills, and Granada Hills) were identified. Their locations are shown on Figure 3.13-1.

Table 3.13-7. Libraries in the Vicinity of the Proposed Project

Map ID	Facility Name	Address	Distance from Project Site[1]
30	Olive View–UCLA Health Science Library	14445 Olive View Drive Sylmar, CA 91342	On campus
31	Sylmar Branch Library	14561 Polk Street Sylmar, CA 91342	1.7 miles
32	San Fernando Library	217 N Maclay Avenue San Fernando, CA 91340	5.4 miles
33	Lake View Terrace Branch Library	12002 Osborne Street Lake View Terrace, CA 91342	6.6 miles
34	Pacoima Branch Library	13605 Van Nuys Boulevard Pacoima, CA 91331	7.8 miles
35	Granada Hills Branch Library	10640 Petit Avenue Granada Hills, CA 91344	9.1 miles
36	Mid-Valley Regional Library	16244 Nordhoff Street North Hills, CA 91343	9.7 miles
37	Sunland – Tujunga Branch Library	7771 Foothill Boulevard Tujunga, CA 91042	11.9 miles

[1] The Distance from Project Site metric represents the driving distance between facilities rather than the actual distance.
Source: Los Angeles Public Library 2016.

3.13.4 Environmental Impact Analysis

3.13.4.1 Methods

The proposed project was evaluated to determine if fire protection, police, schools, libraries, and parks and recreation facilities are staffed and located so that they could continue to serve the proposed project site and surrounding communities in an adequate manner without the need for additional facilities. Emergency services agencies (fire and police) were contacted to obtain information regarding their existing and projected service capacity, as well as the projected impacts that could result from implementation of the proposed project. Potential impacts were assessed through significance criteria established for this project based on the State CEQA Guidelines.

3.13.4.2 Thresholds of Significance

For the purposes of the analyses in this Final EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

PS-1 Provide or require the need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable services ratios, response times, or other performance objectives for any of the following public services:

- Fire Protection
- Police Protection

- Schools
- Parks
- Other Public Facilities

3.13.4.3 Impacts and Mitigation Measures

Impact PS-1: Would the Proposed Project Provide or Require the Need for New or Physically Altered Government Facilities, the Construction of Which Could Cause Significant Environmental Impacts, in Order to Maintain Acceptable Services Ratios, Response Times, or Other Performance Objectives for Any of the Public Services?

Fire Protection

Construction Impacts

Tier I

Tier I of the proposed Master Plan would include development of a new outpatient facility, a Restorative Care Village (which is composed of the Recuperative Care Center, Residential Treatment Program facility, the Mental Health Urgent Care Center, and the Mental Health Wellness Center), administration building, central utility plant, materials management, a community center, parking facilities, and the renovation of the existing hospital. Construction activities would include demolition of some onsite buildings and structures, site preparation and grading, and construction of new and renovated facilities. During construction, LAFD would respond to any incidents on-campus, as they do now. Thus, while construction could temporarily increase demand for fire protection services, it is unlikely that it would result in the need for new or altered fire protection facilities to provide fire protection services to the campus during construction. Therefore, the temporary increased demand for fire protection services during construction would be a less-than-significant impact.

However, emergency access to the project site could be affected by construction. Temporary lane closures and construction-related traffic could delay or obstruct the movement of emergency vehicles, which is considered to be a potentially significant impact for the purposes of this Final EIR. In order to ensure emergency access, traffic flow, and the LAFD's ability to maintain an adequate response time between 4 and 6 minutes, the County would implement mitigation measure **MM-PS-1**.

Tier II

Impacts under Tier II would be similar to those described under Tier I. Impacts would be less than significant after incorporation of **MM-PS-1.**

Mitigation Measures

The following measure is proposed to mitigate the construction impacts described in **Impact PS-1**.

> **MM-PS-1:** The Los Angeles County project manager and construction contractor will regularly notify and coordinate with the LAFD, LASD, and LAPD on project construction design, activities, and scheduling, including any on- and off-campus street or lane closures related to proposed development projects before construction begins.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

Increases in building square footage (see Table 2-1 in Chapter 2, *Project Description*, of this Final EIR) and the number of campus employees (see Table 3.11-5) and visitors that could occur under the proposed Master Plan could result in increased demand for fire protection services. However, new development would be constructed in accordance with current building and fire/life/safety ordinance and codes including all applicable County code requirements related to construction, access, water mains, fire flows, and hydrants. Additionally, proposed development under the Master Plan would be generally consistent with current use(s) and would not occur outside the existing campus boundaries.

Furthermore, as part of the standard project approval process, the County of Los Angeles Fire Department would review and approve all project plans to ensure compliance with applicable fire codes and standards including access and facility requirements as well as acceptable service ratios and response times, thereby minimizing the risk of increased operational fire hazards and impacts on performance objectives. Though LAFD is the primary emergency responder to the Olive View–UCLA Medical Center Campus (LACFD would be the first responder in the event of a brush fire in the project area), plan check reviews would be completed by the County of Los Angeles Fire Department's Engineering Section. Coordination with LAFD would be through the County of Los Angeles Fire Department's County Facilities Unit. Therefore, the proposed project would not require the construction of new or altered fire facilities at Station 91 or any of the stations in the area that serve the surrounding communities. Operational impacts to fire services as a result of the proposed project would be less than significant.

Tier II

Fire protection impacts under Tier II would be similar to those described under Tier I. Impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Police Protection

Construction Impacts

Tier I

The proposed project would include development of new, or renovation of existing, campus facilities. During construction, the construction site(s) would be protected by fencing, lighting, and security patrols. LASD is responsible for patrolling existing on-campus structures. Thus, while construction activities could temporarily increase the demand for police protection services, it is unlikely that such

activities would result in the need for new or altered LASD facilities to maintain acceptable performance objectives.

During construction, emergency access to the project site could be affected by temporary lane closures to accommodate construction activities, and construction-related traffic could delay or obstruct the movement of emergency vehicles, a potentially significant impact. In order to ensure emergency access, traffic flow, and the LASD and LAPD's ability to maintain adequate response times and other performance objectives, **MM-PS-1** is proposed.

Tier II

Impacts on police protection services under Tier II are expected to be similar to those described under Tier I. Impacts would be less than significant after incorporation of **MM-PS-1**.

Mitigation Measures

See **MM-PS-1** under *Fire Protection* for measures to mitigate the construction impacts on police protection services.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

The projected level of development that could occur under Tier I of the Master Plan would result in an estimated increase of 1,997 on-campus employees, as well as increased visitors to the campus. Increases in the number of employees and visitors could result in an increase in the number of incidents requiring an LASD response, which could affect LASD's service ratios and response times and result in a need for additional law enforcement staff. However, new facilities are not expected to be necessary under Tier I to meet this increased demand; therefore, the operational police protection impacts are considered to be less than significant. However, to minimize any potential operational impacts, **MM-PS-2** is proposed to ensure coordination with LASD continues through development of the Master Plan and adequate planning and staffing is provided to serve the increased demands that could occur due to Master Plan development. With implementation of **MM-PS-2**, impacts on LASD services would be less than significant.

In addition, as the LAPD would not be the primary responder and would only assist in emergent situations, it is not expected that new or altered facilities, the construction of which would result in significant impacts for the LAPD, would be necessary to maintain adequate service levels. Therefore, operational impacts on LAPD services would be less than significant.

Tier II

Under Tier II, it is estimated that development could result in an increase of 1,632 on-campus employees, as well as increased visitors to the campus. When considered in conjunction with Tier I, the Master Plan could result in an estimated increase of 3,629 employees on the campus. Similar, to Tier I, increases in the number of employees and visitors could result in an increase in the number of incidents requiring an LASD response, thus potentially affecting LASD's service ratios and response times, and resulting in a need for additional law enforcement staff. However, it should be noted that

under Tier II of the Master Plan, the existing Sheriff's building would be relocated to the west end of the campus. It is assumed that as the on-campus population increases, consultation and coordination with LASD would continue to determine the exact location and size of the building and staffing levels that would be necessary to meet projected demand. Therefore, development of a new on-campus LASD facility as part of the Master Plan would likely diminish the need for any off-campus LASD or LAPD facilities to meet the demand due to the increased campus population. Impacts would be less than significant. Additionally, **MM-PS-2** is proposed to ensure coordination with LASD continues through development of the Master Plan, and adequate planning and staffing is provided to serve the increased demands that could occur due to Master Plan development.

Mitigation Measures

The following measure is proposed to mitigate the potential operational impacts on LASD service.

> **MM-PS-2:** The Los Angeles County project manager and construction contractor will continue to coordinate with LASD on project design and development under the Master Plan, to ensure LASD is able to plan and staff adequate resources to continue to serve the campus for police protection services.

Level of Significance after Mitigation

Less than significant.

Schools

Construction Impacts

Tiers I and II

Given the large pool of construction workers within commuting distance of the project site, it is unlikely that construction workers would choose to permanently relocate their households to the area, thereby increasing local school enrollment. Thus, construction activities are not expected to result in the need for new or altered schools or school facilities to maintain acceptable personnel ratios or other performance and learning objectives. Construction impacts on educational facilities would be less than significant.

For a discussion of construction-period air quality and noise impacts on local schools and schoolchildren, please see Section 3.2*, Air Quality*, and Section 3.10, *Noise*, in this Final EIR.

Mitigation Measures

The impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tiers I and II

The projected development that could occur under the Master Plan could result in an increase of 3,608 employees on the campus. Given the campus' proximity to the freeway network and transit facilities,

these new employees would be expected to be dispersed over a wide geographic area within commuting distance of the campus. Thus, the new households formed by these new employees would not likely result in significant increases in student enrollment at any one school in the region. Therefore, the indirect impact of these employees on student enrollment is not expected to require the construction of new schools or school facilities to maintain acceptable personnel ratios or other performance and learning objectives.

Additionally, because the Recuperative Care Center and Residential Treatment Program facility proposed under Tier I of the Master Plan would provide temporary transitional housing for individuals discharged from the hospital, they would not generate or induce population growth such that new or altered schools or school facilities would be required. Operational impacts on educational facilities would be less than significant.

Mitigation Measures

The impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Parks

Construction Impacts

Tiers I and II

Given the large pool of construction workers within commuting distance of the project site, it is unlikely that construction workers would choose to permanently relocate to the area. Additionally, construction workers have limited opportunities to use local parks during the workday. Therefore, the presence of construction workers would not result in a significant increase in demand for local park facilities. Construction impacts would be less than significant.

For additional information regarding potential construction-related impacts on parks and recreational facilities, please see the Section 3.13, *Recreation*, of this Final EIR.

Mitigation Measures

The impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tiers I and II

The projected level of development under the Master Plan (Tier I plus Tier II) could increase the campus employee population by an estimated 3,608 employees, attract new visitors to the campus, and provide temporary transitional recuperative care at the Recuperative Care Center and the Residential Treatment Program facility on the campus. Given the proposed project includes riparian areas, gardens, courtyards, equestrian, bicycle, and pedestrian paths, and development intended to

create accommodating open space for campus employees, patients, and visitors, it is unlikely the proposed Master Plan would result in a significant increase in the use of and demand for local, off-campus park facilities. Therefore, development that could occur under the Master Plan is not expected to require new or altered off-campus parks and recreation facilities to maintain acceptable service ratios or other performance objectives. Operational impacts on parks would be less than significant.

For additional information regarding potential operation-related impacts on parks and recreational facilities, please see Section 3.13, *Recreation*, of this Final EIR.

Mitigation Measures

The impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Other Public Facilities

Construction Impacts

Tiers I and II

Another potentially affected public service and facility considered for the purposes of this Final EIR is libraries. Given the large pool of construction workers within commuting distance of the project site, it is unlikely that construction workers would choose to permanently relocate to the area and thereby increase the demand for local library services. Also, construction workers would have limited opportunities to use local libraries during the workday while working on campus. Thus, new or altered library facilities to maintain acceptable service ratios or other performance objectives are not anticipated, and construction impacts on libraries would be less than significant.

Mitigation Measures

The impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tiers I and II

The estimated increase in the campus employee population and increased visitors could result in an increased demand for local library services. However, this increase is not expected to be significant given the limited opportunity for employees to use local libraries during the work day and the fact that visitors to the campus are more likely to use campus facilities than the closest off-campus library, which is approximately 1.7 miles from the campus. Additionally, employees are likely to reside within a large geographic area within commuting distance of the campus; thus, no one library in the surrounding region is expected to experience a significant increase in demand as a result of the proposed Master Plan. Therefore, operational impacts on libraries would be less than significant.

Mitigation Measures

The impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

3.13.5 Cumulative Impacts

The public facilities that currently serve the Olive View–ULCA Medical Center Campus are those most likely to experience adverse cumulative impacts due to the proposed and related projects. Therefore, the study area, for the purposes of this cumulative impacts analysis, generally encompasses the service areas of those facilities. All of the related projects listed in Chapter 2, *Project Description*, in this Final EIR, fall within this study area and include a range of development types: residential, school, retail/commercial, industrial, and a park.

3.13.5.1 Fire Protection

The cumulative increases in study area employee and residential populations and area visitors would increase the demand for fire protection services, which may or may not require the construction of new facilities to meet that cumulative demand. However, the County and fire service providers require payment of development fees for new development as part of the permitting and approval process, which is intended to offset some of these cumulative effects resulting from new development. In addition, as part of the standard project approval process for the proposed project, the County of Los Angeles Fire Department would review and approve all project plans to ensure compliance with applicable fire codes and standards, thereby minimizing the risk of increased operational fire hazards and impacts on performance objectives from the proposed project. For these reasons, and because it is not known what, if any, new facilities would need to be constructed to maintain acceptable service ratios, the cumulative impacts due to the proposed and related projects are not considered to be significant.

3.13.5.2 Police Protection

Cumulative increases in study area employee, residential, and visitor populations would result in increased demand for police protection services. In order to maintain acceptable service ratios and response times, reallocation of staff resources or construction of new facilities to meet that cumulative demand may be required. However, the proposed Master Plan project includes mitigation measure **MM-PS-2,** which directs the County to continue coordination with LASD to ensure the proposed development under the Master Plan is accounted for when LASD reviews and determines any changes to current staffing and resource allocation at the campus. Development under the Master Plan would likely result in a minor increase in demand for offsite LAPD police protection services, as LASD is the primary responder for police protection services on the Olive View–UCLA Medical Center Campus and LAPD only assists in emergency situations. Additionally, it is not known whether new LAPD police facilities would need to be constructed to accommodate increased demand for police services in the study area and whether construction of needed facilities would result in significant impacts or the environment. Therefore, the cumulative impacts of the proposed and related projects on police protection services are not considered to be significant.

3.13.5.3 Schools

The related projects include development of almost 500 units of condominium and single-family dwelling units. Construction of new residential units could increase student enrollment at local schools. It is, however, not known whether the related projects would require expansion of existing, or construction of new, schools to accommodate increased student enrollment. In addition, there are two relevant, education projects included in the related projects list: one involves construction of a new high school and the other consists of construction of certain elements of the Los Angeles Mission College Master Plan. Development of these projects could reduce potential impacts on schools. Moreover, it should be noted that pursuant to Government Code Section 65995, the payment of the requisite school impact fees under the provisions of SB 50 would be deemed to be full mitigation of a project's impacts on school facilities. Therefore, for those reasons, the cumulative impacts on schools due to the proposed and related projects are considered to be less than significant.

3.13.5.4 Parks

The related projects include development of almost 500 units of condominium and single-family dwelling units, Lakeside Park, and construction of certain elements of the Los Angeles Mission College Master Plan, which would likely result in increased demand for and use of local parks. However, it should be noted that residential subdivisions proposed within the city of Los Angeles are required to provide local park space to serve their respective populations, pay a fee in lieu of the provision of such parkland, or a combination of both in accordance with the local ordinance in the Los Angeles Municipal Code, which would mitigate the cumulative impacts on park and recreational facilities resulting from residential development in the city of Los Angeles. In addition, the Los Angeles Mission College Master Plan would include construction of a health fitness and athletics complex that would be accessible to students and on-campus staff. Moreover, the proposed Olive View–UCLA Medical Center Campus Master Plan would create additional open space and passive recreational areas on the campus that could be used by campus visitors, employees, and local community residents. Therefore, the proposed Master Plan and related projects would not result in significant cumulative impacts on parks.

3.13.5.5 Other Public Facilities

The proposed residential development projects in the cumulative impacts study area could result in an increase in the residential population and thereby an increased use of local libraries. However, this impact is not expected to be significant given the relatively modest increase in the residential populations and the fact that it is unlikely that new library facilities would be required to meet this demand. For that reason and because the proposed project is expected to have a less-than-significant impact on libraries, the cumulative impact of the proposed and related projects would be less than significant.

3.14 Recreation

3.14.1 Introduction

This section identifies existing park and recreational facilities in the project vicinity and evaluates potential recreational impacts that could occur as a result of the construction and operation of the proposed Olive View–UCLA Medical Center Campus Master Plan.

3.14.2 Regulatory Setting

3.14.2.1 State

Public Park Preservation Act of 1971

The California Public Park Preservation Act of 1971 provides that no city, county, public district, agency of the state government, or public utility may acquire any real property, which is in use as a public park at the time of acquisition, for the purpose of utilizing the property for any non-park purpose, unless the acquiring entity pays or transfers to the legislative body of the entity operating the park sufficient compensation or land, or both, to enable the operating entity to replace the parkland and its facilities. This act authorizes changes in the general character and location of the park if certain requirements are met.

3.14.2.2 Local

Los Angeles County 2035 General Plan

The Los Angeles County 2035 General Plan includes policies related to recreation in the Parks and Recreation Element. The Parks and Recreation Element of the general plan provides policy direction for the maintenance and expansion of the County's parks and recreation system. Applicable policies from the Parks and Recreation Element include the following:

- **Policy P/R 1.2:** Provide additional active and passive recreational opportunities based on a community's setting, as well as its recreational needs and preferences.
- **Policy P/R 1.3:** Consider emerging trends in parks and recreation when planning new parks and recreational programs.
- **Policy P/R 1.4:** Promote efficiency by building on existing recreation programs.
- **Policy P/R 1.8:** Enhance existing parks to offer balanced passive and active recreation opportunities through more efficient use of space and the addition of new amenities.
- **Policy P/R 1.11:** Provide access to parks by creating pedestrian and bicycle-friendly paths and signage regarding park locations and distances.
- **Policy P/R 2.5:** Support the development of multi-benefit parks and open spaces through collaborative efforts among entities such as cities, County, state, and federal agencies, private groups, schools, private landowners, and other organizations.
- **Policy P/R 4.1:** Create multi-use trails to accommodate all users.

- **Policy P/R 4.2:** Develop staging areas and trailheads at strategic locations to accommodate multi-use trail users.
- **Policy P/R 4.4:** Maintain and design multi-purpose trails in ways that minimize circulation conflicts among trail users.
- **Policy P/R 5.3:** Protect and conserve natural resources on County park properties, including natural areas, sanctuaries, and open space preserves.

City of Los Angeles General Plan

The Public Recreation Plan, a portion of the Service Systems Element of the Los Angeles City General Plan, establishes standards for the city's parks and recreation system to ensure:

1. Sufficient land is reserved for parks and recreation;
2. Recreation areas are properly distributed in residential areas throughout the city; and
3. Facilities are provided to meet different recreation needs (i.e., active and passive recreation for all age groups) to accommodate a wide variety of users.

The Public Recreation Plan emphasizes neighborhood and community recreational sites and parks because of their immediate importance to the daily lives of the city's people, especially its children. The Plan recommends 10 acres of land for recreational facilities per 1,000 persons and identifies short, intermediate, and long-range standards for the city's neighborhood, community, and regional recreational sites. These standards are summarized below:

- **Neighborhood Parks** should be provided at a minimum of 2 acres of parkland per 1,000 persons within a 0.5-mile service radius. The City of Los Angeles Department of Recreation and Parks (LADRP), which manages the city's park and recreational facilities, tries to locate parks so that users do not have to cross major roadways to access the parks and provide facilities and programs that are tailored to the clientele served.
- **Community Parks** should also be provided at a minimum of 2 acres per 1,000 residents. However, the minimum desirable size is 15 acres and the ideal park should contain at least 20 acres, and the facilities or programs offered should reach a larger service radius, which is usually 2 miles. Community parks may offer swimming pools, community buildings, tennis, shuffleboard, and basketball courts, baseball diamonds, or senior citizen facilities.
- **Regional Parks** should have more than 50 acres and provide specialized facilities, such as lakes, golf courses, campgrounds, wilderness areas, and museums, and should serve persons living throughout the Los Angeles basin.

Framework Element

The Framework Element of the city of Los Angeles General Plan contains goals, objectives, and policies for the provision, management, and conservation of the city of Los Angeles' open space resources. The goals, objectives, and policies address issues related to the outdoor recreational needs of the city's residents. They are also intended to guide amendments to the general plan's Open Space and Conservation Elements.

Chapter 6 (Open Space and Conservation) of the Framework Element contains the following objectives and policies related to open space and conservation that are applicable to the proposed project:

- **Objective 6.1:** Protect the city's natural settings from the encroachment of urban development, allowing for the development, use, management, and maintenance of each component of the City's natural resources to contribute to the sustainability of the region.
- **Objective 6.2:** Maximize use of the city's existing open space network and recreational facilities by enhancing those facilities and providing connections, particularly from targeted growth areas, to the existing regional and community open space system.
- **Objective 6.3:** Ensure that open space is managed to minimize environmental risks to the public.
    - **Policy 6.3.1:** Preserve flood plains, landslide areas, and steep terrain areas as open space, wherever possible, to minimize the risk to public safety.
- **Objective 6.4:** Ensure that the city's open spaces contribute positively to the stability and identity of the communities and neighborhoods in which they are located or through which they pass.
    - **Policy 6.4.1:** Encourage and seek to provide usable open space and recreational facilities throughout the city.
    - **Policy 6.4.8:** Maximize use of existing public open space resources at the neighborhood scale and seek new opportunities for private development to enhance the open space resources of the neighborhood.
- **Objective 6.10:** Provide for the joint use of open space with existing and future public facilities, where feasible.

Sylmar Community Plan

The Sylmar Community Plan area encompasses the Olive View–UCLA Medical Center Campus. The Sylmar Community Plan is one of 35 community plans that comprise the land use element of the city of Los Angeles' General Plan. Applicable parks and recreational goals and policies from the Sylmar Community Plan include the following:

- **Goal PF5**: A variety of well-maintained parks and recreational facilities and services that meet the existing and future recreational needs of the community.
    - **CF5.1. Parkland Preservation**. Protect parklands from uses that would result in a loss of acreage for recreational purposes.
    - **CF5.2. Site Enhancements**. Enhance and improve all parks and recreation areas by providing amenities where appropriate, such as pedestrian paths, and bike and equestrian trails.
    - **CF5.3. Surplus Property**. Coordinate with the Forestry Division of Recreation and Parks (RAP) and other applicable City departments, such as the Department of General Services and Department of transportation, to review and evaluate surplus property as potential sites for parks and recreational activities.

- **CF5.4. Vacant Land**. Encourage continuous efforts by public agencies to acquire vacant parcels for publicly owned open space and parks.
- **CF5.5. Public Rights-of-Way**. Support the creation of new parks and park expansions within public rights-of-way, such as flood control channels, utility easements, debris basins, and other unused and underutilized public properties. Hiking, bicycle, and equestrian trails in Sylmar should connect these facilities with the Angeles National Forest, Hansen Dam Recreation Area, El Cariso Regional Park, and Pacoima Wash.
- **CF5.6. New Development**. Encourage and allow opportunities for new development to provide pocket parks, small plazas, community gardens, commercial spaces, and other gathering places that are available to help meet recreational demands.
- **CF5.7. Location.** Encourage neighborhood parks and recreational centers near concentrations of residential areas and include safe pedestrian walkways and bicycle paths that encourage non-motorized use.
- **CF5.8. Design.** Encourage the development of new park facilities to contribute to the semi-rural suburban character of the community by utilizing architectural features and building materials that embrace the area's agricultural and equestrian heritage.
- **CF5.9. Joint-Use**. Support the establishment of joint-use agreements with other public and private entities to increase recreational opportunities in Sylmar, including shared use of land owned by public agencies and private property owners.

In addition to the policies and goals for parks and recreational facilities identified above, the Sylmar Community Plan includes the following relevant open space policies and goals:

- **Goal CF6.** A community with sufficient open space in balance with new development to serve the recreational, environmental, health, and safety needs of the area and to protect environmental and aesthetic resources.
  - **CF6.1. Conservation.** Preserve passive and visual open space that provides wildlife habitat and corridors, wetlands, watersheds, groundwater recharge areas, and other natural resource areas.
  - **CF6.2. Protection.** Protect significant open space resources and environmentally sensitive areas from environmental hazards and incompatible land uses.
  - **CF6.3. Stream Alterations.** Minimize the alteration of natural drainage patterns, canyons, and watercourses, except where improvements are necessary to protect life and property.
  - **CF6.6. Ecologically Sensitive Areas.** Coordinate with County of Los Angeles in the identification of significant ecological areas featuring ecological or scenic resources that should be preserved and protected within state reserves, preserves, parks, or natural wildlife refuges.
  - **CF6.7. Open Space Integration.** Integrate the use of open space with public facilities adjacent to reservoirs, land reclamation sites, spreading grounds, power line rights-of-way, and flood control channels.
  - **CF6.8. Trail Linkages.** Continue to expand and maintain trail linkages that reinforce the viability of equine uses and accessibility to open spaces by designing development and infrastructure improvement projects that abut or connect with a trail to develop and/or improve the trail system.

- **CF6.9. Greenways.** Establish, where feasible, multi-use greenways along waterways, rail lines, and utility corridors to provide additional open space for passive or active recreation and to connect adjoining neighborhoods to one another and to regional open space resources.
- **CF6.10. Access and Connections.** Improve connectivity and access to the Rim of the Valley trails corridor and other adjacent open space resources using such tools as easements and trail and greenway linkages.

3.14.3 Environmental Setting

The Olive View–UCLA Medical Center Campus sits at the southern foothills of the San Gabriel Mountains, which provide the Sylmar community with access to open space and recreational areas. Equestrian facilities and trails are a defining feature of the Sylmar community, with trails connecting the suburban residential areas to the west, south, and east to the foothills and mountains to the north.

There are no existing recreational resources located on the campus other than passive open spaces and equestrian trails along portions of the perimeter of the campus that provide access to the trails north of the campus.

Parks and recreational facilities that are located within 3 miles of the project site are identified and described in Table 3.14-1, below, and shown in Figure 3.14-1, in Section 3.14, *Public Services*, of this Final EIR. These park and recreational facilities are owned and operated by LADRP, the Los Angeles County Parks and Recreation Department (LACPRD), or the Santa Monica Mountains Conservancy (SMMC), which was established by the California State Legislature in 1980 to help create and preserve parkland in both wilderness and urban settings. The mountains and open space to the north of the campus within the Angeles National Forest are under the jurisdiction of the Department of Agriculture's U.S. Forest Service.

The nearest designated recreational area to the campus is Wilson Canyon Park, which covers an expanse of the mountains directly north of the campus and is owned and operated by SMMC.

Table 3.14-1. Parks and Recreational Facilities in the Study Area

Park or Recreational Facility/Agency	Address	Amenities	Distance from Project Site
Wilson Canyon Park/ SMMC	14450 Olive View Dr., Sylmar, CA 91342	Equestrian trails, hiking, camping, and bike paths	Borders Campus
Saddletree Open Space/ SMMC	Sylmar, CA 91342	Equestrian trails, hiking, picnic areas, and bike paths	0.17 mi
Sylmar Recreation Center/ LADRP	13109 Borden Ave., Sylmar, CA 91342	Two gymnasiums (also serve as auditoriums), baseball diamond (lighted), basketball courts (lighted/outdoor), children's play area, community room, indoor gym (without weights), picnic tables, soccer field (unlighted), tennis courts (lighted), summer pool (unheated/outdoor)	1.21 mi

Park or Recreational Facility/Agency	Address	Amenities	Distance from Project Site
Stetson Ranch Park/ LADRP	13877 Glenoaks Blvd., Sylmar, CA 91342	Equestrian trails, horse ranch, riding arenas, shows, stables	1.33 mi
Veteran's Memorial Park/ LACPRD	13000 Sayre St., Sylmar, CA 91342	Green space with picnic and camping areas	1.9 mi
El Cariso Park/ LACPRD	13100 Hubbard St., Sylmar, CA 91342	Picnics, tennis courts, and public pool	2.4 mi
Telfair Park (Valleycrest Park)/ LADRP	15721 Cobalt Ave., Sylmar, CA 91342	Picnic tables, water fountain, playground	2.18 mi
Carey Ranch Park/ LADRP	15021 Briarhill Dr., Sylmar, CA 91342	Baseball field	2.78 mi

Note: The "distance from project site" metric in the table represents the driving distance between facilities, rather than the straight-line distance.
Sources: ICF, LADRP, City of Los Angeles Department of Recreation and Parks, 2016.

3.14.4 Environmental Impact Analysis

3.14.4.1 Methods

The impacts analysis presented below is based on a desktop inventory that was conducted to identify recreational uses that might be affected by construction and operation of the facilities that would be developed under the proposed Olive View–UCLA Center Campus Master Plan. Information was compiled from regional/local maps and planning documents, including the Sylmar Community Plan, city of Los Angeles General Plan, and Los Angeles County General Plan, which were reviewed to provide insight into recreational goals and regulations for the community surrounding the project. The analysis evaluated the proposed Master Plan's consistency with applicable community, city, and County plans and policies related to recreation, as well as any potential impacts resulting from construction and operation of the project.

3.14.4.2 Thresholds of Significance

For the purposes of the analysis in this Final EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact if it would:

REC-1 Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or

REC-2 Include recreational facilities or require the construction or expansion of recreational facilities that would have a substantial adverse physical effect on the environment.

3.14.4.3 Impacts and Mitigation Measures

Impact REC-1: Would the Proposed Master Plan Increase the Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities such that Substantial Physical Deterioration of the Facility Would Occur or Be Accelerated?

Construction Impacts

Tier I

Construction of the proposed project facilities would require employing several crews of construction workers on the campus over a period of years. The exact number of workers on-site at any one time will depend on the construction schedules for the individual development projects proposed under the Master Plan, which remain to be determined. However, given the general accessibility of the project site and availability of construction workers, it is unlikely that a substantial number of construction workers and their families would relocate to the immediate vicinity of the project such that use of existing parks or recreational facilities would increase to the point that substantial deterioration would occur.

Additionally, although users of nearby parks, particularly Wilson Canyon Park and Saddletree Open Space, and equestrian and hiking trails in the immediate vicinity of the campus may experience noise, dust, diminished access, and other nuisance impacts during construction, it is not expected that these temporary construction impacts would result in the substantial physical deterioration of any of the parks or recreational facilities listed in Table 3.14-1. Therefore, construction-period impacts due to park use and deterioration would be less than significant.

Tier II

Impacts under Tier II would occur primarily within the western two-thirds of the campus. Although construction activities would affect a larger area of the campus than under Tier I, impacts would be similar to those described above for Tier I and would be less than significant.

Mitigation Measures

Construction impacts during Tiers I and II would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

Under Tier I, a 48-bed Recuperative Care Center and an 80-bed Residential Treatment Program facility would be constructed to provide temporary housing and a supportive, home-like setting for patients to recover after being discharged from the hospital. It is anticipated that the length of stay for the occupants of the facilities would be between 10 and 14 days. In addition, a Mental Health Urgent Care Center and a Mental Health Wellness Center would be constructed to provide immediate mental health services and serve as intermediary levels of service between psychiatric emergency rooms and psychiatric hospitals. The occupants of the facilities may use the parks and

recreational facilities on the campus or in the immediate vicinity. Additionally, development under Tier I would result in increases in the number of campus employees (1,997 additional employees) and visitors, who could choose to use nearby recreational facilities. Since local recreational resources are most frequently used by local residents, rather than campus employees or visitors or hospital patients, Tier I development is not expected to directly result in a substantial increase in use of local parks. Therefore, substantial deterioration of local parks and recreational facilities is not expected to occur as a result of the potential increase in the on-campus populations that could occur under Tier I. Furthermore, Tier I would include new recreational facilities (mostly passive open space) for use by employees, visitors to the Campus, occupants of the proposed Restorative Care Village facilities, and the community. These facilities, as described in the Master Plan, could include sculpture gardens, community gardens, courtyards, areas for sports and active recreation, a fitness and therapy garden, a community green and amphitheater, wildflower gardens, and woodland areas. Additionally, the increase in the number of households that could indirectly occur because of an increase in the number of medical center employees would most likely be dispersed over a wide geographic area within commuting distance of the campus. As a consequence, the demand for park facilities that could indirectly occur due to the Tier I development would be similarly dispersed over a wide geographic area. Impacts would be less than significant.

Tier II

Development under Tier II would also result in an increase in the number of campus employees and visitors (an additional 1,632 employees under Tier II or a net increase of 3,629 employees under Tier I and Tier II combined). However, development would include the construction of new landscaped and open space areas on campus to provide easily accessible outdoor experiences for employees, visitors to the campus, and the public. Proposed recreational areas under Tier II include the expansion of equestrian, bicycle, and pedestrian pathways, riparian gardens, a bird and butterfly garden, meditation garden, healing garden, and an art program that may include large-scale games and bocce courts. As a consequence, Tier II development is not expected to result in an increase in the use of off-campus recreational facilities in the project vicinity such that substantial deterioration of those facilities would occur. Impacts would be less than significant.

Mitigation Measures

Operational impacts during Tiers I and II would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Impact REC-2: Would the Proposed Master Plan include Recreational Facilities or Require the Construction or Expansion of Recreational Facilities that Would Have a Substantial Adverse Physical Effect on the Environment?

Construction Impacts

Tier I

Development under Tier I would include new landscaped and open space areas, which are intended to encourage outdoor recreation (primarily passive in nature), increase mobility within the campus, facilitate access to and throughout the site, and promote a sense of community with spaces

accessible to residents in the project vicinity. These facilities include trailheads, gardens, and open community spaces. Construction of these proposed landscaped and open space areas would require demolition, grading, and excavation activities and the construction of permanent facilities. These construction activities would result in a temporary increase in noise and a decrease in air quality that would be experienced by local residents and hospital patrons. The reader is referred to Sections 3.2, *Air Quality*, and 3.11, *Noise*, of this Final EIR, for detailed descriptions of the proposed project's potential construction impacts, as well as the best management practices (BMPs) and mitigation measures proposed to minimize any adverse or potentially significant impacts.

Tier II

Impacts under Tier II would be similar to those described under Tier I. Under Tier II, equestrian, bicycle, and pedestrian pathways would be completed, creating a fabric of pathways through the campus that connect the site to the community, and the mountains in the north. Additional gardens, courtyards, and wooded areas would be developed to provide recreational opportunities to campus visitors and residents. Please see Section 3.2, *Air Quality,* and Section 3.11, *Noise,* of this Final EIR for descriptions of the proposed project's potential construction impacts, as well as the BMPs and mitigation measures proposed to minimize any adverse or potentially significant impacts.

Mitigation Measures

Please see Section 3.2, *Air Quality,* and Section 3.11, *Noise,* of this Final EIR for measures to reduce the impacts due to construction of Master Plan facilities, including any on-campus recreational or passive open space areas.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

As noted above, the proposed Master Plan includes new landscaped and open space areas, which are intended to encourage outdoor recreational activities. It is not expected that routine daily use of these open space areas would result in significant operational impacts on the environment.

As discussed above, the potential increase in number of households associated with the increased on-campus employee population and the presence of the Residential Treatment Program is unlikely to result in a significant increase in the demand for recreational facilities in any one area. Therefore, it is unlikely that construction of new recreational facilities would be required to meet a widely dispersed demand for parks and recreational facilities. Additionally, implementation of the Master Plan would result in new landscaped and open space areas, which could help offset any potential increases in the use of existing local recreational facilities due to new employees who choose to reside in the immediate vicinity of the campus. Impacts would be less than significant.

Tier II

Operational impacts under Tier II would be similar to those described for Tier I. Given that Tier II would include new landscaped and open space areas for passive recreational use, development on the campus and the resulting increase in employee and visitor populations is unlikely to result in a significant increase in demand for offsite recreational facilities. Therefore, it is not anticipated that

construction of new offsite facilities would be required to meet that demand; as a consequence, recreation impacts under Tier II would be less than significant.

Mitigation Measures

Operational impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

3.14.5 Cumulative Impacts

The study area for the cumulative recreation impacts consists of the related projects within an approximately 2-mile radius of the project site. These related projects, which are listed in Table 2-2 and depicted in Figure 2-9 of Chapter 2, *Project Description*, of this Final EIR, consist of 647 units of predominantly multifamily housing, as well as commercial, industrial, and institutional uses, and a 9-acre recreational facility. Development of these related projects would increase the residential and employee populations in the project area, which would increase the use of and demand for local recreational facilities. However, it should be noted that residential subdivisions proposed within the city of Los Angeles are required to provide local park space to serve their respective populations, pay a fee in lieu of the provision of such parkland, or do a combination of both in accordance with the local ordinance in the LAMC, which would mitigate the cumulative impacts on park and recreational facilities resulting from residential development in the city of Los Angeles. Given this fact and because the proposed Master Plan would create additional open space and passive recreational areas on the campus that could be used by campus visitors, employees, and local community residents, the proposed Master Plan and related projects would not result in significant cumulative impacts on local recreational and park resources due to the increased use and resulting physical deterioration of these facilities.

As noted in the discussion of Impact **REC-2** above, construction of proposed campus facilities, including open space and recreational areas, would result in a temporary increase in noise and lower air quality that would be experienced by local residents and hospital patrons. The reader is referred to Sections 3.2, *Air Quality*, and 3.11, *Noise*, of this Final EIR, for detailed descriptions of the proposed project's potential construction impacts, as well as the BMPs and mitigation measures proposed to minimize any adverse or potentially significant impacts. Because of the distance separating the related projects from the campus (the closest related project is approximately a half-mile from the medical center campus), it is unlikely the related projects would contribute to or exacerbate Master Plan impacts on nearby sensitive land uses. Therefore, construction of proposed Master Plan recreational and open space facilities would not result in a cumulatively considerable contribution to a significant recreation impact.

3.15 Transportation/Traffic

3.15.1 Introduction

This section summarizes the potential transportation and traffic impacts due to construction and operation of the proposed project. The information is based on the traffic study prepared for the project by Fehr & Peers (2019), which is included as Appendix J of this Final EIR. This section includes a review of existing conditions, a summary of applicable policies and regulations related to transportation and traffic, and an analysis of the traffic impacts of the project, including potential cumulative effects. Where feasible, mitigation measures are recommended to reduce expected impacts that are identified as significant.

3.15.2 Regulatory Setting

There are no relevant federal or state regulations for transportation and traffic. This section summarizes local regulations that apply to the proposed project.

3.15.2.1 Regional Transportation Planning

Southern California Area Governments Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG) is a Joint Powers Authority under California state law. SCAG was established as an association of local governments and agencies. These local governments and agencies voluntarily convene as a forum to address regional issues.

The SCAG region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura) and 191 cities in an area covering more than 38,000 square miles, and six county transportation commissions, which have primary responsibility for programming and implementing transportation projects, programs, and services in their respective counties.

SCAG is designated under federal law as a Metropolitan Planning Organization, a Regional Transportation Planning Agency, and a Council of Governments under state law. SCAG bylaws provide for representation of air districts in the region. SCAG develops long-range regional transportation plans, including growth forecast components, regional transportation improvement programs, and a portion of the South Coast Air Quality District's management plans.

According to SCAG, its Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) is a long-range visioning plan that balances future mobility and transportation needs with economic, environmental, and public health goals. The RTP/SCS is a vision for the region's future. It was developed with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses, and local stakeholders within the region.

More than 4,000 transportation projects from local county plans, ranging from highway improvements to railroad grade separations, bicycle lanes, new transit hubs, and replacement bridges, were included in the 2016 RTP/SCS to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices for everyone.

3.15.2.2 County of Los Angeles

General Plan 2035

Mobility Element

The Mobility Element provides an overview of the County's transportation infrastructure and strategies for developing an efficient and multimodal transportation network. The element assesses the challenges and constraints for the County's transportation system and offers policy guidance to reach the County's long-term mobility goals. Two sub-elements—the Highway Plan and Bicycle Master Plan—supplement the Mobility Element. These plans, which establish policies for roadway and bikeway systems in unincorporated areas, coordinate with policies for roadway and bikeway networks in the County's 88 incorporated cities. The general plan also establishes a program for preparing community pedestrian plans, with guidelines and standards that promote walkability and connectivity throughout the unincorporated areas.

Los Angeles County Metropolitan Transportation Authority's Congestion Management Program

The Los Angeles Congestion Management Program (CMP) is a state-mandated program that was enacted by the California state legislature with the passage of Proposition 111 in 1990, as administered by the Los Angeles County Metropolitan Transportation Authority (Metro). The purpose of the CMP is to develop a coordinated approach to managing and decreasing traffic congestion by linking various transportation, land use, and air quality planning programs throughout the county. One required element of the CMP is a process to evaluate the transportation and traffic impacts of large projects on the regional transportation system. That process is undertaken by local agencies, project applicants, and traffic consultants through a transportation impact report, usually prepared as part of the California Environmental Quality Act (CEQA) project review process.

The 2010 CMP for the county (adopted October 28, 2010) was developed in part to link local land use decisions with their impacts on regional transportation. The CMP identifies a system of highways and roadways, with the minimum level-of-service (LOS) performance measurement designated as LOS E (unless exceeded in base-year conditions) for highway segments and key roadway intersections on this system. A traffic impact analysis (TIA) is required for projects that generate at least 50 new trips at CMP intersections during the peak hour or 150 trips to mainline freeway locations. The analysis must investigate measures that will mitigate significant CMP system impacts; develop cost estimates, including fair-share costs to mitigate the impacts of a proposed project; and indicate the responsible agency. Selection of the final mitigation measures is left to the discretion of the local jurisdiction. Once a mitigation program is selected, the jurisdiction self-monitors implementation through the existing mitigation monitoring requirements of CEQA.

3.15.2.3 City of Los Angeles

City of Los Angeles Mobility Plan 2035

In August 2015, the city of Los Angeles updated the Transportation Element of the City's General Plan, now referred to as Mobility Plan 2035, or MP 2035, to reflect policies and programs that will lay the policy foundation for safe, accessible, and enjoyable streets for pedestrians, bicyclists, transit

users, and vehicles throughout the city. MP 2035 and the final environmental impact report (EIR), adopted on August 11, 2015, are compliant with the 2008 Complete Streets Act, which mandated that the Circulation Element of a city's general plan must be modified to plan for a balanced, multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan.

City of Los Angeles 1999 General Plan Transportation Element

The Transportation Element includes a discussion of existing roadway infrastructure in the city of Los Angeles. Goals, objectives, and policies are included in the Transportation Element to ensure efficient circulation within the city and region.

Traffic Study Policies and Procedures

The Los Angeles Department of Transportation's (LADOT) Traffic Study Policies and Procedures establishes significant traffic impact thresholds and procedures for determining project impacts on operations at intersections and along roadway/freeway segments (City of Los Angeles 2014).

3.15.3 Environmental Setting

The assessment of conditions relevant to this study includes a description of the study area, an inventory of the local street system in the vicinity of the project site, a review of traffic volumes on these facilities, an assessment of the resultant operating conditions, and the current transit service in the study area. A detailed description of these elements is presented in the following sections.

3.15.3.1 Study Area

The proposed project is located at 14445 Olive View Drive in the Sylmar community of Los Angeles. All intersections are within the city of Los Angeles. Nine driveways along Olive View Drive provide access to the site. The study area extends from the project site southwest to Interstate (I) 5 and southeast to Polk Street.

The area around the medical center contains a mature network of freeways and arterial, collector, and local streets that are accessible to drivers, both from a local and a regional perspective.

Major freeways near the medical center include the Foothill Freeway (I-210) and the Golden State Freeway (I-5). I-210, with access ramps at Roxford Street and Polk Street, follows an east–west path through the region and provides access to San Bernardino. I-5, with an access ramp at Roxford Street, providing access to I-210, runs north–south approximately 2 miles to the west and provides access to Los Angeles and Santa Clarita as well as areas beyond. High-occupancy toll (HOT) lanes, which are available to vehicles with more than one occupant or drivers with pre-paid transponders, are provided on I-5, beginning at the intersection of I-5 and State Route 118 and continuing north to the Santa Clara River as well as areas beyond.

The area around the medical center is served by a network of streets that generally run northeast–southwest or northwest–southeast, according to local topography and historic development patterns. Olive View Drive and Foothill Boulevard, which are south of the campus, are east–west

arterial facilities. Roxford Street and Polk Street, which are west and east of the campus, are north–south arterial facilities.

Following extensive coordination with staff members from the County of Los Angeles, California Department of Transportation (Caltrans), and LADOT, 14 intersections were selected to be studied as part of the TIA for the proposed project:

1. Foothill Boulevard and Glenoaks Boulevard
2. I-210 westbound ramps and Roxford Street
3. I-210 eastbound ramps and Roxford Street
4. Foothill Boulevard and Roxford Street
5. Glenoaks Boulevard and Roxford Street
6. San Fernando Road and Roxford Street
7. I-5 northbound off-ramp/Encinitas Avenue and Roxford Street
8. I-5 southbound ramps and Roxford Street
9. Olive View Drive and Bledsoe Street
10. Foothill Boulevard and Bledsoe Street
11. Glenoaks Boulevard and Bledsoe Street
12. I-210 westbound ramps and Polk Street
13. I-210 eastbound ramps and Polk Street
14. Foothill Boulevard and Polk Street

All intersections are controlled by traffic signals, with the exception of Olive View Drive and Bledsoe Street (Intersection 9), which is an all-way stop-controlled intersection. Per LADOT guidelines, this location was analyzed to determine the need for signalization. Figure 3.15-1 shows the project site and the 14 intersections that were analyzed for the traffic study.

Existing Street System

Primary regional access to the site is provided by I-5 and I-210. The following is a brief description of the streets that serve the site.

Freeways

- **Foothill Freeway (I-210):** The Foothill Freeway runs east–west to the south of the project site. Access from the project site to the Foothill Freeway is provided by interchanges at Roxford Street and Polk Street.
- **Golden State Freeway (I-5):** The Golden State Freeway runs north–south approximately 2 miles west of the project site. Access from the project site to the Golden State Freeway is provided by an interchange at Roxford Street and from the Foothill Freeway.

- **Olive View Drive:** Olive View Drive is designated as an Avenue II and part of the Neighborhood Enhanced Network, according to MP 2035. The roadway runs east–west adjacent to the project site and provides two travel lanes in each direction and a two-way left-turn lane. Unrestricted parking is generally available on either side of the street. The posted speed limit is 40 mph.

Figure 3.15-1. Project Site and Study Area

Source: Fehr & Peers 2019.

Northwest–Southeast Roadways

- **San Fernando Road:** San Fernando Road, designated as an Avenue I, is part of the Bicycle Enhanced Network and the Transit Enhanced Network, according to MP 2035. The roadway runs northwest–southeast to the south of the project site and provides two travel lanes in each direction and a two-way left-turn lane. Unrestricted parking is available on many portions of the west side of the street. No parking is allowed adjacent to the Metrolink tracks on the east side of the street. The posted speed limit is 40 mph.
- **Glenoaks Boulevard:** Glenoaks Boulevard is designated as an Avenue II, according to MP 2035. The roadway runs northwest–southeast to the south of the project site and provides two travel lanes in each direction, with intersection turn lanes on portions of the roadway. Unrestricted parking is available on portions of both sides of the street. The posted speed limit is 35 mph.
- **Foothill Boulevard:** Foothill Boulevard is designated as an Avenue I, according to MP 2035. The roadway provides two travel lanes in each direction and a center turn lane north, except between Filbert Street and Bledsoe Street where there is one travel lane in each direction and a two-way left-turn lane. There is a bicycle lane between Hubbard Street and Polk Street and between Tyler Street and Balboa Boulevard. Restricted and unrestricted parking is available on portions of both sides of the street. The posted speed limit is 45 mph.
- **Encinitas Avenue:** Encinitas Avenue is designated as an Avenue II, according to MP 2035. The roadway runs northwest–southeast approximately 2 miles to the southwest of the project site. North of Cobalt Street, the roadway provides two travel lanes, one heading north and one heading south. South of Cobalt Street, there is one travel lane in each direction. The street also has a two-way left-turn lane. Restricted and unrestricted parking is available on both sides of the street on portions of the roadway. There is no posted speed limit on the street.

Northeast–Southwest Roadways

- **Roxford Street**. Roxford Street is designated as an Avenue I, according to MP 2035. The roadway runs northeast–southwest to the west of the project site. The street provides two travel lanes and a center turn lane in each direction south of Ralston Avenue and one travel lane in each direction and a center turn lane north of Ralston Avenue. Unrestricted parking is available on either side of the street on portions of the roadway. The posted speed limit is 35 mph.
- **Bledsoe Street**. Bledsoe Street is designated as an Avenue I west of Glenoaks Boulevard and an Avenue II south of San Fernando Road, according to MP 2035. The roadway runs northeast–southwest to the south of the project site and provides one vehicle travel lane in each direction. There is also a bicycle lane in each direction between San Fernando Road and De Garmo Avenue. Unrestricted parking is available on either side of the street on most portions of the roadway. The posted speed limit is 25 mph north of Foothill Boulevard and 35 mph south of Foothill Boulevard.
- **Polk Street.** Polk Street is designated as an Avenue I, according to MP 2035. The roadway runs northeast–southwest to the south of the project site and provides two travel lanes in each direction and a center turn lane. There is also a bicycle lane in each direction between Laurel Canyon Boulevard and Sunrise Ridge Road and between San Fernando Road and Glenoaks Boulevard. Restricted and unrestricted parking is available on either side of the street. The posted speed limit is 35 mph in some locations and 40 mph in others.

Existing Transit Service

Five bus lines currently operate in the study area. These transit lines are operated by Metro and LADOT. Transit lines are described below and illustrated in Figure 3.15-2.

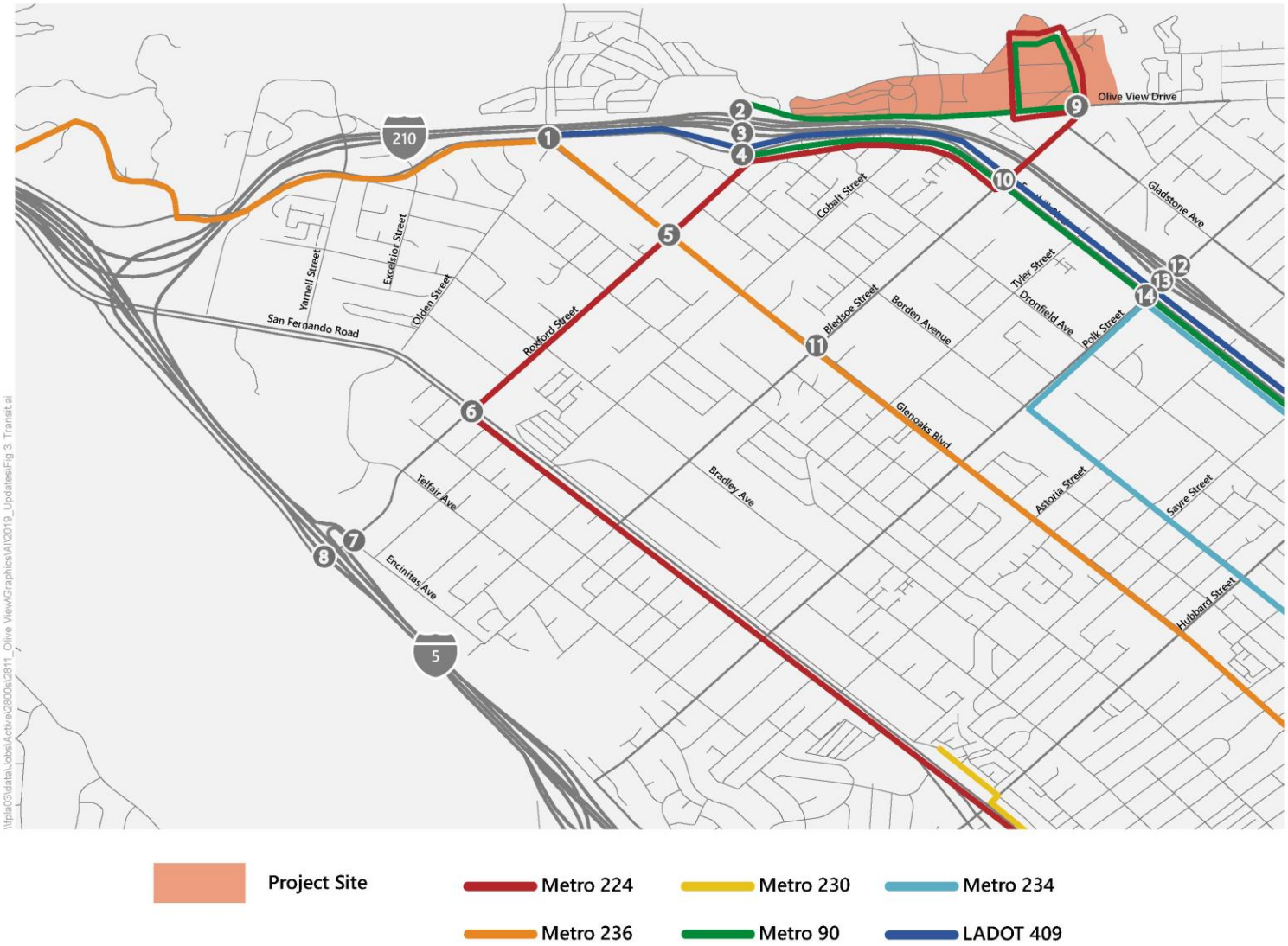
- **Metro Line 90:** Line 90 is a north–south line that runs from downtown Los Angeles to Olive View–UCLA Medical Center. The line has 30- to 60-minute headways during the a.m. peak period and 30-to 50-minute headways during the p.m. peak period. The line runs on Foothill Boulevard, Roxford Street, and Olive View Drive within the study area, with stops every few blocks, and provides site access from a stop on Reagan Road within the campus.
- **Metro Line 22:** Line 224 is a north–south line that runs from the Universal/Studio City Red Line station to Olive View–UCAL Medical Center. The line has 8- to 20-minute headways during the a.m. peak period and 20- to 30-minute headways during the p.m. peak period. The line runs on San Fernando Road, Roxford Street, Foothill Boulevard, Bledsoe Street, and Olive View Drive within the study area with stops every few blocks. Project site access is provided from the final stop on the line on Kennedy Road within the Olive View–UCLA Medical Center Campus.
- **Metro Line 234**: Line 234 is a north–south line that runs from Sherman Oaks to Mission College in Sylmar, with weekend, early-morning, and late-night service to the Sepulveda Expo Line station. The line has 15- to 25-minute headways during the a.m. peak period and 45- to 40-minute headways during the p.m. peak period. The line runs on Polk Street within the study area, with project site access provided from a stop at the intersection of Polk Street and Foothill Boulevard.
- **Metro Line 236:** Line 236 is a north–south line that runs from Encino to the Sylmar Metrolink station. The line has 60- to 65-minute headways during a.m. and p.m. peak periods and runs on Foothill Boulevard and Glenoaks Boulevard within the study area. Project site access is provided from a stop at the intersection of Glenoaks Boulevard and Roxford Street.
- **LADOT Commuter Express 409**: Commuter Express 409 is a north–south line that runs from downtown Los Angeles to Foothill Boulevard and Glenoaks Boulevard in Sylmar. It provides directional morning and afternoon peak-period service on weekdays only. The line has 25- to 40-minute headways during the a.m. peak period and 15- to 20-minute headways during the p.m. peak period. During the a.m. period, all buses run southbound; during the p.m. period, all buses run northbound. The line runs on Foothill Boulevard within the study area and provides project site access from a stop at Foothill Boulevard and Bledsoe Street.

Existing Bicycle and Pedestrian Facilities

There is limited dedicated bicycle infrastructure within the study area. South of the project site, a bicycle path (Class I facility) runs along San Fernando Road south of Roxford Street. With the exception of a gap between Tyler Street and Bledsoe Street, bicycle lanes (Class II facilities) exist along much of Foothill Boulevard near the project site. There are additional bicycle lanes at the edge of the study area on Bledsoe Street and Polk Street. MP 2035 provides for future bicycle lanes within the study area at the following locations:

- Foothill Boulevard between Polk Street and Tyler Street
- All of Polk Street in the study area
- Roxford Street between Telfair Avenue and Foothill Boulevard
- San Fernando Road north of Roxford Street to the edge of the study area
- All of Glenoaks Boulevard in the study area

Figure 3.15-2. Existing Transit Lines



Source: Fehr & Peers, 2019.

In addition, the following segments are part of the Neighborhood Enhanced Network:

- All of Olive View Drive in the study area
- Roxford Street between Foothill Boulevard and Olive View Drive
- All of Herrick Drive in the study area
- All of Dronfield Avenue in the study area
- Gladstone Avenue between Polk Street and Astoria Street
- The entire length of Eldridge Avenue in the study area
- Telfair Avenue east of Roxford Street
- Astoria Street between San Fernando Road and Gladstone Avenue

The pedestrian network in the study area is incomplete. Bledsoe Street does not have sidewalks north of Foothill Boulevard. Olive View Drive has incomplete segments of sidewalk. Sidewalks are generally provided on streets in the study area southwest of Foothill Boulevard, but portions of many streets lack sidewalks on one or both sides. Crosswalks that exist at signalized intersections are either pre-timed or actuated by push buttons. The portion of Olive View Drive between Roxford Street and the project site is part of the Enhanced Pedestrian Network in MP 2035.

Existing and planned bicycle facilities are illustrated in Figure 3.15-3.

3.15.3.2 Existing Traffic Volumes and Levels of Service

Weekday a.m. and p.m. peak-period traffic counts were conducted at the 14 analyzed intersections in March and June of 2016. Existing peak-hour weekday traffic volumes are illustrated in Figure 5 of the traffic study (see Appendix J of this Final EIR). The 2016 volumes were increased by 0.46 percent per year, the area-wide traffic growth factor discussed in Section 3.15.1, to estimate 2019 volumes for the intersection analysis.

Intersection Level-of-Service Standards and Methodology

LOS is a qualitative measure that is used to describe the condition of traffic flow, ranging from excellent conditions (LOS A) to overloaded conditions (LOS F). LOS D is typically recognized as the minimum desirable LOS in urban areas. Table 3.15-1 shows the LOS definitions.

The city of Los Angeles requires the use of the Critical Movement Analysis (CMA) methodology to evaluate operations at intersections. This methodology is accepted by the County of Los Angeles, the lead agency for this study. The CMA method of intersection capacity analysis determines the intersection volume-to-capacity (V/C) ratio as well as the corresponding LOS for turning movements and intersection characteristics at signalized intersections. The CALCADB software package developed by LADOT was used to implement the CMA methodology.

The City's Automated Traffic Surveillance and Control (ATSAC) system is a computer-based traffic signal control system that monitors traffic conditions and system performance to manage signal timing and improve traffic flow. The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC that provides traffic-adaptive signal control, which is based on real-time traffic conditions.

Figure 3.15-3. Existing and Planned Bicycle Facilities

Source: Fehr & Peers 2019.

Table 3.15-1. Level-of-Service Definitions for Signalized Intersections

Level of Service	V/C Ratio	Definition
A	0.000–0.600	**EXCELLENT**. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601–0.700	**VERY GOOD**. Occasionally, an approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701–0.800	**GOOD**. Occasionally, drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801–0.900	**FAIR**. Delays may be substantial during portions of the rush hours, but enough lower-volume periods occur to clear developing lines and prevent excessive backups.
E	0.901–1.000	**POOR**. This represents the maximum number of vehicles the intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	**FAILURE**. Backups from nearby locations or on cross streets may restrict or prevent the movement of vehicles out of the intersection approaches. Tremendous delays, with continuously increasing queue lengths.

Source: Transportation Research Board 1980..

All of the signalized intersections in the study area are currently operating under the City's ATSAC system. Deployment of ATCS control has not yet been completed, though it will be operational by 2016. ATSAC and, where installed, ATCS improve operating conditions. In accordance with city of Los Angeles procedures, a credit amounting to a 0.07 V/C ratio reduction was applied to study intersections to reflect the benefits of ATSAC. An additional 0.03 V/C reduction was applied at each intersection where ATCS is implemented.

Signal Warrant Analysis

LADOT requires that unsignalized intersections be studied to determine if there is a need for the installation of a traffic signal. A signal warrant analysis was conducted for Olive View Drive and Bledsoe Street, using volumes from the a.m. and p.m. peak hours. The warrant analyses were conducted in accordance with the procedures described in Chapter 4C of the *California Manual on Uniform Traffic Control Devices* (CA-MUTCD) (2014).

The warrant for a traffic signal is met if the following conditions exist for the same 1 hour of an average day:

1. The total delay (stopped time) experienced by traffic on one minor street approach (one direction only) controlled by a stop sign equals or exceeds four vehicle hours for a one-lane approach or five vehicle hours for a two-lane approach.
2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes.
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

To conduct the signal warrant analysis, the *Highway Capacity Manual* (HCM) (Transportation Research Board 2010) methodology was used to calculate delay for the unsignalized intersection that is part of the study.

Existing Levels of Service

The existing traffic volumes were analyzed using the methodologies described above to determine current operating conditions at signalized intersections. Table 3.15-2 summarizes the existing (2019) LOS analysis results for the signalized intersections. As shown in the table, all of the intersections are currently operating at LOS D or better during the analyzed peak hours.

Table 3.15-2. Existing (2019) Intersection Level-of-Service Analysis

ID	North/South Street Name	East/West Street Name	Peak Hour	Existing	
				V/C	LOS
1	Glenoaks Boulevard	Foothill Boulevard	a.m.	0.243	A
			p.m.	0.167	A
2	Roxford Street	I-210 westbound ramps	a.m.	0.474	A
			p.m.	0.443	A
3	Roxford Street	I-210 eastbound ramps	a.m.	0.489	A
			p.m.	0.307	A
4	Roxford Street	Foothill Boulevard	a.m.	0.507	A
			p.m.	0.373	A
5	Roxford Street	Glenoaks Boulevard	a.m.	0.483	A
			p.m.	0.294	A
6	Roxford Street	San Fernando	a.m.	0.424	A
			p.m.	0.374	A
7	Roxford Street	Encinitas Avenue/ I-5 northbound	a.m.	0.633	B
			p.m.	0.462	A
8	Roxford Street	I-5 southbound ramps	a.m.	0.848	D
			p.m.	0.572	A
10	Bledsoe Street	Foothill Boulevard	a.m.	0.343	A
			p.m.	0.281	A
11	Bledsoe Street	Glenoaks Boulevard	a.m.	0.409	A
			p.m.	0.281	A
12	Polk Street	I-210 westbound ramps	a.m.	0.655	B
			p.m.	0.569	A
13	Polk Street	I-210 eastbound ramps	a.m.	0.791	C
			p.m.	0.527	A
14	Polk Street	Foothill Boulevard	a.m.	0.738	C
			p.m.	0.653	B

Intersections 3 and 9 are stop controlled and analyzed only to determine the need for signalization, per LADOT guidelines.
Source: Fehr & Peers 2019.

3.15.4 Environmental Impact Analysis

This section describes the traffic and transportation impacts that could occur with implementation and buildout of Tier I of the proposed Master Plan. It discusses the methods that were used to determine the impacts of the project and lists the thresholds that were considered to determine whether the impacts would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, compensate for) significant impacts accompany the impacts discussion.

3.15.4.1 Methods

To evaluate the potential impacts of the proposed project on the street system, it was necessary to develop estimates regarding future traffic conditions in the study area, both with and without the project. Baseline and future traffic volumes were first estimated for the study area without the project. The future forecasts reflect traffic increases due to general regional growth and traffic expected to be generated by other developments in the vicinity of the project, representing cumulative base (no-project) conditions. Because the proposed project would include demolition of some parking facilities and the construction of others, travel patterns in the immediate vicinity would change. Trips generated by existing uses that would be removed were estimated and unassigned from the surrounding street system. Project traffic was estimated and separately assigned to the surrounding street system. The sum of existing baseline and project-generated traffic represents the existing-plus-project scenario. The sum of the cumulative base and project-generated traffic represents cumulative-plus-project conditions.

Project Traffic Projections

The development of trip generation estimates for the proposed project involves a three-step process that considers trip generation, trip distribution, and traffic assignment.

Project Trip Generation

The proposed Master Plan would guide future development on the Olive View–UCLA Medical Center Campus. Trip generation rates from *Trip Generation,* 10th edition (Institute of Transportation Engineers [ITE] 2017) were used to estimate the number of trips associated with the development that could occur under Tier I of the Master Plan (see Tables 3a and 3b of the traffic study in Appendix J of this Final EIR).

Internal trip credits, defined as reductions applied to trip generation estimates related to trips made within the site between land uses, are applied at a rate of 10 percent of the daily and peak-hour trips to all land uses on the site. The buildings and activities on the Olive View–UCLA Medical Center Campus are related to one another. This would continue as the site adds complementary uses. The estimation of internal trip credits was based on the recommended factors provided in *Trip Generation,* a review of traffic studies for projects in the region, and consultation with County and city of Los Angeles staff members as part of the Memorandum of Understanding process.

A 2 percent transit, walk, and bike credit was applied to the all land uses on the site, based on recent data collected by the South Coast Air Quality Management District on travel-to-work behavior at this

site. The credits account for trips to and from the project site, using modes other than automobiles. The site is within walking distance of the several Metro bus lines. In addition, a 10 percent carpool trip credit was taken for the site, also based on data collected by the South Coast Air Quality Management District on travel-to-work behavior for the site.

Development under Tier I of the proposed Master Plan is expected to generate a net increase in daily trips totaling 3,841, including 393 trips during the a.m. peak hour (288 inbound/105 outbound) and 401 trips during the p.m. peak hour (101 inbound/300 outbound) (see Tables 3a and 3b of the traffic study in Appendix J of this Final EIR).

Project Traffic Distribution and Assignment

The geographic distribution of trips generated by the proposed project is dependent on the characteristics of the street system that serves the project site, the level of accessibility to routes to and from the project site, and the locations of employment and commercial centers to which residents of the project would be drawn. The general distribution pattern for this Final EIR, as illustrated in Figure 3.15-4, was developed in consultation with LADOT and County staff members. Aggregated data on existing home zip codes for staff members and patients were used to determine origins for trips to and from the project site.

The traffic expected to be generated by the proposed project was assigned to the street network, using the distribution pattern illustrated in Figure 3.15-4. The net increase in project traffic was based on the vehicle access and circulation diagram from the Olive View–UCLA Medical Center Campus Master Plan, as seen in Figure 3.15-5. Figure 8 of the traffic study in Appendix J of this Final EIR illustrates the assignment of net new project traffic under the Tier I development scenario at the 14 intersections analyzed in this study.

Existing Baseline-plus-Project Traffic Projections

Estimated project traffic was added to existing traffic volumes to estimate existing-plus-project traffic volumes. Existing-plus-project traffic volumes were analyzed to determine projected V/C ratios and the LOS for each intersection. Table 3.15-3 summarizes the existing-plus-project LOS. None of the study intersections are projected to operate at LOS E or F during any peak hours.

Future Street Network Changes

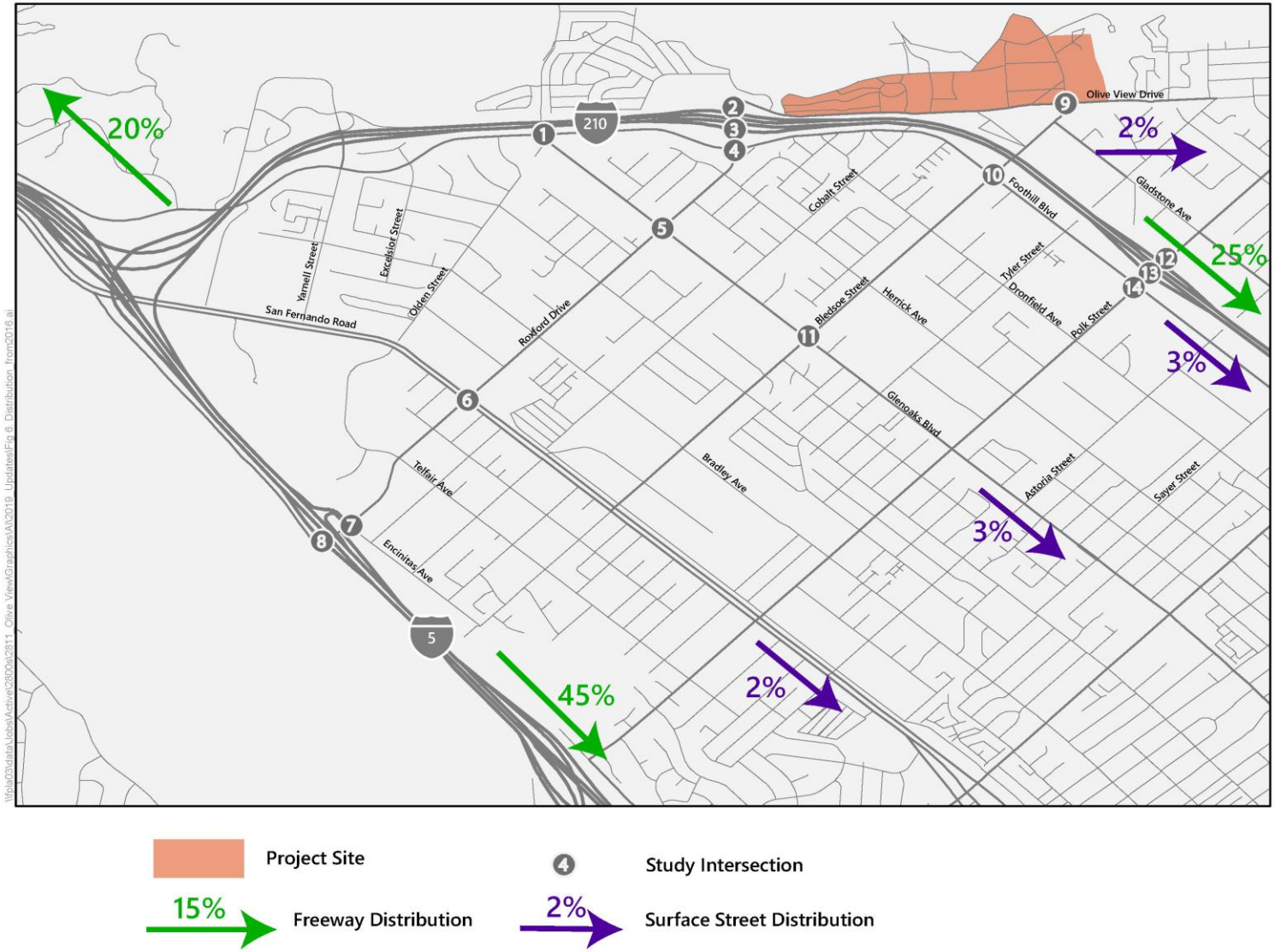
The draft Sylmar Community Plan anticipates that an existing one-block gap between Olive View Drive and Eldridge Avenue will be removed following construction of a new street segment. There are also plans to connect Encinitas Avenue to Laurel Canyon Boulevard and Amboy Avenue to Edgecliff Avenue. The plan also calls for widening Roxford Street between Telfair Avenue and Foothill Boulevard to two travel lanes in each direction. According to information from LADOT, a new traffic signal will be installed at the intersection of West Way and Olive View Drive on the western edge of the Olive View–UCLA Medical Center Campus.

Cumulative (2035) Base Traffic Generation

To evaluate the potential impact of the proposed project in the future on the surrounding street system, it was necessary to develop estimates of future traffic conditions, both with and without the project. Future traffic volumes without the project were first estimated (i.e., cumulative base

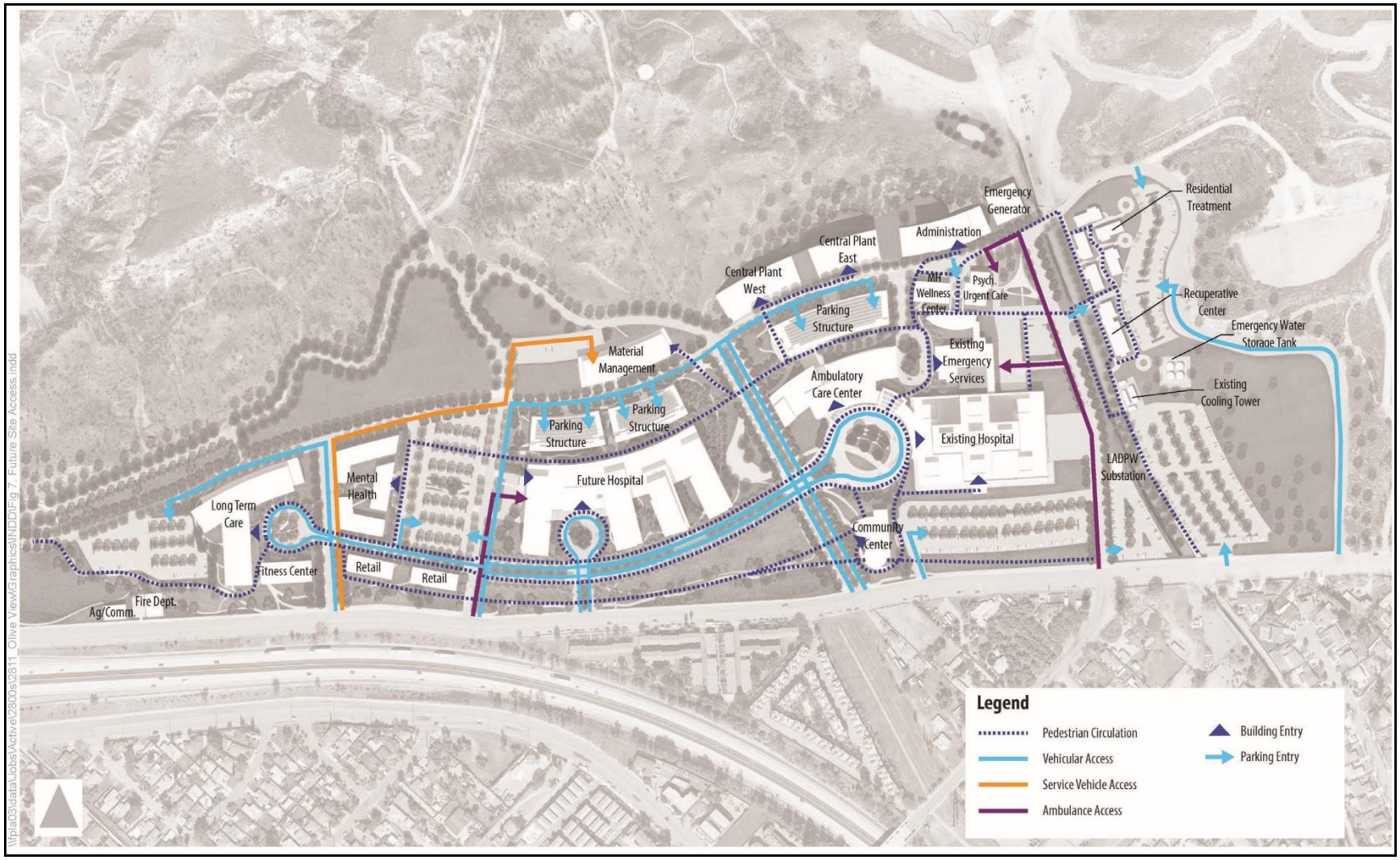
conditions). Trips generated by the proposed project were then estimated and separately assigned to the surrounding street system.

Figure 3.15-4. Project Trip Distribution



Source: Fehr & Peers 2019.

Figure 3.15-5. Future Site Access and Circulation



Source: Fehr & Peers 2019.

Table 3.15-3. Existing-plus-Project Intersection Level-of-Service Analysis

ID	North/South Street Name	East/West Street Name	Peak Hour	Existing		Existing plus Project		Project Increase in V/C	Significant Impact?
				V/C	LOS	V/C	LOS		
1	Glenoaks Boulevard	Foothill Boulevard	a.m.	0.247	A	0.266	A	0.019	No
			p.m.	0.171	A	0.191	A	0.20	No
2	Roxford Street	I-210 westbound ramps	a.m.	0.482	A	0.528	A	0.046	No
			p.m.	0.450	A	0.545	A	0.095	No
3	Roxford Street	I-210 eastbound ramps	a.m.	0.489	A	0.614	B	0.125	No
			p.m.	0.307	A	0.346	A	0.039	No
4	Roxford Street	Foothill Boulevard	a.m.	0.571	A	0.602	B	0.031	No
			p.m.	0.379	A	0.396	A	0.017	No
5	Roxford Street	Glenoaks Boulevard	a.m.	0.492	A	0.517	A	0.025	No
			p.m.	0.299	A	0.311	A	0.012	No
6	Roxford Street	San Fernando Road	a.m.	0.431	A	0.443	B	0.012	No
			p.m.	0.381	A	0.389	A	0.008	No
7	Roxford Street	Encinitas Avenue/I-5 northbound	a.m.	0.686	B	0.696	B	0.010	No
			p.m.	0.469	A	0.480	A	0.011	No
8	Roxford Street	I-5 southbound ramps	a.m.	0.861	D	0.866	D	0.005	No
			p.m.	0.581	A	0.593	A	0.012	No
10	Bledsoe Street	Foothill Boulevard	a.m.	0.261	D	0.279	A	0.018	No
			p.m.	0.194	A	0.216	A	0.022	No
11	Bledsoe Street	Glenoaks Boulevard	a.m.	0.417	A	0.421	A	0.004	No
			p.m.	0.287	A	0.291	A	0.004	No
12	Polk Street	I-210 westbound ramps	a.m.	0.665	B	0.681	B	0.016	No
			p.m.	0.579	A	0.587	A	0.008	No
13	Polk Street	I-210 eastbound ramps	a.m.	0.803	D	0.810	D	0.007	No
			p.m.	0.536	A	0.550	A	0.014	No
14	Polk Street	Foothill Boulevard	a.m.	0.749	C	0.758	C	0.009	No
			p.m.	0.664	B	0.683	B	0.019	No

Note: Intersection 9 is stop controlled and analyzed only to determine the need for signalization, per LADOT guidelines. Source: Fehr & Peer, 2019.

Cumulative (2035) base traffic projections reflect growth in traffic from two primary sources: background or ambient growth in existing traffic volumes, reflecting the effects of overall regional growth both inside and outside the study area, and traffic generated by specific projects in, or in the vicinity of, the study area. These factors are described below.

Areawide Traffic Growth

As part of the Memorandum of Understanding process, area-wide traffic growth of 0.46 percent per year for the study area was agreed upon with agency staff members, based on data in the most recent CMP for Los Angeles County. Future increases in background traffic volumes due to regional growth and development are expected to continue at this rate, at least through 2035. Existing baseline 2019 traffic volumes were adjusted upward by a factor of 9.1 percent to reflect areawide regional growth up to 2035.

Traffic Generation from Related Projects

Specific cumulative development projects, also called related projects, expected to be built in the vicinity of the project site prior to buildout represent the second major source of traffic growth in the study area. Data describing cumulative projects in the area were gathered from LADOT, the Los Angeles Department of City Planning, Los Angeles County Department of Regional Planning, and recent environmental studies. A total of 14 cumulative projects were identified in the surrounding area (see Appendix J for a list of these related projects and their locations). Trip generation estimates for these related projects are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.).

Trip Distribution and Traffic Assignment from Related Projects

The geographic distribution of traffic generated by cumulative projects is dependent on several factors. These factors include the types and densities of the proposed land uses, the geographic distribution of the population from which employees and potential patrons of the proposed developments would be drawn, the location of employment and commercial centers to which residents would be drawn, and the locations of the projects in relation to the surrounding street system. If available, trip distribution from a cumulative project's traffic study was used in this analysis. When trip distribution was not available for a cumulative project, it was based on the factors described above.

Cumulative (2035) Base Traffic Volumes

Related project volumes were added to the cumulative traffic volumes to create the cumulative (2035) base volumes.

Cumulative-plus-Project Traffic Volumes

Estimated project traffic volumes were added to cumulative (2035) base traffic volumes to create the cumulative-plus-project volumes. The cumulative-plus-project scenario presents future traffic conditions following completion of the proposed project.

Table 3.15-4 summarizes the cumulative-plus-project LOS analysis. Three of the study intersections are projected to operate at LOS E during the a.m. peak hour:

1. Roxford Street and I-5 southbound ramp
2. Polk Street and I-210 eastbound ramps
3. Polk Street and Foothill Boulevard

3.15.4.2 Thresholds of Significance

Local and Regional Transportation Impact Thresholds

Intersection Thresholds

Although the County of Los Angeles is the lead agency for the proposed project, all study intersections are in the city of Los Angeles. The County defers to city of Los Angeles thresholds of significance for this project.

The city of Los Angeles has established threshold criteria to determine the significant traffic impacts of projects in its jurisdiction. Under LADOT guidelines, an intersection would be significantly affected if it experienced an increase in the V/C ratio equal to or greater than 0.04 for intersections operating at LOS C, equal to or greater than 0.02 for intersections operating at LOS D, and equal to or greater than 0.01 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A or B after the addition of the project traffic are not considered significantly affected, regardless of the increase in the V/C ratio.

The following summarizes the impact criteria:

Intersection Condition with Project Traffic

LOS	V/C Ratio	Project-Related Increase in V/C Ratio
C	> 0.70–0.80	Equal to or greater than 0.04
D	> 0.80–0.90	Equal to or greater than 0.02
E or F	> 0.90	Equal to or greater than 0.01

CMP Arterials and Freeway Mainlines Thresholds

The 2010 guidelines from the County's CMP require the geographic scope of the study area to be the first issue addressed. The criteria for determining the study area for CMP arterial intersection and freeway monitoring locations are:

- All CMP arterial intersections where the proposed project will add 50 or more trips during either the a.m. or p.m. peak hours, and
- All CMP mainline freeway locations where the proposed project will add 150 or more trips, in either direction, during either the a.m. or p.m. peak hours.

The CMP traffic impact analysis guidelines state that a significant project impact occurs when a proposed project increases traffic demand on a CMP facility by 2 percent or more (V/C 0.02), causing LOS F (V/C > 1.00).

Table 3.15-4. Cumulative-plus-Project Intersection Level-of-Service Analysis

ID	North/South Street Name	East/West Street Name	Peak Hour	Cumulative		Cumulative Project		Project Increase In V/C	Significant Impact?
				V/C	LOS	V/C	LOS		
1	Glenoaks Boulevard	Foothill Boulevard	a.m.	0.283	A	0.301	A	0.018	No
			p.m.	0.197	A	0.217	A	0.020	No
2	Roxford Street	I-210 westbound ramps	a.m.	0.596	A	0.642	B	0.046	No
			p.m.	0.539	A	0.634	B	0.095	No
3	Roxford Street	I-210 eastbound ramps	a.m.	0.607	B	0.692	B	0.085	No
			p.m.	0.419	A	0.459	A	0.040	No
4	Roxford Street	Foothill Boulevard	a.m.	0.747	C	0.779	C	0.032	No
			p.m.	0.508	A	0.523	A	0.015	No
5	Roxford Street	Glenoaks Boulevard	a.m.	0.639	B	0.655	B	0.025	No
			p.m.	0.411	A	0.423	A	0.012	No
6	Roxford Street	San Fernando Road	a.m.	0.588	A	0.592	A	0.004	No
			p.m.	0.487	A	0.495	A	0.008	No
7	Roxford Street	Encinitas Avenue/I-5 northbound ramps	a.m.	0.809	D	0.819	D	0.010	No
			p.m.	0.568	A	0.579	A	0.011	No
8	Roxford Street	I-5 southbound ramps	a.m.	0.969	E	0.973	E	0.004	No
			p.m.	0.703	C	0.715	C	0.012	No
10	Bledsoe Street	Foothill Boulevard	a.m.	0.292	A	0.310	A	0.018	No
			p.m.	0.220	A	0.242	A	0.022	No
11	Bledsoe Street	Glenoaks Boulevard	a.m.	0.492	A	0.493	A	0.001	No
			p.m.	0.336	A	0.340	A	0.004	No
12	Polk Street	I-210 westbound ramps	a.m.	0.807	D	0.822	D	0.015	No
			p.m.	0.729	C	0.737	C	0.008	No
13	Polk Street	I-210 eastbound ramps	a.m.	0.945	E	0.951	E	0.006	No
			p.m.	0.666	B	0.680	B	0.014	No
14	Polk Street	Foothill Boulevard	a.m.	0.909	E	0.918	E	0.009	No
			p.m.	0.836	D	0.854	D	0.018	No

Note: Intersection 9 is stop controlled and analyzed only to determine the need for signalization, per LADOT guidelines.
Source: Fehr & Peers 2019.

Freeway Mainline Thresholds

Following consultation with County and Caltrans staff members, it was agreed that, for the purposes of this study, an impact would be considered adverse if the analyzed freeway segment were found to operate at LOS F and the V/C ratio increased by more than 2 percent. This condition is not met at any of the analyzed freeway segments. The project impact would be considered less than significant.

Freeway Ramp Queuing Thresholds

Following consultation between County and Caltrans staff members, it was agreed that, for the purposes of this study, an impact would be considered adverse if the off-ramp queue were to extend beyond the length of the ramp itself and onto the mainline of the freeway during the peak arrival period. For the purposes of this project, the queuing analysis uses 85 percent of the ramp length as the effective length.

Transit

Project impacts on public transit services would be considered significant if the project were to result in a substantial increase in ridership on the existing public transit system, thereby creating capacity shortages on the system and necessitating system improvements to accommodate additional transit demand.

CEQA Thresholds

The thresholds above have been established by local and regional transportation agencies. For the purposes of this Final EIR, in accordance with Appendix G of the CEQA Guidelines, the proposed project would result in a significant environmental impact if it would:

TRAF-1 Conflict with a program plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

TRAF-2 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

TRAF-3 Result in inadequate emergency access.

3.15.4.3 Impacts and Mitigation Measures

Impact TRAF-1: Would the Proposed Project Conflict with a Program Plan, Ordinance, or Policy Addressing the Circulation System, Including Transit, Roadway, Bicycle, and Pedestrian Facilities?

Construction Impacts

Tier I

The proposed project could involve intermittent lane and sidewalk closures during construction of the Master Plan elements, which could impede vehicle, pedestrian, equestrian, and bicycle circulation. No long-term closure of off-site roadways, bicycle or equestrian paths, or sidewalks are anticipated. Therefore, traffic and circulation impacts are expected to be less than significant. Nonetheless, to ensure that construction transportation impacts due to projects proposed under the

Master Plan would be minimized and remain less than significant, construction traffic control measures would be developed and implemented (see mitigation measure **MM-TRAF-1**, below).

Tier II

The impacts related to transportation are expected to be similar to those described for Tier I. Therefore, impacts would be less than significant.

Mitigation Measures

The following measure is proposed to ensure that potential construction traffic impacts remain less than significant.

MM-TRAF-1: The County will develop and implement traffic control measures for Master Plan projects that result in lane or sidewalk closures, removal of parking, or similar traffic disruptions. Temporary traffic controls during construction will meet CA-MUTCD requirements. Daytime closures will be covered by the applications shown in Chapter 6 of the manual. Overnight closures, long-term closures, and detours will require a traffic control plan, which will be prepared as part of the project design package, according to CA-MUTCD requirements. The traffic control plan may include, but would not be limited to, the elements listed below. Note that some of these elements may not be feasible or appropriate in all circumstances. The project-level environmental analysis will identify the appropriate measures for each project.

- Provide a roadway layout that shows the locations of construction activity and surrounding roadways to be used as detour routes, including special signage.
- Establish detour routes in coordination with the city of Los Angeles to minimize disturbances to local traffic conditions; review potential detour routes to make sure adequate capacity is available.
- Avoid creating additional delays at intersections that are currently operating under congested conditions, either by choosing routes that avoid these locations or constructing during non-peak times of day.
- Maintain access to existing residences at all times.
- Work with the Los Angeles Unified School District, Los Angeles Fire Department, and Los Angeles Police Department to coordinate all construction-related plans and minimize disturbances for local emergency medical service providers; ensure that alternative evacuation and emergency routes are designed to maintain response times during construction.
- Provide adequate off-street parking areas at designated staging areas for construction-related vehicles.
- Work with local and regional transit providers to maintain access and circulation routes to existing stops and stations during construction phases, and identify appropriate detours to provide traffic rerouting during construction while minimizing disturbance to bus services.
- Work with the city of Los Angeles to maintain continuity and operation of existing pedestrian and bicycle facilities during construction.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

Intersection Impacts

To determine operational traffic impacts, in compliance with CEQA, two scenarios were analyzed: 1) existing (2019) plus project and 2) cumulative (2035) plus project. Existing baseline-plus-project traffic volumes were analyzed to determine potential operational conditions and traffic impacts resulting from the incremental addition of project-generated traffic associated with buildout of Tier I of the Olive View–UCLA Medical Center Campus Master Plan on existing (2019) street conditions. Table 3.15-3 shows the results of this analysis. As indicated in Table 3.15-3, after applying the city of Los Angeles significant impact criteria, the proposed project would result in no significant impacts on any of the intersections under existing-plus-project conditions.

Table 3.15-4 presents the impacts of cumulative-plus-project traffic generated in 2035 at the study intersections. As shown in the table, using the criteria for the determination of significant impacts, the proposed project would result in no significant impacts on any of the analyzed intersections under cumulative-plus-project conditions.

Regional Transportation Impacts

<u>CMP Arterial Monitoring Station Impacts</u>

The CMP arterial monitoring stations nearest to the project study area are Sierra Highway and San Fernando Road to the north and Victory Boulevard and Woodman Avenue to the south. These intersections are approximately 3 and 10 miles from the project site, respectively. Based on project trip generation estimates and distribution, the proposed project would not add 50 or more vehicle trips through either of these stations. Therefore, no further analysis is required for the CMP arterial intersections.

<u>CMP Freeway Mainline Monitoring Station Impacts</u>

In accordance with CMP guidelines, an analysis of the proposed project's traffic impacts at CMP mainline freeway monitoring locations was conducted. The CMP mainline freeway monitoring locations nearest to the project site are:

- I-5 north of State Route 14 (Station 1008)
- I-5 at Osborne Street (Station 1007)
- I-210 east of Polk Street (1058)

According to the trip generation estimates (see Tables 3a and 3b in the traffic study in Appendix J of this Final EIR) and trip distribution estimates presented in Figure 3.15-4, the project would result in up to 58 additional inbound trips in the morning and up to 60 additional outbound trips in the evening peak hour on I-5 north of State Route 14, up to 129 additional inbound trips in the morning and up to 135 additional outbound trips in the evening peak hour on I-5 at Osborne Street, and up to 72 additional inbound trips in the morning and up to 74 additional outbound trips in the evening

peak hour on I-210 east of Polk Street. Because fewer than 150 trips would be added during the a.m. or p.m. peak hours in the vicinity of the study area, no further analysis of the freeway segments is required for CMP purposes. Further analysis of the regional freeway system, using both Caltrans and CMP methodology, is provided below.

Freeway Mainline Impacts

Morning and afternoon peak-hour analysis of two selected I-210 freeway mainline segments in the project vicinity (i.e., I-210 west of State Route 118 and I-210 east of I-5) was conducted in response to a request from Caltrans. Table 3.15-5 shows the existing-plus-project and cumulative-plus-project peak-hour freeway segment analysis. As shown in the table, no freeway mainline segments operate at LOS F and have a V/C ratio increase of more than 2 percent. Therefore, for the purposes of this Final EIR, these freeway mainline impacts are considered to be less than significant.

Freeway Ramp Queuing Impacts

A freeway ramp queuing analysis was conducted at five freeway ramp terminal intersections in the project vicinity in response to a request from Caltrans:

- I-210 westbound off-ramp at Roxford Street (Exit 2)
- I-210 eastbound off-ramp at Roxford Street (Exit 2)
- I-210 westbound off-ramp at Polk Street (Exit 3)
- I-210 eastbound off-ramp at Polk Street (Exit 3)
- I-5 northbound off-ramp at Roxford Street (Exit 159A)

Table 3.15-6 presents a summary of the ramp queuing analysis for existing conditions as well as the existing-plus-project and cumulative-plus-project scenarios. The queue lengths are shown to not exceed the available ramp storage at any of the locations.

At the request of Caltrans, the existing and projected traffic queues on the northbound left-turn lane from Roxford Street onto westbound I-210 were calculated. The northbound left-turn lane from Roxford Street onto eastbound I-210 is approximately 180 feet long. Under existing conditions, the 95th percentile queue is calculated to be approximately 230 feet in the a.m. peak hour and 80 feet in the p.m. peak hour, increasing under existing-plus-project conditions to 245 feet in the a.m. peak hour and 145 feet in the p.m. peak hour. The projected 95th percentile northbound left-turn queue under cumulative-plus-project conditions is approximately 355 feet in the a.m. peak hour and 180 feet in the p.m. peak hour. Thus, the available storage length is exceeded under existing and future conditions in the a.m. peak hour. In the p.m. peak hour, under all scenarios, the available storage area would not be exceeded. Potential options to increase queue storage on the northbound approach could include (a) modifying the signal timing to provide more green time for this movement when needed or (b) extending the turn lane by restriping the median and left-turn lane. Queuing on a local street is not identified as significant impact in this study, and these options are not recommended as mitigation measures but are provided for informational purposes at the request of Caltrans.

Table 3.15-5. Existing (2019) and Cumulative (2035) Peak-Hour Freeway Segment Analysis

Name (a)	PeMS Station ID	Peak Hour	Direction	Existing (2019)			Project Trips	Change in V/C	Existing (2019) plus Project			Change in Density	Project Impact? (b)
				Volume	Density (pc/mi/ln)*	LOS			Volume	Density (pc/mi/ln)*	LOS		
I-210 between Yarnell Street and Roxford Street	768297	a.m.	EB	6,518	46	F	131	0.018	6,647	48	F	2	No
	770303	a.m.	WB	4,131	23	C	48	0.007	4,179	23	C	0	No
	768297	p.m.	EB	6,214	32	D	46	0.007	6,260	33	D	1	No
	770303	p.m.	WB	6,562	47	F	135	0.019	6,697	49	F	2	No
I-210 between Polk Street and Hubbard Street	770012	a.m.	EB	6,214	41	E	26	0.004	6,240	42	E	1	No
	770229	a.m.	WB	4,936	29	D	72	0.010	5,008	29	D	0	No
	770012	p.m.	EB	5,582	34	D	75	0.010	5,657	35	D	1	No
	770229	p.m.	WB	8,159	98	F	25	0.004	8,184	100	F	2	No

Name (a)	PeMS Station ID	Peak Hour	Direction	Existing (2035)			Project Trips	Change in V/C	Existing (2035) plus Project			Change in Density	Project Impact? (b)
				Volume	Density (pc/mi/ln)*	LOS			Volume	Density (pc/mi/ln)*	LOS		
I-210 between Yarnell Street and Roxford Street	768297	a.m.	EB	7,172	59	F	125	0.019	7,301	62	F	3	No
	770303	a.m.	WB	4,566	26	C	57	0.006	4,614	26	D	0	No
	768297	p.m.	EB	5,893	38	E	67	0.006	5,939	38	E	0	No
	770303	p.m.	WB	7,162	59	F	112	0.019	7,297	62	F	3	No
I-210 between Polk Street and Hubbard Street	770012	a.m.	EB	6,758	50	F	25	0.003	6,784	50	F	0	No
	770229	a.m.	WB	5,417	33	D	53	0.011	5,489	33	D	0	No
	770012	p.m.	EB	6,097	40	E	50	0.010	6,172	41	E	1	No
	770229	p.m.	WB	8,840	175	F	29	0.003	8,865	180	F	5	No

* pc/mi/ln denotes passenger cars per mile per lane
EB = eastbound; WB = westbound
[a] Analyzed using freeway methodology from *Highway Capacity Manual* (Transportation Research Board 2010).
[b] Impact criteria for this project are defined under two conditions. Under the first, mainline LOS F with the project is compared to mainline LOS < F without the project. Under the second, the mainline without the project is already at LOS F; the mainline with the project represents a 2 percent increase in the V/C ratio.

Table 3.15-6. Cumulative Base and Cumulative-plus-Project Off-Ramp Queuing Analysis

Ramp/Cross Street	Ramp Length (ft) [a]	85 percent Ramp Length (ft)	Ramp Turn Lanes at Intersection			Control	Existing (2019)				Cumulative (2035) plus Project				Queue 85 percent Exceeds Storage
							AM Queue		PM Queue		AM Queue		PM Queue		
			Lanes	Move	Length [a]		Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	
I-210 WB off-ramp/Roxford Street	1,110	940	2	Left	520	Signal	152	152	106	106	200	200	116	116	No
				Right/Through/Left	1,110		95		63		163		66		
I-210 EB off-ramp/Roxford Street	1,050	890	2	Right	550	Signal	46	187	39	72	149	354 [b]	46	101	No
				Through/Left	1,050		187		72		354 [b]		101		
I-210 WB off-ramp/Polk Street	930	790	2	Right	460	Signal	20	176	45	435 [b]	46	234	89	535 [b]	No
				Through/Left	930		176		435 [b]		234		535 [b]		
I-210 EB off-ramp/Polk Street	1,180	1,000	2	Right	690	Signal	118	118	112	112	140	140	136	136	No
				Through/Left	1,180		58		66		71		80		
I-5 SB off-ramp/Roxford Street	980	830	2	Through/Left	980	Signal	410 [b]	410 [b]	340 [b]	340 [b]	500 [b]	500 [b]	473 [b]	473 [b]	No
				Through/Right	250		98		52		108		57		
I-5 NB off-ramp at Encinitas Avenue/Roxford Street	1,500	1,280	2	Left	190	Signal	53	310 [b]	40	572 [b]	62	373 [b]	15	448 [b]	No
				Through/Right	1,500		310 [b]		572 [b]		373 [b]		448 [b]		

EB = eastbound; WB = westbound; SB = southbound; NB = northbound
[a] Storage lengths based on scaled distances from online aerial photographs.
[b] Ninety-fifth percentile volume exceeds capacity; queue may be longer.
Source: Fehr & Peers 2019.

Transit Impacts

Section D.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project, based on the number of vehicle trips. This methodology assumes an average vehicle ridership (AVR) factor of 1.4 to estimate the number of person trips to and from the project site and provides guidelines regarding the percentage of person trips assigned to public transit, depending on the type of use (commercial versus residential) and the proximity to transit services. Because the project site is not within 0.25 mile of a designated CMP transit corridor, the CMP guidelines estimate that approximately 3.5 percent of the total number of person trips generated might be made with the use of public transit to and from the site. It should be noted that the trip generation estimates for this project include a more conservative transit estimate of 2 percent, based on data collected at the site.

Based on the trip generation shown in Table 3 of the traffic study (see Appendix J of this Final EIR), including transit/walking/biking, and carpool credits, the existing site is estimated to generate 6,132 daily trips, and the proposed project is estimated to generate 9,973 daily trips. This equates to 3,841 net new daily trips. Using this same methodology, there are 393 net new a.m. trips and 401 net new p.m. trips. Applying the CMP guidelines, converting vehicle trips to person trips by multiplying by an AVR factor of 1.4 (393 net a.m. peak-hour trips x 1.4 = 550, and 401 net p.m. peak-hour trips x 1.4 = 561) and applying a 3.5 percent transit use factor (550 net a.m. peak-hour person trips x 3.5 percent = 19, and 561 net p.m. peak-hour person trips x 3.5 percent = 20) results in approximately 20 new transit person trips during the weekday a.m. and p.m. peak hours.

Within 0.25 mile of the project site, Metro operates two local lines; within 2 miles, LADOT operates one express bus. These routes have peak-period headways of between 20 and 40 minutes. The bus services have the capacity for approximately 560 persons during the peak hours, based on a seating capacity of 40 persons for a standard bus and 40 persons for an express bus and a policy load factor of 1.0. The proposed project would utilize 4 percent of the available transit capacity during the peak hours. Based on this estimate, the project impact on transit is expected to be less than significant.

Signal Warrant Analysis

The Intersection of Olive View Drive and Bledsoe Street (Intersection 9) is currently unsignalized. The city of Los Angeles traffic analysis methodology and significance criteria apply to signalized intersections only. An impact analysis is not conducted for unsignalized intersections. LADOT Traffic Study Policies and Procedures state that "unsignalized intersections should be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device."

Traffic volumes and lane configurations were used to prepare signal warrant analyses at the unsignalized intersections under existing, existing-plus-project, cumulative base, and cumulative-plus-project conditions. The warrant analyses were conducted in accordance with the procedures described in Chapter 4C of the CA-MUTCD (2014).

The warrant for a traffic signal is met if the following conditions exist for the same 1 hour of an average day:

1. The total delay (stopped time) experienced by traffic on one minor street approach (one direction only) controlled by a stop sign equals or exceeds four vehicle hours for a one-lane approach or five vehicle hours for a two-lane approach.

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes.
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

The results of the signal warrant analysis conducted for the proposed project (see TIA in Appendix J of this Final EIR) indicate that the Bledsoe Street and Olive View Drive intersection does not meet the signal warrant thresholds.

Pedestrian, Bicycle, and Equestrian Impacts

As discussed in the Environmental Setting section, the pedestrian network, both within the Olive View–UCLA Medical Center Campus and adjacent to the site, is incomplete. Sidewalks exist on portions of Olive View Drive (i.e., adjacent to developed residential properties), but sidewalks are discontinuous in front of the site. Many streets in the vicinity are bordered by dirt paths that are used by both pedestrians and equestrians. Not all intersections with sidewalks have Americans with Disabilities Act–compliant accessible ramps, and there are currently no marked crossings on Olive View Drive. Bledsoe Street, the most direct access route for pedestrians coming from the south, also does not have sidewalks or marked crossings north of Foothill Boulevard, with the exception of the bridge crossing at I-210.

Within the western portion of the Olive View–UCLA Medical Center Campus, there is little dedicated pedestrian infrastructure in place. Throughout the eastern portion of the campus, however, near the hospital, sidewalks are generally present. Marked crosswalks connect the hospital building with adjacent parking lots. Sidewalks do not exist within the parking lots adjacent to the hospital, thereby requiring pedestrians to walk through the aisles to access the pedestrian network. Sidewalks and crosswalks exist near the mental health building, and several crosswalks are also present on Bucher Avenue and Mesa Avenue. Within the site, the pedestrian facilities that exist are generally in good condition; the sidewalks are well maintained and crosswalks are clearly visible. There is currently no dedicated bicycle infrastructure either within the project site or immediately adjacent to the project site.

The Master Plan for the Olive View–UCLA Medical Center Campus would modify pedestrian circulation patterns within the site, as shown in Figure 3.15-5. New sidewalks and paths would be provided on the north side of Olive View Drive, creating uniform pedestrian facilities that would board the campus. Internally, new pedestrian paths would link the existing hospital building, the new ambulatory care center, and administration building to the parking structure. These improvements would address many of the existing gaps in the pedestrian network within the site. Although increased traffic on local streets due to the additional on-campus development that could occur under Tier I of the Master Plan could increase the potential for conflicts between motorists and pedestrians, bicyclists, or pedestrians, with implementation of these improvements, impacts on existing bicycle, pedestrian, and equestrian facilities, as well as users of those facilities, are expected to be less than significant.

Tier II

The increase in the number of project trips associated with full buildout of Tier II development and the expected increase in the number of ambient trips beyond 2035 could lead to impacts at some intersections in the vicinity.

Estimated trip generation at full buildout of the Master Plan would be approximately 190 percent to 280 percent higher than that of Tier I development in each of the analyzed peak hours. Although no intersection-level impacts were identified, based on projected cumulative-plus-project LOS and applicable threshold criteria, the increased traffic with full development could result in significant impacts at two study intersections: Polk Street and the I-210 eastbound ramps (Intersection 13) and Polk Street and Foothill Boulevard (Intersection 14). Overall, the level of the project-related increase in traffic at the other analyzed intersections would be higher than it would be with Tier I development only. Other locations could also be significantly affected.

Tier II development could also result in significant traffic impacts on freeway mainline segments and freeway ramp queues. However, given that Tier II development would occur far in the future, beyond 2035, it would be speculative to attempt to determine the significance and extent of potential impacts on the local and regional transportation system. In addition, it should be noted that, in the future, when individual projects under Tier II of the Master Plan are proposed, additional environmental analysis and documentation would be required, in compliance with CEQA regulations, to determine the significance of Tier II project impacts and identify measures to mitigate any significant impacts.

Mitigation Measures

All Tier I impacts would be less than significant. Therefore, no mitigation measures are required.

Further analysis will be required when Tier II projects are proposed to determine if significant impacts would occur and if there are feasible measures to mitigate any significant impacts.

Level of Significance after Mitigation

Less than significant under Tier I.

Further analysis will be required for Tier II projects when they are proposed.

Impact TRAF-2: Would the Proposed Project Substantially Increase Hazards Due to a Geometric Design Feature (e.g., Sharp Curves or Dangerous Intersections) or Incompatible Uses (e.g., Farm Equipment)?

Construction Impacts

Tier I

Construction activities would increase the mix of heavy construction vehicles and general-purpose traffic and could result in an increase in safety hazards due to the higher proportion of heavy trucks. However, these hazards would be temporary and intermittent. In addition, implementation of construction contractor safety plans, best management practices, and **MM-TRAF-1** would ensure that potential hazards would be minimized and remain less than significant.

Tier II

The impacts related to safety impacts are expected to be similar to those described for Tier I.

Mitigation Measures

See **MM-TRAF-1**, above.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

Tier I of the Master Plan would include improved sidewalks and safe, pleasant pedestrian walking paths throughout the campus. Project improvements to access, wayfinding, and the general orientation of campus facilities would also improve safety for motorists, pedestrians, and bicyclists as they travel to and around the campus. Therefore, impacts would be less than significant.

Tier II

The impacts related to hazards are expected to be similar to those described for Tier I and less than significant.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Impact TRAF-3: Would the Proposed Project Result in Inadequate Emergency Access?

Construction Impacts

Tier I

As mentioned in Impact **TRAF-1**, above, in some cases, construction could require temporary road or lane closures that could affect emergency vehicle access, a potentially significant impact. However, coordination with emergency medical service providers that serve the campus and surrounding communities, as described in **MM-TRAF-1**, would ensure that impacts on emergency access during construction would be less than significant.

Tier II

The impacts related to emergency access are expected to be similar to those described for Tier I. **MM-TRAF-1** would reduce any impacts on emergency access to a less-than-significant level.

Mitigation Measures

See **MM-TRAF-1**, above.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

Section 3.12, *Public Services*, of this Final EIR discusses in detail the proposed project's potential impacts on the provision of public services, including police and fire protection. Operation of proposed facilities under the Master Plan, including traffic generated by new development under Tier I of the Master Plan, would not substantially affect emergency access to the campus and surrounding community. Impacts would be less than significant.

Tier II

Tier II development is expected to occur far in the future, beyond 2035. As a consequence, as described under Impact **TRAF-1**, above, Tier II development could result in increases in congestion on local streets and highways, which could adversely affect emergency vehicle access. However, because Tier II development would occur far in the future, it would be speculative to attempt to determine the significance of potential impacts on emergency access. In addition, it should be noted that when individual projects under Tier II of the Master Plan are proposed in the future, additional environmental analysis and documentation would be required, in compliance with CEQA regulations, to determine the significance of Tier II project impacts and identify measures to mitigate any significant impacts.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Mitigation Measures

No mitigation measures would be required under Tier I. Further analysis is required when Tier II projects are proposed.

Level of Significance after Mitigation

Less than significant for Tier I. Further future analysis would be required for Tier II when projects are proposed.

3.15.5 Cumulative

The study area for the cumulative traffic impact analysis encompasses the 14 intersections shown in Figure 3.15-1 and listed in Table 3.15-2 as well as the freeway mainline segments, freeway ramps, and CMP facilities identified in the impacts discussion above in Section 3.15.4. The projected cumulative-plus-project conditions presented in Table 3.15-4, above, depict the impacts of traffic generated by cumulative development and related projects combined with project-generated traffic in 2035 on the study area intersections. Existing (2019) traffic conditions at the 12 signalized study intersections are shown in Table 3.15-2. Under existing conditions, none of the study intersections would operate at LOS E or F; however, three intersections would operate at an unacceptable LOS of E or F in the a.m. or p.m. peak hour under cumulative-plus-project conditions. As noted in Section 3.15.3.2, above, LOS D is typically recognized as the minimum desirable LOS in urban areas.

Therefore, the proposed Tier I development and cumulative development would result in significant cumulative traffic impacts. In addition, traffic from the proposed Tier I development, related projects, and other cumulative development could also result in significant cumulative impacts on freeway mainline segments and freeway ramps.

3.16 Tribal Cultural Resources

3.16.1 Introduction

This section evaluates potential Tribal Cultural Resources (TCRs) impacts associated with construction and operation of the proposed project. The applicable laws, regulations, and methods used to determine the effects of the proposed project alternatives on TCRs are largely the same as those applied to historic and archaeological resources, as described in Section 3.4, *Cultural Resources*, in this Final EIR. This section first describes the ethnographic setting of the surrounding region and project area, and then describes the TCR regulations pertinent to the project and evaluates the potential for impacts involving TCRs. The discussion of TCRs relies upon a Sacred Lands File Search obtained from the Native American Heritage Commission (NAHC) and consultation conducted between the County and the Fernandeño Tataviam Band of Mission Indians (see Confidential Appendix K, retained in the files of the County).

TCRs include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included or determined to be eligible for inclusion in the California Register of Historical Resources (CRHR); included in a local register of historical resources; or determined by a lead agency, in its discretion and supported by substantial evidence, to be significant under CRHR criteria (Public Resources Code [PRC] Section 21074). TCRs may contain physical cultural remains (e.g., materials found in archaeological sites), or they may be floral or faunal resources or places within the natural landscape.

3.16.2 Regulatory Setting

3.16.2.1 Federal

No federal laws are relevant to the proposed project with respect to tribal cultural resources.

3.16.2.2 State

California Environmental Quality Act

In accordance with Section 21084.1 of CEQA, the proposed project would have a significant adverse environmental impact if it "causes a substantial or potentially substantial adverse change in the significance of an historical resource." Because significant TCRs are considered historical resources for the purposes of CEQA, PRC Section 21084.1 applies and is described in Section 3.4, *Cultural Resources*, of this Final EIR.

Assembly Bill (AB) 52

Recent legislation known as Assembly Bill (AB) 52 (Public Resources Code 21073-21084) amended CEQA to require that the analysis of project impacts on cultural resources include an analysis of impacts on Tribal Cultural Resources. Signed into law on September 25, 2014, AB 52 requires Lead Agencies to evaluate a project's potential to affect TCRs and establishes a consultation process for California Native American Tribes as part of CEQA. TCRs include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that

are eligible for inclusion in the CRHR or included in a local register of historical resources. AB 52 also gives Lead Agencies the discretion to determine whether a resource qualifies as a TCR on the basis of criteria for listing in the CRHR. The lead agency must support such a determination with substantial evidence.

The intent of AB 52 is to "set forth a process and scope that clarifies California tribal government involvement in the CEQA process, including specific requirements and timing for lead agencies to consult with tribes on avoiding or mitigating impacts to tribal cultural resources." It applies to projects with Notices of Preparation or Notices of Negative Declaration/Mitigated Negative Declaration released on or after July 1, 2015.

AB 52 defines TCRs, amends Appendix G of the CEQA Guidelines to include a separate section for TCRs, and creates a formal requirement for consultation with California Native American Tribes in the CEQA process. Pursuant to PRC Section 21080.3.2, Tribal Governments can request consultation with a lead agency and give input regarding potential impacts on TCRs before the agency decides what type of environmental review is necessary for a project. The PRC further requires avoiding damage to TCRs, if feasible. If not, Lead Agencies must mitigate impacts on TCRs to the extent feasible.

As set forth in PRC Section 21074, TCRs are defined as follows.

(a) "Tribal cultural resources" are either of the following:

(1) Sites, features, places, and objects with cultural value to descendant communities or cultural landscapes, that are any of the following:

(A) Included in or eligible for inclusion in the CRHR.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency will consider the significance of the resource to a California Native American Tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

For projects with a Notice of Preparation after July 1, 2015, the lead agency is required to consult with California Native American Tribes that are traditionally and culturally affiliated with the project area if (1) the tribe requests to the lead agency in writing to receive notification of projects; and (2) the tribe requests consultation on a specific project prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report. Consultation is:

"…the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible, seeking agreement. Consultation between government agencies and Native American tribes will be conducted in a way that is mutually respectful of each party's sovereignty. Consultation will also

recognize the tribes' potential needs for confidentiality with respect to places that have traditional tribal cultural significance." (Government Code Section 65362.4)

PRC Section 21080.3.2(a) lists consultation topics that may be discussed, including TCRs, project alternatives, project impacts, and possible mitigation measures.

Consultation ends when one of the following outcomes occurs:

1. Both parties agree to measures to avoid or mitigate significant effects on a TCR. The agreed-upon mitigation measures are included in the environmental document (PRC Section 21082.3(a)); or
2. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC Sections 21080.3.2(b)(1-2) and 21080.3.1(b)(1)).

California Health and Safety Code

California Health and Safety Code Section 7050.5 requires that, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there will be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions of Section 27491 of the California Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of any death. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, he or she will contact, by telephone within 24 hours, the California Native American Heritage Commission (NAHC). The NAHC will identify the most likely descendant (MLD), who will be consulted regarding treatment or repatriation of the remains.

California Public Resources Code (PRC)

PRC Section 5097.5 defines the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands as a misdemeanor. The Section also prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands issued by the public agency that has jurisdiction over the lands and provides for criminal sanctions.

PRC Section 5097.94 provides for the NAHC to make recommendations to encourage private property owners to protect and preserve sacred places in a natural state and to allow appropriate access to Native Americans for ceremonial or spiritual activities. The NAHC is authorized to assist Native Americans in obtaining appropriate access to sacred places on public lands and to aid state agencies in any negotiations with federal agencies for the protection of Native American sacred places on federally administered lands in the state.

PRC Sections 5097.98–99 require that the NAHC be consulted whenever Native American graves are found. According to these Sections, it is illegal to take or possess remains or artifacts taken from Native American graves; however, it does not apply to materials taken before 1984.

3.16.2.3 Local

Los Angeles County General Plan

The Los Angeles County General Plan, Conservation and Natural Resources Element, contains the following policies regarding cultural resource protection (2015):

- **Goal 14:** Protected historic, cultural, and paleontological resources.
  - **Policy 14.1:** Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.
  - **Policy 14.2:** Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.
  - **Policy 14.3:** Support the preservation and rehabilitation of historic buildings.
  - **Policy 14.4:** Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).
  - **Policy 14.5:** Promote public awareness of historic, cultural, and paleontological resources.
  - **Policy 14.6:** Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

City of Los Angeles Cultural Heritage Ordinance

The City of Los Angeles maintains a list of all sites, buildings, and structures that have been designated through the Cultural Heritage Ordinance as Historic-Cultural Monuments (HCMs). TCRs may be included in a local register of historical resources, and therefore would be considered to be historical resources for the purposes of CEQA.

City of Los Angeles Conservation Element

The Conservation Element of the City of Los Angeles General Plan (adopted September 2001) is designed to enhance, preserve, and protect the City's existing natural resources and other resources. TCRs may include archaeological sites, and the Conservation Element specifically addresses archaeological resources in Section 3 of Chapter 2, with the objective to "protect the City's archaeological…resources for historical, cultural, research and/or educational purposes." Moreover, its policy is to "continue to identify and protect significant archaeological…sites and/or resources known to exist or that are identified during land development, demolition or property modification activities."

3.16.3 Environmental Setting

The identification of historical and archaeological resources within the project area is based on a study prepared by Cogstone Resource Management, Inc., entitled *Archaeological Resources Assessment for the Olive View–UCLA Medical Center Master Plan EIR*, Los Angeles County, California (Lev-Tov and Valasik 2016) (see Appendix D of this Final EIR).

3.16.3.1 Ethnography

People have lived in California for more than 13,000 years, with their presence in the greater Los Angeles area dating prior to 9000 B.P. (before present). Two groups of Native Americans were present prehistorically in the San Fernando Valley, the Tongva and Tataviam. After the advent of the missions in California, the Tataviam were called the Fernandeño, and the Tongva were called the Gabrieliño. Many modern-day descendants are active members of current tribes of Tataviam and Tongva.

The Fernandeño/Tataviam Band of Mission Indians

The project site is within traditional tribal territory of the Tataviam, whose lands stretched from Antelope Valley, through the Tejon Ranch area, and into the San Fernando Valley. On July 14, 2016, the Fernandeño provided information stating that the project area was located within the sensitivity zone of two villages, Passenga and Achoicominga, providing as evidence PDF copies of two supporting documents, "Tataviam Geography and Ethnohistory" (Johnson and Earle 1990) and "Ethnographic Overview of the Angeles National Forest: Tataviam and San Gabriel Mountain Serrano Ethnohistory" (Chester King 2004).

The Tataviam belong to the family of Serrano peoples, who migrated down into the Antelope, Santa Clarita, and San Fernando valleys some time before 450 A.D. The Tataviam may be among the larger Shoshonean migration into Southern California that occurred 2,000 to 3,000 years ago (Johnson and Earle 1990). The Tataviam people lived primarily on the upper reaches of the Santa Clara River drainage system, east of Piru Creek, but they also marginally inhabited the upper San Fernando Valley, including the present-day city of San Fernando and neighborhood of Sylmar, which they shared with their inland Gabrieliño neighbors.

Organized into a series of clans throughout the region, the Tataviam lived in small villages, becoming semi-nomadic when food was scarce. Hunter-gatherers, with communal expeditions held at certain times of the year, the Tataviam prepared their foodstuffs in much the same way as their neighbors. Cooking and food preparation utensils consisted primarily of lithic (i.e., stone) knives and scrapers, mortars and metates, pottery, and bone or horn utensils. Larger game was hunted with bow and arrow, while snares, traps, and pits were used for capturing smaller game; meat was generally boiled, sun-dried, or cooked in earthen ovens. These resources were supplemented with roots, bulbs, shoots, and seeds, which, if not available locally, could be obtained in trade with other groups. Jimsonweed, native tobacco, and other plants found along the local rivers and streams provided raw materials for baskets, cordage, and netting. Resources available to the desert-dwelling Tataviam included honey mesquite, piñon, yucca, mesquite, and cacti fruits (Solis 2008).

There is little information regarding Tataviam social organization, although information from neighboring groups shows similarities among Tataviam, Chumash, and Gabrieliño ritual practices. At first contact with the Spanish in the late eighteenth century, the population of this group was estimated at less than 1,000 persons. By 1810, nearly all of the Tataviam population had been baptized at San Fernando Mission (King and Blackburn 1978).

The Gabrieliño

The project area also lies within the territory of the Gabrieliño Native American people, a Uto-Aztecan (or Shoshonean) group that may have entered the Los Angeles Basin as recently as 1500 B.P. (Bean and Smith 1978). In early protohistoric times, the Gabrieliño occupied a large territory that included the entire Los Angeles Basin, encompassing the coast from Malibu to Aliso Creek, parts of the Santa Monica Mountains, the San Fernando, San Gabriel, and San Bernardino valleys, the northern parts of the Santa Ana Mountains, and much of the middle to lower Santa Ana River. They also occupied the islands of Santa Catalina, San Clemente, and San Nicolas. Within this large territory were more than 50 residential communities, with populations ranging from 50 to 150 individuals. The Gabrieliño spoke a language that falls within the Cupan group of the Takic subfamily of the Uto-Aztecan language family, which is extremely large and includes the Shoshonean groups of the Great Basin. Given the geographic proximity and linguistic similarities of Serrano and Gabrieliño bands living in the area, ethnographers have suggested that they shared the same ethnic origins (Kroeber 1925).

Because the Gabrieliño were not studied until the 1920s, by which time they had already been greatly influenced by missionaries and settlers (Kroeber 1925), very little is known about their early social organization. Kroeber's work indicates that theirs was a hierarchically ordered society, with a chief who oversaw social and political interactions not only within the Gabrieliño culture, but also with other groups (1925). Yet given even what little is known of their overall economic, ritual, and social organization, the Gabrieliño, along with the Chumash, their coastal neighbors to the northwest, are characterized as one of the most complex societies in native Southern California (Bean and Smith 1978:538; Kroeber 1925:621).

The Gabrieliño had access to a broad and diverse resource base that included numerous plants and animals for food, medicines, tools, and shelter (Kroeber 1976: 649–650). Mountain shrubs, ash, elder, and willow were used for shelters and tool materials, (e.g., bows), and over 20 plants were used regularly for medicinal purposes. Although acorns and various grass seeds were important (Bean 1978:538–549), the Gabrieliño made the greatest use of food seeds, followed by foliage, shoots, fruits, and berries. Inland resource exploitation was focused on village-centered territories, and hunting ranged from deer, rabbits, wood rats, squirrels, and other small game to quail, ducks and other birds. Along the coast, wetlands and ocean resources were exploited for freshwater fish, saltwater mollusks, crustaceans, and sea mammals. Fishing technology included basket fish traps, nets, bonefish hooks, harpoons, and vegetable poisons, and ocean fishing was conducted from wooden plank canoes lashed and asphalted together.

The Gabrieliño had multiple settlements, ranging from seasonal satellite villages to larger, more permanent settlements. Constructed of tule, fern, and/or *carrizo*, Gabrieliño homes were thatched, circular, domed structures, built large enough to house several families. Smaller, earth-covered structures were used in a variety of ways, as sweathouses, meeting places for adult males, ritual huts, and ceremonial enclosures (Heizer 1952:289–293).

This wealth of resources, coupled with an effective subsistence technology, a vast trade network and a well-developed ritual system, resulted in a society that was among one of the most materially wealthy and culturally sophisticated cultural groups in California at the time of contact (Bean and Smith 1978), yet recorded ethnographic and archaeological sites associated with Gabrieliño settlements are few. This is directly attributable to the extensive and prolonged urban development of the City of Los Angeles region over the last 150 years (California Department of Parks and Recreation 2005:16).

3.16.4 Environmental Impact Analysis

3.16.4.1 Methods

In compliance with AB 52, the County provided formal notification of the proposed project to the Fernandeño/Tataviam Band of Mission Indians on April 11, 2016. The letter included a description and location of the proposed project and the County's contact information. Letters were sent via certified mail.[1] A record of this letter is included as Confidential Appendix K to this Final EIR. The County received a letter response from the Fernandeño/Tataviam Band of Mission Indians (Sedna

[1] The Fernandeño/Tataviam Band of Mission Indians formally requested notification on CEQA projects, under AB 52, that the County proposes to undertake. This notification affords California Native American Tribes the opportunity for consultation pursuant to PRC Section 21080.3.1. Analysis of potential impacts related to TCRs was based on information from the NAHC and from confidential tribal consultation conducted under the provisions of AB 52.

Villavicencio, Tribal Historic and Cultural Preservation Officer), on April 21, 2016 requesting tribal consultation. On July 14, 2016, the Fernandeño provided information stating that the project area was located within the sensitivity zone of two villages, Passenga and Achoicominga. As support, the Fernandeño provided PDF copies of two supporting documents, "Tataviam Geography and Ethnohistory" (Johnson and Earle 1990) and "Ethnographic Overview of the Angeles National Forest: Tataviam and San Gabriel Mountain Serrano Ethnohistory" (Chester King 2004). A qualified archaeologist reviewed and researched the documentation provided by the tribe, as well as the evaluation of impacts presented in this section. Any maps or other evidentiary consultation materials provided by the tribe are considered confidential and are retained in the County's administrative files for the proposed project. On September 15, 2017, the Fernandeño provided additional information detailing two TCRs: Patzkunga (Passenga) and another village, Sikwange. In addition to the information provided on the two TCRs, the Fernandeño also stated that locations near natural springs of water, mature oak trees, and along the foothills of mountains have the highest potential for subsurface TCRs. The current project is located within 2 miles of numerous natural springs, less than 0.4 miles from California oak woodland, and is located at the foothill of the San Gabriel Mountains, where the entrances to traditional and historic trails are located.

On December 19, 2018, the County sent a letter to the Fernandeño regarding changes to the proposed master plan. A response was received on February 1, 2019, from tribal representative Jairo Avila, who requested that sufficient archaeological monitors be present each work day during ground disturbance activities to ensure that thorough levels of monitoring coverage be provided if there will be simultaneous work areas. Mr. Avila also requested that the tribe be provided with the name of the contracted qualified archaeological monitor once the master plan projects are ready to move forward into construction and a copy of the Cultural Resource Monitoring and Mitigation Plan (CRMMP) for the project.

3.16.4.2 Thresholds of Significance

For the purposes of this Final EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would result in a significant environmental impact if it would:

TCR-1 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is:

i. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

ii. A resource determined by the lead agency, in its discretion, and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency will consider the significance of the resource to a California Native American tribe.

3.16.4.3 Impacts and Mitigation Measures

Impact TCR-1: Would the Proposed Project Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource?

Construction Impacts

Tiers I and II

Potential impacts on TCRs during construction of the proposed project are analyzed by determining if the proposed activities have the potential to affect TCRs, identifying whether the work would be located at or near a TCR, applying the criteria for determining the significance of impacts on TCRs set forth in Section 15064.5 of the CEQA Guidelines, in consultation with one or more consulting parties, and relating them to the relevant plans and policies.

As discussed in Section 3.16.4, the County is conducting consultation with Fernandeño/Tataviam Band of Mission Indians pursuant to AB 52. The Fernandeño have provided detailed information about three TCRs, including two villages in the vicinity of the campus. While the proposed project is not directly located within the village habitation areas, it is within the use area for each village, which extends 3 miles from the village center. In addition, the proposed project's location near natural springs, California oak woodland, and known traditional and historic trails indicates a moderate sensitivity for subsurface TCRs. Therefore, the proposed project has a moderate potential to affect TCRs in areas on the campus not previously disturbed. If TCRs are encountered and disturbed during construction, the impact would be significant under CEQA. To reduce potential impacts if TCRs are encountered, mitigation measures **MM-CR-1** through **MM-CR-6** (see Section 3.4, *Cultural Resources*, of this Final EIR) will be implemented.

Mitigation Measures`

CR-1 through **CR-6**, as presented in Section 3.4, *Cultural Resources,* of this Final EIR, would mitigate or reduce potential impacts to TCRs, archaeological resources, and human remains, respectively, to a level that is less than significant.

Level of Significance after Mitigation

Less than significant.

3.16.5 Cumulative Impacts

As provided in Chapter 2, a total of 14 related development projects have been identified in the vicinity of the project site. The project and the related projects are located within a semi-urbanized area that has been disturbed and developed over time. Cumulative growth and development in the cumulative impacts study areas could result in significant impacts if TCRs are encountered and disturbed or damaged during construction activities. It should be noted that a great deal of historical-period debris can be found during construction (e.g., bricks, bottles, broken cups, and plates), but this material is seldom considered a significant resource. Additionally, although the potential for an individual cumulative project to affect TCRs is unknown, given the geographic extent of the cumulative impacts study areas, it is probable that cumulative growth and development would have impacts on TCRs. Although there is a moderate likelihood of encountering TCRs on the Olive View–UCLA Medical Center Campus, the possibility remains that project excavation activities could affect unknown TCRs, a potentially significant project impact. In the event that tribal cultural

resources are uncovered, each related project would be required to comply with the applicable regulatory requirements discussed in detail above. Any cumulative impacts to tribal cultural resources would be reduced by compliance with applicable regulatory requirements and the City's standard condition of approval in the event of inadvertent discovery. In addition, related projects would be required to comply with the consultation requirements of AB 52 to determine and mitigate any potential impacts to tribal cultural resources. Therefore, cumulative impacts to tribal cultural resources would be less than significant and would not be cumulatively considered.

3.17 Utilities/Service Systems

3.17.1 Introduction

This section describes the existing utility systems that serve the project site, including water supply, wastewater conveyance and treatment, stormwater conveyance, solid waste generation and disposal, and electrical service and availability, and the impacts on those systems that could occur due to implementation of the Olive View–UCLA Medical Center Master Plan (Master Plan or proposed project). Measures that would mitigate significant impacts are also identified.

3.17.2 Regulatory Setting

3.17.2.1 Federal

Clean Water Act

Passed in 1972, the Clean Water Act is a federal regulation whose objective is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands (USEPA 2013). Its National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. The Donald C. Tillman Water Reclamation Plant (DCTWRP), which treats wastewater generated by the Olive View–UCLA Medical Center, is subject to NPDES permit (NPDES No. CA0056227) requirements.

Leadership in Energy and Environmental Design

Leadership in Energy and Environmental Design (LEED) is a rating system devised by the United States Green Building Council (USGBC) to evaluate the environmental performance of a building and encourage market transformation toward sustainable design. The system is credit based, allowing projects to earn points for environmentally friendly actions taken during construction and use of a building. LEED was launched in an effort to develop a “consensus-based, market-driven rating system to accelerate the development and implementation of green building practices.” The program is not rigidly structured; not every project must meet identical requirements to qualify.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. Amended in 1986 and 1996, the law requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and groundwater wells. The SDWA applies to every public water system in the United States.

The SDWA authorizes the U.S. EPA to set national health-based standards for drinking water to protect against both naturally occurring and manmade contaminants that may be found in drinking water. The U.S. EPA, states, and water systems work together to make sure that these standards are met.

Originally, the SDWA focused primarily on treatment as the means of providing safe drinking water at the tap. The 1996 amendments greatly enhanced the existing law by recognizing that source

water protection, operator training, funding for water system improvements, and public information are important components of having safe drinking water. This approach ensures the quality of drinking water by protecting it from source to tap.

3.17.2.2 State

California Water Plan

The California Water Plan, prepared by the California Department of Water Resources, provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Water Plan, which is updated every five years, presents basic data and information about California's water resources, including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses.

The Water Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the state's water needs. The Plan provides resource management strategies and recommendations to strengthen integrated regional water management. The resource management strategies help regions meet future demands and sustain the environment, resources, and economy, involve communities in decision-making, and meet various goals. A resource management strategy is a project, program, or policy that helps local agencies and governments manage their water and related resources. These strategies can reduce water demand, improve operational efficiency, increase water supply, improve water quality, practice resource stewardship, and improve flood management.

California Water Code

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the State Water Resources Control Board (SWRCB) consider and act upon all applications for permits to appropriate waters. Division 6 of the California Water Code controls conservation, development, and utilization of the state water resources, and Division 7 addresses water quality protection and management.

Senate Bill 610

Senate Bill 610 (Water Code Sections 10910 and 10912) took effect on January 1, 2002. SB 610 seeks to promote more collaborative planning between local water suppliers and cities and counties. It requires that water supply assessments occur early in the land use planning process for all large-scale development projects.[1] The required assessments must include detailed analyses of historic,

[1] In accordance with the Section 15155 of the 2016 CEQA Statute and Guidelines, a project is considered to be a "water-demand project" if one of the following definitions applies:
(a) A residential development of more than 500 dwelling units;
(b) A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
(c) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
(d) A hotel or motel, or both, having more than 500 rooms;
(e) An industrial, manufacturing, or processing plant or an industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.

current, and projected groundwater pumping, and an evaluation of the sufficiency of the groundwater basin to sustain a new project's demands. It also requires an identification of existing water entitlements, rights, and contracts and a quantification of the prior year's water deliveries.

Senate Bill 221

Enacted in 2001, SB 221, which has been codified in the California Water Code beginning with Section 10910, requires that the legislative body of a city or county that is empowered to approve, disapprove, or conditionally approve a subdivision map must condition such approval upon proof of sufficient water supply. The term "sufficient water supply" is defined in SB 221 as the total water supplies available during normal, single dry, and multiple dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses, including, but not limited to, agricultural and industrial uses. SB 221 requirements do not apply to the general plans of cities and counties, but rather to specific development projects.

California Urban Water Management Act

The California Urban Water Management Planning Act requires urban water suppliers to prepare and adopt an Urban Water Management Plan (UWMP) every 5 years. The main goal of the UWMP is to forecast future water supply and demand for under-average and dry-year conditions, identify future water supply projects, such as recycled water, provide a summary of water conservation best management practices, and provide a single and multi dry year management strategy. In June 2016, city of Los Angeles LADWP (LADWP), which is the water supplier to the project site, approved the 2015 UWMP for the Los Angeles metropolitan area.

Health and Safety Code Section 17921.3

Health and Safety Code Section 17921.3 requires low-flush toilets and urinals in the majority of buildings.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (Assembly Bill 939) requires each city and county in the state of California and regional solid waste management agencies to enact plans and implement programs to divert 25 percent of its waste stream by 1995 and 50 percent by 2000.

California Solid Waste Reuse and Recycling Access Act

The California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327) was enacted on October 11, 1991, and added Chapter 18 to Part 3 of Division 30 of the Public Resources Code. It required each jurisdiction to adopt an ordinance by September 1, 1994, requiring any development project for which an application for a building permit is submitted to provide an adequate storage area for collection and removal of recyclable materials.

(f) A mixed-use project that includes one or more of the projects specified in subdivisions (a)(1)(A), (a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(1)(E), and (a)(1)(G) of this section.

(g) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.

Assembly Bill 75

AB 75 (Public Resources Code 42920–4297) required all state agencies and large state facilities to divert at least 25 percent of all solid waste from landfills by January 1, 2002, and 50 percent by January 1, 2004. The law also requires each state agency and large facility to submit an annual report to the California Department of Resources Recycling and Recovery (CalRecycle) summarizing its yearly progress in implementing waste diversion programs. As described in further detail below, the city of Los Angeles initiated a Solid Waste Integrated Resources Plan in the spring of 2007 and is moving toward zero waste by 2030.

Assembly Bill 341

Assembly Bill 341 (Public Resources Code 41730–42649), signed in February 2011, directed that no less than 75 percent of solid waste generated in California be source reduced, recycled, or composted by 2020 and required CalRecycle to provide a report to the legislature that recommends strategies to achieve the policy goal by January 1, 2014. AB 341 also mandated local jurisdictions implement commercial recycling by July 1, 2012.

California Code of Regulations, Title 24, Part 6

Title 24, Part 6 of the California Code of Regulations (also known as the California Energy Code) establishes energy conservation standards for new construction. These standards relate to insulation requirements, glazing, lighting, shading, and water and space heating systems. Local governmental agencies may adopt and enforce energy standards for newly constructed buildings, additions, alterations, and repairs to existing buildings provided the California Energy Commission finds that the standards will require buildings to be designed to consume no more energy than permitted by Title 24, Part 6. Section 91.1300 of the city of Los Angeles Municipal Code incorporates these state requirements.

2010 California Green Building Standards Code

The 2010 California Green Building Standards (CALGreen) is a statewide mandatory green building code all cities in California were required to adopt by January 1, 2011. CALGreen requires new standards in materials reuse, locally sourced materials, water/energy efficiency, and indoor air quality. To meet CALGreen requirements, the Los Angeles County Board of Supervisors adopted the Los Angeles County Green Building Standards Code (Title 31), which is designed to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts that have a reduced negative impact or a positive environmental impact, and encouraging sustainable construction practices in planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental air quality (City of Los Angeles 2010).

Senate Bill 1078

In 2002, SB 1078 (Public Utilities Code, Chapter 2.3, Section 387, 390.1, and 399.25) implemented a renewable portfolio standard (RPS), which established a goal that 20 percent of the energy sold to customers be generated by renewable resources by 2017. The goal was accelerated in 2006 under SB 107 and expanded in 2011 under SB 2, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 (LADWP Power Integrated Resource Plan 2015).

Senate Bill 100

In 2018, SB 100 (Public Utilities Code, Chapter 312, Section 399.11, 399.15, 399.30, and 454.53) increased the RPS target and established state policy that renewable energy resources and zero-carbon resources supply all electricity procured to serve California end-use customers and the State Water Project (SWP) by 2045. This requires the California Public Utilities Commission (CPUC), the California Energy Commission (CEC), the Department of Water Resources (DWR), and the California Air Resources Board (ARB) to incorporate this policy into all relevant planning and use existing programs to achieve this policy.

California Public Utility Commission

The CPUC regulates privately owned electric, telecommunications, natural gas, water, and transportation companies, as well as household goods movers and rail safety. The CPUC's Energy Division sets electric rates, protects consumers, and promotes energy efficiency, electric system reliability, and utility financial integrity. The CPUC regulates local natural gas distribution facilities and services, natural gas procurement, intrastate pipelines, and intrastate production and gathering. It works to provide opportunities for competition when, in the interest of consumers, it takes the lead in environmental review of natural gas-related projects, recognizes the growing interaction of electric and gas markets, and monitors gas energy efficiency and other public purpose programs.

3.17.2.3 Local

Regional

Greater Los Angeles County Integrated Regional Water Management Plan

This Integrated Regional Water Management Plan (IRWMP) reflects the Greater Los Angeles County Region's collaborative efforts to ensure a sustainable water supply through the more efficient use of water, the protection and improvement of water quality, and environmental stewardship. The plan integrates water supply, water quality, flood management, and open space strategies to maximize the utilization of local water resources. The region includes approximately 10 million residents, 84 cities, and portions of four counties. To make governance and stakeholder involvement manageable, the region is organized into subregions: the Lower San Gabriel and Los Angeles Rivers, North Santa Monica Bay, South Bay, Upper Los Angeles River, and Upper San Gabriel and Rio Hondo Rivers (LADWP 2014). The Olive View–UCLA Medical Center Campus at 14445 Olive View Drive is located in the Upper Los Angeles River Area (ULARA) subregion. The Upper Los Angeles River also has a subregional plan to guide the protection and improvement of its water resources.

County of Los Angeles

Los Angeles County General Plan

The Conservation and Natural Resources Element of the County's sGeneral Plan serves to augment the protection, conservation, and preservation of natural resource and open space areas in Los Angeles County. This element addresses open space resources, biological resources, local water resources, agricultural resources, mineral and energy resources, scenic resources, and historical, cultural and paleontological resources (Los Angeles County General Plan 2015). The primary goals for the Local Water Resources component are to protect and use local surface water, groundwater, and watershed resources. This is proposed to be done through a combination of goals and policies in the Conservation and Natural Resources Element. These include but are not limited to minimizing

water pollution; actively engaging with stakeholders in the formulation and implementation of surface water preservation and restoration plans, river master plans, restoration projects, and other natural resource conservation aims; requiring compliance by all County departments with adopted Municipal Separate Storm Sewer System (MS4), general construction, and point source NPDES permits; actively supporting the design of new and retrofit of existing infrastructure to accommodate watershed protection goals; protecting natural groundwater recharge areas and regional spreading grounds; preventing stormwater infiltration where inappropriate and unsafe; promoting the development of multi-use regional facilities for stormwater quality improvement, groundwater recharge, detention/attenuation, flood management, retaining non-stormwater runoff, and other compatible uses (Los Angeles County General Plan, Conservation and Natural Resources Element 2015).

Los Angeles County Integrated Waste Management Plan

The California Integrated Waste Management Act (AB 939) mandates that jurisdictions meet a diversion goal of 50 percent by 2000 and thereafter. In addition, each county is required to prepare and administer a Countywide Integrated Waste Management Plan. This plan is composed of the County's and cities' solid waste reduction planning documents, an Integrated Waste Management Summary Plan (Summary Plan), and a Countywide Siting Element (CSE) (LADWP 2012). In order to assess jurisdiction's compliance with AB 939, the Disposal Reporting System was established to measure the amount of disposal from each jurisdiction and determine if it has met the goals.

City of Los Angeles

LADWP 2015 Urban Water Management Plan

The California Urban Water Management Planning Act requires water suppliers to develop water management plans every 5 years. LADWP most recently completed a 5-year update in 2015. LADWP's 2015 Urban Water Management Plan, which was adopted by the city's Board of Water and Power Commissioners on June 7, 2016, describes how water resources are used and presents strategies that will be used to meet the city's current and future water needs, which focus primarily on water supply reliability and water use efficiency measures. The plan projects water demand and supplies through 2040; total demand for water is predicted to be 685,500 acre-feet[2] in 2030 and 709,500 acre-feet in 2040, with passive water conservation for a single dry year, and 652,900 acre-feet in 2030 and 675,700 acre-feet in 2040 with passive water conservation for an average weather year. LADWP expects it will be able meet their forecasted demand for water resources with a combination of existing supplies, planned supplies, and Metropolitan Water District (MWD) purchases (LADWP 2015a).

City of Los Angeles Water Integrated Resources Plan

Prepared jointly by the city of Los Angeles Bureau of Sanitation (BOS) and the LADWP, the city of Los Angeles adopted its Water Integrated Resources Plan (IRP) in 2006. It contains an implementable facilities plan through the year 2020 that integrates water supply, water conservation, water recycling, runoff management, and wastewater facilities planning using a regional watershed approach. The adopted IRP contains recommendations that would be achieved through a series of projects and policy directions to staff (City of Los Angeles Water Integrated Resources Plan 2012).

[2] 1 acre-foot = 325,851 gallons.

Citywide Exclusive Franchise System for Municipal Solid Waste Collection and Handling

Solid waste collection, management, and disposal in the city of Los Angeles is handled by BOS crews and various permitted private solid waste haulers. The city provides solid waste collection, recycling, and green waste collection services primarily to single-family uses and multifamily uses with four units or less. Private solid waste haulers collect from most multifamily residential uses with more than four units and commercial uses based on an open permit system. Permitted waste haulers must obtain an annual permit, submit an annual report, and pay quarterly fees. However, unlike the BOS, private waste haulers are not required to provide recycling services, operate clean vehicles, offer similar costs for similar services, or reduce vehicle miles traveled. Thus, the existing open permit system limits the availability of the city to address compliance with state environmental mandates and the city's waste diversion goals. Although the city has obtained a 76 percent solid waste diversion rate, as identified in the 2013 Zero Waste Progress Report, nearly 3 million tons of solid waste are still deposited in landfills annually, with nearly 70 percent composed of waste collected by private waste haulers from multifamily residential and commercial customers.

To respond to these challenges, and in response to the City Council directive, the BOS established an executive franchise system for municipal solid waste collection and handling services for multifamily residential uses of five or more and commercial, industrial, and institutional uses serviced by private solid waste haulers. The Exclusive Franchise System Ordinance (Ordinance No. 182986) was adopted by the City Council on April 8, 2014. In 2017, city officials put the new system into effect, replacing the city's open market collection and handling system in those sectors. The exclusive franchise system established a number of franchise collection zones, in which a single franchised waste hauler collects, manages, and disposes of solid waste from both commercial and multifamily residential properties. Among other requirements, the city would mandate maximum annual disposal levels and specific diversion requirements for each franchise zone to promote solid waste diversion from landfills in an effort to meet the city's zero waste goals.

City of Los Angeles Emergency Water Conservation Plan (Ordinance No. 181288)

The city adopted Ordinance No. 181288 (amendment to Chapter XII, Article I of LAMC) to clarify prohibited uses and modify certain water conservation requirements of the City of Los Angeles Emergency Water Conservation Plan. The purpose of the ordinance is to minimize the effect of a water shortage on the customers of the city of Los Angeles and to adopt provisions that will significantly reduce water consumption over an extended period of time.

The revised Water Conservation Ordinance contains five water conservation phases, which correspond to severity of water shortage, with each increase in phase requiring more stringent conservation measures. Water conservation phases define outdoor watering restrictions, as appropriate, including sprinkler use restrictions and other prohibited water uses.

Industrial Waste Control Ordinance

The Industrial Waste Management Division of the BOS was established to protect local receiving waters by regulating industrial wastewater discharges to the city's sewer system and by administering and enforcing the Industrial Waste Control Ordinance (Los Angeles Municipal Code Section 64.30) as well as federal EPA pretreatment regulations.

Industrial facilities and certain commercial facilities that plan to discharge industrial wastewater to the city's sewage collection and treatment system are required first to obtain an industrial wastewater permit. Permits are issued when a determination has been made by the Board of Public

Works for the city of Los Angeles that the wastewater to be discharged will not violate any provisions of the ordinance, the Board's Rules and Regulations, the water quality objectives for receiving waters established by the California Water Quality Control Board, Los Angeles Region, or applicable federal or state statutes, rules, or regulations.

City of Los Angeles Sewer Allocation (Ordinance No. 166060)

City Ordinance No. 166,060 (Sewer Allocation) limits the annual increase in wastewater flows discharged into the Hyperion Treatment Plant (HTP) system to 5 million gallons per day (mgd). The Los Angeles Department of Public Works, Bureau of Engineering, Special Order No. SO06-0691 changed the design peak dry weather flow for sanitary sewers from three-quarter depth to one-half the sewer diameter to implement the city-adopted goal of no overflows or diversions from the wastewater collection system.

Sewer System Management Plan

On May 2, 2006, the SWRCB adopted the Statewide General WDRs for publicly owned sanitary sewer systems. Under the WDRs, the owners of such systems must implement a written Sewer System Management Plan and make it available to the public.

The city of Los Angeles's sewer system is one of the largest in the world, with more than 6,600 miles of sewers serving a population of more than 4 million in the Hyperion Sanitary Sewer System, Terminal Island Water Reclamation Plant Sanitary Sewer System, and the city of Los Angeles Regional Sanitary Sewer System. To comply with the WDRs, a Sewer System Management Plan was prepared for each of the city's three sanitary sewer systems. The Sewer System Management Plan must be updated every 5 years. The goal of the city's Sewer System Management Plan is to provide a plan and schedule to properly manage, operate, and maintain all parts of the sanitary sewer system, which will help reduce and prevent Sanitary Sewer Overflows (SSOs), as well as mitigate any SSOs that do occur (Sewer System Management Plan–Hyperion Sanitary Sewer System 2015).

LADWP Power Integrated Resources Plan

LADWP is also responsible for the construction, operation, maintenance, and management of electric works and property for the benefit of the city and its habitats. The goal of the Power Integrated Resources Plan (IRP) is to identify a portfolio of generation resources and power system assets that meets the city's future energy needs at the lowest cost and risk consistent with LADWP's environmental priorities and reliability standards (LADWP 2015b). The 2015 Power IRP provides a 20-year framework to ensure that current and future energy needs of the city can be met over the next 20 years.

The Power IRP provides objectives and recommendations to reliably supply LADWP customers with power and to meet the updated SB 1078's goal of 50 percent renewable energy by 2030.

3.17.3 Environmental Setting

3.17.3.1 Water Supply

Water service to the project site is provided by LADWP. In addition to LADWP, the two other major water utility providers that serve the area in the vicinity of the project site are the Metropolitan Water District (MWD) and the California Water Service (CWS).

LADWP covers an area of 472 square miles, serving residents and businesses in Los Angeles and its surrounding communities. With over 4 million residents, there are 731,000 water customers with active service connections(LADWP 2018)). Water supply and conveyance structures within the LADWP system include a series of 117 tanks and reservoirs and a network of pipelines, including 216,543 feet of distribution mains. In Fiscal Year 2018–2019, LADWP supplied 154 billion gallons of water, whereas the average daily use for all customers was 112 gallons per capita per day (LADWP 2018).

The Los Angeles Aqueducts, local groundwater, and supplemental water purchased from MWD are the primary sources of water supply for the city of Los Angeles. The Los Angeles Aqueduct supplies an average of 27 percent of the city's water, MWD purchases account for about 59 percent, local groundwater resources comprise 12 percent, and recycled water supplies 2 percent (5-year average from Fiscal Years 2014–2018; LADWP 2018). The water from MWD is delivered through the Colorado River Aqueduct and the State Water Project's California Aqueduct, sources that have historically delivered an adequate and reliable supply to serve the city's needs. Recycled water projects are expected to fill a larger role in Los Angeles's water supply portfolio, and stormwater capture projects for groundwater recharge to improve groundwater reliability are also being developed.

The 2015 UWMP projects water demand for their service area through the year 2040, as summarized in Table 3.17-1.

Table 3.17-1. LADWP Projected Water Demand through Year 2040

Demand Forecast	2020	2030	2040
Total (single dry year)	642,400 AFY[1]	685,500 AFY	709,500 AFY
Total (average weather year)	611,800 AFY	652,900 AFY	675,700 AFY

[1] Acre-feet per year
Source: Los Angeles LADWP 2015a .

The UWMP also projects that LADWP's reliance on MWD purchases for their water supply will be reduced to 11 percent by Fiscal Year 2039–2040 (under average year conditions) (LADWP 2015a).

Using the LADWP UWMP projections, the Greater Los Angeles County Integrated Regional Water Management Plan also makes demand forecasts. For comparative purposes, the projections for the ULARA subregion can be seen in Table 3.17-2.

Table 3.17-2. ULARA Water Demand through Year 2035

2015	2025	2035
439,000 AFY	477,00 AFY	500,000 AFY

Source: LADWP 2014.

Water usage at the Olive View–UCLA Medical Center is currently estimated at approximately 227,861 gallons per day or 83,169,372 gallons per year (Los Angeles County 2016).

Based on the 1982 site utility plan, there is an existing 12-inch domestic water loop around the hospital, with two connections to the street water main along Olive View Drive, one on the southwest corner and the other at the southeast corner of the property (Olive View–UCLA Medical

Center Master Plan 2015). A portion of the 12-inch water main that runs through the building foundation was later abandoned and replaced by LADWP with a 16-inch gravity cold water line (CW) along Bledsoe Street that connects to the 12-inch main line.

An existing 500,000-gallon emergency water reservoir is located on the northeast side of the property, across from the Los Angeles flood control channel. Per Olive View–UCLA Medical Center facilities staff, this tank has been decommissioned. The reservoir is provided with a 6-inch cold water inlet pipe connected to the existing 12-inch water main. An 18-inch suction pipe is connected to the reservoir and serves as the emergency water supply (EWS) going to the Central Utility Plant (CUP). The 18-inch EWS and the 6-inch CW make-up water are routed below the flood control channel.

Based on the as-built drawings, there are three vertical turbine multistage emergency water pumps, with total capacity of 1,030 GPM at 208 feet of head. The water pumps take suction from the 18-inch EWS, with 6-inch CW bypass connected to the discharge line from the pumps. A 6-inch CW is shown as supplying the hospital, with the pump discharge connected to the same CW line from street main.

The onsite water distribution system conveys flow from the offsite water main system to the campus water main facilities, providing flow to meet domestic water service, fire protection, and irrigation demands.

3.17.3.2 Sewers and Wastewater Treatment

The hospital's sanitary sewer system is routed and collected south of the building. Four existing 8-inch sanitary sewers are connected from the building to the 8-inch main site sewer lines on Olive View Drive. An existing 17,500-gallon sanitary sewage tank is located in the parking lot, south of the hospital.

The tank size is assumed to be a minimum of 53,250 gallons (Olive View–UCLA Medical Center Master Plan 2015). An existing 10-inch sanitary sewer that serves the Central Utility Plant is located along Bledsoe Street. It is understood that the current sanitary sewage tank is being used as an emergency backup for waste; the possibility of using this tank to comply with NPC 5 requirements that will be enforced by 2030 will be reviewed.

Wastewater from the campus is conveyed via public sewer lines that are owned by the city of Los Angeles. These local sewer lines connect to the city's North Hollywood Interceptor System (NHIS), North Outfall System (NOS), and/or DCTWRP. From there, sewage and wastewater is either conveyed via the La Cienega San Fernando Valley Relief Sewer (LCSFVRS) or via the East Interceptor Sewer (NEIS), a 10-mile sewer tunnel ranging in diameter from 6 to 8 feet. NEIS connects to other major interceptor and outfall sewers, including the LCSFVRS, that ultimately convey flows to the HTP, located in Playa del Rey. The HTP is part of the Hyperion System, which is the largest of the city's three sanitary sewer systems. Currently, an average of nearly 300 mgd is generated in the system. Approximately 60 mgd is treated upstream at the DCTWRP and Los Angles–Glendale Water Reclamation Plant. All other flow in the Hyperion System, as well as the biosolids from these reclamation plants, which are returned to the collection system, are treated at the HTP (City of Los Angeles Sewer System Management Plan 2014). The HTP provides full secondary treatment and has an average dry weather capacity of 450 mgd. Treated effluent is discharged from the HTP into Santa Monica Bay via a 5-mile ocean outfall.

According to the city's Sewer System Management Plan (2014), the city's sewer system has sufficient capacity to handle peak dry-weather flows and has not experienced any wet weather overflows since major relief sewers were completed in 2006. Additionally, the city has virtually eliminated dry-weather overflows from power outages or equipment failures at its pump stations.

Wastewater flows include residential, employment, industrial, and groundwater infiltration sources. The most recent city estimates for wastewater flows use Southern California Association of Governments 2008 adjusted data, which was used for population assumptions, the city of Los Angeles Water Integrated Resources Plan projects the 2010 population to be approximately 4,485,054 residents, with approximately 4,641,928 residents in 2015 and approximately 4,854,483 residents in 2020. At the time the IRP was adopted, its projected average dry weather flow was estimated to be approximately 477.3 mgd in 2010, approximately 492.3 mgd in 2015, and approximately 511.5 mgd in 2020, with each amount falling within the system-wide treatment capacity of 550 mgd. The wastewater flow projections account for planned levels of water conservation and assumed levels of collection system maintenance and rehabilitation (City of Los Angeles Bureau of Sanitation and LADWP 2012).

The Olive View–UCLA Medical Center generated approximately 205,075 gallons per day of wastewater or 74,852,434 gallons per year over the last year (FY 2015–2016) (San Francisco Water Power Sewer 2013)[3]. This wastewater generated on the campus is eventually conveyed to and treated at the HTP.

3.17.3.3 Stormwater

The Olive View–UCLA Medical Center Campus is served by the city of Los Angeles and Los Angeles County Flood Control District (LACFCD). The existing site does not include water quality or stormwater controls, such as stormwater best management practices (BMPs), low impact development (LID) features, or hydromodification management facilities. Additionally, stormwater detention and other flood control features are not present onsite. Instead, the existing site manages rainfall and stormwater runoff by overland sheet flow toward Wilson Canyon, primarily toward a series of onsite catch basins, and discharges into the city of Los Angeles storm drain line at Olive View Drive. Two large storm drain systems operated by LACFCD, the Wilson Canyon Channel and Mansfield Channel, run north to south near the east and west borders of the campus, respectively. These existing drains eventually join together offsite near the northeast corner of Sylmar High School, approximately 1 mile south of the campus. The existing stormwater management system utilizes a system of storm drain lines, vertical roof drains, underground reinforced concrete pipe, overland sheet flow, curbs, gutters, catch basins, and driveways to convey stormwater runoff to the existing public system owned and operated by LACFCD.

Historically, urban development and storm drain system design have consisted of streets, driveways, sidewalks, and structures constructed out of impervious materials that directly convey runoff to curb and gutter systems, the storm drain system, and downstream receiving waters. Until recently, conventional storm drainage and flood control systems were designed to convey stormwater away from developed areas as quickly as possible, but without thoroughly addressing stormwater quality and/or groundwater discharge. As of January 2009, LACFCD has developed

[3] Wastewater consumption was calculated based on the assumption(s) that wastewater generation is equal to 90 percent of water consumption .

standards to address these issues. Current LACFCD LID standards for stormwater management require limiting storm runoff from redeveloped sites to the predevelopment condition. Various measures used to achieve this may include infiltration, store and reuse (rainwater collection cisterns), bio-retention basins, and filtration systems. To the extent it is technically feasible, a developed site is required to capture, infiltrate, or reuse the difference in volume generated during a 0.75-inch storm event on the developed site versus that generated by the same event on the undeveloped site. In addition, to remove urban stormwater pollution, a developed site may be required to treat the entire 0.75-inch rainfall.

3.17.3.4 Solid Waste

Solid waste generated by facilities on the Olive View–UCLA Medical Center Campus is collected by franchise waste haulers for eventual disposal at one of the designated landfills in the city and County of Los Angeles. Landfills in California are categorized as one of three classes:

- Class I landfills accept hazardous and nonhazardous wastes;
- Class II landfills accept nonhazardous and designated wastes, as defined by the State Department of Resources Recycling and Recovery; and
- Class III landfills accept municipal and other nonhazardous, household waste.

Unclassified landfills are defined as facilities that accept inert materials only, such as soil, concrete, asphalt, and other construction and demolition debris. Nonhazardous municipal solid waste is disposed in Class III landfills, while construction waste, yard trimmings, and earth-like waste are disposed in unclassified (inert) landfills.

In 2016, Los Angeles County generated 9.9 million tons of solid waste for disposal (Los Angeles County Integrated Waste Management Plan 2016). Of those 10.3 million tons, 5.2 million tons went to in-county Class III landfills, 0.53 million tons went to transformation facilities, and 4.2 million were exported to out-of-county landfills (Los Angeles County Integrated Waste Management Plan 2017). The amount of inert waste disposed at permitted inert waste landfills totaled 369,083 tons (Los Angeles County Integrated Waste Management Plan 2017). On average, the solid waste disposed for 2016 was 33,026 tons per day (tpd). The city produced 3.9 million tons of solid waste that same year for disposal. Assuming a diversion rate of 65 percent, the County generated a total 28.05 million tons (89,900 tpd) and the city generated a total of 11.1 million tons (30,520 tpd) of solid waste.

There are several major landfills in the Los Angeles metropolitan area that may serve the project site, including Sunshine Canyon Landfill, located 5 miles from the project site. These landfills are classified as *major landfills*, which are defined as those facilities that receive more than 250,000 tons of solid waste per year. Additionally, these landfills are classified as Class III landfills since they are permitted to accept nonhazardous wastes only.

A list of the existing available Class III solid waste disposal facilities that can serve the project site and their remaining capacity is provided in Table 3.17-3. Demand for landfill capacity is continually evaluated by Los Angeles County through preparation of the Los Angeles County Integrated Waste Management Plan (CIWMP) Annual Reports.

Table 3.17-3. Existing (2012) Available Class III Solid Waste Disposal Facilities

Landfill	Remaining Capacity (millions of tons)	Remaining Life (years)
Sunshine Canyon	62.11	21.0
Antelope Valley	12.89	23.0
Lancaster	10.45	25.0
Calabasas	5.95	13.0
Savage Canyon	4.89	39.0
Scholl Canyon	4.08	12.0
Burbank	2.71	37.0
Chiquita Canyon*	60.00	29.5
Pebbly Beach	0.07	12.0
San Clemente	0.04	16.0

Note: Landfill remaining life based on 2016 average daily disposal rates, maximum permitted capacity, and/or facility restrictions as of September 2017.
*Chiquita Canyon's remaining capacity was based on the Chiquita Canyon Landfill Master Plan Revision EIR 2014.
Source: Los Angeles County Integrated Waste Management Plan Report 2017.

Using waste generation rates for hospital facilities provided by the California Department of Resources Recycling and Recovery, the 285-bed hospital facility on the Olive View–UCLA Medical Center Campus currently generates an estimated 4,560 pounds per day of solid waste (CalRecycle 2013).[4] The waste generated by campus facilities for disposal includes both medical and biohazardous waste; existing hazardous waste is disposed of at designated Class I facilities. The state of California currently operates three designated Class I landfills (State Water Resources Control Board 2013): the Buttonwillow Hazardous Waste Facility in Kern County, the Kettleman Hills Hazardous Waste Facility in Kings County, and the Imperial (Westmorland) Hazardous Waste Facility in Imperial County. The Buttonwillow facility is 320 acres and operates a permitted drum handling and storage area that can store up to 1,500 drums (Clean Harbors Buttonwillow, LLC 2018). Their current constructed landfill capacity is 950,000 cubic yards, whereas the permitted landfill capacity is 10 million cubic yards (Clean Harbors Buttonwillow, LLC 2018). The Imperial facility is 640 acres, with a drum capacity of 1,000 drums (50,000 gallons) and a bulk storage capacity of 195 cubic yards (Westmorland et al. 2013). The Kettleman Hills facility is a 1,600-acre property that is permitted to receive a maximum of 2,000 tpd of municipal solid waste, but typically receive an average of about 1,350 tpd (Waste Management 2019).

3.17.3.5 Natural Gas

The Southern California Gas Company (SoCalGas), Pacific Region, is the principal distributor of natural gas in Southern California, providing retail and wholesale customers with transportation, exchange, and storage services, as well as procurement services to most retail core customers. As the nation's largest natural gas distribution utility, SoCalGas is responsible for providing energy to 21.8 million consumers over a 24,000-square-mile service area throughout central and southern California (SoCalGas 2019), maintaining 5.9 million meters in more than 500 communities

[4] Based on a solid waste generation factor of 16 pounds/bed/day.

(SoCalGas 2019). SoCalGas is a gas-only utility and, in addition to serving the residential, commercial, and industrial markets, provides gas for enhanced oil recovery (EOR) and electricity generation (EG) customers in Southern California. As a public utility, the SoCalGas is under the jurisdiction of federal and state regulatory agencies.

Aliso Canyon, California's largest underground natural gas storage facility, has a total working capacity of 86 billion cubic feet (Bcf) of natural gas, or about 64 percent of the SoCalGas total storage capacity. On October 23, 2015, a natural gas leak in well SS25 was detected at the Aliso Canyon natural gas storage facility owned by SoCalGas. The leak was stopped on February 11, 2016, and SS25 was permanently sealed on February 18, 2016. Following the leak, the facility's maximum working gas storage level is limited to 23.6 Bcf, about 28 percent of the facility's maximum capacity. Because of the limited maximum storage of Aliso Canyon, the natural gas supply has dropped significantly. That being said, a study commissioned by Los Angeles County stated that the storage facility was not necessary to maintain electricity reliability in the area, as demand response, energy storage, and energy efficiency could alleviate market supply issues. SoCalGas regularly assesses and upgrades its systems to meet current and future needs to accommodate future expansion in residential, commercial, and industrial uses.

The 2018 California Gas Report estimates the total annual gas supply taken by SoCalGas was approximately 2,534 million cubic feet per day (MMcf/day) in 2017. SoCalGas projects total gas demand to decline at an annual rate of 0.5 percent from 2018 to 2035 (SoCalGas 2018). The decline in throughput demand is due to modest economic growth, CPUC-mandated energy efficiency (EE) standards and programs, renewable electricity goals, the decline in commercial and industrial demand, and conservation savings linked to Advanced Metering Infrastructure (AMI). A summary table of the projected annual gas requirements in Southern California through year 2035 is provided in Table 3.17-4.

Table 3.17-4. Southern California Projected Annual Gas Requirements through Year 2035

2020	2025	2030	2035
2,566 MMcf/day	2,442 MMcf/day	2,310 MMcf/da	2,313 MMcf/day

Note: Assumes average temperature and normal hydro year.
Source: SoCalGas 2018 .

SoCalGas expects it will be able meet their forecasted demand with a combination of in- and out-of-state gas sources (SoCalGas 2018). The Olive View–UCLA Medical Center currently consumes an estimated 3,492,117 cf per year of natural gas (County of Los Angeles 2016) (See Appendix C of this Final EIR for natural gas consumption assumptions and calculations).[5]

3.17.3.6 Electricity

Existing power and electrical services to the Olive View–UCLA Medical Center Campus are provided by LADWP, which supplies more than 26 million megawatt hours (MWh) of electricity per year for its 1.5 million residential and business customers (LADWP 2019) and is responsible for the maintenance of 10,000 miles of overhead distribution lines and underground distribution cables and 15,452 transmission towers (LADWP 2019). They also maintain 160 distributing stations, 21

[5] Conversion from Kbtu to cubic feet uses U.S. EIA Energy Calculator(s).

receiving stations, and over 50,000 substructures (LADWP 2019). Of LADWP's total power resources, about 29 percent are from renewable sources, 34 percent from natural gas, 19 percent from coal, and 9 percent from nuclear (LADWP 2019). About 70 percent of the electricity in the city of Los Angeles is consumed by business and industry, with the remaining 30 percent of residents averaging about 5,900 kilowatt hours (5.9 MWh) of usage per year (LADWP 2019).

LADWP also prepares energy forecasts as a part of their Power Integrated Resource Plan (PIRP). LADWP's load forecast incorporates updates to reflect the latest load forecast, fuel price, projected renewable price forecasts, and numerous other modeling assumptions. The most recent PIRP from 2016 makes projections out to Fiscal Year 2039–2040. A summary table of the projected net energy demand for the service area through 2040 is shown in Table 3.17-5.

Table 3.17-5. LADWP Projected Energy Demand through Year 2040

2020	2030	2040
26,859 GWh	31,395 GWh	35,749 GWh

Source: LADWP Power Integrated Resource Plan 2016.

The Olive View–UCLA Medical Center currently consumes an estimated 5,503,577 kwh per year of electricity (County of Los Angeles 2016) (see Appendix C for electricity consumption assumptions and calculations).

3.17.3.7 Transportation Fuels

The CEQA Guidelines, Appendix F, Energy Conservation, state that EIRs are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. California is the most populous state in the nation, with a total energy demand second only to Texas (U.S. Energy Information Administration 2012).

Driven by high demand from California's many motorists, major airports, and military bases, the transportation sector is the state's largest energy-consumer (Luna Glushon 2009). The majority of transportation energy is currently derived from a wide variety of petroleum products. Automobiles and trucks consume gasoline and diesel fuel. The transportation sector consumes relatively minor amounts of natural gas or electricity, but, propelled mainly by air quality laws and regulations, technological innovations in transportation are expected to increasingly rely on compressed natural gas and electricity as energy sources. Energy consumption by on-road motor vehicles reflects the types and numbers of vehicles, the extent of their use (often described in terms of vehicle miles traveled [VMT]), and their fuel economy (typically described in terms of miles per gallon [mpg]).

Data from the Department of Motor Vehicles show that gasoline demand is largely driven by Light Duty Vehicles (LDVs), which represent more than 90 percent of all gasoline consumption in California (California Energy Commission 2017). Gasoline vehicles made up 92 percent of California LDVs in 2015. Gasoline also fuels hybrid vehicles and accounts for more than 95 percent of the fuel used by flexible-fuel vehicles in California. Corporate Average Fuel Economy (CAFE) standards provide for significantly improved fuel economy, a trend that NHTSA estimates will continue through 2025. Most of the demand for gasoline in California can be attributed to LDVs in the residential sector. The slow growth in population, coupled with improvements in fuel economy, explains the overall decline in demand for gasoline. All three demand forecast cases show

reductions of up to 3.7 percent per year due to improved fuel economy, driven by CAFE standards and displacement by alternative fuels, primarily driven by the Zero Emission Vehicle (ZEV) regulations. Overall, in the low-demand, mid-demand, and high-demand cases, the California on-road gasoline consumption would decrease from approximately 14 billion gallons to between 10–11 billion gallons (California Energy Commission 2017).

3.17.3.8 Communications Services (Telephone, Internet)

The telecommunications fiber network around the campus was repaired in 2013. The trailers to the west end of the campus all have new conduits provisioned for network connectivity. Currently, telecommunication services are provided by utilities that operate independently of the County and include landline and wireless services for telephone, radio, television, and internet devices. The project site is located in Verizon California's incumbent local exchange carrier territory and is a carrier of last resort (CPUC 2014, 2017). Spectrum and Frontier provide cable internet and phone service for much of Los Angeles County and are available to the project site (Cable Coverage and Availability Maps 2018).

3.17.4 Environmental Impact Analysis

This section presents a discussion of the potential impacts on utilities services that could result from implementation of the proposed Master Plan.

3.17.4.1 Thresholds of Significance

For the purposes of this Final EIR, and in accordance Appendix G of the State CEQA Guidelines, the proposed project would have a significant environmental impact on utilities and service systems if it would:

UTL-1 Require or result in the relocation or construction of new or expanded water, waste water treatment, or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

UTL-2 Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

UTL-3 Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

UTL-4 Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or that would otherwise impair the attainment of solid waste reduction goals.

UTL-5 Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

3.17.4.2 Impacts and Mitigation Measures

Impact UTL-1: Would the Proposed Project Require or Result in the Relocation or Construction of New or Expanded Water, Wastewater Treatment or Stormwater

Drainage, Electric Power, Natural Gas, or Telecommunications Facilities, the Construction or Relocation of which Could Cause Significant Environmental Effects?

Construction Impacts

Tier I

Water

Under Tier I of the Master Plan, an estimated 156,900 square feet of development on the campus would be demolished, and 640,491 square feet of new buildings and facilities would be constructed. Generally, construction activities would include demolition work, site preparation and grading, and construction of new and renovated facilities. During construction of individual projects implemented under the Master Plan, water would be consumed by construction workers and activities (e.g., cement mixing and dust suppression). However, the incremental increase in water consumption during construction would not be permanent, and it is not expected that new water conveyance or treatment facilities would be required to meet this incremental increase in demand. Therefore, impacts would be less than significant.

Construction of new development and facilities under Tier I would also require new on-campus infrastructure to accommodate that development, including new water lines. The construction of those new lines is generally not expected to result in significant environmental impacts given they would be confined within the existing campus, largely in areas previously disturbed by construction activities. However, if construction of new water lines occurs at depths where undisturbed native soils would be encountered, the potential exists that unknown buried archaeological or paleontological resources could be encountered and damaged or destroyed, a potentially significant impact (see Section 3.4, *Cultural Resources*, and Section 3.5, *Geology/Soils,* of this Final EIR for a more detailed discussion of impacts to archaeological resources and paleontological resources, respectively). However, proposed mitigation measures (see Sections 3.4 and 3.5 of this Final EIR) would reduce potential impacts to archaeological and paleontological resources to a less-than-significant level.

Wastewater

During construction of individual projects implemented under the Master Plan, minor, incremental amounts of wastewater would be generated by construction workers. These incremental amounts would not require new or expanded wastewater conveyance or treatment facilities. Therefore, impacts due to increased wastewater consumption during construction would be less than significant.

Construction of Tier I projects would require the construction of new on-campus sewer lines to serve proposed new buildings. Similar to the discussion above for new water lines, if construction of new sewer lines (or other underground utilities) occurs at depths where undisturbed native soils would be encountered, the potential exists that unknown buried archaeological or paleontological resources could be encountered and damaged or destroyed, a potentially significant impact. However, mitigation measures (see Sections 3.4, *Cultural Resources*, and 3.5, *Energy*, of this Final EIR) would reduce potential impacts to archaeological and paleontological resources to a less-than-significant level.

Stormwater

Minor alterations of the existing drainage patterns on the project site may occur as a result of the construction of new facilities and campus improvements. However, campus construction activities would not substantially alter the overall topography and drainage patterns. Additionally, the proposed project would be required to obtain and comply with the Construction General Permit from the SWRCB. This permit and associated NPDES requirements include development and implementation of a SWPPP, with associated monitoring and reporting. Stormwater BMPs are required to limit erosion, minimize sedimentation, and control stormwater runoff water quality during construction activities. Therefore, new offsite drainage facilities would not be required as a result of Tier I construction activities and construction impacts would be less than significant.

Development under the Master Plan would include on-campus drainage improvements including LID features, such as bioretention, and permeable pavement LID features. These features would meet the requirements found in the city of Los Angeles Department of Sanitation's *Development Best Management Practices Handbook*. Given these improvements are designed to be low impact and development would not substantially alter on-campus drainage patterns, it is not expected that the construction of on-campus drainage improvements would result in significant impacts.

Electricity and Natural Gas

Construction of individual projects under Tier I would require the use of energy resources including electricity and natural gas and transportation fuels for construction worker vehicles and trucks hauling construction materials or debris. The additional energy consumption from construction activities would be limited in duration and finite. Construction activities would not result in a permanent increase in demand for energy resources and, thus, no relocation or construction of new electric power or natural gas facilities is anticipated, and impacts would be less than significant.

Telecommunications

Given the minimal demands that would be placed on telecommunications facilities by construction workers and activities and the fact those demands would be temporary, it is not expected that new or expanded offsite telecommunications facilities would be required to meet those demands. Therefore, impacts due to use of telecommunications infrastructure during construction would be less than significant.

Under the proposed project, a new on-campus wireless antenna would be installed on the hospital roof to create a redundant wireless carrier link to provide continued network services in the event of a carrier network breach. The activities required to construct and install this antenna would be minor. Similarly, construction activities associated with other telecommunications infrastructure improvements that may be required under the Master Plan are not expected to be extensive or cause substantial disruption to the campus or environment. Therefore, impacts would be less than significant.

Tier II

Under Tier II of the Master Plan, an estimated 137,000 square feet of existing development on the campus would be demolished and 992,000 square feet of new buildings and facilities would be constructed. Because of the increase in proposed new development under Tier II, more construction workers would be employed than would occur under Tier I. However, the amount of water consumed, wastewater generated, and energy consumed by Tier II construction workers and activities would still be relatively insignificant and would not require the construction of new or

expanded offsite water, wastewater treatment stormwater drainage, electric power, natural gas, or telecommunications facilities to meet demand. Therefore, construction impacts would be less than significant.

Similar to Tier I above, if construction of new on-campus infrastructure, e.g., new water or sewer lines, occurs at depths where native soils would be encountered, unknown archaeological or paleontological resources that may be present could be disturbed or damaged, a potentially significant impact. However, proposed mitigation measures (see 3.4, *Cultural Resources,* and 3. 6, *Geology and Soils,* of this Final EIR) would reduce construction impacts to a less-than-significant level.

Mitigation Measures

Please see Sections 3.4, *Cultural Resources,* and 3.6, *Geology and Soils,* of this Final EIR for measures to mitigate impacts to archaeological and paleontological resources during construction.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

Water

Future development under Tier I would result in increased water consumption. Based on the proposed future uses and demolition of existing facilities that could occur under the Master Plan, the proposed project could result in a net increase in water consumption of 138,640 gpd. Projections for on campus water consumption under Tier I are shown below in Table 3.17-6.

Table 3.17-6a. Calculated Total Additional Water Demand–Existing Use

Existing Use[1]	Quantity (sq. ft.)	Water Use Factor[2] (gpd/unit)	Existing Water Use to be Removed	
			(gpd)	(af/y)
Tier I				
Administration Office	52,300	0.15	7,845	8.79
Materials Management	32,500	0.15	4,875	5.46
Central Utility Plant Maintenance	34,500	0.08	2,760	3.09
Central Utility Plant Office	16,500	0.15	2,475	2.77
Landscaping[3]	50,000	–	2,404	2.69
Tier I Existing to be Removed Total			**20,359**	**22.80**
Tier II				
Inpatient Hospital: Clinical & General Support	68,196	0.25	17,049	19.10
Inpatient Hospital: Cafeteria (5,000 sq.ft.)	150 seats	30.00	4,500	5.04
Inpatient Hospital: Inpatient Care (355 beds)	119,554	0.25	29,889	33.48
Inpatient Hospital: Diagnostic & Treatment	124,887	0.25	31,222	34.98
Inpatient Hospital: Administrative Services	70,328	0.15	10,549	11.82
Inpatient Hospital: Department Office	24,573	0.25	6,143	6.88
Inpatient Hospital: Hospital/Campus Support	85,331	0.15	12,800	14.34
Inpatient Hospital: Vacant Buildings	36,431	–	–	–
Administration Office	55,700	0.15	8,355	9.36
Mental Health Office	11,000	0.25	2,750	3.08
Support Service Building	16,800	0.15	2,520	2.82
Storage Trailers	61,000	0.02	1,220	1.37
Cooling Tower	–	–	52,367	58.66
Tier II Existing to be Removed Total			**179,364**	**200.93**
Total Existing Water Use to be Removed			**199,723**	**223.73**

[1] Provided by the County of Los Angeles in the 2016 Request for Water Supply Assessment letter and Scope Confirmation e-mail. See Appendix K. Calculations in this table were based on the 2018 updated Project Description.

[2] Existing indoor water uses are based on 1996 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table available in Exhibit M.2-12 at http://www.environmentla.org/programs/Thresholds/M-Public%20Utilities.pdf.

[3] Landscaping water use is estimated per California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance.

Source: LADWP 2017.

Table 3.17-6b. Calculated Total Additional Water Demand–Proposed Use

Proposed Use[1]	Quantity	Unit	Water Use Factor[3] (gpd/unit)	Base Demand (gpd)	Required Ordinances Water Savings[4] (gpd)	Proposed Water Demand	
						(gpd)	(af/y)
Tier I							
Ambulatory Care Center Outpatient Facility	296,000	sq. ft.	0.25	74,000	–	–	–
Community Center Child Care	400	child	9.00	3,600	–	–	–
Recuperative Care Center	16,356	sq. ft.	0.25	4,089	–	–	–
Residential Treatment Program Facility	47,035	sq. ft.	0.25	11,759	–	–	–
Mental Health Wellness Center	10,000	sq. ft.	0.25	2,500	–	–	–
Mental Health Urgent Care Center	10,000	sq. ft.	0.25	2,500	–	–	–
Administration Office	96,000	sq. ft.	0.12	11,520	–	–	–
Materials Management	68,100	sq. ft.	0.12	8,172	–	–	–
Central Utility Plant Maintenance	52,000	sq. ft.	0.05	2,600	–	–	–
Central Utility Plant Office	25,000	sq. ft.	0.12	3,000	–	–	–
Base Demand Adjustment[7]	–	–	–	591	–	–	–
Indoor Total				**121,331**	2,655	**118,676**	**132.934**
Structure Parking[5]	380,000	sq. ft.	0.02	**250**	–	**250**	**0.28**
Landscaping[2]	864,400	sq. ft.		**89,052**	48,979	**40,073**	**44.89**
Tier I Proposed Total				**210,633**	**51,634**	**158,999**	**178.10**
Tier II							
New Inpatient Hospital: Inpatient Care (355 beds)	176,000	sq. ft.	0.225	39,600	–	–	–
New Inpatient Hospital: Diagnostic & Treatment	119,000	sq. ft.	0.25	29,750	–	–	–
New Inpatient Hospital: Clinical & General Support	49,100	sq. ft.	0.25	12,275	–	–	–
New Inpatient Hospital: Cafeteria (5,000 sf)	150	seat	30.00	4,500	–	–	–
New Inpatient Hospital: Administration Office	35,900	sq. ft.	0.12	4,308	–	–	–
New Inpatient Hospital: Department Office	215,000	sq. ft.	0.12	25,800	–	–	–
Research and Development	120,000	sq. ft.	0.25	30,000	–	–	–
Retail	40,000	sq. ft.	0.05	2,000	–	–	–

Proposed Use[1]	Quantity	Unit	Water Use Factor[3] (gpd/unit)	Base Demand (gpd)	Required Ordinances Water Savings[4] (gpd)	Proposed Water Demand (gpd)	Proposed Water Demand (af/y)
Long Term Care Facility[l]	135,000	sq. ft.	0.25	33,750	–	–	–
Community Center	20,000	sq. ft.	0.12	2,400	–	–	–
Central Utility Plant Maintenance	52,000	sq. ft.	0.05	2,600	–	–	–
Central Utility Plant Office	25,000	sq. ft.	0.12	3,000	–	–	–
Base Demand Adjustment[6]	–	–	–	2,565	–	–	–
Indoor Total				**192,548**	11,900	**180,648**	**202.35**
Landscaping[3]	605,600	sq. ft.		**62,390**	34,315	**28,075**	**31.45**
Cooling Tower - 24 hours/day, 365 days/year	3,793	ton	35.64	135,175	27,035	108,140	121.14
Cooling Tower - 12 hours/day, 365 days/year	7,267	ton	21.06	153,050	30,610	122,440	137.16
Cooling Tower Total[7]				**288,225**	57,645	**230,580**	**258.30**
Tier II Proposed Total				**480,773**	103,860	**376,913**	**422.10**
Proposed Sub Total				**691,406**	**155,494**	**535,912**	**600.30**
Less Existing to be Removed Total						-199,723	-223.73
Less Additional Conservation[8]						-1,929	-2.16
Net Additional Water Demand						**334,260**	**374.42**

[1] Provided by the County of Los Angeles in the 2016 Request for Water Supply Assessment letter and Scope Confirmation e-mail. See Appendix K. Calculations in this table were based on the 2018 updated Project Description..

[2] Landscaping water use is estimated per California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance.

[3] Proposed indoor water uses are based on 2012 City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table available at http://www.lacitysan.org/fmd/pdf/sfcfeerates.pdf.

[4] The proposed development land uses will conform to City of Los Angeles Ordinance No. 184248, 2013 California Plumbing Code, 2013 CALGreen, 2014 Los Angeles Plumbing Code, and 2014 Los Angeles Green Building Code.

[5] Auto parking water uses are based on City of Los Angeles Department of Public Works, Bureau of Sanitation Sewer Generation Rates table, and 12 times/year cleaning assumption.

[6] Base Demand Adjustment is the estimated savings due to Ordinance No. 180822 accounted for in the Bureau of Sanitation Sewer Generation Rates.

[7] Cooling tower hours of operation are assumed to be 24 hours/day, 365 days/year for Inpatient Hospital and Long Term Care Residential and 12 hours/day, 365 days/year for the rest of the proposed indoor scope.

[8] Water conservation due to additional conservation commitments agreed by the Applicant. See Table II.

Source: LADWP 2017.

LADWP provides water services to the Medical Center. The California Urban Water Management Planning Act requires LADWP to prepare an Urban Water Management Plan (UWMP) to forecast future water demands based on anticipated population growth and ensure a reliable water supply to its service areas. The Integrated Water Resources Plan (IWRP) for the city of Los Angeles was developed to maintain the sustainability of the city's natural resource systems. Pursuant to California Water Code Sections 10910–10915, the LADWP prepared a Water Supply Assessment (WSA) for the proposed project. The WSA concluded that projected water supply during normal, single-dry, and multiple-dry water years, as included in the 25-year projection contained in the UWMP, can accommodate the projected maximum water demand associated with Tier I and Tier II development. Additionally, development projects under Tier I would include the installation of low-flush toilets, showerheads, faucets, and urinals, in compliance with Administrative and Municipal Code. Compliance with this code, as well as Title 24's energy conservation standards for new construction and the Green Building Standards Code relating to water and energy efficiency, would reduce potential increases in water consumption as a result of the new development that could occur under Tier I. Therefore, it is not anticipated that new water sources or new or expanded offsite water conveyance, storage, and treatment facilities would be required to serve proposed Master Plan development. Impacts would be less than significant.

Wastewater

The BOS conducted a preliminary evaluation of the project's potential impacts on the existing wastewater system. They concluded that, based on the current approximate flow levels, it appears the sewer system may be able to accommodate the total flow that could occur due to development under the Master Plan (Tiers I and II). However, further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If public sewer lines serving the campus have insufficient capacity, then the County will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. If BOS determines that there is insufficient capacity in the local sewer lines that would serve an individual future project, then the impact would be considered to be significant. To ensure that local city sewer lines have sufficient capacity to accommodate future individual development projects, mitigation measure **MM-UTL-O1** is discussed in the mitigations section, below.

Sewage flow from the campus would be conveyed to the Hyperion Water Reclamation Plant, which has sufficient capacity to accommodate proposed Master Plan development.

Stormwater

Minor alterations of the existing drainage patterns on the project site may occur as a result of the implementation of the campus-wide stormwater management system and construction of new campus facilities and buildings under Tier I.

The existing stormwater management system utilizes a system of vertical roof drains, underground reinforced concrete pipe, overland sheet flow, curb, gutters, catch basins, and driveways to convey stormwater runoff to the existing public system owned and operated by LACFCD. The LID Ordinance, which became effective in November 2011, amends and expands on the existing Standard Urban Stormwater Mitigation Plan requirements (which have been in effect since 2002) by incorporating LID practices and principles and expanding the applicable development categories. To ensure that proposed Master Plan development projects mitigate runoff in a manner that captures rainwater at its source, various landscaping elements have been included in Tier I development,

such as gardens, a green amphitheater, an active recreation area, riparian zones, and woodland preserves, which would be located throughout the campus. The landscaping treatments would serve as a stormwater treatment strategy and would be designed to be an accessible open space enhancement. As a result of the project and the incorporation of LID features, the amount of impervious cover, currently 67 percent in Tier I, would decrease, and landscaped areas would increase. Thus, the proposed project would not require or result in the construction of new off-campus stormwater drainage facilities or the expansion of existing facilities to serve proposed new Master Plan facilities. Therefore, impacts would be less than significant.

Electricity and Natural Gas

New and renovated buildings and facilities that would be constructed under Tier I of the Master Plan could result in long-term increases in energy consumption. As part of their Power IRP, LADWP prepares energy forecasts to ensure its ability to accommodate the future energy needs of its service areas. The anticipated electrical consumption that could occur under the current Master Plan is not expected to require new or expanded offsite electrical infrastructure to meet that increased demand, the construction of which could result in significant environmental effects (please see Section 3.5, *Energy*, for more details regarding potential energy impacts and increased electricity consumption). However, future individual development projects would be required to submit a load schedule to LADWP to more accurately determine the electrical demand associated with site-specific development and the ability for LADWP to serve the electrical demand.

SoCalGas, who projects its gas supply through year 2035, predicts that the total available capacity for these same years will remain constant at 3,875 MMcf/day (California Gas Report 2018). In the year 2035, it is estimated that the available capacity will exceed the projected demand by 46 percent, a total difference of 1,228 MMcf/day. Therefore, potential development under the proposed Master Plan is not expected to have a significant impact on natural gas supplies or infrastructure.

The proposed Master Plan also includes more energy efficient project elements, such as solar electric power, solar thermal and hot water, and ground source heating energy for various facilities. These efforts, combined with compliance with Title 24's energy conservation standards for new construction, would help to offset any additional energy consumption as a result of the proposed project. As a consequence, and because no new offsite electric power or natural gas facilities to meet increased demand are anticipated, the impacts would be less than significant.

Telecommunications

Given that the proposed project is located in a developed urban/suburban area that is adequately served by existing telecommunications facilities and infrastructure, it is not anticipated that proposed Tier I development would require new or expanded offsite telecommunications facilities to serve the proposed project, the construction of which would result in significant impact. Therefore, impacts would be less than significant.

Tier II

Water

Under Tier II of the Master Plan, an estimated 137,700 square feet of existing development on the campus would be demolished, and 992,000 square feet of new buildings and facilities would be constructed. As noted above, the WSA prepared by LADWP for the proposed project concluded that projected water supply during normal, single-dry, and multiple-dry water years, as included in the 25-year projection contained in the UWMP, can accommodate the projected maximum water

demand associated with Tier I and Tier II development. Therefore, it is not anticipated that new water sources or new or expanded offsite water conveyance, storage, and treatment facilities would be required to maintain sufficient water supplies to the campus through 2040. As in Tier I, development projects under Tier II would include the installation of low-flush toilets, showerheads, faucets, and urinals in compliance with Administrative and Municipal Code. Compliance with this code, as well as Title 24's energy conservation standards for new construction and the Green Building Standards Code relating to water and energy efficiency, would minimize potential increases in water consumption as a result of the new development that could occur during this phase of development. Impacts would be less than significant. However, it should be noted that the UWMP projections end in 2040, while the Master Plan is intended to provide a framework and vision for development on the campus that could occur beyond 2040. Therefore, water supply impacts for projects constructed far in the future (i.e., beyond 2040) potentially could be significant. Accordingly, when future projects (i.e., Tier II development projects that would occur beyond the year 2040) are proposed and building plans developed, LACDPW will be required to coordinate with the water provider, LADWP, to confirm that adequate water supplies exist to serve these future Master Plan projects. If it is determined the water supplies are insufficient, and new offsite water infrastructure is required, the impact could potentially be significant.

Wastewater

As discussed above under Tier I, the city of Los Angeles BOS conducted a preliminary evaluation of the project's potential impacts on the existing wastewater system (see Appendix K of this Final EIR) and concluded that, based on the current approximate flow levels, it appears the sewer system may be able to accommodate the total flow that could occur due to development under the Master Plan (Tiers I and II). However, further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If public sewer lines serving the campus have insufficient capacity, then the County will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permits will be made at that time. If BOS determines that there is insufficient capacity in the local sewer lines to serve an individual future project, then the impact would be considered to be significant. To ensure local city sewer lines have sufficient capacity to accommodate future individual development projects, **MM-UTL-1** is proposed below.

Sewage flow from the campus would be conveyed to the Hyperion Water Reclamation Plant, which has sufficient capacity to accommodate proposed Master Plan development.

Stormwater

A discussed above under Tier I, to ensure that proposed Master Plan development projects mitigate runoff in a manner that captures rainwater at its source, additional landscaping elements are proposed under Tier II. Tier II also proposes multiple gardens and wetlands, which, along with other landscaping improvements throughout campus, would serve as a stormwater treatment strategy. As a result of the project and the incorporation of LID features, the amount of impervious cover would decrease, and landscaped areas would increase. Thus, the proposed project would not require or result in the construction of new off-campus stormwater drainage facilities or the expansion of existing facilities. Therefore, impacts would be less than significant.

Electricity and Natural Gas

New and renovated buildings and facilities that may occur under Tier II could also result in long-term increases in energy consumption. Given projected energy, gas, and transportation fuel supply

and consumption trends, it is likely that there will be sufficient supply. However, LADWP and SoCalGas have not made projections beyond the year 2040. Therefore, for the purposes of this Final EIR, the impacts on energy consumption due to Master Plan projects constructed after 2040 under Tier II are considered to be potentially significant. Accordingly, in the future (i.e., 2040 and beyond), when individual development projects under the Master Plan are proposed and building plans are developed, LACDPW will be required, prior to the issuance of building permits, to conduct additional analyses to confirm that adequate capacity exists to serve these future Master Plan projects.

Telecommunications

Tier II does not propose any telecommunication facilities, therefore impacts would be similar to Tier I impacts and would be less than significant.

Mitigation Measures

The following measure is proposed to ensure adequate local city sewer line capacity exists to accommodate future development projects:

MM-UTL-1: Prior to issuance of a building permit for any future development project under the Master Plan that could result in an increase in wastewater generation, the County shall coordinate with the BOS to conduct further detailed gauging and evaluation to identify a specific sewer connection point with sufficient capacity. If the public sewer has insufficient capacity, then the County shall be required to build a sewer line to a point in the sewer system with sufficient capacity.

MM-UTL-2: In conjunction with preparation of a subsequent CEQA environmental document for any future individual development project under the Master Plan that is proposed in the year 2040 or beyond that is defined as a *water-demand project* in Section 15155 of the CEQA Guidelines, the County shall request, pursuant to Section 15155, that the water provider determine whether the projected water demand associated with the project was included in the most recently adopted urban water management plan. If required pursuant to Section 15155 and SB 610, the County shall request that LADWP prepare a water assessment for the proposed project. The County shall determine, pursuant to Section 15155, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

Level of Significance after Mitigation

Water: Significant if it is determined that water supplies will not be sufficient to meet future (i.e., 2040 and beyond) Master Plan project water demands.

Wastewater: Less than significant if BOS conducts further gauging and evaluation and identifies a sewer connection point with sufficient capacity to accommodate Master Plan project wastewater flows. Since the County cannot compel another public entity, in this case BOS, to conduct further gauging and evaluation, for the purposes of this Final EIR, the impacts on local sewer lines are considered to be potentially significant and unavoidable.

Other Utilities: Less than significant.

Impact UTL-2: Would the Proposed Project Have Sufficient Water Supplies Available to Serve the Project and Reasonably Foreseeable Future Development during Normal, Dry, and Multiple Dry Years?

Construction Impacts

Tier I

As discussed above, the proposed project would use water during construction for various purposes, such as mixing and pouring concrete, and other construction-related activities under Tier I. However, the incremental increase in water use as a result of construction activities would be temporary and not substantial, thus existing water supplies would be sufficient to meet this demand. Although construction of individual projects could extend over a period of years (up to 2035 for the purposes of the analyses in this Final EIR), water use during construction would be a relatively small contribution to the current on-campus water consumption of 227,861 gallons per day and would not result in a permanent long-term increase in water demand. Therefore, construction impacts on water supplies would be less than significant.

Tier II

As in Tier I, the proposed project would use water during construction for various purposes, such as mixing and pouring concrete, and other construction-related activities under Tier II. Because of the increase in both demolition and proposed new development under Tier II, more water could be used during construction under Tier II than under Tier I. However, similar to Tier I, the incremental increase in water use as a result of construction activities would be temporary and not substantial, resulting in a relatively small contribution to the current on-campus water consumption of 227,861 gallons per day. As a consequence, the combined effect of Tier I and Tier II construction activities would not result in an increase in permanent long-term water demand and impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

Future development under Tier I would result in a net increase in water consumption compared with the existing baseline condition of 138,640 gpd. As noted in the discussions above, the proposed project's projected total water demand is consistent with the UWMP and IWRP, and the WSA prepared for the proposed project by LADWP (see Appendix K of this Final EIR) concluded that projected water supply during normal, single-dry, and multiple-dry water years, as included in the 25-year projection contained in the UWMP, can accommodate the projected maximum water demand associated with the proposed project. Additionally, development projects under Tier I would include the installation of low-flush toilets, showerheads, faucets, and urinals in compliance with Administrative and Municipal Code. Compliance with this code, as well as Title 24's energy conservation standards for new construction and the Green Building Standards Code relating to

water and energy efficiency, would minimize potential increases in water consumption as a result of the new development that could occur under Tier I. Impacts would be less than significant.

Tier II

Proposed development under Tier II would also be consistent with the UWMP and IWRP. Therefore, the potential increase in water consumption is not expected to require new or expanded entitlements to maintain sufficient water supplies through 2040. As in Tier I, development projects under Tier II would include the installation of low-flush toilets, showerheads, faucets, and urinals in compliance with Administrative and Municipal Code. Compliance with this code, as well as Title 24's energy conservation standards for new construction and the Green Building Standards Code relating to water and energy efficiency, would minimize potential increases in water consumption as a result of the new development that could occur during this phase of development. Impacts would be less than significant. However, it should be noted that although the UWMP projections end in 2040, the Master Plan is intended to provide a framework and vision for development on the campus that could occur beyond 2040. Therefore, water supply impacts for projects constructed far in the future (i.e., beyond 2040) could be potentially significant. Accordingly, when future projects (i.e., Tier II development projects that would occur beyond the year 2040) are proposed and building plans are developed, LACDPW will be required to coordinate with the water provider, LADWP, to confirm that adequate water supplies exist to serve these future Master Plan projects. If it is determined the water supplies are insufficient, the impact would be significant.

Mitigation Measures

No mitigation measures are required for Tier I development projects. For projects proposed in the future, beyond the year 2040, additional analyses or studies will be required to determine whether adequate water supplies are available to serve those future, Tier II Master Plan projects (please see **MM-UTL-2**, above). If available water supplies are determined to be inadequate to meet project demands, then project changes will need to be made or measures will need to be identified to further reduce water consumption and mitigate water supply impacts.

Level of Significance after Mitigation

Significant if it is determined that water supplies will not be sufficient to meet future (i.e., 2040 and beyond) Master Plan project water demands.

Impact UTL-3: Would the Proposed Project Require or Result in a Determination by the Wastewater Treatment Provider which Serves or May Serve the Project that it Does Not Have Adequate Capacity to Serve the Project's Projected Demand in Addition to the Provider's Existing Commitments?

Construction Impacts

Tier I & II

Construction workers on the project site could generate a minor incremental increase in wastewater flows to the city's wastewater system. This increase would be insignificant and, as mentioned, could readily be accommodated by the city's existing wastewater treatment system.

Operational Impacts

Tier I & II

The city of Los Angeles BOS has conducted a preliminary evaluation of the potential impacts of future development under the Master Plan on the city's wastewater system. The city's estimates of the net increase in wastewater discharges with implementation of the preliminary list of potential projects that could occur under Tiers I and II can be extrapolated from data provided above, using the assumption that wastewater generation is approximately 90 percent of water consumption. As shown in table 3.17-6b, implementation of the Master Plan could result in a net increase of 334,260 gpd of water, which would result in 300,834 gpd of wastewater. The amount of wastewater generated by Tiers I and II combined represents less than 0.1 percent of the average daily flows in the Hyperion Sewer System.

The sewer infrastructure in the vicinity of the proposed project includes four discharge routes, for which the BOS has obtained approximate flow levels and design capacities. Based on the estimated flows, BOS has concluded the sewer system might be able to accommodate the total flow for the proposed project, but that further detail gauging and evaluation may be needed as part of the permit process for individual projects to identify a specific sewer connection point. A final approval for sewer capacity and connection permit shall be made at that time. If BOS determines that there is insufficient capacity in the local sewer lines that would serve an individual future project, then the impact would be considered to be significant. To ensure local city sewer lines have sufficient capacity to accommodate future individual development projects, **MM-UTL-1** is proposed above.

All wastewater generated on the campus would ultimately be conveyed to the HTP, which has sufficient capacity to accommodate the project as well as existing commitments (Poosti pers comm. 2014). Consequently, significant impacts on the city's wastewater treatment system are not anticipated.

Mitigation Measures

MM-UTL-1, above, is proposed to ensure adequate local city sewer line capacity exists to accommodate future development projects

Level of Significance after Mitigation

Less than significant if BOS conducts further gauging and evaluation and identifies a sewer connection point with sufficient capacity. Since the County cannot compel another public entity, in this case BOS, to conduct further gauging and evaluation, for the purposes of this Final EIR, the impacts on local sewer lines are considered to be potentially significant and unavoidable.

Impact UTL-4: Would the Proposed Project Generate Solid Waste in Excess of State or Local Standards, or in Excess of the Capacity of Local Infrastructure, or Otherwise Impair the Attainment of Solid Waste Reduction Goals?

Construction Impacts

Tier I

Construction activities would include demolition of some onsite buildings and structures, site preparation, grading, and trenching, as well as construction of new and renovated facilities. Construction and demolition activities would generate solid waste, requiring disposal at local landfills. There are several major landfills in the Los Angeles metropolitan area that serve the

project site. *Major landfills* are defined as those facilities that receive more than 250,000 tons of solid waste per year. As required by City Ordinance 181519 (Waste Hauler Permit Program), project construction waste would be hauled by permitted haulers and taken only to city certified construction and demolition processing facilities that are monitored for compliance with recycling regulations. The inert solid waste and soil would require disposal at the County's only operating inert landfill (Azusa Land Reclamation) or at any of a number of state-permitted Inert Debris Engineered Fill Operations in the County, such as the Arcadia Reclamation Facility. Given that demolition debris and solid waste generated by construction activities would be finite and limited to the construction periods, the proposed project would not generate waste in excess of state or local standards or in excess of capacity of local infrastructure. As a result, construction impacts on solid waste facilities, regulations, and capacity under Tier I would be less than significant.

Tier II

Tier II development includes those projects that would occur beyond 2035, which could include the construction of a new inpatient hospital, research and development buildings, retail space, a central utility plant, and County department buildings, as well as the renovation and reuse of the existing inpatient hospital for other purposes. Tier II would require similar construction activities as those outlined above under Tier I, which would generate solid waste. Though Tier II includes increases in both demolition and proposed new development when compared to Tier I, and would thus generate more waste, as mentioned, there are several major landfills in the Los Angeles metropolitan area that serve the project site. As mentioned above, project construction waste would be hauled by permitted haulers and taken only to City certified construction and demolition processing facilities that are monitored for compliance with recycling regulations. Given that waste generation would be finite and limited to the construction periods, existing landfills have sufficient long-term permitted capacity to accommodate construction generated solid waste (See Table 3.17-3, above). As a result, construction impacts on solid waste facilities, compliance with local and state standards, and capacity would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

The new development that may occur under the Master Plan would result in the increased generation of solid waste. Based on waste generation factors provided on the California Department of Resources Recycling and Recovery website, it is estimated that the proposed Master Plan could generate a net increase of 2,764 pounds of solid waste per day (see Table 3.17-7, below).

Table 3.17-3 shows the available Class III solid waste disposal facilities in Los Angeles County. Of those, Sunshine Canyon has the largest remaining capacity, at 62.11 millions of tons. It was estimated in 2012 that Sunshine Canyon had a remaining life of 21 years. Sunshine Canyon is the closest landfill to the Olive View–UCLA Medical Campus. Additionally, demand for landfill capacity is continually evaluated by Los Angeles County through preparation of the Los Angeles CIWMP Annual Reports. Therefore, it is expected that the project site would be served by a landfill that has

sufficient permitted capacity to accommodate the project's solid waste disposal needs. Impacts would be less than significant.

New and renovated medical/research facilities that may be developed under Tier I could result in increases in biomedical or other hazardous wastes. All hazardous waste, including biomedical waste, would be used, transported, and disposed of at designated Class I landfills in accordance with applicable local and regional regulations. Such activities already take place at the Olive View–UCLA Medical Center Campus, and facilities for the proper handling of these materials are already present on the site. Consequently, no significant impacts to hazardous waste disposal facilities is anticipated as a result of future development under Tier I.

Table 3.17-7. Projected Solid Waste Generation

Type Description	Solid Waste Generation Factor	Building Capacity	Pounds per Day
Existing Uses to be Demolished			
Hospital	16 lbs./bed/day	53 beds	(848)
Administrative Offices	6 lbs./1000 sq. ft./day	52,300 sq. ft.	(314)
Maintenance Facilities	6 lbs./1000 sq. ft./day	32,500 sq. ft.	(195)
Utility Plant & Cooling Tower	6 lbs./1000 sq. ft./day	51,000 sq. ft.	(306)
		Total	**(1,663)**
Proposed Uses			
Medical Offices (Ambulatory Care Center)	6 lbs./1000 sq. ft./day	296,000 sq. ft.	1,776
Offices (Community Center)	6 lbs./1000 sq. ft./day	20,000 sq. ft.	120
Residential Treatment Program Facility	16 lbs./bed/day	48	768
Psychiatric Urgent Care	16 lbs./bed/day	16	256
Mental Health Wellness Center	6 lbs./1000 sq. ft./day	10,000	60
Administrative Offices	6 lbs./1000 sq. ft./day	96,000 sq. ft.	576
Materials Management	6 lbs./1000 sq. ft./day	68,100 sq. ft.	409
Utility Plant & Cooling Tower	6 lbs./1000 sq. ft./day	77,000 sq. ft.	462
		Total	**4,427**
		Net Increase	**2,764**

Source: CalRecyle 2019.

Tier II

The new development that may occur under Tier II would also result in increased generation of solid waste. As discussed above, Sunshine Canyon, the closest landfill to the campus, has a remaining capacity of 62.11 millions of tons and an estimated remaining life of 21 years. Since Tier II development would include those projects proposed far in the future, beyond the year 2035, it is not possible to determine whether landfills serving the project site would have sufficient remaining capacity that far in the future. Therefore, solid waste impacts for Tier II projects could be potentially significant. Accordingly, when individual Tier II development projects under the Master Plan are proposed and building plans are developed, LACDPW will conduct, prior to the issuance of building permits, further analyses to confirm whether adequate landfill capacity exists to serve the Tier II Master Plan projects.

New and renovated medical/research facilities that may be developed under Tier II could result in increases in biomedical or other hazardous wastes. All hazardous waste, including biomedical waste, would be used, transported, and disposed of at designated Class I landfills, in accordance with applicable local and regional regulations. Such activities already take place at the Olive View–UCLA Medical Center Campus, and facilities for the proper handling of these materials are already present on the site. Consequently, no significant impacts to hazardous waste disposal facilities is anticipated as a result of future development under Tier II.

Mitigation Measures

No measures are required to mitigate the solid waste impacts of Tier I projects. For Tier II projects that could occur beyond the year 2035, the County will be required to conduct additional analyses to determine whether adequate landfill capacity remains to accommodate the waste that would be generated by Tier II development. If the analyses determine that there is inadequate capacity, then changes to the Tier II projects will need to be made or measures will need to be identified by the County to reduce solid waste generation and mitigate impacts to landfill capacity.

Level of Significance after Mitigation

Less than significant for Tier I projects. For the purposes of this Final EIR, the impacts on solid waste due to Tier II projects are considered to be potentially significant and unavoidable.

Impact UTL-5: Would the Proposed Project Comply with Federal, State, and Local Management and Reduction Statutes and Regulations Related to Solid Waste?

Construction and Operational Impacts

Tiers I and II

Under AB 939, the city of Los Angeles adopted the Construction and Demolition Waste Recycling Ordinance (Ordinance 181,519), which requires that solid waste haulers and contractors obtain a permit prior to transporting construction and demolition waste and stipulates that such waste may only be processed at city-certified construction and demolition waste-processing facilities. The proposed project would comply with this ordinance.

AB 939 also mandates that jurisdictions meet a diversion goal of 50 percent by the year 2000 and thereafter. The city of Los Angeles initiated a SWIRP in 2007 and is moving toward zero waste by 2030. Similarly, AB 75 requires all state agencies and large state facilities to divert at least 50 percent of solid waste from landfills. The proposed project would comply with both.

Development under Olive View–UCLA Medical Center Campus Master Plan would also be subject to other solid waste regulations, such as the Industrial Waste Control Ordinance of the Los Angeles Municipal Code, the City of Los Angeles Sewer Allocation (Ordinance No. 166060), and the California Solid Waste Reuse and Recycling Access Act, which governs building permits that oversee the transfer, receipt, storage, and loading of recyclable materials. The proposed project would comply with all three regulations. Thus, the Master Plan would comply with federal, state, and local statutes and regulations related to solid waste, and its construction and operational impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

3.17.1 Cumulative Impacts

Table 2-2 of Chapter 2, *Project Description*, of this Final EIR lists the related projects that were considered in the cumulative impact analyses. The locations of the related projects are depicted in Figure 2-6, Related Projects Map, also in Chapter 2 of this Final EIR. The study areas for cumulative impacts to utilities includes the service areas of the individual utility providers that serve the project site to reflect cumulative regional demand on these providers' utility supplies and infrastructures, as well as the immediate area in the vicinity of the project site, to take into account cumulative impacts on local utility infrastructure due to the proposed project and nearby related projects (e.g., cumulative impacts on local sewer lines that serve the campus and other development in the immediate area).

The cumulative increases in regional and local study area populations would increase the demand for utilities services. Because the service areas for the various utility providers (water, sewer and wastewater, stormwater, solid waste, natural gas, and electricity) varies widely, and, in some cases, covers large geographic areas (e.g., SoCalGas or LADWP), it is possible that increased demand due to future cumulative development within the service areas could require additional utility capacity and supplies to meet projected future demand and maintain adequate levels of service, notwithstanding future savings resulting from increased energy efficiencies. Although the regional utility providers have planned for long-term increases in demand, new supply and delivery infrastructure facilities could be required to meet increased regional demands, the construction of which could result in impacts to the environment. Where the utility providers have identified specific individual projects that are required to meet future projected regional cumulative demands and determined that construction or operation of those projects would result in significant impacts to the environment, the cumulative impact of the proposed Master Plan and other projects in the services areas would be considered significant. Because the planning horizon for the Master Plan extends well into the future (beyond year 2040), it is possible that yet unidentified improvements to the regional providers utility infrastructure may also be required over the life of the Master Plan. Therefore, for the purposes of this Final EIR, it is anticipated that the proposed project and other regional development would result in significant cumulative impacts on utilities and energy.

With regards to localized cumulative utility impacts, a list of related projects in the area is provided in Table 2-2 (see Chapter 2, *Project Description*, of this Final EIR). There are 14 related projects in the surrounding area at various stages of conceptual planning and development. The list includes several housing and commercial development projects that would increase the residential and daytime employee populations in the study area. The cumulative utility demands of the related and proposed projects may require improvements to local utility infrastructure (e.g., new local sewer or water lines or connections, power substations, etc.), the construction of which could result in impacts to the environment. The details and extent of future local utility infrastructure improvements are not known; therefore, the significance of potential cumulative impacts on local infrastructure cannot be definitively determined. Nonetheless, for the purposes of this Final EIR, the cumulative local utility infrastructure impacts are considered to be potentially significant.

3.18 Wildfire Hazards

3.18.1 Introduction

This section addresses potential wildfire impacts that may result from implementation of the Olive View–UCLA Medical Center Campus Master Plan. The following discussion addresses existing wildfire hazard conditions of the project site and surroundings, considers applicable goals and policies, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from project implementation, as applicable.

3.18.2 Regulatory Setting

3.18.2.1 Federal

Federal Wildland Fire Management Policy

The 1995 Federal Wildland Fire Management Report produced the first single comprehensive federal fire policy for the Departments of the Interior and Agriculture. That review was stimulated not only by the 1994 fire season, with its 34 fatalities, but also by growing recognition of fire problems caused by fuel accumulation. The resulting 1995 Federal Fire Policy recognized, for the first time, the essential role of fire in maintaining natural systems. In the aftermath of the escape of the Cerro Grande Prescribed Fire in May of 2000, the Secretaries of the Interior and Agriculture requested a review of the 1995 Federal Fire Policy and its implementation. The subsequent 2001 Federal Fire Policy and its implementation are founded on the following guiding principles:

- Firefighter and public safety is the first priority in every fire management activity;
- The role of wildland fire as an essential ecological process and natural change agent will be incorporated into the planning process;
- Fire management plans, programs, and activities support land and resource management plans and their implementation;
- Sound risk management is a foundation for all fire management activities;
- Fire management programs and activities are economically viable, based upon values to be protected, costs, and land and resource management objectives;
- Fire management plans and activities are based upon the best available science;
- Fire management plans and activities incorporate public health and environmental quality considerations;
- Federal, state, tribal, local, interagency, and international coordination and cooperation are essential; and
- Standardization of policies and procedures among federal agencies is an ongoing objective.

3.18.2.2 State

California Department of Forestry and Fire Protection (CAL FIRE)

The California Department of Forestry and Fire Protection (CAL FIRE) protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and watershed values, providing social, economic, and environmental benefits to rural and urban citizens. CAL FIRE's firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year (CAL FIRE 2012).

The Office of the State Fire Marshal supports CAL FIRE's mission by focusing on fire prevention, providing support through a wide variety of fire-safety responsibilities, including:

- Regulating buildings in which people live, congregate, or are confined;
- Controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire;
- Providing statewide direction for fire prevention in wildland areas;
- Regulating hazardous liquid pipelines;
- Reviewing regulations and building standards; and
- Providing training and education in fire protection methods and responsibilities.

2018 Strategic Fire Plan for California

2018 Strategic Fire Plan for California (CAL FIRE 2018) is a cooperative effort between CAL FIRE and the Board of Forestry and Fire Protection (the Board). The Board has adopted fire plans since the 1930s and periodically updates them to reflect current and anticipated needs. Over time, as the environmental, social, and economic landscape of California's wildlands has changed, the Board has evolved the Strategic Fire Plan to better respond to these changes and to provide the CAL FIRE with appropriate guidance "…for adequate statewide fire protection of state responsibility areas" (Public Resources Code [PRC] 4130). In 2018, the Board adopted a strategic fire plan to update and address fire concerns in California.

Reflecting a society that must be more aware of and responsive to the benefits and threats of wildland fire, the 2018 Plan calls for a more fire-resistant natural environment, with buildings and infrastructure that are also more fire resistant, all achieved through local, state, federal, tribal, and private partnerships. The goals that are critical to achieving the 2018 Plan's vision revolve around fire prevention, natural resource management, and fire suppression efforts, as broadly construed. Major components include:

- Improving the availability and use of consistent, shared information about hazard and risk assessment;
- Promoting the role of local planning processes, including general plans, new development, and existing developments, and recognizing individual landowner/homeowner responsibilities;
- Fostering a shared vision among communities and multiple fire protection jurisdictions, including county-based and community-based plans, such as Community Wildfire Protection Plans (CWPP);

- Increasing awareness and actions to improve fire resistance of man-made assets at risk and fire resilience of wildland environments through natural resource management;
- Integrating implementation of fire and vegetative fuels management practices consistent with the priorities of landowners or managers;
- Determining and seeking the needed level of resources for fire prevention, natural resource management, fire suppression, and related services; and
- Implementing needed assessments and actions for post-fire protection and recovery.

Fire Hazard Severity Zones: PRC Sections 4201–4204

In 1965, PRC Sections 4201–4204 and Government Code Sections 51175–51189 directed CAL FIRE to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These zones, referred to as fire hazard severity zones (FHSZ), define the application of various mitigation strategies to reduce risk associated with wildland fires (State of California 1965).

Senate Bill 1241

In 2012, Senate Bill (SB) 1241 added Section 66474.02 to Title 7, Division 2, of the California Government Code, commonly known as the Subdivision Map Act. The statute prohibits subdivision of parcels that are designated as very high fire hazard severity zones or located in a State Responsibility Area (SRA), unless certain findings are made prior to approval of the tentative map. The statute requires that a city or county planning commission make three new findings regarding fire hazard safety before approving a subdivision proposal. In brief, the three findings require that: (1) the design and location of the subdivision and its lots are consistent with defensible space regulations found in PRC Section 4290–91, (2) structural fire protection services will be available for the subdivision through a publicly funded entity, and (3) ingress and egress road standards for fire equipment are met per any applicable local ordinance and PRC Section 4290.

Fire Safe Development Regulations

The Fire Safe Development Regulations section of the 2018 Plan implements PRC Section 4290 and stipulates minimum requirements for building construction in SRAs. These regulations address ingress and egress (e.g., road widths, turnouts, etc.), building and street sign visibility, emergency water standards, and fuel modification. In June 2012, the Board and CAL FIRE formed a workgroup to revise the Fire Safe Development Regulations. The workgroup made the first significant changes to the regulations since they were initially effective in 1991 and identified future areas of study. Changes to the regulations were effective January 1, 2016. This workgroup was re-engaged in 2017 to align the update timeline for the Fire Safe Regulations with the triennial California Fire Code cycle. The workgroup has been reviewing the existing regulations, based on feedback received from the 2016 updates, to reduce inconsistencies and improve clarity. These changes are anticipated to be effective with the 2020 California Fire Code on January 1, 2020.

California Building Code and Fire Code

The California Code of Regulations (CCR), Title 24, is a compilation of building standards, including fire safety standards for residential and commercial buildings. The California Building Code standards serve as the basis for the design and construction of buildings in California; the California Fire Code is a component of the California Building Code. Typical fire safety requirements of the California Fire Code

include the installation of sprinklers in all high-rise buildings, the establishment of fire resistance standards for fire doors, building materials, and particular types of construction, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The California Fire Code applies to all occupancies in California, except where more stringent standards have been adopted by local agencies. Specific California Fire Code regulations have been incorporated by reference, with amendments, in the Los Angeles Building Code, Fire Safety Regulations.

3.18.2.3 Local

Los Angeles County Fire Department Strategic Plan 2017–2021

The Los Angeles County Fire Department (LACFD) is responsible for providing fire protection and life safety services to over four million residents residing in 59 cities and all unincorporated areas of Los Angeles County. The LACFD Strategic Plan 2017–2021 identifies goals for continuing improvements in the areas of service delivery, operational effectiveness, the welfare of the workforce, emergency preparedness, fostering a culture of inclusivity, and fiscal solvency.

Los Angeles County Fire Department Fire Prevention Service Fees

LACFD Fire Prevention works with developers, architects, and engineers to ensure that all fire protection requirements are met for building improvements, new developments, and structural modifications. Plans are reviewed to ensure the proposed systems meet the California Fire Code and County of Los Angeles codes and standards. LACFD, in conjunction with the Los Angeles County Board of Supervisors, implemented fees for fire prevention/life safety services. As of November 1, 2018, LACFD updated and added new fees, including engineering, field permit, film unit, forestry, high rise, land development unit, petroleum/chemical, and regional service fees (LACFD 2019).

Los Angeles County Hillside Management Areas Ordinance

The policies of the Los Angeles County General Plan, and area and community plans where applicable, seek to preserve significant natural features in hillside areas. The Hillside Management Areas Ordinance and the Hillside Design Guidelines implement those policies by ensuring that hillside development projects use sensitive and creative engineering, architectural, and landscaping site design techniques. Hillside management areas (HMAs) are defined as areas with 25 percent or greater natural slopes. Adherence to Hillside Design Guidelines is required for development in HMAs, unless exempted under the Ordinance's provisions. In hillside areas with less than 25 percent slope, use of the Guidelines is optional but encouraged. The Guidelines include specific and measurable design techniques that can be applied to residential, commercial, industrial, and other types of projects. Some design techniques may be more appropriate or feasible than others, depending on the type of project, location, size, complexity, site constraints, and other design techniques incorporated into the project.

Los Angeles County Code of Ordinances Title 32 Fire Code

The Los Angeles County Fire Code establishes guidelines and requirements for fuel modification and clearance of brush and vegetative growth. Specifically, Fire Code Section 1117.2.1 requires the submittal of a fuel modification plan, a landscape plan, and an irrigation plan for the area within a proposed project's boundaries designated a Very High Fire Hazard Severity Zone (VHFHSZ). The

plan must be prepared by a registered landscape architect, landscape designer, landscape contractor, or other individual with expertise acceptable to the forestry division of the fire department prior to any new construction. The Weed Abatement Division of the Los Angeles County Department of Agricultural Commissioner has been given authority to create defensible space for unimproved properties. In accordance with Los Angeles County Fire Code Section 317 et seq., the Agricultural Commissioner may notify all owners of property affected that they must clear all flammable vegetation and other combustible growth or reduce the amount of fuel content for a distance greater than 30 feet, but not to exceed 200 feet.

Los Angeles County General Plan

The Los Angeles County General Plan provides the policy framework for how and where the unincorporated areas will grow through 2035 and establishes goals, policies, and programs to foster healthy, livable, and sustainable communities (County of Los Angeles 2014). As a County-run facility operated on County-owned land, the UCLA–Olive View Medical Center Campus is subject to elements of the Los Angeles County General Plan.

Chapter 12, the Safety Element, identifies the goals and policies that serve to reduce the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards. Also, CAL FIRE and the Board have drafted a comprehensive document for wildland fire protection in California. The Forestry Division's Fire Plan Unit is in charge of implementing the California Fire Plan in Los Angeles County. Chapter 13, the Public Services and Facilities Element, provides a summary of some of the major public services and facilities that serve the unincorporated areas.

City of Los Angeles Brush Clearance Requirements

California has seen an increase in frequency and size of wild fires, including historic brushfires in the city of Los Angeles, such as the La Tuna, Creek, and Skirball fires. Additionally, smaller brushfires have been accidentally started by well-intentioned residents performing brush clearance. Therefore, the Los Angeles City Council approved on October 17, 2018, an ordinance to increase requirements for brush clearance and fire safety in the VHFHSZ. This ordinance establishes appropriate safety measures necessary to mitigate the occurrence of such fires. Highlights of the new ordinance include requirements that:

- Use of metal cutting blades for grass or brush clearance will be limited to those which are non-ferrous/non-sparking;
- Brush clearance cannot be done on red flag days, when fire weather conditions are at their peak;
- Individuals engaged in brush clearance operations will not engage in any other activities during their actual clearance of grass or brush;
- An approved fire extinguisher, or a pressurized garden hose with attached nozzle will be within 10 feet of any grass or brush clearance operation to quickly extinguish a small fire before it burns out of control; and
- A cell phone capable of dialing 9-1-1 will be charged and readily accessible to the grass or brush clearance operation.

City of Los Angeles Municipal Code

The city of Los Angeles Municipal Code (LAMC) contains 18 chapters, including Chapter 5, *Public Safety and Protection* (City of Los Angeles 2013). In that document, Article 2, *Police and Special Officers*, contains regulations governing administrative issues, such as requirements for police badges and uniforms, and Article 7, *Fire Protection and Prevention*, contains the fire code for the City. The city of Los Angeles Fire Code (Fire Code) prescribes laws that may be enforced by the city of Los Angeles Fire Department (LAFD) to help safeguard life and property from fire, explosion, panic, or other hazardous conditions that may arise in the City. The Fire Code includes information pertaining to administrative issues, such as the requirements for filling out and submitting Hazardous Materials Release Response Plans and Inventory Statements, and technical requirements associated with the storage, management, and disposal of hazardous materials, such as underground chemical storage tanks, asbestos-containing materials/building material, and various other combustible and flammable materials. The Fire Code also includes mandates from the state of California's Fire Code.

City of Los Angeles General Plan Framework Element

The city of Los Angeles General Plan Framework Element (Framework), adopted in December 1996 and readopted in August 2001, provides a comprehensive, long-range strategy for accommodating long-term growth in the City. The Infrastructure and Public Services chapter of the Framework sets forth goals, objectives, and policies for fire protection and emergency medical services (EMS) in the City. The objectives and policies in the Infrastructure and Public Services chapter ensure that every neighborhood has the necessary level of fire protection service, EMS, and infrastructure. Under the Framework, the City standard for response distance from the fire station to the destination location is 1.5 miles (City of Los Angeles 1995), which is consistent with the specifications for response distances in LAMC.

City of Los Angeles General Plan Safety Element

The city of Los Angeles General Plan Safety Element recognizes that most jurisdictions rely on emergency personnel (i.e., police, fire, gas, and water) to respond to and handle emergencies. The Safety Element of the city of Los Angeles General Plan sets forth specific policies and objectives related to safety. These policies and objectives emphasize hazard mitigation, emergency response, and disaster recovery. The Safety Element serves as a guide for the construction, maintenance, and operation of fire protection facilities in the City. It sets forth policies and standards for fire station distribution and location, fire suppression water flow (or "fire flow"), firefighting equipment access, emergency ambulance services, and fire prevention activities. Population density, nature of on-site land uses, and traffic flow are also considered by LAFD in evaluating the adequacy of fire protection services throughout the City.

City of Los Angeles Emergency Operations Organization and Hazard Mitigation Plan

The Emergency Operations Organization (EOO) within the City is responsible for the City's emergency preparations (i.e., planning, training and mitigation), response and recovery operations. The EOO is composed of all agencies of the City's government and centralizes command and information coordination to enable its unified chain-of-command to operate efficiently and effectively in managing the City's resources.

The city of Los Angeles 2018 Hazard Mitigation Plan (HMP) was prepared to lessen the City's vulnerability to disasters and to reduce risks from natural hazards. An HMP serves as a guide for decision makers as they commit City resources to minimize the effects of natural hazards. The HMP integrates with existing planning mechanisms, such as building and zoning regulations, long-range planning mechanisms, and environmental planning. The planning process includes conducting a thorough hazard vulnerability analysis, creating community disaster mitigation priorities, and developing subsequent mitigation strategies and projects.

Los Angeles Fire Department Strategic Plan 2018–2020

The LAFD's Strategic Plan 2018–2020, A Safer City 2.0, is the next generation of the first-ever LAFD Strategic Plan. A Safer City 2.0[1] focuses on five goals to guide the LAFD in the next 3 years:

1. Provide exceptional public safety and emergency service;
2. Embrace a healthy, safe and productive work environment;
3. Capitalize on advanced technology;
4. Enhance LAFD sustainability and community resiliency; and
5. Increase opportunities for personal growth and professional development.

3.18.3 Environmental Setting

A *wildfire* is a nonstructural fire that occurs in vegetative fuels, excluding prescribed fire. Wildfires can occur in undeveloped areas and spread to urban areas where the landscape and structures are not designed and maintained to be ignition resistant. A wildland-urban interface is an area where urban development is located in proximity to open space or *wildland* areas. The potential for wildland fires represents a hazard where development is adjacent to open space or within close proximity to wildland fuels or designated fire severity zones. The hot, arid climate of the City and County of Los Angeles, especially during the summer and fall, can dry out vegetation and cause dry brush to be prone to fires caused by lightning strikes and spontaneous combustion. Steep hillsides and varied topography within portions of the County also contribute to the risk of wildland fires. Fires that occur in wildland-urban interface areas may affect natural resources, life, and property.

CAL FIRE has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program (FRAP). These maps place areas of the state into different FHSZs, based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather where urban conflagration could result in catastrophic losses. As part of this mapping system, land where CAL FIRE is responsible for wildland fire protection and generally located in unincorporated areas is classified as an SRA. Where local fire protection agencies, such as the LAFD, are responsible for wildfire protection, the land is classified as a Local Responsibility Area (LRA). Due to the campus's location abutting the foothills of the San Gabriel Mountains and with Angeles National Forest immediately to the north, the campus is subject to wildland fire hazards and is therefore designated as a VHFHSZ within an LRA on CAL FIRE maps (CAL FIRE 2011). The area immediately north of the campus is within a designated VHFHSZ in an SRA (CAL FIRE 2007).

The most recent wildland fire that resulted in damage to campus buildings was the Sayre Fire in November of 2009, which damaged or destroyed a total of 48 structures on the campus. Other recent fires that have occurred in the vicinity of the campus include the Creek Fire, which started on December 5, 2017, and resulted in the destruction of 60 residential and 63 outbuildings and, as of December 11, 2017, damaged another 55 residential and 26 outbuildings (CAL FIRE 2017). The fire encompassed 15,619 acres and was located approximately 2 miles east/southeast of the campus.

3.18.3.1 County of Los Angeles Fire Department

The County of Los Angeles Fire Department (LACFD) provides fire, safety, and emergency medical services to the unincorporated areas of Los Angeles County. Additionally, many cities within Los Angeles County contract with the LACFD for fire protection services. There are three major geographic regions serviced by the LACFD, which are divided into nine divisions and 22 battalions. Division 3 covers the unincorporated area to the north and east of the project site, as well as the cities of Santa Clarita and La Cañada Flintridge. Three battalions with 22 stations are located within this service area. The nearest battalions to the project site are Battalion 6 and Battalion 4. The southern border of Battalion 6 lies immediately north of the project site and has five fire stations, one Division headquarters, and one Battalion and regional headquarters. The LACFD station nearest to the project area in Battalion 6 is County Fire Station #150, located at 19190 Golden Valley Road in Santa Clarita, approximately 4.5 miles north of the project site. Battalion 4 covers the unincorporated area east of the project site, including the City of La Cañada Flintridge, and has six fire stations and one Battalion headquarters. The LACFD station nearest to the project area in Battalion 4 is County Fire Station #74, located at 12587 Dexter Park Road in San Fernando, approximately 5.25 miles to the east of the project site. It should be noted that while the LACFD would be the first responder to a brush fire in the unincorporated areas to the north and east of the project site, the LAFD would be the first responder to an emergency on the project site.

Emergency Planning

The LACFD is responsible for emergency medical services and fire protection in the project area. In the event of an emergency, LACFD implements all appropriate emergency procedures outlined in the Los Angeles County Operational Area Emergency Response Plan, approved on February 17, 1998, by the County Chief Executive Office. The plan was implemented to provide effective life safety measures and reduce property loss, provide for the rapid resumption of affected business and community services, and provide accurate documentation and records for cost recovery.

3.18.3.2 City of Los Angeles Fire Department

A full-spectrum, life-safety agency that serves people who live and work in the city of Los Angeles, the LAFD provides fire protection and prevention and emergency services to and around the project site. Its 3,246 uniformed fire personnel and 353 professional support personnel are responsible for fire prevention, firefighting, emergency medical care, technical rescue, hazardous materials mitigation, disaster response, public education, and community service (Los Angeles Fire Department 2017). The LAFD maintains 106 fire stations across the department's 471-square-mile jurisdiction and has continued to see rises in emergency responses, both pertaining to fire and EMS (Los Angeles Fire Department 2017). The LAFD has a breadth of command, fire rescue, and EMS resources, enabling the department to serve a complex region.

Fire stations with proximity to the Olive View–UCLA Medical Center Campus are listed in Table 3.18-1. For the purposes of this analysis, fire stations serving the project site and surrounding communities (Sylmar, Granada Hills, Mission Hills, and San Fernando) were identified. The primary responding fire station for the proposed project site would be LAFD Fire Station 91, located at 14430 Polk Street, approximately 1.5 miles south of the project site. The station maintains one engine, one ambulance, four engine crew members, and two ambulance crew members (Duff pers. comm.). According to LAFD's FireStatLA[2], Station 91's response metrics from January to December 2018 averaged 52 seconds for turnout[3] and five minutes and 27 seconds for travel time for 5,477 EMS incidents. Non-EMS response metrics were 50 seconds for turnout and five minutes 37 seconds for travel time for 940 incidents (Los Angeles Fire Department 2018).

Table 3.18-1. Fire Stations in the Vicinity of the Proposed Project

Map ID	Facility Name	Address	Distance from Project Site
1	Fire Station 91	14430 Polk Street, Sylmar, CA 91342	1.5 mi
2	Fire Station 18	12050 Balboa Boulevard, Granada Hills, CA 91344	5.5 mi
3	Fire Station 75	15345 San Fernando Mission Boulevard, Mission Hills, CA 91345	7.1 mi

Note: The Distance from Site metric in the table represents the driving distance between facilities rather than the actual distance.
Source: LAFD 2018.

3.18.4 Environmental Impact Analysis

3.18.4.1 Approach

Analysis of potential impacts related to wildfire was based on the ability of fire personnel to adequately serve the existing and future population of the project site, as well as federal, state, and local regulations regarding wildfire.

3.18.4.2 Thresholds of Significance

For the purposes of this Final EIR, and in accordance with Appendix G of the State CEQA Guidelines, the proposed project would result in a significant impact if it would:

WF-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.

WF-2 Due to slope, prevailing winds, and other factors, exacerbate wildfire risks of, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

[2] https://www.lafd.org/fsla/stations-map
[3] *Turnout* is the time from when the station acknowledges notification of the emergency until the time the response apparatus leaves the station.

WF-3 Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment.

WF-4 Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

3.18.4.3 Impacts and Mitigation Measures

Impact WF-1: Would the Proposed Project Substantially Impair an Adopted Emergency Response Plan or Emergency Evacuation Plan?

Construction Impacts

Tier I

Tier I development would include the construction of a Restorative Care Village (composed of a Recuperative Care Center, Residential Treatment Program facility, Psychiatric Urgent Care Center, and Mental Health Wellness Center), a new outpatient facility, administration building, central utility plant, a materials management building, a community center, parking facilities, and the renovation of the existing hospital. Construction activities would include demolition of some on-site buildings and structures, site preparation and grading, and building new and renovated facilities.

Construction of the proposed Tier I facilities is not expected to result in any substantial traffic queuing on off-site roadways, including along Olive View Drive, and construction vehicles or equipment would not be allowed to park or remain stationary within off-site roadways. Tier I projects would also not require temporary or permanent closure of off-site roadways or block access to off-site uses that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity. All large construction vehicles entering and exiting the site would be guided by the use of personnel using signs and flags to direct traffic. The nearest County designated emergency/disaster routes to the project site are the SR 210 freeway and Glenoaks Boulevard, which are both located south of the campus (County of Los Angeles 2012).

Emergency access to facilities within the campus, however, could be temporarily affected by construction. Temporary lane closures and construction-related traffic within the campus could delay or obstruct the movement of emergency vehicles, which is considered to be a potentially significant impact for the purposes of this Final EIR. In order to ensure emergency access, traffic flow, and the LAFD's ability to maintain an adequate response time between four and six minutes, the County would implement mitigation measure **MM-PS-1**, which requires the Los Angeles County project manager and construction contractor to regularly notify and coordinate with the LAFD, LASD, and LAPD on project construction design, activities, and scheduling, including any street or lane closures related to proposed development projects before construction begins. Furthermore, Tier I facilities would comply with applicable requirements set forth by the Los Angeles County Operational Area Emergency Response Plan during an emergency.

Tier II

Impacts under Tier II would be similar to those described under Tier I. Impacts would be less than significant after incorporation of **MM-PS-1**.

Mitigation Measures

The following measure is proposed to mitigate the construction impacts described in Impact **WF-1**.

> **MM-PS-1:** The Los Angeles County project manager and construction contractor will regularly notify and coordinate with the LAFD, LASD, and LAPD on project construction design, activities, and scheduling, including any street or lane closures related to proposed development projects before construction begins.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I and Tier II

Although proposed development under the Master Plan would increase building square footage (see Table 2-1) and the number of campus employees and visitors, it would not result in structures or activities that would substantially obstruct or interfere with emergency vehicles or impair emergency response or evacuation plans. New development would be constructed in accordance with current building and fire/life/safety ordinance and codes, including all applicable County code requirements related to access, water mains, fire flows, and hydrants. Therefore, impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Impact WF-2: Would the Proposed Project, due to Slope, Prevailing Winds, and other Factors, exacerbate Wildfire Risks of, and thereby Expose Project Occupants to, Pollutant Concentrations from a Wildfire or the Uncontrolled Spread of a Wildfire?

Construction Impacts

Construction equipment would require the use of flammable fuels and solvents and operation of construction equipment, e.g., bulldozers and excavators, that could result in sparks, thereby increasing fire risks. However, implementation of best management practices during construction and adherence to County and City regulations and requirements would reduce potential risks. Therefore, construction impacts would be less than significant.

Mitigation Measures

Impacts would be less than significant; therefore, no mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Operational Impacts

Tier I

The proposed project abuts the foothills of the San Gabriel Mountains and Angeles National Forest immediately to the north and is designated as a VHFHSZ within an LRA on CAL FIRE maps. The area immediately north of the campus is within a designated VHFHSZ in an SRA. Wildfires may potentially occur in wildland areas adjacent to the project site, or in on-site undeveloped open space or recreational areas. Under existing conditions, the project site includes numerous potential fire issues, including unmaintained, fire-prone vegetation. However, proposed Tier I development would result in conversion of existing ignitable fuels to maintained landscapes and new development that is ignition-resistant. As seen in Table 2-1, the proposed project would increase building square footage, and therefore, would function as a fuel reduction project by helping create context-sensitive development. Adherence to current building codes and standards, which require defensible space to be provided around all structures located within a VHFHSZ, would ultimately reduce the potential flammability of the landscape. In addition, the proposed project would provide improved access throughout the site, which would improve firefighters' access for wildland firefighting efforts. With adherence to these fire suppression design requirements, and the conversion of open space to developed land, the potential impacts related to wildfires would be less than significant.

Tier II

Impacts under Tier II would be similar to those described under Tier I. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Less than significant.

Impact WF-3: Would the Proposed Project Require the Installation or Maintenance of Associated Infrastructure (such as Roads, Fuel Breaks, Emergency Water Sources, Power Lines, or Other Utilities) that May Exacerbate Fire Risk or that May Result in Temporary or Ongoing Impacts on the Environment?

Construction and Operational Impacts

Tier I

Under Tier I, approximately 519,900 square feet of new buildings and facilities would be constructed and improvements to existing utility infrastructure would occur. However, all construction and development would be limited to the confines of the existing campus. No off-site improvements would be required that would exacerbate fire risks. Additionally, as discussed under impact **WF-2** above, the proposed project would reduce the potential flammability of the existing campus landscape by converting existing undeveloped vacant spaces containing ignitable fuels to maintained landscapes and replacing older buildings with new buildings constructed to current codes. Impacts would be less than significant.

Tier II

Impacts under Tier II would be similar to those described under Tier I. Impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Less than significant.

Impact WF-4: Would the Proposed Project Expose People or Structures to Significant Risks, Including Downslope or Downstream Flooding or Landslides, as a Result of Runoff, Post-fire Slope Instability, or Drainage Changes?

Construction and Operational Impacts

Tiers I and II

The proposed project abuts the foothills of the San Gabriel Mountains and Angeles National Forest immediately to the north and is designated as a VHFHSZ within an LRA on CAL FIRE maps. However, as discussed above under impacts **WF-1** through **WF-3**, the proposed project would not substantially exacerbate wildfire risks or hazards and could reduce the risk of on-campus fires by converting existing undeveloped vacant spaces containing ignitable fuels to maintained landscapes and replacing older buildings with new buildings constructed to current codes. Therefore, the proposed project would not result in significant new risks due to post-fire downstream flooding, landslides, slope instability, or drainage changes.

Mitigation Measures

No mitigation is required.

Level of Significance after Mitigation

Less than significant.

3.18.5 Cumulative Impacts

Table 2-2 of Chapter 2, *Project Description,* of this Final EIR lists the related projects that were considered in the cumulative impact analyses. The locations of the related projects are depicted in Figure 2-9, Related Projects Map, also in Chapter 2 of this Final EIR. As noted in the discussion of impact **WF -1** above, during construction activities, the proposed project would be required to comply with applicable requirements set forth by the Los Angeles County Operational Area Emergency Response Plan, LACFD, LASD, LAPD, and adherence to County and City regulations. Project features such as not allowing construction vehicles and equipment to park or stop along Olive View Drive, the use of flag personnel to ensure the continued flow of traffic, compliance with the aforementioned Plan and facilitating agencies' requirements would reduce the potential impact on wildfire hazards to less than significant. No off-site improvements would be required that would exacerbate fire risks. Additionally, as discussed under impact **WF-2**, the proposed project would

reduce the potential flammability of the existing campus landscape by converting existing undeveloped vacant spaces containing ignitable fuels to maintained landscapes and replacing older buildings with new buildings constructed to current codes. As a consequence, the proposed project is not expected to contribute to any cumulative impacts on wildfire hazards.

Chapter 4
Other Analyses Required by CEQA

4.1 Significant Unavoidable Adverse Environmental Impacts

Significant unavoidable impacts would occur as a result of the proposed Olive View–UCLA Medical Center Campus Master Plan Project in the following resource areas:

- Air Quality
- Greenhouse Gas Emissions (cumulative impact)
- Noise
- Utilities

4.1.1 Air Quality

Tier II would result in the generation of air pollutant emissions from heavy-duty construction equipment, construction worker vehicle trips, material deliveries, trips by heavy-duty haul trucks, earthwork activities, and other construction activities. Such emissions could exceed construction thresholds for regional and localized pollutant emissions depending on the schedules, equipment used, and material movement required. Mitigation measures **MM-AQ-1** and **MM-AQ-2** would reduce emissions, however, emissions from Tier II construction activities may still exceed South Coast Air Quality Management District (SCAQMD) thresholds. Therefore, this impact would be considered significant and unavoidable for Tier II development only.

4.1.2 Greenhouse Gas Emissions

Greenhouse gas emissions generated by construction and operational activities under both Tiers I and II could result in significant cumulative impacts. While implementation of **MM-GHG-O1** would reduce the project's GHG emissions, it cannot be stated with certainty that emissions would be reduced to a level that would comply with the long-term GHG reduction targets and goals of applicable regulatory programs. As such, impacts would be significant and unavoidable.

4.1.3 Noise

Construction activities could generate noise levels at nearby noise-sensitive uses that would exceed the applicable significance thresholds. While **MM-NOI-1** would reduce construction noise levels, it may not eliminate the predicted noise impacts entirely; therefore, construction noise impacts are considered significant and unavoidable for both Tier I and Tier II development. Construction vibration impacts could significantly affect nearby sensitive uses. While **MM-NOI-C2** would reduce construction vibration levels, it may not eliminate the predicted significant impacts entirely; therefore, for the purposes of this Final EIR, construction vibration impacts are considered significant and unavoidable.

4.1.4 Utilities

The additional development that could occur on the campus with implementation of the proposed Master Plan would result in increased water consumption. The Water Supply Assessment prepared for the proposed project concluded that projected water supply during normal, single-dry, and multiple-dry water years, as included in the 25-year projection contained in the city of Los Angeles's *Urban Water Management Plan*, can accommodate the projected maximum water demand associated with Tier I and Tier II development. However, it should be noted that the UWMP projections end in 2040, while the Master Plan is intended to provide a framework and vision for development on the campus that could occur beyond 2040. Therefore, water supply impacts for projects constructed far in the future (i.e., beyond 2040) potentially could be significant. Accordingly, when future projects (i.e., Tier II development projects that would occur beyond the year 2040) are proposed and building plans developed, the Los Angeles County Department of Public Works (LACDPW) will be required to coordinate with the water provider, the Los Angeles Department of Water and Power (LADWP), to confirm that adequate water supplies exist to serve these future Master Plan projects. If it is determined the water supplies are insufficient, and new offsite water infrastructure is required, the impact could potentially be significant and unavoidable under Tier II of the Master Plan.

Master Plan development under would also increase wastewater flows from the campus that would be conveyed to local sewer lines. The city of Los Angeles Bureau of Sanitation (BOS) conducted a preliminary evaluation of the project's potential impacts on the existing wastewater system, which concluded that, based on the current approximate flow levels, it appears the sewer system may be able to accommodate the total flow that could occur due to development under the Master Plan (Tiers I and II). However, further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If public sewer lines serving the campus have insufficient capacity, then the County will be required to build sewer lines to a point in the sewer system with sufficient capacity. If BOS determines that there is insufficient capacity in the local sewer lines that would serve an individual future project, then the impact would be considered to be significant. Since the County cannot compel another public entity, in this case BOS, to conduct further gauging and evaluation, for the purposes of this Final EIR, the impacts on local sewer lines are considered to be potentially significant and unavoidable.

4.2 Impacts Found to Be Less than Significant

The environmental analyses presented in Chapter 3, *CEQA Environmental Impact Assessment*, of this Final EIR concluded that the proposed project would result in no impacts in the following areas:

- Biological Resources
  - Conservation Plan
    - Tiers I and II (construction and operational)
- Cultural Resources
  - Historical Resources
    - Tiers I and II (construction and operational)
  - Archaeological Resources

        - Tiers I and II (operational)
    - Human Remains Disturbance
        - Tiers I and II (operational)
- Hazards and Hazardous Materials
    - Routine Transport, Use, or Disposal of Hazardous Materials
        - Tiers I and II (construction and operational)
    - Release of Hazardous Materials
        - Tiers I and II (operational)
- Geology and Soils
    - Septic Tanks or Alternative Waste Disposal Systems
        - Tiers I and II (construction and operational)
    - Paleontological Resource
        - Tiers I and II (operational)
- Hazards and Hazardous Material
    - Hazards to Schools
        - Tiers I and II (operational)
- Hydrology
    - Seiche, Tsunami
        - Tiers I and II (construction and operational)
- Land Use
    - Conflicts with Applicable Plans and Policies
        - Tiers I and II (construction and operational)
- Noise
    - Groundborne Vibration or Groundborne Noise Levels
        - Tiers I and II (operational)
    - Airstrip
        - Tiers I and II (operational)
- Population and Housing
    - Displacement of Housing and People
        - Tiers I and II (construction and operational)

Additionally, Los Angeles County, as the CEQA lead agency, determined in the Notice of Project/Initial Study (NOP/IS) (see Appendix A) that the proposed project would not result in impacts in the following areas and no further environmental review of those resource areas was conducted as part of this Final EIR.

- Agricultural and Forestry Resources
- Mineral Resources

The analyses presented in Chapter 3, *CEQA Environmental Impact Assessment*, of this Final EIR, concluded that the proposed project would result in less than significant impacts in the following categories, and therefore, no mitigation measures are required.

- Aesthetics
  - Scenic Resources
    - Tiers I and II (construction and operational)
  - Visual Character
    - Tiers I and II (construction and operational)
  - Light and Glare
    - Tiers I and II (construction and operational)
- Air Quality
  - Obstruct Implementation of the Applicable Air Quality Plan
    - Tiers I and II (construction and operational)
  - Violate Air Quality Standard
    - Tiers I and II (operational)
  - Expose Sensitive Receptors to Substantial Pollutant Concentrations
    - Tier I (construction and operational)
  - Objectionable Odors (construction and operation)
    - Tiers I and II (construction and operational)
- Biological Resources
  - Policies
    - Tiers I and II (operational)
  - Habitat Modification
    - Tiers I and II (construction and operational)
  - Species
    - Tiers I and II (operational)
  - Local Polices or Ordinances
    - Tiers I and II (operational)
  - Sensitive Natural Community
    - Tiers I and II (operational)
- Energy
  - Consumption of Energy

        - Tiers I and II (construction and operational)
    - Local Plans
        - Tiers I and II (construction and operational)
- Geology and Soils
    - Soil Erosion or Loss of Top Soil
        - Tiers I and II (operational)
    - Use of Septic Tanks or Alternative Waste Disposal Systems
        - Tier I and II (construction and operational)
- Greenhouse Gas Emissions
    - Policies
        - Tiers I and II (construction and operational)
- Hazards and Hazardous Materials
    - Routine Transport
        - Tiers I and II (construction and operational)
    - Upset and Accident conditions
        - Tiers I and II (operational)
    - Hazardous Materials Sites
        - Tiers I and II (operational)
    - Emergency response
        - Tier I (construction)
        - Tier II (construction and operational)
- Hydrology and Water Quality
    - Water Quality Standards
        - Tiers I and II (operational)
    - Groundwater Supplies
        - Tiers I and II (operational)
    - Drainage and Flooding
        - Tiers I and II (construction and operational)
    - Stormwater Runoff
        - Tiers I and II (construction and operational)
- Noise
    - Airstrip
        - Tiers I and II (construction and operational)

- Population and Housing
  - Population Growth
    - Tiers I and II (construction and operational)
  - Displace Substantial Numbers of Existing Housing Units
    - Tiers I and II (construction and operational)
- Public Services
  - Police and Fire services
    - Tiers I and II (operational)
  - Schools
    - Tiers I and II (operational)
  - Parks
    - Tiers I and II (operational)
- Recreation
  - Increased Use of Existing Parks
    - Tiers I and II (construction and operational)
  - Require Construction of Recreational Facilities
    - Tiers I and II (construction and operational)
- Transportation/Traffic
  - Conflict with Congestion Management Program
    - Tiers I and II (construction and operational)
  - CEQA Guidelines Section 15064.3 subdivision (b)
    - Tiers I and II (construction and operational)
  - Increase Hazards due to Geometric Design Feature
    - Tiers I and II (operational)
  - Inadequate Emergency Access
    - Tiers I and II (operational)
- Tribal Cultural Resources
  - Tribal Cultural Resources
    - Tiers I and II (operational)
- Utilities
  - Exceed Water or Wastewater Treatment Stormwater Drainage, Electric Power, Natural Gas, or Telecommunications Facilities
    - Tiers I and II (construction)

  - Water Supplies
    - Tiers I and II (construction)
  - Adequate Capacity for Wastewater Treatment Provider
    - Tiers I and II (construction)
  - Generation of Waste
    - Tiers I and II (construction)
  - Compliance with Solid Waste Regulations
    - Tiers I and II (construction and operational)
- Wildfire Hazards
  - Emergency Response Plan
    - Tiers I and II (operational)

The following impacts were identified as potentially significant but would be reduced to less than significant with incorporation of proposed mitigation measures.

- Air Quality
  - Violate Air Quality Standard
    - Tier I (construction)
- Biological Resources
  - Species
    - Tiers I and II (construction)
  - Local Policies
    - Tiers I and II (construction)
- Cultural Resources
  - Archaeological Resources
    - Tiers I and II (construction)
  - Human Remains Disturbance
    - Tiers I and II (construction)
- Geology and Soils
  - Earthquake Fault Rupture, Seismic Shaking, Ground Failure, or Landslides
    - Tiers I and II (construction and operational)
  - Soil Erosion or the Loss of Topsoil
    - Tiers I and II (construction)
  - Liquefaction
    - Tiers I and II (construction and operational)

    - Expansive Soil
        - Tiers I and II (construction and operational)
    - Paleontological Resource
        - Tiers I and II (construction)
- Hazards and Hazardous Materials
    - Upset and Accident Conditions
        - Tiers I and II (construction)
    - Hazardous Materials Sites
        - Tiers I and II (construction)
- Hydrology
    - Water Quality Standards
        - Tiers I and II (construction)
    - Groundwater Supplies
        - Tiers I and II (operational)
    - Drainage
        - Tiers I and II (construction)
    - Degrade Water Quality
        - Tiers I and II (construction)
- Noise
    - Operational Noise
        - Tiers I and II (operational)
    - Traffic Noise and Other Operational Sources
        - Tiers I and II (construction)
- Public Services
    - Police and fire services
        - Tiers I and II (construction)
- Transportation/Traffic
    - Inadequate Emergency Access
        - Tiers I and II (construction)
- Utilities
    - Water Supplies
        - Tiers I and II (construction)
    - Adequate Capacity for Wastewater Treatment Provider

- Tiers I and II (operational)

4.3 Growth-Inducement and Indirect Impacts

According to Section 15126.2 (d) of the CEQA Guidelines, growth-inducing impacts of the proposed project shall be discussed in the EIR. Growth-inducing impacts are those effects of the proposed project that might foster economic or population growth or the construction of new housing, either directly or indirectly, in the surrounding environment. According to CEQA, increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.

Induced growth is any growth that exceeds planned growth and results from new development that would not have taken place without implementation of the proposed project. Typically, the growth-inducing potential of a project would be considered significant if it results in growth or population concentration that exceeds those assumptions included in pertinent master plans, land use plans, or projections made by regional planning authorities. However, the creation of growth-inducing potential does not automatically lead to growth, whether it would be below or in exceedance of the projected level. Under CEQA, it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

One of the guiding principles of the proposed Master Plan is to expand medical services at the Olive View–UCLA Medical Center to serve the increased needs of the community and County by providing new and expanded facilities and programs. Accordingly, the project would increase the employee population on the campus and is likely to attract additional visitors and consequently may indirectly increase growth in the surrounding area. However, the proposed project would not include the extension of roads or other infrastructure improvements outside the boundaries of the campus that would indirectly induce substantial population growth in the surrounding area. The proposed project would not include new permanent housing (Tier II could include a long-term care facility) or displace any existing populations.

Additionally, as stated in Chapter 3.12, *Population and Housing*, of this Final EIR, the proposed project would fall within SCAG projections, which anticipates a citywide population growth of 19.9 percent between the 2012 baseline estimate and 2040. The increases in the on-campus employee and residential populations that could occur with buildout of the Master Plan would not contribute substantially to any population growth in the area beyond what SCAG has projected in its regional and city forecasts.

Therefore, while the proposed project may indirectly induce population growth, impacts would be considered minor. Consequently, the proposed project is not expected to result in significant growth-inducing impacts on the environment.

4.4 Irreversible Environmental Changes

CEQA Guidelines Section 15126.2(c) requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project, and states:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter

unlikely. Primary impacts, and particularly, secondary impacts (such as a highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Implementation of the proposed project would occur on the existing Olive View–UCLA Medical Center Campus. Proposed development would include the irreversible commitment of natural resources (water and raw materials required during construction and operation), energy, land, and human resources. Ongoing maintenance and operation of the new development on the campus would entail a further irreversible commitment of energy resources in the form of petroleum products (diesel fuel and gasoline), natural gas, and electricity generated by burning fossil fuels. Long-term impacts would also result from an increase in vehicular traffic, and the associated air pollutant and noise emissions.

4.5 Mandatory Findings of Significance

Provided below are mandatory findings of significance for the proposed project, which are based on the data and analyses conducted for and summarized in this Final EIR (see Chapter 3, *CEQA Environmental Impact Assessment*, of this Final EIR, for a more detailed discussion of project impacts).

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?

As discussed in Chapter 3, *CEQA Environmental Impact Assessment*, of this Final EIR, the proposed project (Tiers I and I) have the potential to result in significant impacts to nesting birds and roosting bats, protected oak trees, and archaeological resources, including tribal cultural resources. These impacts can be reduced to less than significant with implementation of proposed mitigation measures.

b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)

Tier II of the Master Plan could generate pollutant emissions that exceed applicable thresholds. These emissions combined with emissions from other related projects and cumulative development in the air basin could be cumulatively considerable. Additionally, greenhouse gas emissions generated by construction and operational activities under both Tiers I and II of the proposed Master Plan could result in cumulatively considerable impacts. Traffic generated by proposed Master Plan development (Tiers I and II) and other related projects would cumulatively increase congestion in the study area and result in unacceptable levels of service at local intersections, freeway mainline segments, and freeway ramps. The proposed project and other anticipated growth in the utility providers'

services areas could require new utility infrastructure or facilities to meet increased demand, the construction of which could result in significant impacts to the environment.

c) Does the project have environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly?

Construction activities associated with Tier I and Tier II development could result in noise levels at nearby noise-sensitive uses that exceed applicable significance thresholds. Implementation of proposed noise mitigation measures would reduce potential noise levels, but the resulting noise impacts may still be significant after mitigation. Construction activities would generate pollutant emissions that could exceed SCAQMD localized significance thresholds under Tier II of the Master Plan and consequently could adversely affect nearby sensitive uses. Although, measures are proposed to mitigate potential air quality impacts, the impacts may still be significant after mitigation.

Chapter 5
Alternatives Analysis

5.1 Introduction

State California Environmental Quality Act (CEQA) Guidelines Section 15126.6 requires that an Environmental Impact Report (EIR) describe a range of reasonable alternatives to a project or its location that could feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant environmental impacts. According to the State CEQA Guidelines, the EIR should compare the merits of the alternatives and determine an environmentally superior alternative. The range of alternatives discussed in an EIR is governed by the *rule of reason*, which requires the identification of only those alternatives necessary to permit a reasonable choice between the alternatives and the proposed project. An EIR need not consider an alternative that would be infeasible. State CEQA Guidelines Section 15126.6(f)(1) explains that the evaluation of project alternative feasibility can consider a number of factors, including site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, and jurisdictional boundaries, and whether the proponent can reasonably acquire, control, or otherwise access the alternative site. The EIR is also not required to evaluate an alternative that 1) has an effect that cannot be reasonably identified or that has remote or speculative implementation, and/or 2) would not achieve the basic project objectives.

5.2 CEQA Alternatives

Pursuant to the CEQA requirements identified in Section 5.1, above, the County considered the following project objectives (see Chapter 2, *Project Description*, of this Final EIR) with respect to developing alternatives to the proposed project at the Olive View–UCLA Medical Center Campus:

1. Provide for development opportunities that are consistent with the goals and policies of the County's General Plan.
2. Reorganize, expand, and integrate outpatient services with the specific goal of meeting the community's health needs, providing patient-centered care, and improving the operational throughput to meet increasing demands.
3. Locate inpatient and outpatient services into dedicated buildings to optimize the quality of care and improve operational effectiveness, while reducing administrative, operational, and maintenance costs.
4. Comply with the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983 (Senate Bill [SB] 1953) required by the Office of Statewide Health Planning and Development in order to ensure that the hospital can maintain its license as an inpatient care facility beyond the year 2030.
5. Identify feasible opportunities to exceed state energy requirements and pursue green building sustainable design to the maximum extent possible.
6. Develop resources that are consistent with the needs of the 2035 planning horizon.

7. Provide new medical facilities, including a new replacement hospital, to meet state standards and code requirements.
8. Provide integrated direct and coordinated care, including physical health, behavioral health, social, and other supportive services to the County's most vulnerable populations, such as those suffering from mental illness, addiction, or physical disabilities, in facilities located in a welcoming campus setting with green spaces to:
    a. ensure a seamless transition upon discharge to home or other housing options, and help patients avoid cycling in and out of emergency interventions and establish a sustainable functional life;
    b. reduce morbidity and costs, while restoring function and dignity; and
    c. improve the quality of life for the people and communities of Los Angeles County.

The County also considered and evaluated the feasibility of alternatives that had the potential to avoid or substantially lessen the following unavoidable significant adverse environmental impacts of the proposed Master Plan:

- Air Quality (construction and operational impacts under Tier II)
- Greenhouse Gas Emissions (cumulative impact under Tiers I and II)
- Noise (construction impacts under Tiers I and II)
- Traffic (operational impacts under Tier II)
- Utilities and Service Systems (operational water and solid waste impacts under Tier II)

Based on the above, the following alternative to the proposed project has been identified:

- Alternative B: Reduced Development Alternative (Modified Tier I and Tier II Development)

Additionally, Section 15126(e)(1) of the State CEQA Guidelines requires that the alternatives analysis include a discussion of a no-project alternative so that decision-makers can compare the impacts of approving a proposed project (i.e., the Master Plan) with the impacts of not approving the proposed project. Two no-project scenarios have been developed, which are identified below and discussed in further detail in the following section:

- Alternative A: No Project Alternative
    - No Project/No Build
    - No Project/Limited Development

5.3 Environmental Evaluation of CEQA Alternatives

The proposed CEQA alternatives and an analysis of their impacts in comparison to those of the proposed Master Plan are described below. As permitted by the State CEQA Guidelines, the impacts of the alternatives are discussed in less detail than the effects of the proposed Master Plan. A table summarizing and comparing the impacts of the proposed project and alternatives follows the discussions below.

5.3.1 Alternative A–No Project

As required by CEQA Guidelines Section 15126.6 (e), a No Project Alternative:

> shall be evaluated along with its impact. The purpose of describing a No Project Alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The No Project Alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline.

For the purposes of this Final EIR, two No-Project scenarios have been defined. Under both scenarios, the Master Plan would not be implemented. However, the first scenario, No Project/No Build, assumes that no new development would occur on the campus in the future (other than projects currently approved, but not yet constructed: see Chapter 2, *Project Description*, of this Final EIR, for a list of other related campus projects), and, consequently, that environmental conditions on the Olive View–UCLA Medical Center Campus would remain largely unchanged. The second No Project scenario considers what is more likely and could reasonably occur in the future if the proposed Master Plan is not approved: individual projects would be proposed, approved, and then implemented on an ad hoc basis similar to how development has occurred on the campus in the past. As a consequence, development on the campus under this scenario would be greater than the No Project/No Build scenario, but more limited in scope and extent than the development that could occur under the proposed Master Plan or Reduced Development Alternative (Alternative B, below). Under either No Project scenario, a comprehensive and coordinated program of campus-wide new and renovated facilities, open space, and infrastructure improvements, guided by the goals, policies, and principles of the proposed Master Plan, would not occur.

5.3.1.1 No Project/No Build Scenario

Under this No Project scenario, since no new development would occur other than those campus projects already approved, but not yet constructed, none, or very few, of the proposed Master Plan's adverse environmental impacts would occur. Therefore, this No Project scenario is not expected to result in the following unavoidable significant adverse impacts of the proposed Master Plan:

- Construction air quality impacts (Tier II);
- Construction noise impacts (Tiers I and II);
- Operational traffic impacts (Tier II); and
- Long-term (Tier II) operational water and wastewater impacts.

Additionally, this No Project/No Build scenario would not result in the cumulatively considerable greenhouse gas emissions impacts that could occur under the proposed Master Plan.

It is also anticipated that the No Project/No Build scenario would result in none, or very few, of the following less-than-significant impacts (before or after mitigation) that would occur under the proposed Master Plan, including impacts to:

- Aesthetics
- Air Quality (operational impacts)
- Biological Resources
- Cultural Resources

- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Noise (operational impacts)
- Population and Housing
- Public Services
- Recreation
- Utilities (construction)
- Wildfire Hazards

Although this No Project scenario would result in no or few adverse impacts, likewise it would not provide new and upgraded Olive View–UCLA Medical Center Campus facilities, improved wayfinding, better access/circulation, and open space for visitors, employees, and area residents to the extent or in the manner that could occur under the proposed Master Plan. Therefore, this No Project scenario would not meet any of the Master Plan project objectives.

5.3.1.2 No Project/Limited Development

If the Master Plan is not approved, it is reasonable to assume that in the future, individual projects would be proposed and implemented to meet specific medical center and County needs, subject to securing the necessary approvals and funding. Although it is not known exactly what projects would be constructed over the next 20+ years, it is possible that one or more of the Master Plan development projects could proceed separately and independently of the Master Plan; however, the schedule or scope of those projects could change from what is contemplated under the Master Plan. Nonetheless, it is assumed that the amount of development that would occur under this No Project scenario would be substantially less than the development that could occur under the proposed Master Plan. Given those assumptions, it is likely this No Project scenario would not result in the unavoidable significant adverse impacts that would occur under the Master Plan. Although some changes and impacts to the environment (e.g., construction, noise, and air quality impacts, impacts to archaeological and paleontological resources) could occur under this scenario that may not occur under the No Project/No Build scenario, the scope and extent of the impacts would still likely be substantially less than what could occur with implementation of the proposed Master Plan. However, the No Project/Limited Development Alternative would not provide the benefits to the community that could occur under the proposed Master Plan, nor would it provide a framework to guide development on the campus in a comprehensive and coordinated manner to meet the Olive View–UCLA Medical Center's and County's needs. None or few of the Master Plan objectives would be met with this alternative.

5.3.2 Alternative B–Reduced Development (Modified Tier I and Tier II Development)

Olive View–UCLA Medical Center and County staff conducted a review to identify opportunities to consolidate functions to optimize efficiency of space utilization, thereby reducing the project's footprint and potential environmental impacts. As a consequence of this review, a number of Tier I

and Tier II buildings proposed under the Master Plan would be modified, reduced in size, or eliminated as described below.

Tier I Changes

Tier I changes would include:

1. **Reduction in Size of Administrative Services Building.** This component of the proposed Master Plan would be reduced in size from the 96,000-square-foot facility under the Master Plan to approximately 38,600 square feet. The reduction in the size of this building could be achieved by relocating several offices or departments that would be located in this building under the proposed Master Plan to other existing or proposed new buildings.
2. **Consolidation of East and West Central Utility Plants.** Under this alternative, one large consolidated central utility plant would be constructed in place of the two proposed under the Master Plan (Central Utility Plant East under Tier I and Central Utility Plant West under Tier II). This consolidated central utility plant would also contain materials management/supply services operations eliminating the need for the separate 68,100-square-foot building proposed under Tier I of the Master Plan.
3. **Elimination of the New Materials Management/Supply Services Building.** The new 68,100-square-foot Materials Management/Supply Services Building under the proposed Master Plan would be eliminated under this alternative, and instead materials management functions would be co-located with and share large delivery truck tarmac and dock facilities with the consolidated central plant.

Other projects proposed under Tier I, including the Restorative Care Village, Ambulatory Care Center, existing inpatient hospital, and Community Center would be similar to those under the proposed Master Plan. This alternative would also include other Tier I improvements proposed under the Master Plan, including new community open space and landscaping, parking, vehicular circulation, and pedestrian circulation improvements, and utility infrastructure improvements.

Tier II Changes

Tier II changes include constructing a new hospital and repurposing the existing hospital building for other uses defined under the proposed Master Plan, providing an opportunity to use the existing hospital to accommodate several proposed Tier II facilities, rather than constructing new buildings in the western half of the campus, as would occur under the proposed Master Plan. These facilities would include the Long Term Care facility, UCLA medical office and research and development buildings, child care center, fitness center, and retail uses. Accommodating these facilities and uses in the repurposed existing hospital would reduce the Tier II building square footage by approximately 315,000 square feet. Other Tier II Master Plan improvements, including new community open space and landscaping, parking, vehicular circulation, and pedestrian circulation improvements, and utility infrastructure improvements on the western half of the campus would also be implemented under this alternative, but potentially to a lesser extent than would occur under the proposed Master Plan.

5.3.2.1 Environmental Evaluation of Alternative B

Aesthetics

The proposed Master Plan (see Section 3.1, *Aesthetics*, of this Final EIR) would result in less-than-significant visual impacts during construction under Tiers I and II, due to the presence of construction equipment and materials in staging areas, removal of trees and vegetation, and the unfinished appearance of buildings during construction. Alternative B would result in slightly less development under Tier I and substantially less under Tier II, reducing the overall construction impacts outlined in the proposed Master Plan so that they become less than significant. Additionally, since new and renovated buildings, landscaping, lighting, and open space areas would be completed in accordance with proposed design guidelines, both this alternative and the proposed Master Plan would improve the appearance of the campus and would result in beneficial visual effects.

Neither this alternative nor the proposed Master Plan would result in a cumulatively considerable contribution to a significant cumulative impact on aesthetics.

Air Quality

Under Alternative B, there would be slightly less Tier I construction activity than would occur under the proposed Master Plan. Consequently, Tier I peak day construction emissions would be similar to, or slightly less than, those under the proposed Master Plan. As described in Section 3.2, *Air Quality*, of this Final EIR, the Tier I construction emissions under the Master Plan could exceed the South Coast Air Quality Management District (SCAQMD)'s significance threshold for volatile organic compounds (VOCs) emissions. Therefore, both Alternative B and the proposed Master Plan could result in significant construction air quality impacts under Tier I. However, proposed mitigation measures under the Master Plan would also be implemented for this alternative, which would reduce impacts to less than significant.

Under Tier II, Alternative B would result in substantially less construction than the proposed Master Plan. As a consequence, pollutant emissions during construction would be substantially less under this alternative than the proposed Master Plan, and it is likely that this alternative would result in Tier II construction air quality impacts that would be less than significant or mitigated to less than significant. Therefore, this alternative could avoid the potentially significant and unavoidable peak day construction air quality impacts that could occur under the proposed Master Plan.

Operational air quality impacts under Tier I would be similar and less than significant under this alternative and the proposed Master Plan. Under Alternative B, Tier II, building square footage would be substantially reduced compare to the proposed Master Plan. Therefore, this alternative may avoid the potentially significant and unavoidable Tier II operational air quality impacts of the proposed Master Plan.

With respect to cumulative impacts, the Master Plan's long-term contribution to regional cumulative air quality impacts would be cumulatively considerable. However, the cumulative impacts of Alternative B, because of the substantial reduction in Tier II building square footage, would be less than cumulatively considerable.

Biological Resources

Under Alternative B, there would be slightly less development under Tier I than the proposed Master Plan, which could result in the potential removal of slightly fewer trees, including protected

coast live oak trees, and leave in place more vegetation used by nesting migratory birds or roosting bats. Therefore, this alternative could have slightly less of an impact to biological resources than the proposed Master Plan, although both have the potential to result in significant impacts to nesting birds, roosting bats, and oak trees under Tier I. However, proposed mitigation measures would reduce impacts to biological resources to less than significant for this alternative, as well as the proposed Master Plan.

Under Tier II, because of the significant reduction in building square footage compared to the proposed Master Plan, this alternative could result in substantially less extensive biological impacts than the proposed Master Plan, The Tier II impacts of both are considered potentially significant, but can be reduced to less than significant with implementation of proposed mitigation measures.

With implementation of proposed biological resources mitigation measures (see Section 3.3, *Biological Resources*, of this Final EIR), the proposed Master Plan and Alternative B would not contribute to significant cumulative impacts.

Cultural Resources

The proposed Master Plan has the potential to result in significant impacts to archaeological resources during construction under both Tiers I and II, but those impacts can be reduced to less than significant with implementation of proposed mitigation measures. Alternative B could also result in significant impacts that can be mitigated to less than significant under both Tiers I and II. However, it should be noted that the sizeable reduction in the amount of construction under Tier II could substantially lessen, but not necessarily eliminate, the potential for encountering and disturbing archaeological resources. No impacts to historical resources are anticipated under this alternative or the proposed Master Plan.

As noted above, implementation of proposed mitigation measures (see mitigation measures **MM-CR-1** through **MM-CR-6** in Section 3.4, *Cultural Resources*, of this Final EIR) would reduce potential archaeological resources related impacts of the proposed Master Plan and this alternative to a less-than-significant level. Therefore, with mitigation, both the proposed Master Plan's and Alternative B's contribution to significant cumulative impacts would be rendered less than cumulatively considerable.

Energy

Because of the slight decrease in building square footage (see Section 3.5, *Energy*, of this Final EIR), Alternative B would result in slightly less energy consumption than the proposed Master Plan under Tier I and a more substantial reduction under Tier II because of the substantial reduction (315,000 square feet) in Tier II building square footage. However, neither this alternative nor the proposed Master Plan would result in significant energy impacts during construction or operation, nor would implementation of either result in a cumulatively considerable contribution to significant cumulative energy impacts.

Geology/Soils

Tier I of Alternative B would result in similar or slightly fewer geology/soils impacts than the proposed Master Plan because of the slight reduction in Tier I development. New development and proposed facilities under this alternative would be exposed to similar geologic and soil hazards, (i.e., proximity of Santa Susana fault and liquefaction hazards), as would the proposed Master Plan. The

geologic/soils hazards and impacts of both Alternative B and the proposed Master Plan are considered to be potentially significant. However, the implementation of proposed mitigation measures would reduce potential hazards to proposed project structures and building occupants to less than significant under both Alternative B and the proposed Master Plan for both Tiers I and II during construction and operation. Neither this alternative nor the proposed Master Plan would exacerbate existing geologic hazards or risks in the project area.

The slight decrease in building square footage and number of buildings proposed under this alternative could also slightly reduce the potentially significant impacts to paleontological resources during construction under Tier I, compared to what could occur under the proposed Master Plan. Under Tier II, this alternative would result in substantially less development than under the proposed Master Plan, which would substantially lessen, but not necessarily eliminate, the potential for Tier II impacts to paleontological resources. However, proposed mitigation measures would reduce the potentially significant construction impacts of this alternative and the proposed Master Plan to less than significant under both Tiers I and II.

With implementation of proposed mitigation measures (see Section 3.6, *Geology/Soils*, of this Final EIR), the contribution of the proposed Master Plan and Alternative B to potentially significant cumulative impacts would be rendered less than cumulatively considerable.

Greenhouse Gas Emissions

Under Tier I of Alternative B, the slight decrease in development and vehicle trips due to a smaller project footprint, as compared to the proposed Master Plan, would result in a slight reduction in greenhouse gas emissions. Under Tier II, this alternative could result in substantially less greenhouse gas emissions because of the significant reduction in building square footage. However, Tier I and Tier II development on the campus under Alternative B and the proposed Master Plan would result in potentially significant cumulative greenhouse gas emissions impacts, although the Tier II impacts of this alternative would be substantially less than the proposed Master Plan. Although the mitigation measures proposed in Section 3.7, *Greenhouse Gas Emissions*, of this Final EIR would be implemented for both the proposed Master Plan and Alternative B, the impacts after mitigation are expected to be cumulatively considerable.

Hazards and Hazardous Materials

Construction of the proposed Master Plan facilities could yield hazardous materials requiring treatment and disposal, a potentially significant impact that can be reduced to less than significant with implementation of **MM-HAZ-1** through **MM-HAZ-5** proposed under the Master Plan (see Section 3.8, *Hazards and Hazardous Materials*, of this Final EIR). Under Tier I of Alternative B, there would be slightly less construction than under the proposed Master Plan; therefore, the potential for encountering contaminated soil or materials would be slightly reduced, but still potentially significant. Implementation of mitigation measures would reduce Tier I impacts of Alternative B to less than significant.

Because of the substantial reduction in building square footage Under Tier II of Alternative B, the potential for encountering hazardous materials could be substantially reduced, but not necessarily eliminated, as compared to the proposed Master Plan. Therefore, Tier II construction impacts of this alternative and the proposed Master Plan are potentially significant, but can be reduced to less than significant with implementation of the proposed mitigation measures. Operational impacts would be less than significant under Alternative B and the proposed Master Plan (before mitigation).

With implementation of the aforementioned mitigation measures under the proposed Master Plan and Alternative B, the contributions to a cumulatively hazardous materials impact would be rendered less than cumulatively considerable.

Hydrology/Water Quality

Under the proposed Master Plan, the impacts to water quality and stormwater/drainage due to construction and operational activities would be less than significant under both Tiers I and II (see Section 3.9, *Hydrology/Water Quality*, of this Final EIR). Under Tier I of Alternative B, there would be a slight reduction in the amount of impervious surfaces compared to the proposed Master Plan, and the main hydrologic and water filtration improvement features of the campus would still be built. Therefore, Tier I impacts to hydrology and water quality under Alternative B would be similar or slightly less than those that would occur under the proposed Master Plan. Under Tier II of this alternative, the substantial reduction in building square footage and new impervious surfaces would greatly lessen the potential for adverse water quality and hydrology impacts. However, both Alternative B and the proposed Master Plan are already expected to result in less-than-significant water quality and hydrology impacts as a result of Tier II development.

Given that the proposed development under the Master Plan and Alternative B, as well as many of the cumulative development projects within the study area, would be required to implement Best Management Practices (BMPs), Low Impact Design (LID) features, and other measures to comply with regulatory and permit requirements, it is likely that cumulative hydrology and water quality impacts would be less than significant. Therefore, it is anticipated that neither the proposed Master Plan nor Alternative B would result in cumulatively considerable contributions to significant cumulative hydrology and water quality impacts.

Land Use/Planning

Neither Alternative B nor the Master Plan contain development proposals that would conflict with applicable land use plans, policies, or regulations adopted for the purposes of avoiding or mitigating environmental impacts. Because no land use impacts would occur under Alternative B or the proposed Master Plan (see Section 3.10, *Land Use/Planning*, of this Final EIR), neither would contribute to cumulative land use impacts.

Noise

The proposed Master Plan could result in potentially significant and unavoidable construction and operational (i.e., mechanical equipment) noise impacts depending on the location and extent of construction activities, types of mechanical equipment that would be installed in new buildings, and proximity of noise-sensitive uses on- and off-campus (see Section 3.11, *Noise*, of this Final EIR). Alternative B could slightly reduce the potential for significant noise impacts under Tier I because of the slight reduction in building square footage. Under Tier II, the substantial reduction in building square footage and number of new buildings could substantially lessen the potential for significant adverse construction and operational noise impacts; however, given that Tier II development under Alternative B still includes the construction of a large new building (i.e., the new hospital), the potential exists for significant and unavoidable Tier II impacts.

Neither this alternative, nor the proposed Master Plan, is expected to result in a cumulatively considerable contribution to significant cumulative noise impacts.

Population/Housing

The proposed Master Plan would not displace any existing housing, and the increase in development and the campus's employee population would be consistent with growth projections in local plans; therefore, the proposed Master Plan would result in less-than-significant population and housing impacts (See Section, 3.12, *Population/Housing*, of this Final EIR). The growth-inducement impacts due to on-campus development under the proposed Master Plan also would be less than significant. As is the case with the Master Plan, Alternative B would not displace any existing housing. Additionally, Tier I development would be slightly less under Tier I and substantially less under Tier II; therefore, the population and growth inducement impacts would be less than would occur under the proposed Master Plan, making the impacts of Alternative B and the proposed Master Plan less than significant.

In conjunction with related projects, neither the Master Plan nor Alternative B would result in substantial induced growth beyond that anticipated and accommodated by local plans. Consequently, neither the Master Plan nor Alternative B would result in a cumulatively considerable contribution to a significant cumulative induced-growth impact in the immediate project area.

Public Services

Under Alternative B and the proposed Master Plan, construction activities have the potential to affect emergency access within the campus, a potentially significant impact that can be reduced to less than significant with implementation of **MM-PS-1** (See Section 3.13, *Public Services*, of this Final EIR). The potential for significant impacts would be slightly less under Tier I of Alternative B because there would be slightly less extensive construction. Tier II development under Alternative B could result in a further reduction in impacts due to the substantial reduction in the amount of construction that could occur, as compared to the proposed Master Plan. Nonetheless, the potential construction impacts of this alternative and the proposed Master Plan under Tiers I and II would remain potentially significant, but can be reduced to less than significant with **MM-PS-1**.

New development under both Alternative B and the Master Plan is not expected to substantially increase the demand for public services or require construction of new or altered facilities to maintain acceptable service ratios. Therefore, neither Alternative B, nor the Master Plan, is expected to result in a cumulatively considerable contribution to significant cumulative public services impacts.

Recreation

The proposed Master Plan is unlikely to substantially increase the use of local parks and recreational facilities. The slight reduction in Tier I development and substantial reduction in Tier II development under Alternative B, as compared to the proposed Master Plan (see Section 3.14, *Recreation*, of this Final EIR) would further reduce the demand for and use of recreational facilities. Impacts would be less than significant.

Neither the proposed Master Plan nor Alternative B, when considered in conjunction with the related projects identified in Chapter 2, *Project Description*, of this Final EIR, would result in significant cumulative impacts on local recreational and park resources due to the increased use and resulting physical deterioration of these facilities.

Transportation/Traffic

The additional development proposed under the Master Plan would increase the number of vehicle trips to, from, and within the Olive View–UCLA Medical Center Campus, which could adversely affect local intersections, freeway ramps, and freeway mainline sections. Under Tier I of the Master Plan (see Section 3.15, *Transportation/Traffic*, of this Final EIR) the impacts are expected to be less than significant; however, Tier II could result in significant impacts. Under Alternative B, Tier I development would generate slightly fewer vehicle trips than the proposed Master Plan, and consequently would result in less than significant traffic impacts. Since Tier II development under Alternative B would be substantially reduced, as compared to the proposed Master Plan, it would substantially lessen the Tier II traffic impacts. However, because the impacts of Alternative B and Tier II development have not been quantified, the significance of potential impacts cannot be conclusively determined at this time. Thus, for the purposes of this Final EIR, and although Tier II development under Alternative B would likely generate substantially fewer vehicle trips than the proposed Master Plan, it may still result in unavoidable significant adverse traffic impacts.

Tier I development under this alternative and the proposed Master Plan, in conjunction with other cumulative development in the project area, could result in significant cumulative traffic impacts on local intersections and freeway mainline segments and ramps. Tier II development under this alternative and the proposed Master Plan could also result in a cumulatively considerable contribution to significant cumulative traffic impacts, although Tier II under Alternative B would result in less of a contribution than the proposed Master Plan.

Tribal Cultural Resources

Tier I and Tier II development under the proposed Master Plan has the potential, during construction grading and excavation, to disturb, damage, or destroy tribal cultural resources, if present within soils on the campus, which would be a significant impact that can be reduced to less than significant with implementation of proposed mitigation measures. Since Tier I of Alternative B would result in slightly less development than the proposed Master Plan, the potential for encountering tribal cultural resources would be slightly reduced but potential impacts would still be considered to be significant before mitigation and less than significant after implementation of proposed mitigation measures. Under Tier II of Alternative B, the substantial reduction in building square footage and the number of new buildings would substantially lessen, but not eliminate, the potential for encountering tribal cultural resources during construction. Consequently, the Tier II impacts of this alternative, similar to the proposed Master Plan, would be potentially significant before mitigation but can be reduced to less than significant with implementation of proposed mitigation measures.

Implementation of **MM-CR-1** through **MM-CR-6**, identified in Section 3.4, *Cultural Resources*, of this Final EIR, would also mitigate any impacts to tribal cultural resources (see Section 3.16, *Tribal Cultural Resources*, of this Final EIR). Consequently, neither the proposed Master Plan nor Alternative B would contribute to significant cumulative impacts that are less than cumulatively considerable.

Utilities/Service Systems

Under Tiers I and II of the proposed Master Plan, construction of new on-campus underground utility lines to serve proposed new buildings could result in impacts to archaeological or paleontological resources, if present, a potentially significant impact that can be reduced to less than

significant with implementation of **MM-UTL-1** and **MM-UTL-2** (see Section 3.17, *Utilities/Service Systems*, of this Final EIR). Under Alternative B, Tier I would result in slightly less development; as consequence, the potential for construction to affect archaeological or paleontological resources would be slightly reduced, but the impact would still be potentially significant before mitigation and less than significant after the implementation of proposed mitigation measures. Under Tier II, the potential for encountering these resources would be substantially reduced because of the markedly lower level of development, but not eliminated; therefore, the potential impacts would remain significant, but can be reduced to less than significant with implementation of **MM-UTL-1** and **MM-UTL-2**.

The increased consumption of utilities, including water consumption and the generation of solid waste and wastewater, due to operation of new Tier I development that could occur on the campus under the Master Plan is not expected to result in significant environmental impacts. Similarly, Tier I development under Alternative B, which proposes slightly less development and would therefore result in a slighter decrease in the consumption of utilities than would occur under Tier I of the Master Plan, would also result in less-than-significant impacts to utilities and service systems.

Under Tier II of the Master Plan, the increasing long-term demand for water is considered a potentially significant impact because the Tier II development could extend beyond the Los Angeles Department of Water and Power's Urban Water Management Plan (UWMP) projections, which extend through 2040. Although the city has determined that, based on UWMP projections, adequate supplies of water are available to serve Tier I development, it has not yet been determined that water supplies would be adequate to serve any Tier II development beyond the year 2040. Therefore, water supply impacts for projects constructed beyond the year 2040 could be potentially significant. Although Tier II development and the resulting water consumption under Alternative B would be substantially less than what could occur under the proposed Master Plan, the impacts are nonetheless considered to be potentially significant for development that occurs beyond the year 2040.

With regards to wastewater, the city of Los Angeles Bureau of Sanitation (BOS) has concluded that the sewer system might be able to accommodate the total flow for the proposed project, but that further detailed gauging and evaluation may be needed as part of the permit process for individual projects so that a specific sewer connection point can be identified. If BOS determines that there is insufficient capacity in the local sewer lines to serve an individual future project, then the impact would be considered to be significant. Therefore, Tiers I and II of the proposed Master Plan could result in potentially significant impacts on wastewater conveyance capacity. Since Tier I and II development combined under Alternative B would result in substantially less building square footage than in the proposed Master Plan, the potential of local sewer lines having inadequate capacity to accommodate project flows would be reduced, but the impact is still considered potentially significant.

Because the planning horizon for the Master Plan and Alternative B extends well into the future (beyond year 2040), it is possible that yet-unidentified improvements to the regional provision of utility infrastructure may be required over the life of the project. Therefore, it is anticipated that the proposed Master Plan and Alternative B, in conjunction with other regional development, could result in significant cumulative impacts on utilities.

Wildfire Hazards

Construction equipment utilizes flammable fuels and solvents, and the operation of construction equipment (e.g., bulldozers and excavators) could result in sparks, thereby increasing fire risks under Alternative B, as well as the proposed Master Plan. However, implementation of BMPs during

construction and adherence to County and city regulations and requirements would reduce potential risks (see Section 3.18, *Wildfire Hazards*, of this Final EIR). Therefore, construction impacts would be less than significant.

The Master Plan and Alternative B would both increase building square footage, but also result in the conversion from the existing uses of ignitable fuels to maintained landscapes and new development that is ignition-resistant. Therefore, the proposed Master Plan and Alternative B would function as a fuel-reduction project. Adherence to current building codes and standards, which require defensible space to be provided around the perimeter of all structures located within Very High Fire Hazard Severity Zones (VHFHSZ), would also ultimately reduce the potential flammability of the landscape. In addition, the Master Plan and Alternative B both would provide improved access throughout the campus, which would improve firefighters' access for wildland firefighting efforts. Therefore, with adherence to these fire suppression design requirements, and the conversion of open space to developed land, the potential impacts related to wildfires would be less than significant under both this alternative and the proposed Master Plan.

With implementation of BMPs and the reduction in fire hazards on the campus that would occur due to the new development under the Master Plan and Alternative B, neither plan would result in a cumulatively considerable contribution to significant cumulative wildfire hazards impacts.

Project Objectives Met

Alternative B would result in a slight reduction in Tier I building square footage and a more substantial reduction under Tier II by consolidating functions and repurposing existing buildings. As a consequence, most, but not necessarily all, of the services and uses that would be provided on the campus under the proposed Master Plan would also be provided under Alternative B. Additionally, most, but not necessarily all, of the related ancillary Master Plan improvements, including new landscaping, open space, utility infrastructure, and pedestrian improvements, would occur under Alternative B. Nonetheless, it is anticipated Alternative B, similar to the proposed Master Plan, would fulfill all of the project objectives, as detailed in Table 5-1. Summary of Impacts of the Proposed Project and Alternatives to the Proposed Project, to follow.

5.4 Environmental Comparison of CEQA Alternatives

Table 5-1 identifies the level of significance of each impact under each of the alternatives to enable the reader to compare the impacts of the proposed Master Plan to the No Project and Reduced Development alternatives.

Table 5-1. Summary of Impacts of the Proposed Project and Alternatives to the Proposed Project

Environmental Topic	Proposed Project	Alternative A–No Project		Alternative B–Reduced Development
		No Build	Limited Development	
Aesthetics	LTS (Tiers I and II)	NI or LTS	NI or LTS	LTS (Tiers I and II)
Air Quality	LTSM (Tier I) SIG (Tier II)	NI or LTS	NI or LTS	LTSM (Tiers I and II)
Biological Resources	LTSM (Tiers I and II)	NI or LTS	NI or LTS	LTSM (Tiers I and II)
Cultural Resources	LTSM (Tiers I and II)	NI or LTS	NI or LTS	LTSM (Tiers I and II)

Environmental Topic	Proposed Project	Alternative A–No Project No Build	Alternative A–No Project Limited Development	Alternative B–Reduced Development
Energy	LTS	NI or LTS	NI or LTS	LTS
Geology/Soils	LTSM (Tiers I and II)	NI or LTS	NI or LTS	LTSM (Tiers I and II)
Greenhouse Gas Emissions	SIG (Tiers I and II)	NI or LTS	NI or LTS	SIG (Tiers I and II)[1]
Hazards and Hazardous Materials	LTSM (Tiers I and II)	NI or LTS	NI or LTS	LTSM (Tiers I and II)
Hydrology/ Water Quality	LTSM (Tiers I and II)	NI or LTS	NI or LTS	LTSM (Tiers I and II)
Land Use/Planning	LTS (Tiers I and II)	NI or LTS	NI or LTS	LTS (Tiers I and II)
Noise	SIG (Tiers I and II)	NI or LTS	NI or LTS	SIG (Tiers I and II)[1]
Population/Housing	LTS (Tiers I and II)	NI or LTS	NI or LTS	LTS (Tiers I and II)
Public Services	LTSM (Tiers I and II)	NI or LTS	NI or LTS	LTSM (Tiers I and II)
Recreation	LTS (Tiers I and II)	NI or LTS	NI or LTS	LTS (Tiers I and II)
Transportation/ Traffic	LTS (Tier I) SIG (Tier II)	NI or LTS	NI or LTS	LTS (Tier I) SIG (Tier II)[1]
Tribal Cultural Resources	LTSM (Tiers I and II)	NI or LTS	NI or LTS	LTSM (Tiers I and II)
Utilities and Service Systems	LSTS (Tier I) SIG (Tier II)	NI or LTS	NI or LTS	LSTS (Tier I) SIG (Tier II)[1]
Number of Project Objectives Met	**8 of 8**	**None**	**None or few**	**8 of 8**

NI = No impact; LTS = Less-than-significant impact; LTSM = Less-than-significant impact with mitigation; SIG = Unavoidable significant or potentially significant adverse impact

[1] Impacts would remain significant or potentially significant, but may be substantially lessened compared to the proposed Master Plan due to substantial reductions in Tier II building square footage.

Source: ICF 2019.

5.5 Alternatives Eliminated from Detailed Consideration

Five Master Plan options, including the preferred Master Plan, were developed based upon the Master Plan team's evaluation of the existing site, understanding of proposed program development, input from community residents and County stakeholders, and vision for the site. The four options to the preferred Master Plan, which are described below, propose different solutions to the inherent challenges of the campus. The pros and cons of each of the Master Plan options below were taken into account, along with community and stakeholder input. The planning process led to Nature's Edge being chosen as the preferred Master Plan, which is described in detail in Chapter 2, *Project Description*, of this Final EIR, because it best met the objectives of the Master Plan, the community, and County's needs, and would result in fewer impacts to the environment and community.

All of the Master Plan options described below would result in similar levels of development to what could occur under the proposed Master Plan in order to meet the medical center and County's needs. The differences between these options and the proposed Master Plan consist primarily of where

new development would occur on the campus and how that development would be configured. As a consequence, site-specific impacts may vary among the options but because they would result in similar overall levels of development to the proposed Master Plan, it is anticipated that these alternatives would not avoid the significant impacts of the proposed Master Plan. Therefore, pursuant to Section 15126.6(c) of the State CEQA Guidelines, these options were eliminated from detailed consideration in this Final EIR.

During the preparation of this Final EIR, the County considered another alternative that included the same Tier I development as under Alternative B and the same Tier II development as the proposed Master Plan. However, because this alternative would only result in a marginal decrease in the total amount of development on the campus compared to what could occur under the proposed Master Plan, it would not avoid or substantially lessen the Master Plan's significant impacts. For that reason, this alternative was eliminated from detailed consideration in this Final EIR.

5.5.1 Boulevard Site Plan Option

The Boulevard concept would focus development of the medical center around the existing Hospital Tower. Buildings under this planning option would be located around a central spine that would run east-west through the campus. Similar building functions would be further defined within zones or blocks, with dedicated entry plazas at each for patients and visitors to be directed to their destination. Building placement would create an urbanized environment and allow for land in the west and east of campus to be used for other development (Figure 5-1). Because this option would result in more dense development within the center of the campus and allow for additional development at the west and east ends of the campus, it could conceivably result in greater construction and operational impacts than the proposed Master Plan.

Figure 5-1. Boulevard Site Plan Option Zoning

5.01 Boulevard - Site Plan

5.02 Boulevard - Buildings and Open Space Diagram

5.03 Boulevard - Circulation Diagram

Source: The Smith Group 2015.

5.5.2 Compact Site Plan Option

The Compact concept is the most dense and most urban design approach. Outpatient and inpatient services would be focused around the existing Hospital Tower. Similar to the Boulevard concept, remaining land would be available to use for other development opportunities. By concentrating the buildings in close proximity to one another, the height of the building becomes an issue, as tall structures are constructed in an otherwise suburban context (Figure 5-2). The taller height of the buildings could obstruct panoramic views of the San Fernando Valley from the recreational trails north of the campus of the San Fernando Valley and views from residents to the south of the hills north of the campus. Additionally, similar to the Boulevard option, remaining land could be developed in the future, potentially resulting in more development and greater impacts than could occur under the proposed Master Plan.

Figure 5-2. Compact Site Plan Option Zoning

5.07 Compact - Site Plan

5.08 Compact - Buildings and Open Space Diagram

5.09 Compact - Circulation Diagram

Source: The Smith Group 2015.

5.5.3 Terrace Site Plan Option

The Terrace concept is similar to that of Nature's Edge in the Master Plan, with a utilization of the natural slope of the site to create an arrangement of landscape areas. Under this concept, the distinction between the landscape and building is blurred. The new Ambulatory Care Center would be placed directly in front of the west façade of the existing hospital to give it prominence and provide a new front door and entry point for the campus (Figure 5-3, below). This option would likely result in similar impacts to the proposed Master Plan.

Figure 5-3. Terrace Site Plan Option Zoning

5.10 Terrace - Site Plan

5.11 Terrace - Buildings and Open Space Diagram

5.12 Terrace - Circulation Diagram

Source: The Smith Group 2015.

5.5.4 Wilson Canyon Site Plan Option

The Wilson Canyon concept proposed to locate the future hospital to the east of the existing facility. The advantage to this scheme is that the future hospital zone would be located outside of the Alquist-Priolo earthquake fault zones. The Ambulatory Care Center would be located along Olive View Drive and directly connected to the existing hospital. Other campus uses, such as the UCLA Medical office buildings, mental health, and Long-Term Care facility would be located to the west end of the campus (Figure 5-4). This option would likely result in greater biological resources impacts than the proposed Master Plan because it would place the new hospital in an area of the campus containing California sagebrush scrub habitat, which is potential habitat for the coastal California gnatcatcher (a California Species of Special Concern and a federal threatened species). Other impacts would likely be similar to the proposed Master Plan.

Figure 5-4. Wilson Canyon Site Plan Option Zoning

5.13 Wilson Canyon - Site Plan

5.14 Wilson Canyon - Buildings and Open Space Diagram

5.15 Wilson Canyon - Circulation Diagram

Source: The Smith Group 2015.

5.5.5 Summary

These options were presented for discussion and review at three Master Plan community outreach meeting held at the Olive View–UCLA Medical Center Auditorium in June, November, and May of 2015. The objective of obtaining community input was to better understand their expectations and learn from, reflect on, and respond to their needs when developing the Master Plan. Each option was presented to the attendees at that meeting, and specific discussion was focused for each option. Community residents provided their critical comments and views for each of the options, and their ideas and comments were recorded.

Similarly, in meetings with the County and consultant team, the options were evaluated and reviewed to understand the benefits and disadvantages of each. The following criteria were considered:

- Improved land use flexibility;
- Sustainability;
- Enhanced circulation and wayfinding;
- Accommodation of phased development;
- Optimized future inpatient zone;
- Proximity to other program components;
- Optimized key program adjacencies;
- Engagement with community;
- Opportunities for development partnerships;
- Maximized greenspace;
- Supportive of development partnerships with UCLA; and
- Minimized travel distance to parking.

The Master Plan team provided feedback and comments on each proposed concept, with the review focused on traffic and wayfinding, utility routing, demolition and retention of existing buildings and infrastructure, stormwater management, parking demand and projections, site lighting, structural design, grading, logistics and material management, and cost impacts. This information was then used by the Master Plan team to refine the options into what is now the proposed Master Plan that is described in Chapter 2, *Project Description*, and evaluated in Chapter 3, *CEQA Environmental Impact Analysis,* of this Final EIR.

5.6 Environmentally Preferred and Superior Alternative

In compliance with CEQA, an EIR must identify an *environmentally superior* alternative. The No Project Alternative (No Project/No Build and No Project/Limited Development scenarios) would be the environmentally superior alternative because it would likely result in few or none of the adverse environmental impacts of the proposed Master Plan. However, it should also be recognized that there could be adverse health, community, and environmental consequences from making no or limited improvements to the existing campus, and none or few of the medical, employment,

recreational, and other community benefits that could occur under the proposed Master Plan would occur under the two No Project Alternative scenarios.

Pursuant to CEQA regulations (see CEQA Guidelines Section 15126.6(e)(2)), when the No Project Alternative is identified as the environmentally superior alternative, the EIR will also identify an environmentally superior alternative from among the other alternatives. Alternative B, in particular Tier II development, could result in a reduction in the severity and extent of impacts compared to the proposed Master Plan prior to implementation of proposed mitigation measures. This alternative would also likely avoid the potentially significant (after mitigation) Tier II construction air quality impacts of the proposed Master Plan and may also avoid the potentially significant traffic impacts under Tier II of the Master Plan. Therefore, Alternative B would be the environmentally superior build alternative.

Chapter 6
List of Preparers

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6.7 Watearth

Jennifer Walker, Hydrology

Sarah Demaret, Hydrology

Jennifer Lundberg, Hydrology

Chapter 7
References

7.1 Printed References

7.1.1 Aesthetics

California Department of Transportation (Caltrans). 2008. *Scenic Highway Guidelines*. Available: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed: May 9, 2019.

------. 2016. *Caltrans Landscape Architecture Scenic Highways Program*. Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm. Accessed: July 2016.

City of Los Angeles. 2012. *Sylmar Community Plan*. Department of City Planning. September. Available: https://planning.lacity.org/cpu/Sylmar/Draft/Draft_CommunityPlan.pdf. Accessed: July 2016.

------. 2017. *Sylmar Community Plan General Plan Land Use Map*. Available: https://planning.lacity.org/complan/valley/PDF/sylplanmap.pdf. Accessed: May 9, 2019.

Federal Highway Administration (FHA). 1981 (1983 reprint). *Visual Impact Assessment for Highway Projects.* Document DOT-FH-11-9694. Washington, D.C.: U.S. Department of Transportation.

7.1.2 Air Quality

California Air Resources Board (CARB). 2000. *Implementation/Maintenance Plan and Redesigntation Request for Sacramento $PM_{2.5}$ Nonattainment Area*. October.

------. 2004. 2004 Revision to the California State Implementation Plan for Carbon Monoxide, Updated Maintenance Plan for Ten Federal Planning Areas. July 22.

------. 2009. *The California Almanac of Emissions and Air Quality*. Available: https://www.arb.ca.gov/aqd/almanac/almanac09/almanac2009all.pdf. Accessed: April 12, 2019.

------. 2016. Ambient Air Quality Standards. Available: https://ww3.arb.ca.gov/research/aaqs/aaqs2.pdf. Accessed: April 12, 2019.

------. 2017. Area Designation Maps. Available: https://www.arb.ca.gov/desig/adm/adm.htm. Accessed: April 13, 2019.

------. 2019a. *iADAM: Air Quality Data Statistics–Top 4 Summary.* Available: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed: April 12, 2019.

------. 2019b. *Carbon Monoxide & Health*. What is carbon monoxide? Available: https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health. Accessed: February 26, 2019.

Fehr & Peers. 2019. *Draft Traffic Impact Analysis for the Olive View-UCLA Medical Center Master Plan Project*. March.

South Coast Air Quality Management District (SCAQMD). 1993. *CEQA Air Quality Handbook*. November.

------. 2005. *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*. Available: https://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4. Accessed: May 16, 2019.

------. 2006. *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology*. Available: https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/particulate-matter-(pm)-2.5-significance-thresholds-and-calculation-methodology/final_pm2_5methodology.pdf?sfvrsn=2. Accessed: April 13, 2019.

------. 2008. *Localized Significance Threshold Methodology for CEQA Evaluations*. Available: https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2. Accessed: April 13, 2019.

------. 2009. *SCAQMD Modeling Guidance for AERMOD.* Available: http://www.aqmd.gov/home/air-quality/meteorological-data/modeling-guidance. Accessed: March 2019.

------. 2015. MATES IV Carcinogenic Risk Interactive Map. Available: https://scaqmd-online.maps.arcgis.com/apps/webappviewer/index.html?id=470c30bc6daf4ef6a43f0082973ff45f. Accessed: April 26, 2019.

------. 2015a. *Final Report: Multiple Air Toxics Exposure Study in the South Coast Air Basin*. Available: https://www.aqmd.gov/docs/default-source/air-quality/air-toxic-studies/mates-iv/mates-iv-final-draft-report-4-1-15.pdf?sfvrsn=7. Accessed: May 1, 2019.

------. 2015b. SCAQMD Amicus Curiae Brief for the *Sierra Club v. County of Fresno (Friant Ranch, L.P.) (2018) ___ Cal.5th ___, Case No. S219783* (Friant Ranch).

------. 2017. *2016 Air Quality Management Plan*. March. Available: https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan. Accessed: May 1, 2019.

------. 2017a. *Final Program Environmental Impact Report for the 2016 AQMP*. Available: https://www.aqmd.gov/docs/default-source/ceqa/documents/aqmd-projects/2016/2016aqmpfpeir.pdf. Accessed: April 12, 2019.

------. 2017b. *2016 Air Quality Management Plan*–Appendix I. March.

------. 2019. *Air Quality Significance Thresholds*. Available: https://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. Accessed: May 2019.

------. 2019. Facility Information Detail (FIND) data for Facility ID 3093. Available: https://xappprod.aqmd.gov/find//facility/AQMDsearch?facilityID=3093. Accessed: April 26, 2019.

U.S. Environmental Protection Agency (EPA). 2017. *Revisions to the Guideline on Air Quality Models: Enhancements to the AERMOD Dispersion Modeling System and Incorporation of Approaches to Address Ozone and Fine Particulate Matter*. Available: https://www3.epa.gov/ttn/scram/guidance/guide/appw_17.pdf. Accessed: March 2019.

------. 2019a. *Criteria Pollutant Nonattainment Summary Report*. Available: https://www3.epa.gov/airquality/greenbook/ancl3.html. Accessed: April 13, 2019.

------. 2019b. *Outdoor Air Quality Data Monitor Values Report*. Available: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report. Accessed: April 12, 2019.

------. 2019c. *Health Effects of Ozone Pollution*. Available: https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution. Accessed: February 26, 2019.

------. 2019d. *Health Effects of In the General Population*. Available: https://www.epa.gov/ozone-pollution-and-your-patients-health/health-effects-ozone-general-population. Accessed: February 26, 2019.

Western Regional Climate Center. 2019. *Climate Summary for Burbank Valley Pump Station (041194)*. Available: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca1194. Accessed: April 23, 2019.

------. 2016. *Average Wind Direction and Speed.* Available: https://wrcc.dri.edu/cgi-bin/clilcd.pl?ca23174. Accessed: June 14, 2016.

7.1.3 Biological Resources

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken (eds.). 2012. The Jepson Manual: Vascular Plants of California, 2nd edition. Berkeley, CA: University of California Press. 1,568 pp.

California Department of Fish and Wildlife (CDFW). 2015. Special Vascular Plants, Bryophytes, and Lichens List. Sacramento, CA: California Department of Fish and Wildlife.

------. 2015b. Special Animals List. Sacramento, CA: California Department of Fish and Wildlife.

------. 2016a. *California Natural Diversity Database*. Sacramento, CA: California Department of Fish and Wildlife, Wildlife and Habitat Data Analysis Branch. Data Date: May 26, 2016.

------. 2018. *Protocols for Surveying and Evaluating Impacts to Special Species Status Native Plant Populations and Natural Communities.* Available: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline. Accessed May 26, 2016.

California Native Plant Society (CNPS). 2016. *Inventory of Rare and Endangered Plants* (online edition, v7). San Fernando and immediately surrounding USGS 7.5-minute quadrangle maps. Sacramento, CA. Available: http://www.rareplants.cnps.org/. Accessed: May 26, 2016.

Google Earth. 2016. Aerial Imagery for the project site. Date of Image: February 6, 2016. Accessed: June 2016.

Sawyer, J. O., T. Keeler-Wolf, J. Evens. 2009. *A Manual of California Vegetation*. 2nd edition. Sacramento, CA: California Native Plant Society.

U.S. Department of Agriculture, Natural Resources Conservation Service (USDA/NRCS). 2016. Soil Survey Geographic (SSURGO) Database. Available: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/geo/?cid=nrcs142p2_053627.

United States Fish and Wildlife Service (USFWS). 1997. Coastal California gnatcatcher (*Polioptila californica californica*) presence/absence protocol survey guidelines. Unpublished report. USFWS Field Office, Carlsbad, CA.

------. 2016a. *Critical Habitat GIS Data*. Carlsbad, CA. Available: http://www.fws.gov/carlsbad/GIS/CFWOGIS.html. Accessed: May 26, 2016.

------. 2016b. National Wetlands Inventory–Wetlands and Deepwater Habitats of the Conterminous United States. Vector digital data: CONUS_wet_poly. Division of Habitat and Resource Conservation, Washington, D.C. Available: https://www.fws.gov/wetlands/Data/Mapper.html.

United States Geological Survey (USGS). 1997. San Fernando, California 7.5-minute quadrangle map.

7.1.4 Cultural Resources

Caldwell, Mark. 1988. *The Last Crusade: The War on Consumption: 1862–1954*. University of Chicago Press: Chicago, IL.

City of Los Angeles 2015. Survey LA. How to find designated historic properties. Available: https://preservation.lacity.org/survey/find. Accessed: May 4, 2015.

Dibblee, Thomas W., Jr. 1991. *Geologic Map of the San Fernando and Van Nuys (north ½) Quadrangles, Los Angeles County, California*. H.M. Ehrenspeck (ed.). Dibblee Geological Foundation Map DF-33.

Lev-Tov, Justin, and Molly Valasik. 2016. *Archaeological Resources Assessment for the Olive View–UCLA Medical Center Master Plan EIR, Los Angeles County, California.* Report prepared for ICF International, Los Angeles, CA. Report prepared by Cogstone, Orange, CA.

McCawley, W. 1996. *The First Angelinos: The Gabrielino Indians of Los Angeles*. Malki Museum Press/Ballena Press, Banning, CA.

National Park Service. 1990 (revised 1991,1995, 1997). *National Register Bulletin 15.*

Sutton and Gardner. 2010. Reconceptualizing the Encinitas Tradition of Southern California. *Pacific Coast Archaeological Society Quarterly.* 42(4): 1–64.

Sutton. 2010. The Del Rey Tradition and its Place in the Prehistory of Southern California*. Pacific Coast Archaeological Society Quarterly.* 42(4): 1–64.

U.S. Geological Survey. 1996. USGS Response to an Urban Earthquake: Northridge '94 U.S. Geological Survey Open-File Report 96-263. Available: http://pubs.usgs.gov/of/1996/ofr-96-0263/index.html. Accessed: February 19, 2013.

Wallace. 1955. A Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology*. 1(1):124–154.

Warren. 1968. Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, pp. 1–14. Eastern New Mexico University Contributions in Anthropology 1(3). Portales.

Yerkes. 1997. Preliminary Geologic Map of the San Fernando 7.5' Quadrangle, Southern California: A Digital Database. U.S. Geological Survey Open-File Report 97-163. Available: http://pubs.usgs.gov/of/1997/of97-163/. Accessed: February 19, 2013.

7.1.5 Energy

California Energy Commission. 2017. *Integrated Energy Policy Report*. May. Available: https://www.energy.ca.gov/2017_energypolicy/. Accessed: April 5, 2019.

Los Angeles County. 2015. *General Plan 2035.* Chapter 9, Conservation and Natural Resources Element. Available: http://planning.lacounty.gov/generalplan. Accessed: May 7, 2019.

Los Angeles County Board of Supervisors. 2013. *California Green Building Standards Code (Title 31).* November. Available: https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT31GRBUSTCO. Accessed: April 5, 2019.

Los Angeles Department of Water and Power (LADWP). 2015. *Power Integrated Resources Plan.* Available: https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/M419.pdf. Accessed: April 5, 2019.

------. 2016. *Final Power Strategic Long-Term Resource Plan.* Available: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-p-doc?_adf.ctrl-state=hnreuulbw_71&_afrLoop=43351309356147. Accessed May 8, 2019.

------. 2019. *Facts and Figures.* Available: https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-power/a-p-factandfigures?_adf.ctrl-state=hnreuulbw_34&_afrLoop=43127156803757. Accessed May 8, 2019.

Luna & Glushon. 2009. *The California Oil and Gas Report*. October. Available: http://www.caloilgas.com/state-energy-resources/. Accessed: April 5, 2019.

Southern California Gas Company (SoCalGas). 2018. *California Gas Report.* July. Available: https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf. Accessed: April 5, 2019.

------. 2019. *Company Profile.* Available: https://www.socalgas.com/about-us/company-profile. Accessed May 8, 2019.

U.S. Energy Information Administration. 2012. *Annual Energy Review*. January. Available: http://www.eia.gov/totalenergy/data/annual/index.cfm. Accessed: April 5, 2019.

7.1.6 Geology and Soils

Bureau of Land Management. 2007. *Potential Fossil Yield Classification (PFYC) System for Paleontological Resources on Public Land*. Available: https://www.blm.gov/policy/im-2008-009. Accessed: May 8, 2016.

California Department of Conservation, California Geological Survey. 2007. *Fact Sheet, Seismic Hazards Zonation Program Survey*. Available: https://www.conservation.ca.gov/cgs/Documents/Program-SHP/SHZ_FactSheet.pdf. Accessed: July 8, 2016.

City of Los Angeles. 1996. *Safety Element of the Los Angeles City General Plan.* Available: http://cityplanning.lacity.org/cwd/gnlpln/SaftyElt.pdf. Accessed: July 8, 2016.

Grillo and Raum. June 2016. *Paleontological Technical Study: Olive View–UCLA Medical Center Campus Master Plan Project Community of Sylmar, Los Angeles County, California*.

Jefferson, G.T. 1991. A catalog of Late Quaternary vertebrates from California. *Technical Reports 7:1–129.* Natural History Museum of Los Angeles County.

McLeod, P.C. and D. Daitch. 2007. *Paleontological overview of oil shale and tar sands areas in Colorado, Utah and Wyoming: U.S. Department of Energy, Argonne National Laboratory Report Prepared for the U.S. Department of Interior Bureau of Land Management*, 468 p. and six maps (scale 1:500,000).

Ninyo & Moore. 2016. *Preliminary Geotechnical Evaluation for Olive View–UCLA Medical Center Master Plan*.

Paleo Solutions. 2016. *Paleontological Technical Study: Olive View–UCLA Medical Center Campus Master Plan Project.*

PaleoBiology Database (PBDP). 2016. Online search of the PaleoBiology Database. Available: https://paleobiodb.org/#/. Accessed: May 26, 2016.

Petersen, M.D., A.D. Frankel, S.C. Harmsen, C.S. Mueller, K.M. Haller, R.L. Wheeler, R.L. Wesson, Y. Zeng, O.S. Boyd, D.M. Perkins, N. Luco, E.H. Field, C.J. Wills, and K.S. Rukstales. 2008, *Documentation for the 2008 Update of the United States National Seismic Hazard Maps: U.S. Geological Survey Open-File Report 2008–1128*, 61 p. Available: https://pubs.usgs.gov/of/2008/1128/.

SmithGroup JJR. 2015. *Olive View–UCLA Medical Center Campus Master Plan.*

University of California Museum of Paleontology (UCMP). 2016. Online search of the University of California Museum of Paleontology database. Available: https://ucmp.berkeley.edu/collections/. Accessed: May 26, 2016.

United States Geological Survey. 2017. *National Seismic Hazard Maps–Interactive Fault Map*. Available: https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf.

7.1.7 Greenhouse Gas Emissions

California Air Pollution Control Officers Association (CAPCOA). 2008. *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January.

California Air Resources Board (CARB). 2016. *2030 Target Scoping Plan Concept Paper*. Available: http://www.arb.ca.gov/cc/scopingplan/document/2030_sp_concept_paper2016.pdf. Accessed: June 17, 2019.

------. 2018a. *Global Warming Potentials.* Last Reviewed June 22. Available: https://www.arb.ca.gov/cc/inventory/background/gwp.htm#transition. Accessed: April 25, 2019.

------. 2018b. *California Greenhouse Gas Inventory for 2000–2016—by Category as Defined in the 2008 Scoping Plan*. June 22. Available:

https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_sum_2000-16.pdf. Accessed: April 25, 2019.

------. 2019. *Regional Plan Targets.* Available: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Access: April 27, 2019.

California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment Statewide Summary Report*. Available: http://www.climateassessment.ca.gov/. Accessed: April 25, 2019.

County of Los Angeles. 2015. *Final Unincorporated Los Angeles County Community Climate Action Plan 2020*. August.

Governor's Office of Planning and Research. 2018. *Transportation Impacts (SB 743): CEQA Guidelines Update and Technical Advisory*. Available: http://www.opr.ca.gov/ceqa/updates/sb-743/. Accessed: May 20, 2019.

------. 2018. *CEQA and Climate Change*. Available: http://opr.ca.gov/ceqa/climate-change.html. Accessed: May 20, 2019.

Intergovernmental Panel on Climate Change (IPCC). 2007. *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. Available: https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf. Accessed: April 25, 2019.

------. 2013. *Climate Change 2013: The Physical Science Basis*. Available: https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf. Accessed: April 25, 2019.

------. 2018. *Global Warming of 1.5°C. Contribution of Working Group I, II, and III*. Available: https://www.ipcc.ch/sr15/. Accessed: April 25, 2019.

Justia. 2016. *Center for Biological Diversity v. Dept. of Fish and Wildlife*. Available: https://law.justia.com/cases/california/court-of-appeal/2016/b245131m.html. Accessed: May 19, 2019.

------. 2018. *Justia Opinion Summary: Golden Door Properties v. Co. of San Diego*. Available: https://law.justia.com/cases/california/court-of-appeal/2018/d072406.html. Accessed: May 19, 2019.

------. 2018. *City of Long Beach v. City of Los Angeles*. Available: https://law.justia.com/cases/california/court-of-appeal/2018/a148993.html. Accessed: May 19, 2019.

Office of the Governor. 2007. *Executive Order S-01-07*. Available: https://www.arb.ca.gov/fuels/lcfs/eos0107.pdf. Accessed: May 20, 2019.

Southern California Association of Governments (SCAG). 2015. *Draft Program Environmental Report for the 2016 Regional Transportation Plan/Sustainable Communities Strategy*. December.

United States Environmental Protection Agency (EPA). 2009. *Endangerment and Cause or Contribute Findings for Greenhouse Gases under the Section 202(a) of the Clean Air Act*. Available:

https://www.epa.gov/ghgemissions/endangerment-and-cause-or-contribute-findings-greenhouse-gases-under-section-202a-clean. Accessed: May 19, 2019.

7.1.8 Hazardous and Hazardous Materials

County of Los Angeles. 1998. *Los Angeles County Operational Emergency Response Plan*. Approved February 7, 1998. Available: https://www.caloes.ca.gov/AccessFunctionalNeedsSite/Documents/LA%20County%20OA%20Emergency%20Response%20Plan.pdf. Accessed June 8, 2016.

County of Los Angeles. 2015. Los Angeles County 2035 General Plan. Adopted October 6, 2015. Available: http://planning.lacounty.gov/generalplan.

County of Los Angeles Department of Public Works, Disaster Route Maps. 2012. County of Los Angeles North Operational Area. Available: https://dpw.lacounty.gov/dsg/DisasterRoutes/map/disaster_rdm-North.pdf. Accessed December 30, 2017.

Ninyo & Moore. 2016. *Phase I Hazardous Materials Assessment Olive View–UCLA Medical Center.*

7.1.9 Hydrology/Water Quality

California Stormwater Quality Association. 2003. *Stormwater Best Management Practices Handbook*, *Industrial/Commercial*.

City of Los Angeles Department of Public Works. 2009. *Water Quality Compliance Master Plan for Urban Runoff, Clean Stormwater/Urban Runoff Master Plan*. May.

------. 2011. *Developed Best Management Practices Handbook*, Low Impact Development Manual, Part B Planning Activities, 4th Edition. June.

City of Los Angeles Emergency Management Department. 2011. *Hazard Mitigation Plan*. January.

City of Los Angeles. 2012. *Granada Hills–Knollwood & Sylmar Community Plans EIR.* October.

County of Los Angeles Department of Public Works. 2007. *Construction Site BMPs Manual*.

------. Los Angeles County Department of Public Works. 2006. *Hydrology Manual*.

Ninyo and Moore. 2016a. *Preliminary Geotechnical Report.* March.

------. 2016b. *Phase 1 Hazardous Material Assessment*. March.

Smithgroup JJR. 2015. *Olive View–UCLA Medical Center Campus Master Plan*. August.

------. 2016. *Olive View–UCLA Medical Center EIR*. May.

Southern California Coastal Water Research Project. Comparison of stormwater pollutant loading by land use type. Stein, E.D., L,L. Tiefenthaler and K.C. Schiff. Southern California Water Dialogue. 2008. *Groundwater Assessment Study for the Metropolitan Water District of Southern California*. May.

State Water Resources Control Board. 2004. *Technical Manual for Stormwater Best Management Practices in the County of Los Angeles*. February.

------. n.d. *Los Angeles County MS4 Permit*. Available: http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/.

U.S. Code. 1996. *The Safe Drinking Water Act of 1996.* Available: https://www.govinfo.gov/content/pkg/CPRT-106SPRT67528/pdf/CPRT-106SPRT67528.pdf. Accessed May, 2016.

U.S. Environmental Protection Agency (EPA). 2001. *Water Quality Standards: Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California (California Toxics Rule).* Available: https://www.epa.gov/wqs-tech/water-quality-standards-establishment-numeric-criteria-priority-toxic-pollutants-state. Accessed May, 2016.

------. 2006. *Guide to Stormwater Pollutant Concentrations*.

------. 2009. *SUSTAIN–A Framework for Placement of Best Management Practices in Urban Watersheds to Protect Water Quality Report*. September.

------. 2010. *California's 2008–2010 Section 303(d) List of Impaired Waters*. Final List. Available: https://www.epa.gov/sites/production/files/2015-09/documents/final-decisltrenclosresponssumca2008-10-303d.pdf

Upper Los Angeles River Area (ULARA) Watermaster. Sylmar Basin. Available: http://ularawatermaster.com/index.html?page_id=915. Accessed May, 2016.

Watearth. 2016. *Hydrology Technical Memorandum for the Los Angeles County UCLA–Olive View Medical Center EIR*.

7.1.10 Land Use and Planning

City of Los Angeles. n.d. *The Framework Element of the Los Angeles General Plan*. Available: http://cityplanning.lacity.org/cwd/framwk/fwhome0.htm. Accessed: May 26, 2016.

City of Los Angeles Department of City Planning. 2015. *Sylmar Community Plan*. June 10. Available: http://planning.lacity.org/complan/pdf/sylcptxt.pdf. Accessed: May 27, 2016.

------. 2019. Department web page. Available: http://cityplanning.lacity.org/. Accessed: May 20, 2016.

County of Los Angeles. 2015. *Los Angeles County 2035 General Plan.* Available: http://planning.lacounty.gov/generalplan. Accessed: May 20, 2016.

The Smith Group, County of Los Angeles. 2016. *Olive View–UCLA Medical Center Campus Master Plan Project*. https://www.smithgroup.com/projects/olive-view-ucla-medical-center-master-plan.

Southern California Association of Governments. 2016. *Southern California Association of Governments 2016–2040 Regional Transportation Plan/Sustainable Communities Strategy.* Available: http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS.pdf.

7.1.11 Noise

Caltrans. 2013a. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. Final. (CT-HWANP-RT-13-069.25.2.) Sacramento, CA. Prepared by: California Department of

Transportation, Division of Environmental Analysis, Environmental Engineering, Hazardous Waste, Air, Noise, & Paleontology Office, Sacramento, CA.

------. 2013b. *Transportation and Construction Vibration Guidance Manual*. Final. CT-HWANP-RT-13-069.25.3. September. Sacramento, CA.

------. 2014a. *2014 Traffic Volumes on California State Highways*. Compiled by: Division of Traffic Operations. Sacramento, CA. Available: https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/f0017652-2014-aadt-volumes.pdf. Accessed: October 2016.

------. 2014b. *2014 Annual Average Daily Truck Traffic on the California State Highway System*. Compiled by: Division of Traffic Operations. Sacramento, CA. Available: http://www.dot.ca.gov/trafficops/census/. Accessed: October 2016.

City of Los Angeles. 2006. *L.A. CEQA Thresholds Guide*.

------. 2013. *Los Angeles Municipal Code.* Available: http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc. Accessed: May 6, 2019.

County of Los Angeles. 2015. *Los Angeles County 2035 General Plan.* Available: http://planning.lacounty.gov/generalplan. Accessed: May 20, 2016.

County of Orange Environmental Management Agency. 1984. *Sound Attenuation Guidelines* (Vehicle Mix by Time of Day). File C54-115. September 4, 1984. Santa Ana, CA.

Federal Highway Administration. 2004. *FHWA Traffic Noise Model®, Version 2.5 Look-Up Tables User's Guide. Final. FHWA-HEP-05-008 / DOT-VNTSC-FHWA-0406.* December 2004. Washington, DC. Prepared by U.S. Department of Transportation, Research and Special Programs Administration, John A. Volpe National Transportation Systems Center Acoustics Facility. Cambridge, MA.

------. 2008. FHWA Roadway Construction Noise Model (RCNM), Software Version 1.1. Prepared by: U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. December,

Ninyo & Moore. 2016. Preliminary Geotechnical Evaluation Olive View–UCLA Medical Center Master Plan Los Angeles County Department of Public Works 14445 Olive View Drive.

7.1.12 Population and Housing

City of Los Angeles. 2013. *Housing Element 2013–2021*. December 2013. Available: http://cityplanning.lacity.org/HousingInitiatives/HousingElement/TOCHousingElement.htm.

County of Los Angeles. 2014. *Los Angeles County Housing Element, 2014–2021.* February 2014. Available: http://planning.lacounty.gov/assets/upl/project/housing_element.pdf.

Institute of Transportation Engineers. 2012. *Institute of Transportation Engineers Trip Generation Handbook*, 9th edition.

Southern California Association of Governments. 2009. *2008 Regional Comprehensive Plan: Land Use and Housing*. Los Angeles, CA. February 9. Available: http://www.scag.ca.gov/NewsAndMedia/Pages/RegionalComprehensivePlan.aspx.

------. 2016. *Draft 2016 RTP/SCS Growth Forecast by Jurisdiction*. Los Angeles, CA. Available: http://www.scag.ca.gov/Documents/2016DraftGrowthForecastByJurisdiction.pdf.

------. 2016. *2016 RTP/SCS Demographics & Growth Forecast Appendix*. Los Angeles, CA. April 2016. Available: http://scagrtpscs.net/Documents/2016/final/f2016RTPSCS_DemographicsGrowthForecast.pdf.

U.S. Census Bureau. 2014a. 2010–2014 American Community Survey 5-Year Estimates Table S0101 Age and Sex. Available: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed: June 29, 2016.

------. 2014b. 2010–2014 American Community Survey 5-Year Estimates Table B03002 Hispanic or Latino Origin by Race. Available: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed: June 29, 2016.

------. 2014c. 2010–2014 American Community Survey 5-Year Estimates Table DP04 Selected Housing. Available: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml. Accessed: June 29, 2016.

7.1.13 Public Services

California Building Standards Commission. 2014. *California State Fire Code*. Sacramento, CA. Available: https://archive.org/details/gov.ca.bsc.title24.2016.09.

California Department of Forestry and Fire Protection (CAL FIRE). 2007. *Fire Hazard Severity Zones in SRA*. Available: https://frap.fire.ca.gov/media/6195/fhszs_map7.pdf. Accessed: December 18, 2017.

———. 2011. *Fire Hazard Severity Zones in LRA*. Available: https://frap.fire.ca.gov/media/6387/fhszl06_1_map19.pdf. Accessed: December 18, 2017.

———. 2016. *CAL FIRE at a Glance*. Available: https://www.fire.ca.gov/media/4922/glance.pdf. Accessed: December 18, 2017.

———. 2017. *Incident Information*. Available: https://www.fire.ca.gov/incidents. Accessed: December 18, 2017.

California Wildland Fire Coordinating Group (CWFCG). 2017. *Welcome.* Available: https://gacc.nifc.gov/oscc/cwcg/. Accessed: December 18, 2017.

City of Los Angeles. 2002. *City of Los Angeles General Plan.* Department of City Planning. February 27. Available: https://planning.lacity.org/GP_elements.html. Accessed: May 8, 2019.

———. 2013a. City of Los Angeles Municipal Code Chapter 5 Public Safety and Protection. Available: http://library.amlegal.com/nxt/gateway.dll/California/lamc/municipalcode?f=templates$fn=default.htm$3.0$vid=amlegal:losangeles_ca_mc.

———. 2013b. *Draft Sylmar Community Plan*. Los Angeles, CA. Available: https://planning.lacity.org/cpu/Sylmar/Draft/Draft_CommunityPlan.pdf.

City of Los Angeles Department of Recreation and Parks. 2018. *Map Locator*. Available: http://raponline.lacity.org/maplocator/. Accessed: April 11, 2019.

———. 2015. *Recreation Centers*. Available: https://www.laparks.org/reccenter. Accessed: July 5, 2016.

City of Los Angeles Fire Department. 2018. *Station List*. Available: https://www.lafd.org/fire-stations/station-results. Accessed: May 6, 2019.

———. 2019. *Fire Stat LA*. Available: https://www.lafd.org/fsla/stations-map. Accessed: May 6, 2019.

City of Los Angeles Police Department. 2019. *Community Police Station Address Directory*. Available: http://www.lapdonline.org/our_communities/content_basic_view/6279. Accessed: May 6, 2019.

COMPSTAT. 2019. *Mission Area Profile*. Available: http://assets.lapdonline.org/assets/pdf/msnprof.pdf. Accessed: April 13, 2019.

County of Los Angeles. 2015. *Los Angeles County General Plan 2035*. Adopted October 6, 2015. Available: http://planning.lacounty.gov/generalplan.

Los Angeles County Office of Education. 2011. *Service Overview*. Available: http://www.lacoe.edu/AboutLACOE.aspx. Accessed: July 5, 2016.

Los Angeles County Sheriff's Department. 2017a. *About the Los Angeles County Sherriff's Department.* Available: http://www.lasd.org/about_us.html. Accessed: December 12, 2017.

———. 2017b. *Overview of LASD Patrol Stations*. Available: http://www.la-sheriff.org/s2/page_render.aspx?pagename=patrol_detail_01. Accessed: December 12, 2017.

Los Angeles Fire Department. 2017a. *Our Mission*. Available: http://www.lafd.org/about/about-lafd/our-mission. Accessed: December 12, 2017.

———. 2017b. *Station 91 Response Metrics for January–October 2017*. Available: https://www.lafd.org/fsla/stations-map?st=726&community=Sylmar&year=2017. Accessed: December 4, 2017.

Los Angeles Police Department. 2017a. *City Statistics*. Available: http://www.lapdonline.org/statistical_data/. Accessed: December 11, 2017.

———. 2017b. *About Mission*. Available: http://www.lapdonline.org/mission_community_police_station/content_basic_view/1738. Accessed: December 11, 2017.

Los Angeles Public Library. 2014. *Strategic Plan 2015–2020*. Available: https://www.lapl.org/sites/default/files/media/pdf/about/LAPL_Strategic_Plan_2015-2020.pdf. Accessed: July 5, 2016.

———. 2016. *Locations and Hours*. Available: http://www.lapl.org/branches. Accessed: July 6, 2016.

Los Angeles Unified School District. 2017. *Fingertip Facts 2017–2018*. Available: https://achieve.lausd.net/site/handlers/filedownload.ashx?moduleinstanceid=41232&dataid=

57579&FileName=NewlyUpdatedFingertip Facts2017-18_English.pdf. Accessed: December 12, 2017.

Southern California Geographic Coordination Center. 2017. *Welcome to the Southern California Geographic Area Coordination Center.* Available: https://gacc.nifc.gov/oscc/. Accessed: December 18, 2017.

U.S. Department of Education. 2016. *Search for Public Schools*. Available: http://nces.ed.gov/ccd/schoolsearch/. Accessed: July 5, 2016.

7.1.14 Recreation

City of Los Angeles. 1996. *Los Angeles Citywide General Plan Framework*. June 1996. Available at: http://planning.lacity.org/FrameWork.html.

------. 2012. *Sylmar Community Plan*. Available at: https://planning.lacity.org/cpu/Sylmar/Draft/Draft_CommunityPlan.pdf

County of Los Angeles. 2015. *General Plan 2035*. October 6, 2015. Available at: http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan.pdf.

Public Parks Preservation Act of 1971. Public Resources Code–PRC. 1971. Chapter 2.5. Preservation of Public Parks (5400–5409).

7.1.15 Transportation/Traffic

California Department of Transportation. 2014. *CA Manual on Uniform Traffic Control Devices (CA MUTCD)*. Available: http://www.dot.ca.gov/trafficops/camutcd/. Accessed: May 8, 2019.

City of Los Angeles. 2014. *Traffic Study Policies and Procedures.* Available: https://planning.lacity.org/eir/8150Sunset/References/4.J.%20Transportation%20and%20Circulation/TRAF.03_LADOT%20Policies%20and%20Procedures_2013.pdf. Accessed: May 8, 2019.

Fehr & Peers. 2019. *Draft Traffic Impact Analysis for the Olive View–UCLA Medical Center Master Plan Project*. March.

Transportation Research Board. 1980, *Transportation Research Circular No. 212, Interim Materials on Highway Capacity*.

Transportation Research Board. 2010. *Highway Capacity Manual*. Available: http://www.trb.org/Main/Blurbs/164718.aspx. Accessed: May 8, 2019.

7.1.16 Tribal Cultural Resources

Bean, L.J. 1978. Cahuilla. *In Handbook of North American Indians, Vol. 8: California*, edited by R.F. Heizer, pp. 575–587. Washington, DC: Smithsonian Institution.

Bean, L.J. and C.R. Smith. 1978. Serrano. In R.F. Heizer, (ed.), *Handbook of North American Indians, Vol. 8: California*. Washington, D.C.: Smithsonian Institution.

California Department of Parks and Recreation 2005. *Los Angeles State Historic Park General Plan and Final Environemntal Impact Report.* Available at: https://www.parks.ca.gov/pages/21299/files/lashp%20general%20plan-eir.pdf.

County of Los Angeles. 2015. *Los Angeles County General Plan 2035*. Los Angeles County Department of Regional Planning. Available at: http://planning.lacounty.gov/generalplan.

Heizer, R.F. and S.F. Cook. 1952. Fluorine and other chemical tests of some North American human and fossil bones. *American Journal of Physical Anthropology* 10 (3): 289–393.

King, Chester D., 2004. *Ethnographic Overview of the Angeles National Forest–Tataviam and San Gabriel Mountain Serrano Ethnohistory. Northwest Economic Associates, Vancouver, Washington, and Topanga Archaeological Consultants, Topanga, California*. Prepared for U.S. Forest Service, Southern California Province, Angeles National Forest, Arcadia.

King, Chester D., and T.C. Blackburn 1978 Tataviam. *Handbook of North American Indians, Vol. 8, California*, R. F. Heizer, ed., pp. 535–537.

Kroeber, Alfred L. 1925. *Handbook of the Indians of California.* Bureau of American Ethnology Bulletin 78. Washington.

Johnson, John R., and D.D. Earle. 1990. *Journal of California and Great Basin Anthropology* Vol. 12, No. 2 (1990), pp. 191–2,143.

Solis, Laurie. 2008. *People Who Face the Sun*. Xlibris Publishing.

7.1.17 Utilities

California Department of Resources Recycling and Recovery (CalRecycle). 2013. *Estimated Solid Waste Generation Rates.* January. Available: https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates. Accessed: June 16, 2016.

------. 2019. *Estimated Solid Waste Generation Rates*. Available: https://www2.calrecycle.ca.gov/wastecharacterization/general/rates. Accessed April 1, 2019.

California Energy Commission. 2017. *CALIFORNIA ENERGY DEMAND 2012–2022 FINAL FORECAST Volume 1: Statewide Electricity Demand and Methods, End-User Natural Gas Demand, and Energy Efficiency.* June.

-----. 2015. *Integrated Energy Policy Report*. May. Available: https://www.energy.ca.gov/data-reports/reports/integrated-energy-policy-report. Accessed: March 3, 2017.

California Public Utilities Commission. 2018. *California Wireline Telephone Service Quality Pursuant to General Orders 133-C and 133-D Calendar Years 2014 through 2016.* May. Available at: http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Communications_-_Telecommunications_and_Broadband/Service_Provider_Information/2014-2016%20ServiceQuality%20staff%20report%20May%202018.pdf.

Chemical Waste Management Inc. 2016. *Joint Technical Document MSW Landfill B-19, Kettleman Hills Facility Kings County, California.* June. Available at: http://kettlemanhillslandfill.wm.com/index.jsp

City of Los Angeles. 2010. *California Green Building Standards Code, Los Angeles Green Building Code Ordinance No. 181480.* December 15. Available: https://www.ladbs.org/forms-publications/forms/green-building/green-building-for-2017-codes. Accessed: June 15, 2016.

City of Los Angeles Department of City Planning. 2002. *City of Los Angeles General Plan, Conservation Element, Housing Element and Open Space Element.* February. Available: http://cityplanning.lacity.org/Code_Studies/GeneralElement/openspaceelement.pdf. Accessed: June 6, 2016.

City of Los Angeles Department of Public Works, Bureau of Sanitation. 2006. *Solid Waste Integrated Resources Plan (SWIRP).* Available: https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-s/s-lsh-wwd-s-zwswirp?_afrLoop=9856486092610887&_afrWindowMode=0&_afrWindowId=ckyliutlm&_adf.ctrl-state=zx82mx8tm_216. Accessed: June 6, 2016.

------. 2006. *City of Los Angeles Solid Waste Planning Background Studies Summary Report.* Available: https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/M307.pdf. Accessed: June 6, 2016.

City of Los Angeles Department of Public Works, Bureau of Sanitation, and LADWP. 2012. *City of Los Angeles Water Integrated Resources Plan 5-Year Review*. June. Available: https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/M211.pdf. Accessed: June 14, 2016.

City of Los Angeles Department of Public Works. 2014, updated 2019. *Sewer System Management Plan (SSMP)*. Available: https://www.lacitysan.org/san/faces/home/portal/s-lsh-wwd/s-lsh-wwd-cw/s-lsh-wwd-cw-s/s-lsh-wwd-cw-s-ssmp?_afrLoop=9857089617688090&_afrWindowMode=0&_afrWindowId=9oj9usovi&_adf.ctrl-state=zx82mx8tm_1776#!%40%40%3F_afrWindowId%3D9oj9usovi%26_afrLoop%3D9857089617688090%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dzx82mx8tm_1780. Accessed: June 7, 2016.

City of Los Angeles, Sanitation Department. February 2015. *Sewer System Management Plan: Hyperion Sanitation Sewer System.* Available at: https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/M216.pdf.

Clean Harbors Buttonwillow, LLC. 2018. *Buttonwillow, California Facility Facts.* January. Available: https://preview.cleanharbors.com/File%20Library/RevBase/final-buttonwillow-ca-facility-fs-053117.pdf. Accessed: June 10, 2016.

Clean Harbors Westmoreland, LLC. 2013. *Westmorland, California Facility Facts.* January. Available: https://www.cleanharbors.com/location/westmorland-landfill-facility. Accessed: June 14, 2016.

County of Los Angeles, Department of Regional Planning. *Chiquita Canyon Landfill Master Plan Revision Final Environmental Impact Report Response to Comments on Partially Recirculated EIR.* February 2017. Available at: http://file.lacounty.gov/SDSInter/bos/supdocs/114852.pdf.

County of Los Angeles. 2015. *Los Angeles County General Plan 2035, Conservation and Natural Resources Element.*

County of Los Angeles Department of Public Works. 2012. *County of Los Angeles Countywide Integrated Waste Management Plan: 2014 Annual Report*. Alhambra, CA. Available: https://dpw.lacounty.gov/epd/swims/ShowDoc.aspx?id=3473&hp=yes&type=PDF. Accessed: June 7, 2016.

------. 2014. *Greater Los Angeles County Integrated Regional Water Management Plan*. Available: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-w-stormwatercapturemp?_afrLoop=1467252906343589&_afrWindowMode=0&_afrWindowId=lw66kru7r_14#%40%3F_afrWindowId%3Dlw66kru7r_14%26_afrLoop%3D1467252906343589%26_afrWindowMode%3D0%26_adf.ctrl-state%3Dlw66kru7r_42. Accessed: June 7, 2016.

------. 2015a. *Urban Water Management Plan.* Available: https://dpw.lacounty.gov/wwd/web/Documents/2015%20Urban%20Water%20Management%20Plan%20for%20District%20No.%2029%20and%20the%20Marina%20del%20Rey%20Water%20System.pdf. Accessed June 7, 2016.

------. 2015b. *Power Integrated Resources Plan.* Available: https://planning.lacity.org/eir/CrossroadsHwd/deir/files/references/M419.pdf. Accessed June 7, 2016.

------. 2016. *Olive View–UCLA Medical Center Master Plan Notice of Preparation.* March 2016. Available at: https://dpw.lacounty.gov/pmd/CampusMasterPlans/docs/OVMC/Olive%20View-UCLA%20Medical%20Center%20Campus%20Master%20Plan%20NOP-IS.pdf.

------. 2016. *Countywide Integrated Waste Management Plan.* September 2017. Available at: https://pw.lacounty.gov/epd/swims/ShowDoc.aspx?id=6530&hp=yes&type=PDF.

Kettleman City Waste Management. 2014. *Kettleman Hills Facility Overview*. January. Available: http://kettlemanhillslandfill.wm.com/fact-sheets/2011/facility-overview.jsp. Accessed: June 4, 2016.

Los Angeles Department of Water and Power (LADWP). 2015. Urban Water Management Plan. April 27, 2016. Available at: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-w-sos-uwmp?_afrLoop=130401664619331&_afrWindowMode=0&_afrWindowId=_e_12Hb#%40%3F_afrWindowId%3D_e_12Hb%26_afrLoop%3D130401664619331%26_afrWindowMode%3D0%26_adf.ctrl-state%3D116bx5wf2n_4.

------. 2018. *Briefing Book*. Available: https://s3-us-west-2.amazonaws.com/ladwp-jtti/wp-content/uploads/sites/3/2019/07/29154703/2018-Briefing-Book-Web-3.pdf. Accessed September 4, 2019.

Luna & Glushon. 2009. *California Oil and Gas Report*. October. Available: http://www.caloilgas.com/state-energy-resources/. Accessed: June 11, 2016.

San Francisco Water Power Sewer. 2013. *Wastewater Service Charge Appeal.* San Francisco Public Utilities Commission web page. Available: http://www.sfwater.org/index.aspx?page=132. Accessed: June 6, 2016.

Southern California Gas Company (SoCalGas). 2018. *California Gas Report.* July. Available: https://www.socalgas.com/regulatory/documents/cgr/2018_California_Gas_Report.pdf. Accessed: March 28, 2019.

-------. 2019. Company Profile. Available: https://www.socalgas.com/about-us/company-profile.

State Water Resources Control Board. 2013. *Land Disposal Program. Sacramento.* February 25. Available: http://www.waterboards.ca.gov/water_issues/programs/land_disposal/walist.shtml. Accessed: June 10, 2016.

U.S. Energy Information Administration. 2012. *Annual Energy Review*. January. Available: http://www.eia.gov/totalenergy/data/annual/index.cfm. Accessed: June 11, 2016.

U.S. Environmental Protection Agency (EPA). 2013. *Clean Water Act.* March 12. Washington, D.C. Available: https://www.epa.gov/cwa-404/clean-water-laws-regulations-and-executive-orders-related-section-404. Accessed: June 7, 2016.

7.1.18 Wildfire Hazards

CAL FIRE Website Statistics. 2012. Available at: https://osfm.fire.ca.gov/divisions/wildfire-prevention-planning-engineering/california-incident-data-and-statistics-program/. Accessed April 3, 2019.

------. 2018. *2018 Strategic Fire Plan for California.* August 22, 2018. Available at: https://osfm.fire.ca.gov/divisions/wildfire-prevention-planning-engineering/fire-plan/. Accessed April 3, 2019.

California Energy Commission. 2016. *Title 24, Building Energy Efficiency Standards.* Code of Regulations. Available at: https://www.energy.ca.gov/title24/2016standards/. Accessed April 3, 2019.

City of Los Angeles Fire Department. 2017. *LA City Fire Code.* Available at: https://codes.iccsafe.org/content/document/1042. Accessed April 3, 2019.

County of Los Angeles. 1998. *Los Angeles County Operational Emergency Response Plan*. Approved February 7, 1998. Available at: https://www.caloes.ca.gov/AccessFunctionalNeedsSite/Documents/LA%20County%20OA%20Emergency%20Response%20Plan.pdf. Accessed April 3, 2019.

Los Angeles County Fire Department. 2017. *2017–2021 Strategic Plan.* Available at: https://www.fire.lacounty.gov/wp-content/uploads/2018/10/LACoFD-Strategic-Plan-2017-2021.pdf. Accessed April 3, 2019.

State of California Public Resources Code. 1965. Division 4, Forests, Forestry and Range and Forage Lands [4001–4958], Part 2 Protection of Forest, Range, and Forage Lands [4101–4789.7], CHAPTER 1. Prevention and Control of Forest Fires [4101–4205], ARTICLE 9. Fire Hazard Severity Zones [4201–4204]. Available: https://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=PRC&division=4.&title=&part=&chapter=&article=. Accessed April 3, 2019.

State of California. 2012. Senate Bill No. 1241. SB-1241 Land use: general plan: safety element: fire hazard impacts. Available at: http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201120120SB1241. Accessed April 3, 2019.

U.S. Department of the Interior, U.S. Department of Agriculture. 1995. *Federal Wildland Fire Management*. Available at: https://www.forestsandrangelands.gov/documents/strategy/foundational/1995_fed_wildland_fire_policy_program_report.pdf. Accessed April 3, 2019.

7.2 Personal Communication

7.2.1 Public Services

Benning, Janice. On-Site Sheriff. LA County Sheriff's Department, Los Angeles, CA. August 1, 2016. Email.

Duff, Robert. Inspector II. Los Angeles Fire Department, Los Angeles, CA. March 14, 2017. Questionnaire.

7.2.2 Utilities

Poosti, A., Personal communication with, Los Angeles Bureau of Sanitation, July 16, 2014.

Mills, Randolph. Facilities Manager I, Olive View–UCLA Medical Center. June 6, 2016—Email to Andrew Moey, Project Manager, County of Los Angeles Department of Public Works.

Quan, Wayne. Los Angeles County ISD Energy Management Division. Clarice. October 13, 2016-E-mail to Clarice Nash, Project Manager, County of Los Angeles Department of Public Works.

Chapter 8
Responses to Comments

8.1 Comments and Responses

In accordance with Section 15088 of Title 14 of the California Code of Regulation (the State CEQA Guidelines), the County has reviewed and evaluated the comments received on the Draft EIR for the Olive View UCLA–Medical Center Campus Master Plan Project and has prepared written responses to those comments. This chapter contains copies of the comments received during the public review process and written responses to each of the comments.

The Draft EIR was made available for agency and public review from May 23 to July 29, 2019. Public meetings for the Draft EIR were held on June 6, 2019, from 6:30 to 8:00 p.m. at the Olive View–UCLA Medical Center Campus and July 13, 2019, at Los Angeles Mission College. A copy of each comment letter, as well as the corresponding responses, is provided in this chapter.

8.2 List of Commenters

The public agencies and private citizens who submitted comments on the Draft EIR during the public review period are listed below (arranged by date of correspondence). The comment letters and their responses are arranged by (A) public agencies and (O) organizations and (I) individuals.

Table 8-1. List of Commenters

No.	Name	Agency/Organization	Date
Agencies			
A1	Gregor Blackburn, CFM, Branch Chief	U.S. Department of Homeland Security, FEMA Region IX	June 4, 2019
A2	Pete Cooke, Site Mitigation and Restoration Program – Chatsworth Office	Department of Toxic Substances Control	June 20, 2019
A3	Michael Y. Takeshita, Acting Chief, Forestry Division Prevention Service Bureau	County of Los Angeles Fire Department	June 19, 2019
A4	Lijin Sun, J. D., Program Supervisor, CEQA IGR	South Coast Air Quality Management District	June 3, 2019
A5	Miya Edmonson, IRG/CEQA Branch Chief	Department of Transportation, District 7	July 8, 2019
A6	Scott Morgan, Director	State of California, Governor's Office of Planning and Research State Clearing house and Planning Unit	July 9, 2019
A7	Brian Gonzalez, Environmental Planning and Assessment	Los Angeles Department of Water and Power	August 1, 2019

No.	Name	Agency/Organization	Date
Organizations			
O1	Christian Rubalcava, President	Sylmar Neighborhood Council	June 27, 2019
Individuals			
I1	Erlin Vanesa Arellano		
I12	Marti Marshall		
I3	Peggy Bennett		
I4	Laurie Fadness		
I5	Laurie Fadness		
I6	Bobbi Burger Brunoehler		
I7	Michael Bisnoff		
I8	Carin Janis		
I9	Cheri Blose		
I10	Christine Zeiger		
I11	Christine Zeiger		
I12	Craig Baker		
I13	Ismael Maldonaels		
I14	Joanne Fernandez		
I15	Joanne Fernandez		
I16	Kurt Cabrera Miller		
I17	Leah Blose		
I18	Marilyn Jones		
I19	Marilyn Jones		
I20	Marvin Thompson		
I21	Peggy Bennett		
I22	Peter Postlmayr		
I23	Tim Marceau		
I24	Hector Bedolla		
I25	Diane Valencia		
I26	Blondeel Timmerman		

Comment Letter A1

Comment Letter A1

RECEIVED
JUN 19 2019
PROJECT MANAGEMENT DIVISION I
DEPARTMENT OF PUBLIC WORKS

U.S. Department of Homeland Security
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

June 4, 2019

Hoda El Sokkay, Project Manager
County of Los Angeles, Department of Transportation
Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803-1331

Dear Hoda El Sokkay:

This is in response to your request for comments regarding the Notice of Availability and Public Meetings for the Olive View UCLA Medical Center Campus Master Plan Draft Environmental Impact Report.

A1-1 Please review the current effective Flood Insurance Rate Maps (FIRMs) for the County of Los Angeles (Community Number 065043) and City of Los Angeles (Community Number 060137), Maps revised December 21, 2018. Please note that the City of Los Angeles, Los Angeles County, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

A1-2
- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.

A1-3
- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any ***development*** must not increase base flood elevation levels. **The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.

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Hoda El Sokkay, Project Manager
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cc:
Romano Galassi, Civil Engineer Associate, City of Los Angeles
Patricia Wood, Senior Civil Engineer, Stormwater Engineering Division, Los Angeles County
Garret Tam Sing, State of California, Department of Water Resources, Southern Region Office
Gregor Blackburn, CFM, Branch Chief, Floodplain Management and Insurance Branch, DHS/FEMA Region IX
Alessandro Amaglio, Environmental Officer, DHS/FEMA Region IX

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A1-4

- All buildings constructed within a coastal high hazard area, (any of the "V" Flood Zones as delineated on the FIRM), must be elevated on pilings and columns, so that the lowest horizontal structural member, (excluding the pilings and columns), is elevated to or above the base flood elevation level. In addition, the posts and pilings foundation and the structure attached thereto, is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.

A1-5

- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at http://www.fema.gov/business/nfip/forms.shtm.

Please Note:

A1-6

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The Los Angeles floodplain manager can be reached by calling Romano Galassi, Civil Engineer Associate, at (213) 847-0405. The Los Angeles County floodplain manager can be reached by calling Patricia Wood, Senior Civil Engineer, at (626) 458-6131.

If you have any questions or concerns, please do not hesitate to call me at (510) 627-7186.

Sincerely,

Gregor Blackburn, CFM, Branch Chief
Floodplain Management and Insurance Branch

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Responses to Comments from U.S. Department of Homeland Security, FEMA Region IX, June 4, 2019

Response to Comment A1-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The most current Flood Insurance Rate Maps for the County of Los Angeles and the City of Los Angeles were reviewed. As stated in Section 3.9, *Hydrology/Water Quality,* of the Draft EIR, the project site is located within Zone X, which indicates that the area would not be flooded in a 100-year storm, and the area due north of the site is labeled as Zone D. No further response is required.

Response to Comment A1-2

As stated in Section 3.9, *Hydrology/Water Quality,* of the Draft EIR, the project site is not located within a flood zone; however, the area due north of the site is labeled as Zone D, meaning there are possible, but undetermined, flood hazards due to lack of analysis of the area. No Master Plan development is proposed in a flood zone or in the area north of the project site labeled as Zone D.

Response to Comment A1-3

The project is not located within a Regulatory Floodway. Please refer to Section 3.9, *Hydrology/Water Quality*, of the Draft EIR and this Final EIR and the hydrological analysis study conducted for the project (Watearth 2019) (see Appendix H of the Final EIR). Based on the hydrological analysis and incorporation of design measures identified in the study consistent with County of Los Angeles *Low Impact Development Standards Manual*, the proposed project would not change the rate or amount of surface runoff flowing from the site and would not increase the base flood level. Also, see the Response to Comment A1-2 above.

Response to Comment A1-4

The project site is located at the northern edge of the San Fernando Valley, within the City of Los Angeles, and is not located within a coastal high hazard area.

Response to Comment A1-5

The project site is not located within existing Special Flood Hazard Areas. As analyzed in Section 3.9, *Hydrology/Water Quality,* of the Draft EIR and the hydrological analysis study conducted for the project (Watearth 2019) (see Appendix H of the Final EIR), Master Plan development would not substantially change existing drainage patterns and hydrological conditions; therefore, no changes to existing Special Flood Hazard Areas are anticipated, and a flood insurance rate map (FIRM) revision is not necessary.

Response to Comment A1-6

The information about local floodplain management building requirements adopted by NFIP participating communities, including Los Angeles, is acknowledged. No further response is required.

Comment Letter A2

Comment Letter A2

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Acting Director
9211 Oakdale Avenue
Chatsworth, California 91311

Gavin Newsom
Governor

June 10, 2019

RECEIVED
JUN 18 2019
PROJECT MANAGEMENT DIVISION I
DEPARTMENT OF PUBLIC WORKS

Hoda El Sokkary
Project Manager
County of Los Angeles Department of Public Works
Project Management Division 1, 5th Floor
900 S. Fremont Ave.
Alhambra, CA 91803-1331

NOTICE OF AVAILABILITY OF AN ENVIRONMENTAL DOCUMENT FOR THE OLIVE VIEW–UCLA MEDICAL CENTER CAMPUS MASTER PLAN PROJECT (PROJECT)

Dear Hoda El Sokkary:

The Department of Toxic Substances Control (DTSC) has received the document for the above-mentioned project.

Based on the review of the document, the DTSC comments are as follows:

A2-1 1) The document needs to identify and determine whether current or historic uses at the project site have resulted in any release of hazardous wastes/substances at the project area.

A2-2 2) The document needs to identify any known or potentially contaminated site within the proposed project area. For all identified sites, the document needs to evaluate whether conditions at the site pose a threat to human health or the environment.

A2-3 3) The document should identify the mechanism to initiate any required investigation and/or remediation for any site that may require remediation, and which government agency will provide appropriate regulatory oversight.

A2-4 4) If during construction of the project, soil contamination is suspected, construction in the area should stop and appropriate health and safety procedures should be implemented. If it is determined that contaminated soil exists, the document should identify how any required investigation or remediation will be conducted, and which government agency will provide appropriate regulatory oversight.

Printed on Recycled Paper

Hoda El Sokkary
June 10, 2019
Page 2

A2-5 DTSC provides guidance for Preliminary Endangerment Assessment (PEA) preparation, and cleanup oversight through the Voluntary Cleanup Program (VCP). For additional information on the VCP, please visit DTSC's web site at www.dtsc.ca.gov. If you would like to meet and discuss this matter further, please contact me at (818) 717-6555 or Pete.Cooke@dtsc.ca.gov.

Sincerely,

Pete Cooke
Site Mitigation and Restoration Program - Chatsworth Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Dave Kereazis
Hazardous Waste Management Program, Permitting Division
CEQA Tracking
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806

Responses to Comments from Department of Toxic Substances Control, June 10, 2019

Response to Comment A2-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

As indicated in Section 3.8, *Hazards and Hazardous Materials,* of the Draft EIR and this Final EIR, a site reconnaissance, review of historical land uses, environmental database search, and online records review were conducted by Ninyo & Moore in February 2016 (see Appendix G) to identify recognized environmental conditions. Section 3.8 identifies those potential locations on or in the vicinity of the campus that have or may have resulted in release of hazardous wastes/substances and describes the potential for Master Plan development to affect or be affected by those hazardous wastes/substances. As discussed on page 3.8-9 of the Draft EIR and this Final EIR, there is a possibility that contaminated soils could exist in areas identified as a Potential Environmental Concern and those contaminated soils could be disturbed during project construction, which is a potentially significant impact. With the implementation of mitigation measures **MM-HAZ-1** through **MM-HAZ-4**, which prescribe the measures for assessing, handling, treating, and disposing of hazardous materials, impacts would be reduced to less than significant (see section 3.8.4.3, *Impacts and Mitigation Measures*, of this Final EIR for additional details regarding the proposed mitigation measures).

Response to Comment A2-2

As stated in Section 3.8, *Hazards and Hazardous Materials,* on pages 3.8-4 through 3.8-6, the project site was identified in multiple environmental databases. According to the Environmental Site Assessment (ESA) prepared for the project by Ninyo & Moore in 2016, there were no violations associated with the aforementioned listings. However, the Los Angeles County Fire Station #04, located within the project footprint, was listed in the Leaking Underground Storage Tanks (LUST) database as having contaminated soil and no current site status. It is unknown whether any contaminated soil remains onsite. Although no Recognized Environmental Concerns were identified during the completion of the ESA, the presence of the LUST case on the proposed project site was identified as a Potential Environmental Concern (PEC). In addition, the presence of the underground storage tanks in the hospital loading dock and the presence of a paint and solvent spray booth were also identified as PECs. As such, there is a possibility that contaminated soils could exist within one of these areas, which could be exposed during project construction, a potentially significant impact. However, mitigation measures **MM-HAZ-1** through **MM-HAZ-4**, which prescribe the measures for assessing, handling, treating, and disposing of hazardous materials, would be implemented to reduce the risk of exposure to contaminated media, and potential impacts would be less than significant after mitigation.

Response to Comment A2-3

As stated in Section 3.8, *Hazards and Hazardous Materials,* of the Draft EIR and this Final EIR, mitigation measure **MM-HAZ-4** would require contractors to retain a professional environmental consultant specializing in hazardous materials impact assessment to conduct a project-level analysis

to determine if there are existing hazardous materials conditions in the vicinity of the construction site and if there is a potential for existing hazardous materials conditions to affect construction. The professional environmental consultant will determine the potential risk to construction workers, the public, or the environment from rehabilitation activities and identify all necessary avoidance, abatement, remediation, cleanup, disposal, monitoring, reporting, notifications, and/or other measures in accordance with existing hazardous materials laws and regulations, as noted in the Response to Comment A2-2 above.

The Los Angeles County Fire Department's Health Hazardous Materials Division has been designated as the agency that will provide regulatory oversight.

Response to Comment A2-4

As stated in Section 3.8, *Hazards and Hazardous Materials,* of the Draft EIR and this Final EIR, if odiferous, stained, or discolored soil is encountered near the fire station, underground storage tanks, or spray booth, a professional environmental consultant specializing in the identification and handling of hazardous materials will be retained by the County to assess the site. In the event of suspected soil contamination, construction would stop until appropriate procedures are identified.

The Los Angeles County Fire Department's Health Hazardous Materials Division has been designated as the agency that will provide regulatory oversight.

Response to Comment A2-5

The comment that Department of Toxic Substances Control (DTSC) provides guidance for Preliminary Endangerment Assessment (PEA) preparation and cleanup oversight through the Voluntary Cleanup Program (VCP) is noted. This comment does not specifically address the content or adequacy of the Draft EIR or the proposed project; therefore, no further response is required.

Comment Letter A3

COUNTY OF LOS ANGELES
FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2401
www.fire.lacounty.gov

"Proud Protectors of Life, Property, and the Environment"

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FIRE CHIEF
FORESTER & FIRE WARDEN

Comment Letter A3

June 19, 2019

Hoda Elsokkary, Project Manager
Department of Public Works
Senior Capital Projects Manager
900 South Fremont Avenue
Alhambra, CA 91803

Dear Ms. Elsokkary:

NOTICE OF AVAILABILITY OF A DRAFT ENVIRONMENTAL IMPACT REPORT, "OLIVE VIEW UCLA MEDICAL CENTER," PROPOSES NEW BUILDINGS AND FACILITIES; RENOVATION PROJECTS; INFRASTRUCTURE, OPEN SPACE, AND LANDSCAPING IMPROVEMENTS; AND PROPOSED DEMOLITION PROJECTS TO ACCOMMODATE NEW BUILDINGS AND CAMPUS IMPROVEMENTS, 14445 OLIVE VIEW DRIVE, SYLMAR, FFER 201900053

A3-1 The Notice of Availability of a Draft Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

The following are their comments:

PLANNING DIVISION:

A3-2 The subject property is entirely within the City of Los Angeles which is not a part of the emergency response area of the Los Angeles County Fire Department (also known as the Consolidated Fire Protection District of Los Angeles County). Therefore, this project does not appear to have any impact on the emergency responsibilities of this Department.

For any questions regarding this response, please contact Loretta Bagwell, Planning Analyst, at (323) 881-2404 or Loretta.Bagwell@fire.lacounty.gov.

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS	CALABASAS	EL MONTE	INDUSTRY	LAWNDALE	PARAMOUNT	SIGNAL HILL
ARTESIA	CARSON	GARDENA	INGLEWOOD	LOMITA	PICO RIVERA	SOUTH EL MONTE
AZUSA	CERRITOS	GLENDORA	IRWINDALE	LYNWOOD	POMONA	SOUTH GATE
BALDWIN PARK	CLAREMONT	HAWAIIAN GARDENS	LA CANADA-FLINTRIDGE	MALIBU	RANCHO PALOS VERDES	TEMPLE CITY
BELL	COMMERCE	HAWTHORNE	LA HABRA	MAYWOOD	ROLLING HILLS	WALNUT
BELL GARDENS	COVINA	HERMOSA BEACH	LA MIRADA	NORWALK	ROLLING HILLS ESTATES	WEST HOLLYWOOD
BELLFLOWER	CUDAHY	HIDDEN HILLS	LA PUENTE	PALMDALE	ROSEMEAD	WESTLAKE VILLAGE
BRADBURY	DIAMOND BAR	HUNTINGTON PARK	LAKEWOOD	PALOS VERDES ESTATES	SAN DIMAS	WHITTIER
	DUARTE		LANCASTER		SANTA CLARITA	

Hoda Elsokkary, Project Manager
June 19, 2019
Page 2

LAND DEVELOPMENT UNIT:

ACCESS:

1. Fire Apparatus Access Roads must be installed and maintained in a serviceable manner prior to and during the time of construction. Fire Code 501.4.

2. All fire lanes shall be clear of all encroachments and shall be maintained in accordance with the Title 32, County of Los Angeles Fire Code.

3. The required 20-foot wide driving surface shall be increased to 26 feet when fire hydrants are required. The 26-foot width shall be maintained for a minimum of 25 linear feet on each side of the hydrant location.

    a. The Fire Apparatus Access Road shall be cross-hatch on the site plan and the width shall be clearly noted.

A3-3

4. Provide a minimum unobstructed width of 26 feet, exclusive of shoulders and an unobstructed vertical clearance "clear to sky" Fire Department vehicular access to within 150 feet of all portions of the exterior walls of the first story of the building, as measured by an approved route around the exterior of the building. Fire Code 503.1.1 and 503.2.2.

    a. The Fire Apparatus Access Road shall be cross-hatch on the site plan and the width shall be clearly noted.

5. Provide a minimum unobstructed width of 28 feet, exclusive of shoulders and an unobstructed vertical clearance "clear to sky" Fire Department vehicular access to within 150 feet of all portions of the exterior walls of the first story of the building, as measured by an approved route around the exterior of the building when the height of the building above the lowest level of the Fire Apparatus Access Road is more than 30 feet high or the building is more than three stories. The access roadway shall be located a minimum of 15 feet and a maximum of 30 feet from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the Aerial Fire Apparatus Access Road is positioned shall be approved by the fire code official. Fire Code 503.1.1 and 503.2.2.

A3-4

6. Traffic Calming Devices including but not limited to, speed bumps and speed humps, shall be prohibited unless approved by the fire code official. Fire Code 503.4.1.

A3-5

7. Security barriers, visual screen barriers, or other obstructions shall not be installed on the roof of any building in such a manner as to obstruct firefighter access or egress in the event of fire or other emergency. Parapets shall not exceed 48 inches from the top of the parapet to the roof surface on more than two sides. Fire Code 504.5.

Hoda Elsokkary, Project Manager
June 19, 2019
Page 3

8. Multiple residential and commercial buildings having entrances to individual units not visible from the street or road shall have unit numbers displayed in groups for all units within each structure. Such numbers may be grouped on the wall of the structure or mounted on a post independent of the structure and shall be positioned to be plainly visible from the street or road as required by Fire Code 505.3 and in accordance with Fire Code 505.1.

9. An approved key box listed in accordance with UL 1037 shall be provided as required by Fire Code 506. The location of each key box shall be determined by the Fire Inspector.

WATER:

A3-5

1. All fire hydrants shall measure 6"x 4"x 2-1/2" brass or bronze conforming to current AWWA standard C503 or approved equal and shall be installed in accordance with the County of Los Angeles Fire Department C105.1 CFC.

2. Hydrant to be spaced in intervals of 300' from a properly spaced public fire hydrant. Hydrant locations to be identified by the Fire Department.

3. Provide a Form 196 signed and completed by the local water purveyor.

4. Show all existing public fire hydrants to within 300' of all property lines. Show the nearest hydrant location and indicate the dimensions on the site plan.

For any questions regarding the report, please contact Joseph Youman at (323) 890-4243 or Joseph.Youman@fire.lacounty.gov.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

A3-6

The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed.

A3-7

Under the Los Angeles County Oak tree Ordinance, a permit is required to cut, destroy, remove, relocate, inflict damage or encroach into the protected zone of any tree of the Oak genus which is 25 inches or more in circumference (eight inches in diameter), as measured 4 1/2 feet above mean natural grade.

If Oak trees are known to exist in the proposed project area further field studies should be conducted to determine the presence of this species on the project site.

Hoda Elsokkary, Project Manager
June 19, 2019
Page 4

The County of Los Angeles Fire Department's Forestry Division has no further comments regarding this project.

For any questions regarding this response, please contact Forestry Assistant, Joseph Brunet at (818) 890-5719.

A3-8

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division of the Los Angeles County Fire Department has no comments or requirements for the project at this time.

Please contact HHMD senior typist-clerk, Perla Garcia at (323) 890-4035 or Perla.garcia@fire.lacounty.gov if you have any questions.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

MICHAEL Y. TAKESHITA, ACTING CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

MYT:ac

Responses to Comments from County of Los Angeles Fire Department, June 19, 2019

Response to Comment A3-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

This comment letter acknowledges that the Los Angeles County Fire Department has reviewed the Draft EIR for the proposed project. No further response is required.

Response to Comment A3-2

The comment correctly noted that the project site is located entirely within the city of Los Angeles, and the Los Angeles County Fire Department would not be the first responders to an emergency on the project site. No further response is required.

Response to Comment A3-3

Compliance with the building requirements identified in the comment will be verified as building plans are developed and the plan check is performed by the Los Angeles Fire Department during the standard building plan approval process. No further response is required.

Response to Comment A3-4

Master Plan development will comply with County of Los Angeles Fire Code requirements, including ensuring adequate access to campus facilities is provided for fire department personnel and equipment prior to, during, and post construction.

Response to Comment A3-4

The proposed project would not include development of traffic calming measures such as speed humps/bumps/cushions, traffic circles, or roundabouts. In the event that these are proposed in the future, an analysis of the potential impacts of these measures, including review by the Los Angeles Fire Department, will be performed. No further response is required.

Response to Comment A3-5

Development under the Master Plan will comply with all County fire code requirements, including those identified in the comment. Compliance with these building requirements will be verified as building plans are developed and the plan check is performed by the Los Angeles Fire Department during the standard building plan approval process. No further response is required.

Response to Comment A3-6

Comment noted. The Forestry Division will be contacted as applicable regarding campus improvements. Additionally, for further details regarding the impacts and mitigation measures that may be subject of the Forestry Division, please see the discussion in in Section 3.6, *Geology and Soils,*

of this Final EIR for erosion control measures that will be implemented during construction, Section 3. 9, *Hydrology and Water Resources,* for a discussion of watershed management impacts and mitigation measures, Section 3.3, *Biological Resources,* for an analysis of rare and endangered species and vegetation impacts, Section 3.18, *Wildfire Hazards,* for a discussion of the project impacts on wildfire hazards, and Section 3.4, *Cultural Resources,* for impacts to archeological and cultural resources and proposed mitigation measures that would reduce impacts to less than significant.

Response to Comment A3-7

The commenter summarizes the Los Angeles County Oak Tree Ordinance. As stated on page 3.3-37 in Section 3.3, *Biological Resources*, prior to construction of Master Plan projects that could result in tree removal or pruning, a qualified arborist will inventory native oak trees on the project site in support of an oak tree permit, if required. Oak Tree Permit requests require a property owner to file an application with the Department of Regional Planning and provide a filing fee, an Oak Tree Report, site plans for the property, and maps of the surrounding area. The project would comply with the Los Angeles County Oak Tree Ordinance.

Response to Comment A3-8

This comment does not raise any environmental concerns; consequently, pursuant to CEQA Guidelines section 15088(a), no further response is necessary. This comment is noted for the record.

Comment Letter A4

Comment Letter A4

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

SENT VIA E-MAIL AND USPS:
OVMCEIR@dpw.lacounty.gov
Hoda El Sokkary, Project Manager
County of Los Angeles Department of Public Works
Project Management Division 1
900 South Fremont Avenue, 5th Floor
Alhambra, CA 91803-1331

July 3, 2019

Draft Environmental Impact Report (Draft EIR) for the Proposed Olive View-UCLA Medical Center Campus Master Plan (SCH No.: 2016031090

A4-1 South Coast Air Quality Management District (South Coast AQMD) staff appreciates the opportunity to comment on the above-mentioned document. The following comments are meant as guidance for the Lead Agency and should be incorporated into the Final EIR.

South Coast AQMD Staff's Summary of Project Description

The Lead Agency proposes to develop guidelines, policies, and programs to guide campus development with a net increase in building footprint totaling 1.3 million square feet over a period of 20-plus years (Proposed Project). The Proposed Project is located at 14445 Olive View Drive on the northeast corner of Kennedy Road and Olive View Drive in the community of Sylmar within the City of Los Angeles. Although the exact construction schedule is unknown at the time of public review of the Draft EIR, it is anticipated that construction would begin as early as 2020 and occur beyond a planning horizon of 2035[1]. The Proposed Project will be broken up into two development phases, Tier I and Tier II. Tier I development phase is further broken into two sub-phases: Tier IA and Tier IB, and will occur over the next 17 years through 2035. Tier II development phase will occur beyond 2035[2]. The Proposed Project will become operational as early as 2021[3].

A4-2 South Coast AQMD Staff's Summary of Air Quality Analysis

In the Air Quality Analysis, the Lead Agency quantified the Proposed Project's construction and operational emissions from development sub-phases Tiers IA and IB and compared those emissions to South Coast AQMD's recommended regional and localized air quality CEQA significance thresholds. Based on the analyses, the Lead Agency found construction and operational air quality impacts from Tier IA would be less than significant[4]. Additionally, the Lead Agency found that NOx emissions from Tier IB development phase would be slightly below South Coast AQMD's CEQA air quality significance threshold for NOx emissions during construction[5] at 98 pounds per day (lbs/day)[6]. With the implementation of Mitigation Measure (MM)-AQ-1, which requires low-VOC coatings with a VOC content of 25 grams per liter or less[7], Tier IB-related construction air quality impacts were found to be

[1] Draft EIR. Section 3.2 Air Quality. Pages 3.2-12 through 3.2-14.
[2] *Ibid.* Executive Summary. Page ES-6.
[3] *Ibid.*
[4] *Ibid.* Section 3.2 Air Quality. Page 3.2-21.
[5] South Coast AQMD CEQA Significance Thresholds. Accessed at: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf
[6] Draft EIR. Section 3.2 Air Quality. Page 3.2-23.
[7] *Ibid.*

Hoda El Sokkary July 3, 2019

A4-2 cont.

less than significant[8]. Additionally, the Lead Agency found that Tier IB operational air quality impacts would be less than significant[9].

The Lead Agency did not quantify construction or operational emissions from Tier II development phase. Because details are unknown, emissions from construction and operation cannot quantified[10]; however, development projects under Tier II development phase would undergo project-specific CEQA review. Since "[…] it cannot be stated with certainty that emissions would be below applicable regional or localized emissions thresholds […]", the Lead Agency found that air quality impacts from Tier II development phase would be significant and unavoidable[11]. To mitigate these impacts, the Lead Agency has committed to MMs AQ-2 and AQ-3, which require projects that exceed regional and/or localized thresholds to implement construction[12] and operational[13] mitigation measures such as Tier 4 construction equipment, 2010 model year haul trucks, and preferential parking for clean air vehicles[14]. Additionally, to reduce the Proposed Project's greenhouse gas emissions, the Lead Agency has committed to MM-GHG-1, which includes, but is not limited to, requiring the use of Energy Star appliances, electric powered landscaping equipment, and equipping five percent of new parking spaces with electric vehicle charging infrastructure[15]. The Lead Agency also included a discussion of South Coast AQMD Rules applicable to the Proposed Project[16], such as Rule 403 – Fugitive Dust[17] and 403(e) – Additional Requirements for Large Operations[18], and Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines[19].

A4-3

South Coast AQMD's 2016 Air Quality Management Plan

On March 3, 2017, South Coast AQMD's Governing Board adopted the 2016 AQMP[20], which was later approved by the California Air Resources Board (CARB) on March 23, 2017. Built upon the progress in implementing the 2007 and 2012 AQMPs, the 2016 AQMP provides a regional perspective on air quality and the challenges facing the South Coast Air Basin. The most significant air quality challenge in the Basin is to achieve an additional 45 percent reduction in nitrogen oxide (NOx) emissions in 2023 and an additional 55 percent NOx reduction beyond 2031 levels for ozone attainment.

A4-4

South Coast AQMD Staff's General Comments

South Coast AQMD staff has comments on the Air Quality Analysis. While information on the Proposed Project's development potential at buildout from Tier II development is available (e.g., 1.3 million square feet of future development)[21], the Lead Agency did not use this information to quantify regional or localized construction or operational emissions from the implementation of Tier II development phase.

A4-5

Additionally, the Lead Agency did not analyze a scenario where construction activities overlap with operational activities (e.g., some components of Tier IA may be operational while some components of

[8] Draft EIR. Section 3.2 Air Quality. Pages 3.2-21 through 3.2-22.
[9] *Ibid*.
[10] *Ibid*. Pages 3.2-21 through 3.2-26.
[11] *Ibid*. Page 3.2-31.
[12] *Ibid*. Pages 3.2-30 through 3.2-31.
[13] *Ibid*. Pages 3.2-23 through 3.2-27.
[14] *Ibid*.
[15] *Ibid*. Section 3.7 Greenhouse Gas Emissions. Pages 3.7-23 through 3.7-24.
[16] *Ibid*. Section 3.2 Air Quality. Pages 3.2-4 through 3.2-5.
[17] South Coast AQMD. Rule 403 – Fugitive Dust. Accessed at: http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf.
[18] South Coast AQMD. Compliance and Enforcement Staff's contact information for Rule 403(e) Large Operations is (909) 396-2608 or by e-mail at dustcontrol@aqmd.gov.
[19] South Coast AQMD. Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines. Accessed at: https://www.aqmd.gov/docs/default-source/rule-book/reg-xiv/rule-1470.pdf.
[20] South Coast AQMD. March 3, 2017. *2016 Air Quality Management Plan*. Accessed at: http://www.aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan.
[21] Draft EIR. Section 2 Project Description. Page 2-5.

2

Hoda El Sokkary July 3, 2019

A4-5 cont. Tier IB are under construction). South Coast AQMD staff is also concerned about the Lead Agency's finding that the Proposed Project is consistent with the 2016 AQMP when the Lead Agency found that the Proposed Project would result in significant and unavoidable air quality impacts. Please see the attachment for more information.

A4-6 As described in the 2016 AQMP, achieving NOx emissions reductions in a timely manner is critical to attaining the National Ambient Air Quality Standard (NAAQS) for ozone before the 2023 and 2031 deadlines. South Coast AQMD is committed to attaining the ozone NAAQS as expeditiously as practicable. To further reduce the Proposed Project's construction and operational criteria pollutants emissions and to facilitate implementation the goals of the 2016 AQMP, South Coast AQMD staff recommends additional mitigation measures, including a commitment to periodic technology review, which the Lead Agency should review for incorporation in the Final EIR. Please see the attachment for more information. The attachment also includes comments on South Coast AQMD rules and regulations.

A4-7 Conclusion

Pursuant to California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), South Coast AQMD staff requests that the Lead Agency provide South Coast AQMD staff with written responses to all comments contained herein prior to the certification of the Final EIR. In addition, issues raised in the comments should be addressed in detail giving reasons why specific comments and suggestions are not accepted. There should be good faith, reasoned analysis in response. Conclusory statements unsupported by factual information will not suffice (CEQA Guidelines Section 15088(c)). Conclusory statements do not facilitate the purpose and goal of CEQA on public disclosure and are not meaningful, informative, or useful to decision makers and to the public who are interested in the Proposed Project. Further, when the Lead Agency makes the finding that the additional recommended mitigation measures are not feasible, the Lead Agency should describe the specific reasons for rejecting them in the Final EIR (CEQA Guidelines Section 15091).

South Coast AQMD staff is available to work with the Lead Agency to address any air quality questions that may arise from this comment letter. Please contact Alina Mullins, Assistant Air Quality Specialist, at amullins@aqmd.gov or (909) 396-2402, should you have any questions.

Sincerely,

Lijin Sun

Lijin Sun, J.D.
Program Supervisor, CEQA IGR
Planning, Rule Development & Area Sources

Attachment
LS:AM
LAC190528-02
Control Number

3

Hoda El Sokkary July 3, 2019

ATTACHMENT

Air Quality Impact Analysis for Tier II Development Phase

1. The Lead Agency did not quantify the Proposed Project's construction or operational emissions from Tier II development phase in the Draft EIR. The Lead Agency stated that "[t]ier II would involve the development of [a] new hospital, research and development, retail, and utility plant land uses predominantly on the western portion of the campus, as well as the demolition of some existing uses at the site". However, because "details about Tier II are unknown" emissions associated with construction and operational activities have not been quantified[22].

A4-8

When specific development is reasonably foreseeable as a result of the goals, policies, and guidelines in the Proposed Project, the Lead Agency should identify any potential adverse air quality impacts and sources of air pollution that could occur using its best efforts to find out and a good-faith effort at full disclosure in the EIR. The degree of specificity will correspond to the degree of specificity involved in the underlying activity which is described in the EIR (CEQA Guidelines Section 15146). When quantifying air quality emissions, emissions from both construction (including demolition, if any) and operations should be calculated. Preparing the CEQA analysis "necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can" (CEQA Guideline Section 15144).

Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, such as sources that generate or attract vehicular trips, should be also be included in the operational analysis.

A4-9

When the precise construction schedule or operational scenario are unknown, the Lead Agency should use its best efforts to identify and quantify a worst-case construction and operational impact scenario that is reasonably foreseeable at the time the Draft EIR is prepared. As discussed in Section 2.4.2.2 "Tier II Development" in the Draft EIR, the Lead Agency has identified the estimated development potential of Tier II of the Proposed Project. For example, the Lead Agency discussed that the Master Plan Tier II development proposes "a new 600,000-square-foot inpatient hospital, two 120,000-square-foot research and development buildings, a 135,000-square-foot long-term care facility, 40,000 square feet of retail uses, and 1,837 parking spaces[23]. Therefore, the Lead Agency can and should use this information to forecast and develop potential construction and operational scenarios to implement the full buildout of Tier II development phase, quantify associated construction emissions, including emissions from any demolition activities, and operational emissions, and compare the emissions to the respective South Coast AQMD's air quality CEQA significance thresholds to determine the level of significance. The Lead Agency should use the most current version of California Emission Estimator Model (CalEEMod)[24] to quantify construction and operational emissions. While this recommendation may not change the Lead Agency's finding that the Proposed Project's construction and operational air quality impacts from Tier II development phase would be significant and unavoidable[25], a quantitative analysis will facilitate the goal and purpose of CEQA on public disclosure with useful information on the kind, size, scope, intensity,

[22] Draft EIR. Section 3.2 Air Quality. Page 3.2-23.
[23] *Ibid*. Section 2 Project Description. Pages 2-18 through 2-20.
[24] South Coast AQMD. CalEEMod Version 2016.3.2. Accessed at: http://www.aqmd.gov/caleemod/download-model.
[25] Draft EIR. Section 3.2 Air Quality. Pages 3.2-30 through 3.2-31.

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A4-9 cont. duration, density, and location of subsequent project-level development to foster meaningful public participation and informed decision making.

Air Quality Impact Analysis – Overlapping Construction and Operational Activities

A4-10 2. Based on a review of the Air Quality Analysis, South Coast AQMD staff found that the Lead Agency did not consider nor analyze a scenario where construction activities overlap with operational activities (e.g., some components of Tier IA may be operational while some components of Tier IB are under construction). Since implementation of the Proposed Project is expected to occur in phases and sub-phases over a multi-year timeframe of 20-plus years from 2019 to beyond 2035[26], it is reasonably foreseeable that construction and operation of various development components may overlap. If an overlapping construction and operation scenario is reasonably foreseeable, to conservatively analyze a worst-case impact scenario, South Coast AQMD staff recommends that the Lead Agency use its best efforts to identify the overlapping construction and operational years and development components, combine construction emissions (including emissions from demolition) with operational emissions, and compare the combined emissions to South Coast AQMD's air quality CEQA *operational* thresholds of significance to determine the level of significance in the Final EIR, unless the Lead Agency includes requirement(s) that will prohibit overlapping construction and operational activities.

Air Quality Analysis – Localized Significance Thresholds (LSTs) Analysis

A4-11 3. The Proposed Project is surrounded by sensitive receptors[27]. South Coast AQMD staff recommends that the Lead Agency use its best efforts, based on already available Proposed Project development potential information, such as the estimated square footage of future facilities discussed in Section 2.4.2.2[28], to quantify and disclose the Proposed Project's localized emissions from Tier II development phase in the Final EIR. South Coast AQMD guidance for performing a localized air quality analysis is available on South Coast AQMD website[29]. Alternatively, the Lead Agency should consider to include a new air quality mitigation measure on project-level LSTs analysis to provide guidance and set requirements for subsequent projects under Tier II development phase. Please see Comment No. 5 for more information.

Consistency Analysis with South Coast AQMD's 2016 AQMP

A4-12 4. Section 15125(d) of the CEQA Guidelines requires that EIRs analyze and discuss any inconsistencies between a proposed project and applicable general plans, specific plans, and regional plans. For example, a discussion of consistency between a regionally applicable AQMP and a proposed project helps identify if a proposed project is inconsistent with the assumptions and objectives that were taken into consideration for the development of the AQMP, and thus would interfere with the region's ability to comply with federal and state air quality standards and achieve attainment deadlines. If an inconsistency is found, lead agencies should consider ways to mitigate or eliminate the inconsistency so that there is no interference with regional air quality objectives.

In the Draft EIR, the Lead Agency analyzed the Proposed Project's consistency with the 2016 AQMP and found that because the Proposed Project would be consistent with the relevant plans and regional planning documents, the Proposed Project would be consistent with the AQMP[30]. South Coast AQMD staff is concerned the Lead Agency's consistency analysis. First, construction activities from Tier II development phase were not quantified and were subsequently found to have significant and

[26] Draft EIR. Section 3.2 Air Quality. Pages 3.2-12 through 3.2-14.
[27] *Ibid.* Page 3.2-11.
[28] Draft EIR. Section 2 Project Description. Pages 2-18 through 2-20.
[29] South Coast AQMD. Localized Significance Thresholds. Accessed at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.
[30] Draft EIR. Section 3.2 Air Quality. Pages 3.2-19 through 3.2-20.

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A4-12 cont.

unavoidable air quality impacts. Second, as discussed in Comment No. 2, the Proposed Project's air quality impacts from overlapping construction and operational activities were not analyzed and could potentially be significant and unavoidable after comparing the combined emissions from overlapping activities to South Coast AQMD's air quality CEQA significance thresholds for operation. Given these reasons, the Proposed Project may play a role in contributing additional ROG, NOx, CO, and particulate matter emissions in the Basin, which is already in extreme nonattainment for ozone, and could delay the efforts towards achieving attainment deadlines as outlined in the 2016 AQMP. Therefore, South Coast AQMD staff recommends that the Lead Agency revise the consistency analysis in the Final EIR.

A4-13

Additional Recommended Mitigation Measures

5. CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized to minimize or eliminate any significant adverse air quality impacts. South Coast AQMD staff recommends the following mitigation measures as suggested resources and guidance that the Lead Agency should review for incorporation in the Final EIR. The recommended mitigation measures will further reduce the Proposed Project's construction emissions, particularly NOx emissions from Tier IB development phase, provide guidance on project-level air quality analysis and formulation of mitigation measures for development projects under Tier II development phase, provide CEQA streamlining and tiering benefits, and facilitate the achievement of attainment goals and timelines outlined in the 2016 AQMP. For more information on potential mitigation measures as guidance to the Lead Agency, please visit South Coast AQMD's CEQA Air Quality Handbook website[31].

A4-14

Performance Standards-Based Periodic Technology Review

- Since the Proposed Project would be implemented over an estimated period of 20-plus years, the Lead Agency should take this opportunity to incorporate a periodic, technology review of both off-road construction equipment and on-road haul trucks that will be used during the Proposed Project. South Coast AQMD staff recommends that the Lead Agency develop project-specific or agency-wide strategies to foster and facilitate the deployment of the lowest emissions technologies as they becomes available. This may include incorporating a performance standards-based technology review, or developing other comparable strategies or tools, to periodically assess equipment availability, equipment fleet mixtures, and best available emissions control devices. The deployment should include those technologies that are "capable of being accomplished in a successful manner within a reasonable period of time" (California Public Resources Code Section 21061.1), such as zero- and near-zero emission technologies or best available control technologies (BACTs) that are expected to become more readily available over the life of the Proposed Project. A technology review should also incorporate an appropriate timeline/schedule for the assessment that will also be supportive of emissions reductions goals being implemented at local, regional, state, and federal levels (e.g. South Coast AQMD's AQMPs and other air quality and public health goals). If the technology review identifies that cleaner equipment and fleets have become available, the Lead Agency should commit to incorporating this new technology into the Proposed Project to further reduce the Proposed Project's emissions. South Coast AQMD staff encourages the Lead Agency to involve the public and interested parties, such as the South Coast AQMD and the CARB, in developing an appropriate process and performance standards for technology review.

[31] South Coast AQMD. Accessed at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook.

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Mitigation Measures for Construction Air Quality Impacts

A4-15 cont.

- The Lead Agency should consider to include a new air quality mitigation measure to require a project-level LSTs analysis prior to issuance of a grading permit as follows.

  Prior to issuance of a grading permit for new development projects that are one acre or larger, the applicant/developer shall provide air quality analysis of the localized emissions (NOx, CO, PM10, and PM2.5) associated with the maximum daily grading activities for the proposed development. If the localized air quality analysis shows that emissions would exceed South Coast AQMD's air quality CEQA localized thresholds for those emissions, the maximum daily grading activities of the proposed development shall be limited to the extent that could occur without resulting in emissions in excess of South Coast AQMD's significance thresholds for those emissions.

  This mitigation measure ensures that the Lead Agency has adequately analyzed the Proposed Project's localized air quality impacts for Tier II development phase to justify deferring the LSTs analysis, that a project- or site-specific LSTs analysis will be completed in a later stage, and that any nearby sensitive receptors are not adversely affected by the Proposed Project's construction activities that are occurring in close proximity.

A4-16

- Require the use of off-road diesel-powered construction equipment that meets or exceeds the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (USEPA) Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during construction. Such equipment should be outfitted with Best Available Control Technology (BACT) devices including, but not limited to, a CARB certified Level 3 Diesel Particulate Filters (DPF). Level 3 DPFs are capable of achieving at least an 85 percent reduction in particulate matter emissions[32]. A list of CARB verified DPFs are available on the CARB website[33].

  The Lead Agency should include this requirement in applicable bid documents, and that successful contractor(s) must demonstrate the ability to supply compliant equipment prior to the commencement of any construction activities. A copy of each unit's certified tier specification and CARB or South Coast AQMD operating permit (if applicable) should be available upon request at the time of mobilization of each applicable unit of equipment. The Lead Agency should require periodic reporting and provision of written documentation by contractors to ensure compliance, and conduct regular inspections to the maximum extent feasible to ensure compliance.

  In the event that the Lead Agency finds that Tier 4 construction equipment is not feasible pursuant to CEQA Guidelines Section 15364, the Project representative or contractor must demonstrate through future study with written findings supported by substantial evidence that is reviewed and approved by the Lead Agency before using other technologies/strategies. Alternative applicable strategies may include, but would not be limited to, Tier 3 construction equipment, reduction in the number and/or horsepower rating of construction equipment, limiting the number of daily construction haul truck trips to and from the Proposed Project, and/or limiting the number of individual construction project phases occurring simultaneously, if applicable. Any approved alternative technologies/strategies for use by the Lead Agency should be included and

[32] California Air Resources Board. November 16-17, 2004. *Diesel Off-Road Equipment Measure – Workshop*. Page 17. Accessed at: https://www.arb.ca.gov/msprog/ordiesel/presentations/nov16-04_workshop.pdf.
[33] *Ibid*. Page 18.

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A4-16 cont. disclosed in the Air Quality Section of the Final EIR as a project requirement or mitigation measure as a condition of approval.

A4-17

- Require the use of zero-emission (ZE) or near-zero emission (NZE) on-road haul trucks (e.g., material delivery trucks and soil import/export) such as heavy-duty trucks with natural gas engines that meet the California Air Resources Board (CARB)'s adopted optional NOx emission standard at 0.02 grams per brake horsepower-hour (g/bhp-hr). When requiring ZE or NZE on-road haul trucks, the Lead Agency should include analyses to evaluate and identify sufficient power and supportive infrastructure available for ZE/NZE trucks in the Energy and Utilities and Service Systems Sections of the Final EIR, where appropriate.

  CARB also adopted the statewide Truck and Bus Regulation in 2010. The Regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent[34]. Since the construction schedule of the Proposed Project extends beyond 2023, 2010 model year trucks will be required for the Proposed Project and should become more widely available commercially. Therefore, South Coast AQMD staff recommends that the Lead Agency implement the Truck and Bus Regulation early and require, at a minimum, that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year or newer engines, or establish a vendor(s)/contractor(s) selection policy that prefers vendor(s)/contractor(s) who can supply 2010 model year trucks, and include the requirement in the Proposed Project's Construction Management Plan. The Lead Agency's commitment to early implementation of the Truck and Bus Regulation at the Proposed Project helps facilitate the Proposed Project's transition to 2010 model year trucks in 2023, provides time and opportunities to resolve any implementation challenges ahead of 2023, eases the costs and burden of regulatory compliance over a period of time, and yields emission reductions from fleets earlier than 2023.

  To monitor and ensure ZE, NZE, or 2010 model year trucks are used at the Proposed Project, the Lead Agency should require that operators maintain records of all trucks associated with the Proposed Project's construction and make these records available to the Lead Agency upon request. The records will serve as evidence to prove that each truck called to the Proposed Project during construction meets the minimum 2010 model year engine emission standards. Alternatively, the Lead Agency should require periodic reporting and provision of written records by contractors, and conduct regular inspections of the records to the maximum extent feasible and practicable.

A4-18

- Encourage construction contractors to apply for South Coast AQMD "SOON" funds. The "SOON" program provides funds to applicable fleets for the purchase of commercially-available low-emission heavy-duty engines to achieve near-term reduction of NOx emissions from in-use off-road diesel vehicles. More information on this program can be found at South Coast AQMD's website: http://www.aqmd.gov/home/programs/business/business-detail?title=off-road-diesel-engines.

A4-19

Mitigation Measures for Operational Air Quality Impacts

- Provide incentives for vendors and material delivery trucks that would be visiting the medical facilities at the Proposed Project to encourage the use of ZE or NZE trucks during operation, such

[34] California Air Resources Board. December 20, 2018. https://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm.

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A4-19 cont.

as trucks with natural gas engines that meet CARB's adopted optional NOx emissions standard of 0.02 grams per brake horsepower-hour (g/bhp-hr). At a minimum, incentivize the use of 2010 model year delivery trucks[35]. Include analyses to evaluate and identify sufficient power available for zero emission trucks and supportive infrastructures in the Energy and Utilities and Service Systems Sections of the Final EIR, where appropriate.

A4-20

South Coast AQMD Rules and Regulations

6. Since the Proposed Project currently generates emissions from various onsite permitted stationary sources, such as emergency generators, boilers, and storage tanks[36], it is recommended that the Lead Agency consult with South Coast AQMD's Engineering and Permitting staff to determine if new permits or any changes to existing South Coast AQMD permits, such as termination or modification, are required, and if compliance with other applicable South Coast AQMD Rules are required and should be discussed in the Final EIR. If implementation of the Proposed Project requires a new air permit or modifications to an existing permit from South Coast AQMD, the Final EIR should identify South Coast AQMD as a Responsible Agency for the Proposed Project. Questions on permits and applicable South Coast AQMD rules can directed to South Coast AQMD's Engineering and Permitting staff at (909) 396-3385. If there is any information in the permitting process suggesting that the Proposed Project would result in significant adverse air quality impacts not analyzed in the Final EIR or substantially more severe air quality impacts than those analyzed in the Final EIR, the Lead Agency should commit to reevaluating the Proposed Project's air quality and health risks impacts through a CEQA process (CEQA Guidelines Section 15162). For more general information on permits, please visit South Coast AQMD's webpage at: http://www.aqmd.gov/home/permits.

[35] *Ibid.*
[36] Draft EIR. Section 3.2 Air Quality. Page 3.2-14.

Responses to Comments from South Coast Air Quality Management District, June 3 2019

Response to Comment A4-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The comment accurately summarizes the project description and the schedule assumptions used for the purposes of the air quality analysis in the Draft EIR. No further response is required.

Response to Comment A4-2

The comment accurately summarizes the air quality analysis included in the Draft EIR. No further response is required.

Response to Comment A4-3

The comment identifies the adoption date of the 2016 AQMP and outlines the challenge for the Basin to achieve a 45 percent reduction in NO_X emissions in 2023 and an additional 55 percent reduction in NO_X emissions by 2031 in order for the region to achieve ozone attainment. No response is required.

Response to Comment A4-4

The comment accurately notes that the air quality analysis in the Draft EIR did not quantify regional or localized construction or operational emissions from implementation of the Tier II development phase. As stated on page 1-1 of the Draft EIR, Tier II components of the proposed project have been discussed and analyzed at a programmatic level in the EIR, as permitted under Section 15168 of the state CEQA Guidelines. As stated in Chapter 2, *Project Description,* of the Draft EIR, the only information on the timing of Tier II development that is available at this time is that such development would likely occur after 2035. Funding has not yet been identified or secured for the Tier II projects and consequently development and construction schedules have not been identified for individual Tier II projects. Given the development schedules for Tier II projects are not known, the fact that Tier II projects would be constructed far in the future, and project schedules are crucial for developing estimates of emissions, it was determined that the quantification of construction and operational emissions would not provide meaningful informational value to the public and decision-makers. However, as discussed in Section 2.4.2.2, *Tier II Development*, of the Draft EIR, it is anticipated that subsequent environmental documentation will be prepared for individual Tier II projects when they are proposed and better defined; at that point, emissions from Tier II development will be quantified. Nonetheless, in order to ensure that potential Tier II development construction emissions would be reduced, mitigation measures **MM-AQ-1** through **MM-AQ-4** will be implemented. Additionally, implementation of **MM-GHG-C1** (refer to Section 3.7, *Greenhouse Gas Emissions*, of this Final EIR), which would implement idling time restrictions, compliance with manufacturer's equipment specifications, potential use of alternative fuels, and use of local and recycled materials, would further reduce air pollutant emissions during construction of Tier II

development. In the event that operation of any Tier II development exceeds any regional or localized emissions standards, **MM-AQ-5** would be implemented to achieve emissions reductions.

Response to Comment A4-5

Based on the comment that Tier IA development (Restorative Care Village) could be operational during the construction of Tier IB (Ambulatory Care Center, Parking Structure, Administration, Community Center, Materials Management/ Supply Services Building, and Central Plant East), a scenario in which Tier IA operations and Tier IB construction emissions overlap has been included in Section 3.2.4.3, *Impacts and Mitigation Measures*, of this Final EIR. With implementation of proposed mitigation measures, the revised analysis concludes that the resulting impacts would be less than significant. Consequently, no new significant information has been provided pursuant to Section 15088.5 of the state CEQA Guidelines that would require recirculation of the Draft EIR.

Please see the Response to Comment A4-12 for the information related to the commenter's concern regarding the project's consistency with the AQMP.

Response to Comment A4-6

The County acknowledges the comments, information, and the South Coast Air Quality Management District (SCAQMD) rules and regulations in the attachment to the SCQAMD comment letter. In response, additional mitigation has been incorporated into the project (see revised mitigation measures **MM-AQ-2** through **MM-AQ-5**, as detailed in the responses to Comments A4-13 through A4-19, and provided in Section 3.2.4.3, *Impacts and Mitigation Measures*, of this Final EIR).

Response to Comment A4-7

As requested in the comment and required by California Public Resources Code Section 21092.5(a) and CEQA Guidelines Section 15088(b), written responses to all comments contained in the comment letter have been provided to South Coast AQMD staff prior to the certification of the Final EIR. Detailed responses to each of the comments are provided below.

Response to Comment A4-8

As discussed in the Response to Comment A4-4, the comment accurately notes that the air quality analysis in the Draft EIR did not quantify regional or localized construction or operational emissions from implementation of the Tier II development phase. As stated on page 1-1 of the Draft EIR, Tier II components of the proposed project have been discussed and analyzed at a programmatic level, as permitted under Section 15168 of the state CEQA Guidelines. Chapter 2, *Project Description*, of the Draft EIR, identifies that the only information on the timing of Tier II development that is available at this time is that such development would occur after 2035. Section 15146 of the CEQA Guidelines identifies situations in which more detailed analysis is required (i.e., a construction project) and also situations in which less detail is required (i.e., a local general plan or comprehensive zoning ordinance). It is the County's view that Tier I development has sufficient information available to enable a more detailed analysis, and Tier II development more closely resembles a general plan type of project, which warrants a more general, programmatic level analysis. Efforts to address Section 15144 of the CEQA Guidelines were made during the preparation of the Draft EIR, but forecasting facility needs beyond 2035 and the ultimate timing of improvements needed was not possible, and Tier II was therefore analyzed at a programmatic level of detail. Given the unknown development

schedule for Tier II, the fact that Tier II projects would occur far in the future, and project schedules are crucial to developing estimates of emissions, it was determined that the quantification of construction and operational emissions would not provide meaningful informational value to the public and decision-makers. However, as discussed in Section 2.4.2.2, *Tier II Development*, of the Draft EIR, it is anticipated that subsequent environmental documentation will be prepared for individual Tier II projects when they are proposed and better defined. At that point, emissions from Tier II development will be quantified. In order to ensure that Tier II development construction emissions would be reduced, **MM-AQ-1** through **MM-AQ-4** will be implemented. Additionally, implementation of **MM-GHG-C1** (refer to Section 3.7, *Greenhouse Gas Emissions*), which would implement idling-time restrictions, compliance with manufacturer's equipment specifications, potential use of alternative fuels, and use of local and recycled materials, would further reduce air pollutant emissions during construction of Tier II development. In the event that operation of any Tier II development exceeds any regional or localized emissions standards, **MM-AQ-5** would be implemented to achieve emissions reductions.

Response to Comment A4-9

As discussed in the Response to Comment A4-8, given the unknown development schedule for Tier II and project schedules are crucial for developing estimates of emissions, it was determined that the quantification of construction and operational emissions would not provide meaningful informational value to the public and decision-makers. As noted in the responses above, Tier II components of the proposed project have been discussed and analyzed at a programmatic level, as permitted under Section 15168 of the state CEQA Guidelines. Subsequent environmental documentation will be prepared for individual Tier II projects when they are proposed and better defined, as noted in Section 2.4.2.2, *Tier II Development*, and quantification of Tier II impacts will be disclosed to the public and decision-makers at that time. Mitigation measures, including **MM-AQ-3** and **MM-AQ-4** in this Final EIR, establish standards that would need to be implemented in the event that emissions standards are exceeded for Tier II development.

Response to Comment A4-10

Although the SCAQMD has not published guidance in either its CEQA Handbook or elsewhere on its website that a Lead Agency is required to analyze a scenario for phased projects in which emissions from construction activities overlap with operational activities and are then compared to operational emissions thresholds, the County has revised the analysis in the Final EIR to address the concern. Given that Tier IA development could be operational during the construction of Tier IB, a scenario in which Tier IA operations and Tier IB construction emissions overlap has been included in Section 3.2.4.3, *Impacts and Mitigation Measures*. As shown in revised Table 3.2-8, emissions from the overlapping operation of Tier IA and Tier IB construction activities would exceed regional operational emissions thresholds of significance for NO_X and VOC. In light of the exceedance and in recognition of SCAQMD's efforts to reduce regional concentrations of ozone, **MM-AQ-1** was strengthened to reduce the allowable VOC content of architectural coatings to 15 grams/liter (g/L) for both Tier I and Tier II, compared with the 25 g/L content identified in the Draft EIR. In addition, **MM-AQ-2** was added to require Tier I construction activities use USEPA Tier 4 equipment with BACT devices, including, but not limited to, California Air Resources Board (CARB) Level 3 Diesel Particulate Filters. With the implementation of **MM-AQ-1** and **MM-AQ-2**, emissions were determined not to exceed emissions thresholds of significance, as shown in Table 3.2-8.

Consequently, no new significant information has been provided pursuant to Section 15088.5 of the state CEQA Guidelines that would require recirculation of the Draft EIR.

Response to Comment A4-11

As discussed in the Response to Comment A4-8, given the unknown development schedule for Tier II and the fact that project schedules are crucial for developing estimates of emissions, no quantification of Tier II emissions was undertaken. As noted in the responses above, Tier II components of the proposed project have been discussed and analyzed at a programmatic level, as permitted under Section 15168 of the state CEQA Guidelines. Nonetheless, the Draft EIR acknowledged that Tier II construction and operational emissions could be significant. Accordingly, and in response to SCAQMD's comments, the County has included a new mitigation measure in the Final EIR, **MM-AQ-4**, which specifies that a localized emissions analysis will be conducted for subsequent individual projects under Tier II. The addition of this mitigation measure would not require recirculation of the Draft EIR because the conclusions in the Draft EIR regarding the significance of impacts after implementation of proposed mitigation measures would not change, and no other new significant information has been provided pursuant to Section 15088.5 of the state CEQA Guidelines.

Response to Comment A4-12

The comment recommends the revision of the AQMP consistency analysis based on the analysis in the Draft EIR, including a scenario in which construction activities from Tier IB overlap with operational activities from Tier IA and also that the analysis in the Draft EIR did not quantify emissions from Tier II development. As noted in the responses above, Tier II components of the proposed project have been discussed and analyzed at a programmatic level, as permitted under Section 15168 of the state CEQA Guidelines. Section 3.10, *Land Use*, of the Draft EIR includes an analysis of the project's consistency with the County of Los Angeles General Plan, as well as the City of Los Angeles Sylmar Community Plan, both of which provide land use inputs into the AQMP development process. Given that the project is consistent with relevant land use and planning documents with jurisdiction in the project area, it is the County's view that such development is not in conflict with the assumptions on which the AQMP is based and, therefore, the Draft EIR concluded the impact AQ-1 (conflict with AQMP) is less than significant. That conclusion remains the same in this Final EIR.

The comment suggests that because the project could result in exceedances of daily regional thresholds, it would necessarily be in conflict with the AQMP's efforts to achieve regional attainment. As discussed in the Response to Comment A4-0, the Tier I air quality analysis has been revised to include a scenario in which construction activities from Tier IB overlap with operational activities from Tier IA. With the implementation of **MM-AQ-1** and **MM-AQ-2**, emissions would not exceed operational thresholds for the overlapping construction and operation. With respect to emissions that would be generated during Tier II development, as discussed in the responses to Comments A4-8 and A4-9, given the unknown development schedule for Tier II and project schedules are crucial to developing estimates of emissions, it was determined that the quantification of construction and operational emissions would not provide meaningful informational value to the public and decision-makers. Subsequent environmental documentation will be prepared for individual Tier II projects when they are proposed and better defined, as noted in Section 2.4.2.2, *Tier II Development*, and quantification of Tier II impacts will be disclosed to the public and decision-makers at this time. Mitigation measures, including **MM-AQ-3** and **MM-AQ-4** in this Final EIR,

establish standards that would need to be implemented in the event that emissions standards are exceeded for Tier II development. Based on the proposed project's consistency with applicable land use and planning assumptions, that Tier I would not result in exceedances of regional thresholds and Tier II development would undergo subsequent environmental analysis and implement South Coast AQMD-recommended mitigation, it is the County's view that the proposed project would not conflict with or obstruct implementation of the AQMP.

Response to Comment A4-13

The comment indicates that CEQA requires all feasible mitigation measures that go beyond what is required by law be utilized to minimize or eliminate any significant adverse air quality impacts. Public Resources Code Section 21004 states that "a public agency may use discretionary powers provided by such other law for the purpose of mitigating or avoiding a significant effect on the environment subject to the express or implied constraints or limitations that may be provided by law."

Additionally, the comment indicates that SCAQMD has recommended additional mitigation measures that should be considered for incorporation in the Final EIR, which would further reduce the proposed project's construction emissions, provide guidance on project-level air quality analysis and formulation of mitigation measures for Tier II projects, provide CEQA streamlining and tiering benefits, and facilitate achievement of the attainment goals and timelines outlined in the 2016 AQMP. The County has reviewed these recommended mitigation measures and, where such mitigation has been determined to be feasible for the proposed project, have committed to incorporating them in the Final EIR. Also, please see the responses to the comments above and Comment A4-14 below and Section 3.2.4, *Environmental Impact Analysis*, of this Final EIR for the revisions and additions to the proposed air quality mitigation measures.

Response to Comment A4-14

The comment recommends mitigation that would require a performance standards-based technology review to be conducted periodically by the County over the life of the proposed project to facilitate the deployment of the lowest emissions technologies as they become available over time. Such technologies may include zero- and near-zero emission technologies or BACTs. Based on the air quality analysis for the proposed project, impacts associated with construction emissions would be less than significant during Tier I development and significant and unavoidable with mitigation for Tier II development. As the Tier II development would occur after 2035, the County acknowledges that newer technologies would be available during that time that could achieve greater emissions reductions of the proposed project's construction emissions than the technologies that are presently available at the time of this writing. As such, **MM-AQ-3** has been further strengthened in the Final EIR as follows:

> **MM-AQ-3**: In the event that construction-period emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following ~~or more effective measures~~ to achieve emissions reductions:
>
> 1. For exceedances of particulate matter or NO_X regional or localized significance thresholds, the County (or its contractors) will:

a. Use off-road equipment that meets or exceeds U.S. Environmental Protection Agency Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during all phases of construction;

b. Outfit all off-road equipment with BACT devices, including, but not be limited to, CARB-certified Level 3 DPFs~~)~~; ~~and~~

c. Require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year or newer trucks (e.g., material delivery trucks and soil and aggregate import/export) that meet CARB's 2010 engine emission standards of 0.01 gram per brake horsepower-hour (g/bhp-hr) of PM and 0.20 g/bhp-hr of NO_X emissions or newer, cleaner trucks~~.~~; and

d. The aforementioned off-road and on-road requirements will be included in the County's applicable bid documents, and the awarded construction contractor must demonstrate the ability to successfully supply compliant equipment prior to commencement of any construction activities. A copy of each equipment unit's certified tier specification and, where applicable, the CARB or SCAQMD operating permit, will be made available to the Construction Monitor upon request at the time of mobilization of each applicable unit of equipment. All construction contractors supplying off-road equipment greater than 50 hp to the campus will be encouraged to apply for SCAQMD SOON funds, and SCAQMD's website containing information about the program will be provided to each contractor.

2. In recognition that the Tier II developments would occur after 2035 and that more effective measures would likely be available at that time to reduce pollution emissions, the County (or its contractors) will implement all other current and feasible mitigation that are readily available for deployment at the time a Tier II project's details are known, which may include, but is not limited to, the use of construction equipment with the latest emission control systems/technologies that would result in emission reductions exceeding those achieved by presently available technologies (e.g., Tier 4 off-road equipment and 2010 model year or newer trucks). Such technologies may include zero-emission or near-zero off-road and on-road equipment readily available in the South Coast Air Basin. To stay abreast of the latest available mitigation, the County will conduct a review of SCAQMD's Air Quality Analysis Handbook website on an annual basis to ensure that recommended mitigation measures by SCAQMD are considered for each future discretionary project.

The additional mitigation language incorporated into **MM-AQ-3** would require the implementation of all current and feasible mitigation readily available at the time a Tier II project's details are known, which will ensure that the latest technologies available over the life the Tier II development phase will be reviewed and considered if construction emissions would exceed SCAQMD's regional or localized emissions standards. Also, please note that these revisions do not change the Draft EIR's conclusions regarding the significance of air quality impacts before and after implementation of the proposed mitigation measures.

Response to Comment A4-15

The comment identifies a new air quality mitigation measure that should be considered by the County to ensure that the construction of new development projects occurring under the Tier II development phase would not adversely affect any offsite sensitive receptors located near the proposed project. This recommended mitigation requires that a project-level Localized Significance

Threshold (LST) analysis be conducted prior to issuance of a grading permit for new development projects that are 1 acre or larger to ensure that localized construction emissions generated during the Tier II development phase would be limited to the extent that the resulting emissions would be below SCAQMD's significance thresholds. The County has reviewed this mitigation and determined that it can be feasibly implemented during the proposed project's Tier II development phase. As such, **MM-AQ-4** has been added to the Final EIR with the following language:

> **MM-AQ-4**: Prior to issuance of a grading permit for new individual projects occurring under the Tier II development phase that are 1 acre or larger, the County will conduct an air quality analysis of the localized emissions (NO_X, CO, PM_{10}, and $PM_{2.5}$) associated with the maximum daily grading activities for the proposed development. If the localized air quality analysis shows that emissions would exceed SCAQMD's air quality CEQA localized thresholds for those emissions, mitigation will be implemented and/or the maximum-daily grading activities of the proposed development will be limited to the extent that could occur without resulting in emissions in excess of SCAQMD's significance thresholds for those emissions.

Please note that the addition of this mitigation measure does not change the conclusions in the Draft EIR regarding the significance of air quality impacts before or after implementation of the proposed mitigation measures.

Response to Comment A4-16

Based on this comment in addition to Comment A4-10, the County has added **MM-AQ-2** to the Final EIR, which requires the use of Tier 4 construction equipment during both Tier I and Tier II development under the proposed project. Specifically, **MM-AQ-2** states the following:

> **MM-AQ-2**: To minimize particulate matter and NO_X emissions during construction of Tier I projects, the County (or its contractors) will use off-road equipment that meets or exceeds U.S. Environmental Protection Agency Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during construction. Such equipment will be outfitted with BACT devices, including, but not limited to, CARB-certified Level 3 DPFs or equivalent.

In addition, as noted in Response to Comment A4-14, **MM-AQ-3** has been further strengthened in the Final EIR with added language that requires the County's applicable bid documents for contractors to include a Tier 4 construction equipment requirement and a requirement that the awarded construction contractor must demonstrate the ability to successfully supply compliant equipment prior to commencement of any construction activities. Additionally, the revised language for **MM-AQ-3** also requires that a copy of each equipment unit's certified tier specification and, where applicable, the CARB or SCAQMD operating permit, would be made available to the Construction Monitor upon request at the time of mobilization of each applicable unit of equipment.

Response to Comment A4-17

As stated Response to Comment A4-14, additional mitigation language has been incorporated into **MM-AQ-3** that would require the implementation of all current and feasible mitigation measures readily available at the time a Tier II project's details are known, which would ensure that the latest technologies available over the life the Tier II development phase, will be reviewed and considered if construction emissions would exceed SCAQMD's regional or localized emissions standards. Such technologies may include zero-emission or near-zero off-road and on-road equipment readily available in the South Coast Air Basin. Additionally, the existing language in **MM-AQ-3** includes the

requirement pertaining to the use of 2010 model year or newer trucks during construction during the Tier II development phase. Although the operational emissions associated with Tier I development would not exceed the applicable SCAQMD regional or localized thresholds, the SCAQMD encourages the County to commit to the use of 2010 model year or newer trucks during construction occurring earlier than Tier II development. While this option will be considered, the County will need to further consider the feasibility of implementing such a measure during Tier I development and prefers not to commit to such a requirement at this time.

Response to Comment A4-18

In response to this comment, **MM-AQ-3** has been further strengthened in the Final EIR with added language that requires that County to encourage all construction contractors supplying off-road equipment greater than 50 hp to the campus to apply for SCAQMD Surplus Off-Road Opt-In for NO_X (SOON) funds, including the provision of SCAQMD's website containing information about the program to each contractor.

Response to Comment A4-19

The comment recommends a mitigation measure for the proposed project's operational air quality impacts that entails providing incentives for vendors and material delivery trucks visiting the medical facilities at the proposed project to encourage the use of zero-emission (ZE) or near-zero emission (NZE) trucks, or, at a minimum, incentivize the use of 2010 model year delivery trucks. Based on the air quality analysis for the proposed project, impacts associated with operational emissions would be less than significant during Tier I development and significant and unavoidable with mitigation for Tier II development. Because Tier II development would occur beyond 2035, it is likely that delivery trucks in use at that time would yield much lower emissions than 2010 model year delivery trucks. However, ZE or NZE trucks are expected to be viable options. As such, to ensure that all feasible mitigation is implemented by the proposed project to reduce its significant and unavoidable impacts under Tier II development, **MM-AQ-5** has been further strengthened in the Final EIR as follows:

MM-AQ-5: In the event that operational emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following to achieve emissions reductions upon construction:

1. Increase energy efficiency by at least 10 percent beyond the Title 24 standard in place at the time of construction, unless demonstrated to be infeasible.
2. Utilize low VOC coatings (VOC content less than or equal to 25 grams per liter) for periodic painting and facility upkeep.
3. Install solar water heaters.
4. Maximize interior day light and utilize high efficiency lighting.
5. Increase roof/ceiling insulation beyond the American Society of Heating, Refrigeration, and Air Conditioning Engineers Standard 90.1-2010.
6. Install weather-based irrigation controllers to reduce outdoor water consumption.
7. Implement travel demand reduction measures (TDM) for employees, including, but not necessarily limited to measures such as:

a. Providing bicycle parking for at least 5 percent of full-time-equivalent campus employees.

b. Providing preferential carpool spaces within proposed parking structures on the campus.

c. Provide shuttles for visitors and employees from Metrolink and/or Metro Rail stations to reduce vehicle trips.

8. Incorporate onsite renewable energy production, including installation of photovoltaic cells or other options.

9. The County will give preference to vendors that use zero-emission and near-zero emission on-road haul trucks in their vehicle fleet as opposed to diesel-powered trucks.

Please note that the revisions to this mitigation measure do not change the conclusions in the Draft EIR regarding the significance of air quality impacts before or after implementation of the proposed mitigation measure.

Response to Comment A4-20

The comment recommends that the Lead Agency consult with SCAQMD's Engineering and Permitting staff to determine if new permits or changes to existing SCAQMD permits are required and if compliance with other applicable SCAQMD Rules is required. Where information from the permitting process suggests that the project would result in significant adverse air quality impacts not analyzed in the Final EIR, the Lead Agency should commit to reevaluating the project's air quality and health risks through a CEQA process. However, as indicated in Section 3.2.4.1, *Methods*, of Chapter 3, *Air Quality*, specific details regarding permitted onsite stationary source equipment, including whether such equipment would be needed, are unknown at this time by the County. However, as a good-faith effort to account for the potential that such equipment could be needed on the campus, the air quality analysis of the Tier I development accounted for this scenario by taking the annual reported emissions from SCAQMD's Facility INformation Detail (FIND) database for calendar year 2016 for existing permitted sources and scaled those emissions linearly (based on the change between existing campus square footage and buildout of Tier I square footage) to come up with an emissions estimate for such equipment. The inclusion of the resulting emissions estimate into the operational emissions for the Tier I development was done so as to not understate the proposed project's estimated operational emissions, even though the need for such permitted stationary equipment for the proposed project is unknown at this time. Currently, the County does not have any substantive details regarding the need for permitted stationary equipment for the proposed project. When such details are known, and it is determined that such equipment would be needed, the County will need to obtain the operating permits from SCAQMD. Furthermore, for the Tier II development projects occurring after 2035, it is anticipated that subsequent environmental documents will need to be prepared, in compliance with CEQA regulations, for the individual projects when they are proposed and better defined. For those individual projects where the need for permitted stationary equipment has been identified, the County will identify SCAQMD as a Responsible Agency for those projects' environmental documentation.

Comment Letter A5

Comment Letter A5

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-6536
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TTY 711
www.dot.ca.gov

*Serious Drought.
Making Conservation
a California Way of Life.*

July 8, 2019

Ms. Hoda El Sokkary
Project Manager
Department of Public Works
County of Los Angeles
900 South Fremont
Alhambra, CA 91803

RE: Olive View – UCLA Medical Center Campus Master Plan
Vic. LA-210/PM R1.945
SCH # 2016031090
GTS # 07-LA-2019-02501AL/K-DEIR

Dear Ms. El Sokkary:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The proposed Olive View-UCLA Medical Center Campus Master Plan (proposed project) is intended to guide development of the campus over a period of years (20+ years) and the delivery of health care services and health related community programs. The Master Plan provides alternate paths for that development and flexibility to allow the Master Plan to adapt to changes over time. The Master Plan also includes an analysis and assessment of existing campus infrastructure and buildings, future considerations and recommendations for the campus' land use, and a series of design guidelines that guide building placement, form, and materiality.

As Caltrans continues to strive to improve its standards and processes to provide flexibility while maintaining safety and integrity of the State's transportation system. It is our goal to implement strategies that are in keeping with our mission statement, which is to "provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability." After reviewing the Draft Environmental Impact Report (DEIR), Caltrans has the following comments:

A5-1 The nearest State facility to the proposed project is Interstate 210 (I-210). Caltrans has previously met with the County of Los Angeles, the Lead Agency, and provided input regarding the locations and studies needed for this project. According to Table 3.15-3, the project has a minor increase between the existing and existing-plus- project, and the Level of Service (LOS) maintains the same without any significant impact. Table

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Ms. El Sokkary
July 8, 2019
Page 2 of 2

A5-1 cont. 3.15-4 also shows no significant impact between Cumulative and Cumulative-plus-project scenario. Table 3.15-5, the project has no impact during peak hour on I-210 and Table 3.15-6 (queue analysis) shows that there is insignificant change between the existing (2019) AM/PM off-ramp queuing and cumulative (2035) plus- project, and the queue was not exceeding 85% of the storage for the off ramps. Per Caltrans request, a queue analysis was performed, and the queue analysis did not show an exceeding 85% of the storage for the off ramps. As a result of the aforementioned, Caltrans does not have any further comments regarding to the proposed project.

A5-2 As a reminder, any transportation of heavy construction equipment and/or materials which requires use of oversized-transport vehicles of State highways will need a Caltrans transportation permit. We recommend large size truck trips be limited to off-peak commute periods.

If you have any questions, please feel free to contact Mr. Carlo Ramirez at (213) 897-6536 and refer to GTS # LA-2016-02501-DEIR.

Sincerely,

MIYA EDMONSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

"Provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability"

Responses to Comments from Department of Transportation, District 7, July 8, 2019

Response to Comment A5-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The comment restates data presented in the Draft EIR regarding the Level of Service (LOS) and that the traffic impact study was prepared following initial consultation with Caltrans and under close coordination with the Los Angeles County Department of Public Works and Los Angeles Department of Transportation (LADOT), in a manner consistent with LADOT's traffic study guidelines and the *Metro Congestion Management Plan*. No response is required.

Response to Comment A5-2

The comment advises that oversized vehicles traveling on State highways must obtain a transportation permit from the California Department of Transportation (Caltrans) and recommends that large truck trips be limited to off-peak commute periods.

As indicated in this comment, if the use of oversized-transport vehicles on State highways becomes necessary during project construction, the project would be required to obtain a Caltrans transportation permit. Construction truck trips could occur during peak periods. However, mitigation measure **MM-TRAF-1** in Section 3.15, *Transportation/Traffic,* of the Draft EIR, requires the County to devise a Traffic Control Plan to be implemented during construction of the project. As part of that plan, haul routes for deliveries and pick-ups of construction materials would be defined as well as appropriate restrictions on travel times.

Comment Letter A6

Comment Letter A6

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Gavin Newsom
Governor

Kate Gordon
Director

July 9, 2019

Hoda ElSokkary
Los Angeles County
900 South Fremont
Alahambra, CA 91803

Subject: Olive View-UCLA Medical Center Campus Master Plan
SCH#: 2016031090

Dear Hoda ElSokkary:

The State Clearinghouse submitted the above named EIR to selected state agencies for review. The review period closed on 7/8/2019, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

A6-1

> "A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

Check the CEQA database for submitted comments for use in preparing your final environmental document: https://ceqanet.opr.ca.gov/2016031090/2 . Should you need more information or clarification of the comments, **we recommend that you contact the commenting agency directly**.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL 1-916-445-0613 state.clearinghouse@opr.ca.gov www.opr.ca.gov

Response to Comment from State of California, Governor's Office of Planning and Research State Clearing house and Planning Unit, July 9, 2019

Response to Comment A6-1

The letter acknowledges the formal close of the review period and the County's compliance with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. No further response is required.

Comment Letter A7

Comment Letter A7

Mountain-Castro, Jenelle

From: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Sent: Thursday, August 01, 2019 9:40 AM
To: Lisecki, Lee; Mathias, Marissa
Cc: Alicia Ramos; Lauren Dods
Subject: FW: DEIR Comments - Olive View - UCLA Medical Center Campus Master Plan

fyi

Thanks!

Hoda El Sokkary, P.E., MSc.
Senior Capital Projects Manager
Los Angeles County Public Works
HQ: (626) 300-2332
Cell: (626) 238-4047

From: Gonzalez, Brian <Brian.Gonzalez@ladwp.com>
Sent: Thursday, August 1, 2019 9:20 AM
To: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Subject: FW: DEIR Comments - Olive View - UCLA Medical Center Campus Master Plan

Good morning,

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to review Olive View – UCLA Medical Center Campus Master Plan Draft EIR. The LADWP respectfully submits the following comments:

A7-1

1. **Section 3.17. Utilities/Service Systems**
   3.17.3.1 Water Supply (Page 3.17-9)

   Comment:
   First and Second Paragraphs:
   Use water supply information from LADWP 2015 Urban Water Management Plan or the LADWP Briefing Book (https://www.ladwpnews.com/2018-briefing-book/).

A7-2

2. **Section 3.17. Utilities/Service Systems**
   Table 3.17-6b Calculated Total Additional Water Demand-Proposed Use (Page 3.17-21)

   Comment:
   Verify that the project scope in the Environmental Impact Report is the same project scope included in the Water Supply Assessment, approved on March 7, 2017. If the scope has changed, verify that the change in the scope does not meet the conditions stated in the California Water Code Section 10910 (h)(1) or Section 10910 (h)(3).

A7-3

3. **Appendix K Utilities Assessment**
   Table: Tier 1 Calculated Total Additional Water Demand

   Comment:

1

A7-3 cont. Verify that the project scope in the Environmental Impact Report is the same project scope included in the Water Supply Assessment, approved on March 7, 2017. If the scope has changed, verify that the change in the scope does not meet the conditions stated in the California Water Code Section 10910 (h)(1) or Section 10910 (h)(3).

A7-4 **4. Appendix K Utilities Assessment**
Draft letter from Los Angele County Public Works to LADWP Water Systems

Comment:
LADWP has not received this April 24, 2019 letter marked DRAFT. Is this letter in lieu of the February 1, 2017 Water Conservation Commitments Letter (Appendix B of the Water Supply Assessment)?

LADWP's formal response letter that includes the comments above has been sent via US Mail.

Should you have any questions or if I can be of further assistance, please do not hesitate to contact me.

Kind regards,

BRIAN GONZALEZ
Environmental Planning and Assessment
Los Angeles Department of Water and Power
111 N. Hope Street, Room 1044
Los Angeles, CA 90012
213.367.2612
brian.gonzalez@ladwp.com

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2

Responses to Comments from Los Angeles Department of Water and Power, August 1, 2019

Response to Comment A7-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

References to the Los Angeles Department of Water and Power's 2018 Briefing Book have been included as recommended. Please see the revisions to the text of Section 3.17, *Utilities/Service Systems*, of the Final EIR.

Response to Comment A7-2

The commenter asks for verification that the Water Supply Assessment (WSA) reflects the same scope as the WSA approved on March 7, 2017 and, if the scope has changed, verification that it does not meet the conditions stated in the California Water Code Section 10910 (h)(1) or Section 10910 (h)(3).

California Water Code Section 10910 (h)(1) and Section 10910 (h)(3) states:

> Notwithstanding any other provision of this part, if a project has been the subject of a water supply assessment that complies with the requirements of this part, no additional water supply assessment will be required for subsequent projects that were part of a larger project for which a water supply assessment was completed and that has complied with the requirements of this part and for which the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), has concluded that its water supplies are sufficient to meet the projected water demand associated with the proposed project, in addition to the existing and planned future uses, including, but not limited to, agricultural and industrial uses, unless one or more of the following changes occurs:

(1) Changes in the project that result in a substantial increase in water demand for the project.
(2) Changes in the circumstances or conditions substantially affecting the ability of the public water system, or the city or county if either is required to comply with this part pursuant to subdivision (b), to provide a sufficient supply of water for the project.
(3) Significant new information becomes available that was not known and could not have been known at the time when the assessment was prepared.

As described in Chapter 2, *Project Description*, of the Draft EIR, the Olive View–UCLA Medical Center Campus Master Plan Project identifies potential new facilities and infrastructure improvements that could be developed on the campus over a number years into the future. For the purposes of the analysis in the EIR, this development was described as occurring into two tiers or phases, Tier I development, which includes near- and mid-term development up to the year 2035. Tier II development is expected to occur much further in the future or beyond the year 2035.

The WSA that was approved on March 7, 2017, determined that Tier I and Tier II development combined would result in a net increase in water demand of 551 acre feet per year (AFY). Subsequent to completion of the WSA, revisions to the Master Plan were made to include the development of proposed Restorative Care Village facilities under Tier I of the Master Plan. The proposed Restorative Care Village facilities would result in an estimated water demand of 49.3 AFY,

which represents an 8 percent increase in the 551 acre feet identified in the WSA. Consequently, development of the proposed Restorative Care Village would not result in a substantial increase in the amount of water demand estimated in the WSA, and the conditions stated in California Water Code Section 10910(h)(1) or Section 10910(h)(3) would not be met.

Furthermore, no new significant information has become available that was not analyzed in the 2017 WSA.

Response to Comment A7-3

Please refer to Response to Comment A7-2.

Response to Comment A7-4

This draft letter was inadvertently included in Appendix K of the Draft EIR. Given that the changes to the Master Plan subsequent to completion of the WSA in 2017 would not substantially increase water demand (see the response to Comment A7-2 above), no changes to the commitments in the February 1, 2017, Water Conservation Commitments letter are required.

Comment Letter O1

Comment Letter O1

Officers
President: **Christian Rubalcava**
Vice President of Administration: **Andres Rubalcava**
Vice President of Communications: **David Gonzales**
Treasurer: **George Ortega**
Secretary: **Michelle Underwood**

June 27th, 2019

Hoda El Sokkary, Senior Project Manager
County of Los Angeles Department of Public Works
900 S. Fremont Avenue
Project Management Division 1, 5th Floor
Alhambra, California 91803-1331

OVMCEIR@dpw.lacounty.gov

Re: Olive View-UCLA Medical Center Campus Master Plan
Draft Environmental Impact Report Comments

Mr. Hoda El Sokkary,

Please find the following comments approved by the Sylmar Neighborhood Council at their Board meeting of June 27th, 2019:

O1-1 **Project sequencing and uses changed from the NOP to the draft EIR**. The NOP plan and public meetings provided information that is inconsistent with the draft EIR plan. Public presentations during the NOP did not provide accurate information which the community relied upon and provided comments. Additional time is requested for review as well as a determination that the project did not violate CEQA regulations due to the inconsistencies between the NOP and the draft EIR.

O1-2 **Outreach** is inadequate for a project of this scale. The Community at-large is not being notified; mailings and posting are limited and take a narrow view on engaging the community. A more strategic outreach plan was necessary and should consider presentations with a number of local community groups, distribution of project information on flyers (English and Spanish) provided to schools for distribution with students to parents, flyer included with local paper like the San Fernando Valley Sun and flyers/postings placed at retail locations frequented by local residents such as grocery, pharmacy and food establishments. The outreach and comment period should be extended a sufficient time to allow the project to provide adequate outreach and gather public comment.

O1-3 **Parking is inadequate.** Currently visitors to the Hospital frequently cannot find parking on-site and have to resort to parking on Olive View Drive and in the surrounding neighborhood. The Master Plan parking calculations do not reflect the actual parking need. Increased parking requirements should be calculated based on current and future need to avoid overflow parking that spills into the neighborhood. Parking deficiencies must be specifically addressed in the parking plan with information shared with the community as well as secondary measures that become mandatory should the Master Plan parking plan be inadequate and overflow into the surrounding community. The plan and additional parking measures need to be a condition of the Master Plan approval.

O1-4 **Parking during construction activities is inadequate**. The phasing of improvements, removal of existing parking and need for construction parking will exasperate the currently inadequate parking and force more visitor parking off-site in the surrounding neighborhood. Parking deficiencies must be specifically addressed in the parking plan with information shared with the community as well as secondary measures that will be mandatory should the parking plan be inadequate and overflow into the surrounding community. The plan and additional parking measures need to be a condition of the Master Plan approval.

Hoda El Sokkary, Senior Project Manager
County of Los Angeles Department of Public Works
Olive View-UCLA Medical Center Campus Master Plan
Draft Environmental Impact Report Comments

June 27th, 2019

Page 4 of 4

O1-5 **Fire and emergency response is below acceptable standards.** The response times in Sylmar, including Olive View Medical Center, do not meet national standards for response times and are the lowest in the City of Los Angeles. Providing additional Fire and emergency services are a high priority and needed now. One can recall in 2008 the Sayre Fire that burned 480 of 600 homes adjacent to hospital at Oakridge Mobile Home Park and other hillside fires that are now an annual occurrence. The added impact of fire and emergency services from expansion at the Olive View Medical Center will result in further eroding services that are already inadequate and life threatening. Additional fire and emergency response resources must be provided prior to any additional development on the campus. A detailed Fire and Emergency Response Plan is needed and should include details as to how the area will meet response standards; including equipment, stations and personnel and presented to the community for acceptance and made a condition of the Master Plan approval.

O1-6 **Law enforcement is currently inadequate on the campus** and hospital activities are negatively impacting the surrounding community. There are patient "walk-offs", unauthorized on campus activities with persons and vehicles, vandalism as well as encampments in the adjacent hillsides. A detailed security plan is needed to address Campus and surrounding needs to mitigate existing and future impacts. The plan should encompass personnel, surveillance and internal controls and detail measures at all campus ingress and egress points. In addition, specific internal campus controls and security around high risk uses like psychiatric, recuperative and long term care and residential treatment. The security plan would include a campus design incorporating "Single-Point-Of-Entry" as a means to gain entry into certain areas within the campus as well as limiting the number of client and visitor entry points. The plan would also detail posting of signage and regular patrols of the adjoining hillsides to discourage encampments, dumping and related risks prone to high fire areas. The draft Security Plan would be presented to the community for comment and revised to incorporate community input. Once final the Security Plan would be a condition of Master Plan approval.

O1-7 **Community Center** detail as to programming including access and use is needed. Various groups in Sylmar have longed desired a Community Center to hold meetings and use for community functions. As an example, the Sylmar Neighborhood Council currently meets at the Sylmar High School Auditorium and leases office at a shopping center and would welcome being included in the programming for the Community Center. Without specifics as part of the plan and made as a condition of approval the community cannot rely that this resource will be available for use. The programming of the Community Center and use along with commitments on access must be part of the plan and presented to the community for input. Once complete this would be a condition of the Master Plan approval.

O1-8 **Fitness Center** – Similar to the Community Center as the programming including access and use is needed. Without specifics as part of the plan and made as a condition of approval the community cannot rely that this resource will be available for use. The programming of the Fitness Center and uses along with commitments for community access must be part of the plan and presented to the community for input. Once complete this would be a condition of the Master Plan approval.

O1-9 **Equestrian Improvements Plan** –More specifics are needed about trail access and improvements thru the campus and connections to the adjoining foothills. Details should include minimum trail widths and design standards, trail protection from vehicle and off road use as well as where conflict exists when trails parallel streets and street crossing, and details on staging areas. A section should discuss the timing when improvements will occur. A detail Equestrian Plan should be presented to the community for input and incorporated into the final plan and made a condition of the Master Plan approval.

O1-10 **Architectural Elevations** – The Sylmar Community Plan encourages building elements to enhance our rural and equestrian culture within the back drop of our surrounding mountain ranges that many residents value. Residents also hold a strong identity with Sylmar "Sea of Trees" as the area was once the largest grove of olive trees in the word that grew from the San Fernando Mission. The Olive View-UCLA Medical Center draws its name from this history and should reflect these values and history. The Community Plan guides new development to respect the area's history in design and to complement the surrounding hillsides. The Campus Master Plan design seems to set a clean contemporary stark contrast in the shadows of Wilson Canyon backdrop of mountain ranges and does not

P.O. Box 921023, Sylmar, CA 91392-1023 • Telephone (818) 833-87377 • Email: Board @SylmarNC.org • Website: www.SylmarNC.org

O1-10 cont.

identify with the community. One can look at Mission College as an example of how this can be accomplished in a Campus setting. That the architectural style is to reflect Sylmar's history and existing ranch and rural character valued by the community and consistent the Community Plan, and how Sylmar identifies itself, while protecting / blending with the scenic mountains surrounding the campus. This should be a condition of the Master Plan approval.

O1-11

Recuperative Care and Residential Treatment site locations are near areas with frequent high levels of noise, vibration, dust and other air born concerns.

- The May Canyon debris spreading grounds are located directly east of the hospital with the haul route access road adjacent to the recuperative care and residential treatment buildings. The access road is used by dump trucks hauling debris from surrounding storm basins with as many as 120 trips per day. As they travel the access road the trucks kick up dust and cause vibrations. In addition, the trucks' diesel engines exhaust adds fine particulate matter into the air making it, along with the dust, unhealthful and more difficult to breath. These problems are compounded by the roads steep incline requiring trucks engines to work harder with their heavy loads.

- There is a co-generation facility on the hospital grounds adjacent to the site that produces heating, cooling and electrical power. This is done with what's best described as a jet engine. The engine produces a high level of noise and vibrations. The heating and cooling towers are part of the co-generation and pose a health hazard if not maintained properly as they harbor harmful bacteria, such as Legionella that is released into the air from steam and vapor created by the tower's operation. The profiles of those considered at higher risk are similar to those that would access services at the recuperative can and residential treatment site.

- The hospitals' emergency helipad used for transporting critical patients to and from the hospital is adjacent to the recuperative care and residential treatment programs. The noise from take-offs and landings this close to a residential program impacts the quiet and peaceful needs of residents. The noise could be very unsettling and increase anxiety and bring out negative behaviors such as post-traumatic-stress-syndrome.

We believe many recuperative care and residential treatment clients suffer from poor health that will only be negatively impacted by the noise, dust, air quality and vibrations surrounding the program's locations. A study should be prepared that identifies the existing environmental site conditions for factors affecting this location and provide recommendations to minimize impacts to acceptable levels for the anticipated population utilizing these programs. This should be a condition of approval to the Master Plan.

O1-12

Site Access, Traffic and Emergency Response is a concern for residents living along Polk, Fenton, Tyler, emergency responders and those residing east of the hospital. Most commercial traffic accessing the site can only come from Roxford Street to Olive View Drive and the hospital. Other routes located north east of the 210 Freeway to the site traverse residential neighborhoods and are not direct routes. They require a number of correct turns or you're at a dead-end road. In an emergency, many will only have one direct route out if either Olive View or Bledsoe are blocked. There is no direct secondary exit. However, access is greatly enhanced with the completion of Olive View Drive to Eldridge Avenue. These two streets are improved to connect with each other except for a narrow portion of one private lot between Polk and Tyler Streets. Eldridge, like Olive View, is considered a major thoroughfare and fronts Mission College. The completion of this connection would provide hospital access from Polk and Hubbard (thoroughfares that interchange with the 210 Freeway) to Eldridge then along Eldridge to the hospital. This would also connect Mission College via Eldridge directly to the hospital. Completing this connection enhances the evacuation of the hospital, residents and provides emergency responders with improved access while reducing normal traffic thru residential streets. This connection should be made a priority and a condition of the Master Plan for its completion.

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Hoda El Sokkary, Senior Project Manager
County of Los Angeles Department of Public Works
Olive View-UCLA Medical Center Campus Master Plan
Draft Environmental Impact Report Comments

June 27th, 2019

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O1-13 **Services provided on Campus to the homeless**. Homeless persons accessing services at the hospital do not always get seen or admitted on their first day of arrival. They must return the next day or be seen a short time later for additional or follow-up services. Since they do not have housing (or the place they stay is too far from the hospital) they wait in the neighboring community on streets, hillsides and parkways. Most lack access to food, toiletries or other resources to provide for their needs. These needs for overnight, shared lodging accommodations, food and access to restroom and shower facilities should be addressed in the Master Plan and made a condition of the Master Plan approval.

O1-14 **Lighting Plan for Campus** should be sensitive to the surrounding residential, hillside areas and neighboring wildlife. The Campus can reduce light pollution by utilizing Dark Sky lighting regulations. This would help maintain the natural ambiance of the night sky and reduce light pollution from traveling into the areas surrounding the Campus. Make the Dark Sky lighting standards for all exterior lighting a condition of approval of the Master Plan.

We look forward to working with the County to address concerns raised by the Community and minimize impacts from the Olive View-UCLA Medical Center Campus Master Plan. Please do not hesitate contacting the Sylmar Neighborhood Council in regards these comments.

Respectfully,

Christian Rubalcava
President

c: Kathryn Barger, County Supervisor 5th District
Monica Rodriguez, City Councilmember 7th District

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Responses to Comments from Sylmar Neighborhood Council, June 27, 2019

Response to Comment O1-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The Sylmar Neighborhood Council (SNC) stated that because the project described in the Draft EIR published in May 2019 is different from the proposed project described in the Notice of Preparation (NOP) and scoping meeting, the project may have violated CEQA regulations. The SNC has also requested additional time to review the Draft EIR as a result of the project change.

Development of the Olive View–UCLA Medical Center Campus Master Plan began in 2014 and reflects the combined input of County service departments, as well as the local community, through meetings and work sessions that occurred over the course of 2 years. The Olive View–UCLA Medical Center Campus Master Plan is a road map for the future of the campus and has been shared previously with the community. These meetings and work sessions reviewed the existing conditions of the campus, services provided and needed, the unique resources of the Sylmar area, and overall priorities to envision the future of the Olive View facility. Ultimately, five master plans were developed, and one was selected as the preferred option, known as "Nature's Edge," which was the proposed project described in the 2016 NOP. Subsequent to the 2016 NOP and public scoping meeting, the Restorative Care Village concept was created to address the countywide need for a comprehensive, whole-person approach to patient care. Investment in these critical components of patient care and services will allow for improved health outcomes and successful community reintegration. Similar Restorative Care Villages are also being developed on the LAC+USC, Rancho Los Amigos, and Martin Luther King Jr. Medical Center campuses. The project described in the Draft EIR consists of an updated version of the Master Plan described in the 2016 NOP that has been revised to include the proposed Restorative Care Village facilities. Pursuant to CEQA Section 15082 (a)(1), the NOP will provide:

> the responsible and trustee agencies, Office of Planning and Research, and county clerk with sufficient information describing the project and the potential environmental effects to enable the responsible agencies to make a meaningful response. At a minimum, the information will include:
>
> (A) Description of the project,

Location of the project (either by street address and cross street, for a project in an urbanized area, or by attaching a specific map, preferably a copy of a U.S.G.S. 15' or 7-1/2' topographical map identified by quadrangle name), and Probable environmental effects of the project.

Given the relatively small change in the amount of development that could occur under the Master Plan as a result of the addition of the Restorative Care Village, the fact neither the proposed location of the Master Plan, nor the plan boundaries has changed, and the probable environmental effects of the project, which are generally described in the NOP, have not substantially changed, the County determined that preparation of and public distribution of a new NOP was not required.

Additionally, in the Response to Comments expressed by members of the community, the 45-day Draft EIR public review period, which was scheduled to end on July 8, 2019, was extended to July 29, 2019, and a second Draft EIR public meeting was held on Saturday, July 13, 2019.

Response to Comment O1-2

The SNC, in their comment, stated that outreach for the project was inadequate.

CEQA Guidelines Section 15087, *Public Review of Draft EIR,* states:

(a) The lead agency will provide public notice of the availability of a Draft EIR at the same time it sends a notice of completion to the Office of Planning and Research. This public notice will be given as provided under Section 15105 (a sample form is provided in Appendix L). Notice will be mailed to the last known name and address of all organizations and individuals who have previously requested such notice in writing, and will also be given by at least one of the following procedures:

(1) Publication at least one time by the public agency in a newspaper of general circulation in the area affected by the proposed project. If more than one area is affected, the notice will be published in the newspaper of largest circulation from among the newspapers of general circulation in those areas.

(2) Posting of notice by the public agency on and off the site in the area where the project is to be located.

(3) Direct mailing to the owners and occupants of property contiguous to the parcel or parcels on which the project is located. Owners of such property will be identified as shown on the latest equalized assessment roll.

Upon completion of the Draft EIR, English and Spanish versions of the Draft EIR Notice of Availability (NOA) were mailed on May 23, 2019. The NOA mailing list included addresses within a 0.5-mile radius from the campus boundary, the addresses from the sign-in sheet for the April 14, 2016, scoping and the March 23, 2019, community meetings, responsible and trustee public agencies, and residents and organizations that asked to be notified. The NOA was published in three newspapers: the *Los Angeles Daily News*, *San Fernando Business Journal*, and *San Fernando Valley Sun/El Sol de Valle San Fernando*. Flyers of the NOA, in both English and Spanish, were also distributed at 14 locations that included recreation centers, libraries, and City Council Field Offices. The Draft EIR was made publicly available at the Olive View–UCLA Medical Center Campus, the Sylmar Branch Library, the Los Angeles Mission College Library, and the County of Los Angeles Public Information Office. These actions fulfilled CEQA requirements.

A Draft EIR public meeting was held on June 6, 2019, from 6:30 to 8:00 p.m. at the Olive View–UCLA Medical Center Campus. During the public meeting, members of the community expressed concerns about the Draft EIR notification and outreach efforts. In response, the County extended the Draft EIR public review period from July 8 to July 29, 2019, and scheduled a second public meeting for July 13, 2019, at Los Angeles Mission College.

On June 21, 2019, flyers regarding the public meeting were mailed to 29,645 addresses within a 3-mile radius from the project site, as well as those individuals, agencies, and organizations included in the May 23, 2019, mailing list, plus those individuals identified in the sign-in sheet for the June 6, 2019, Draft EIR public meeting. Furthermore, an email blast was sent on June 20, 2019, and on July 8, 2019, reminding recipients of the Draft EIR public meetings.

In conclusion, the County recognized the community's concerns, extended the public review period, and hosted an additional public meeting.

Response to Comment O1-3

The SNC, in their comment, raised concerns about the adequacy of parking on campus. The concern is acknowledged by the County, however, parking impacts are not considered to be impacts to the environment under CEQA. Consequently, the parking impacts of the Master Plan were not analyzed in detail in the Draft EIR. However, as described in Section 3.25, *Transportation/Traffic,* the County of Los Angeles will be responsible for developing, reviewing, and approving internal site access, circulation, and parking plans on County-owned land within the campus. The Olive View–UCLA Medical Center Campus Master Plan Project includes the improvement of parking and vehicle circulation and the development of new parking structures on the campus. As shown in Table 2-1, Summary of Proposed Master Plan Land Uses, in Chapter 2, *Project Description*, of this Final EIR, under Tier I, a new parking facility would be constructed north of the Ambulatory Care Center and would house 674 new parking spaces. An additional 1,369 parking spaces in surface lots would remain on campus under Tier I. Under Tier II, two new parking structures would be built, north of the new hospital. Although a proposed project's increased demand for parking is not considered an impact to the environment under CEQA, it should be noted that parking spaces for projects developed under the Master Plan will be provided in accordance with County code requirements, and campus parking demand and capacity will be periodically reviewed during the life of the Master Plan to ensure spillover parking impacts are minimized and community concerns are considered.

Response to Comment O1-4

Please see the response to Comment O1-4, above. Additionally, the County will develop and implement traffic control measures for Master Plan construction projects that result in lane or sidewalk closures, removal of parking, or similar traffic disruptions. Temporary traffic controls during construction will meet CA-Manual on Uniform Traffic Control Devices (MUTCD) requirements. Daytime closures will be covered by the applications shown in Chapter 6 of the CA-MUTCD. Overnight closures, long-term closures, and detours will require a traffic control plan, which will be prepared as part of the project design package, according to CA-MUTCD requirements.

Response to Comment O1-5

The SNC, in their comment, stated that the added impact due to expansion of the Olive View–UCLA Medical Center will further erode fire and emergency services that are already inadequate and life-threatening and that additional fire and emergency response resources must be provided prior to any additional development on the campus.

The Draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services, including fire, police, and emergency medical services. However, an increase in demand for fire protection services (and other public services) is not considered to be a significant impact to the environment pursuant to California Environmental Quality Act regulations. As stated in the Draft EIR, in order to determine if an increased demand for public services would result in a significant environmental impact, it is first necessary to determine whether that increased demand would require "new or altered government facilities" in order "to maintain acceptable service ratios, response times, or other performance objectives," and then, if new or physically altered government facilities are required, would construction of those facilities cause significant environmental impacts.

Because the City of Los Angeles Fire Department (LAFD) provides fire and emergency medical services to the campus and adjacent Sylmar community, during initial data collection efforts for the EIR, LAFD was contacted in July of 2016, and a number of questions were posed, to which they responded (see questions and LAFD responses included in Appendix L of this Final EIR).

Based on the LAFD's responses, no new fire station(s) are required at this time. Since a station is not anticipated at this time, and no description of size or location has been provided, in the event a station is required in the future, it is not possible to conclusively determine whether construction of a new fire station would result in significant impacts to the environment. Therefore, to conclude that the increased demand for fire protection services would result in construction of a new fire station and that the construction of that station would result in significant impacts to the environment would be speculative and CEQA does not require a Lead Agency, in the absence of relevant information and data, to speculate as to a proposed project's impacts (pursuant to Section 15145 of the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."). For the reasons stated above, the Draft EIR concluded that the impacts to fire protection services are less than significant. Further detail on the analysis can be found in Section 3.13, *Public Services*, of the Draft EIR, on page 3.13-19.

With regards to the need for a Fire and Emergency Response Plan, the Olive View–UCLA Medical Center campus has a Fire Manual that is certified by the Los Angeles City Fire Department. A copy of the Fire Manual has been included in Appendix L.

Response to Comment O1-6

The SNC, in their comment, states that law enforcement is currently inadequate on the campus and that a detailed security plan is needed to address campus and surrounding community needs to mitigate existing and future impacts. The Olive View–UCLA Medical Center Campus currently has a Security Plan (see Appendix L of this Final EIR). On an annual basis, the Olive View–UCLA Medical Center Campus's Safety Officer evaluates the scope, objectives, performance, and effectiveness of the Safety Plan to security risks to staff, patients, and visitors. As individual Master Plan development projects are proposed, the Safety Officer will reevaluate the Security Plan and make necessary adjustments to meet current security needs.

Response to Comment O1-7

The Master Plan described in Chapter 2, *Project Description,* of the Draft EIR and this Final EIR includes a 20,000-square-foot community center that would be developed under Tier I of the Master Plan. Although a programming plan for the community center has not yet been developed (it should be noted that detailed design and programming plans remain to be developed for many elements of the Master Plan), it is expected that this facility will be made available for the public's and community's use. In addition, as described on page 2-19 in Chapter 2 of the Draft EIR and this Final EIR, the Olive View–UCLA Medical Center Campus Master Plan Project would provide facilities in response to community requests that would serve the area surrounding the Olive View–UCLA Medical Center Campus. As described on page 2-19, under Tier II of the Master Plan, these facilities could include a new childcare center and fitness center in the western portion of campus. The Master Plan also allows flexibility in the areas identified as zoning for community buildings, including areas in the proximity of the fitness center, to support future community development. This may include space for mental health day care/classes for Alzheimer's and stroke residents, a

senior center with table tennis, gym, cafeteria, lounge, and game room, or a community building that could include a gym, indoor walking or running tracks, saltwater swimming pool, game room for younger kids, etc.. The Olive View–UCLA Medical Center Campus Master Plan also suggests facilities contain cool rooms for the community to use during heat waves.

The County looks forward in working with the community on future programming plans for the Tier I and Tier II community facilities once funding for those projects is secured.

Response to Comment O1-8

Please see the response to Comment O1-7. Also, please note that this comment does not raise any environmental concerns; therefore, pursuant to CEQA Guidelines section 15088(a), no further response is necessary. The comment is noted, however, for the record.

Response to Comment O1-9

The commenter calls for an equestrian improvement plan and asks for more specifics regarding trail access and improvements.

As stated in on page 2-15 Chapter 2, *Project Description*, of the Draft EIR, "proposed pedestrian, equestrian, and bike paths would be provided along Olive View Drive under Tier I and would be ultimately incorporated throughout the campus under Tier II. Each path would have a separate, distinguished lane to ensure safety by avoiding conflicts between the users. The intent of the Wellness Trails is to bring community and patients closer to nature, while providing transitions between vehicular traffic and hospital facilities that are safer and more convenient to move throughout the campus." Detailed plans have not yet been developed for the pedestrian, equestrian, and bike paths that are proposed on the campus under the Master Plan. Once funding is secured for those improvements, more detailed plans will be developed, and the County looks forward to obtaining the community's input at that time. However, limited further information regarding the proposed equestrian and other trails can be found in the Master Plan document, which is included in Appendix B of this Final EIR.

Response to Comment O1-10

The commenter states that the design of the Olive View UCLA–Medical Center Campus Master Plan Project conflicts with the rural and equestrian culture of the surrounding community.

As analyzed in pages 3.1-8 through 3.1-33 of Section 3.1, *Aesthetics,* of the Draft and Final EIR, the UCLA-Medical Center Campus Master Plan Project 's construction occurs in a fairly flexible, semi-urban setting that has seen extensive development occur over a long period of time, where a varied range of architectural styles and land uses are in close proximity. The visual setting displays a range of visual quality from moderately high (e.g., unobstructed sightlines to the San Gabriel Mountains from within campus) to low (e.g., onsite views across the western campus). As stated on pages 3.1-6 through 3.1-8 of Section 3.1, *Aesthetics*, of the Draft and Final EIR, the campus has gone through significant and varied changes throughout the development history, and, as a result, there is lack of coherence and unity.

The Olive View UCLA–Medical Center Campus Master Plan Project provides an opportunity to reshape the campus and connect the development back to nature at an appropriate scale. As seen in Appendix B of the Draft EIR, the Olive View UCLA–Medical Center Campus Master Plan includes the

Master Plan Design Guidelines. This plan is intended to guide development of the Olive View UCLA–Medical Center Campus Master Plan Project in a manner that is compatible in architectural form, finishes, and scale with existing campus buildings and surrounding areas, while adding extensive new landscape elements to create an inviting, park-like setting for campus staff and visitors. Development would include landscaping improvements, such as healing gardens, courtyards, riparian, and wildflower areas, in addition to pedestrian, equestrian, and bike paths that would serve to beautify the natural setting of the campus and enhance its overall visual quality, resulting in an aesthetic benefit. Accordingly, the Draft EIR determined that implementation of the Master Plan and the resulting campus development would result in a less-than-significant visual or aesthetic impacts.

Also, it should be noted that the proposed campus building designs depicted in the Master Plan (see Appendix B) are conceptual in nature, and the final building designs, which would be developed in accordance with the Master Plan design guidelines, may change substantially from what is currently shown. Furthermore, community meetings will continue to be held, and public input and comments on future building designs are welcome as funding is secured and design and development efforts for future Master Plan buildings continue.

Response to Comment O1-11

The commenter raises concerns that occupants of the Recuperative Care Center and Residential Treatment Program facilities will be adversely affected by air quality generated by other nearby existing facilities.

Pursuant to CEQA, the Draft EIR analyzed in detail the impacts of Tier I development, including air quality and noise impacts, on the environment. The impacts of the existing environment on the occupants of proposed project buildings are not considered environmental impacts under CEQA. Nonetheless, as building design plans for the proposed Recuperative Care Center and Residential Treatment Program facilities are developed, the impacts of nearby uses will be considered by the project architect and County, and further analysis will be conducted, as necessary, to ensure interior noise and air quality levels meet building and health and safety code requirements, including the California Noise Insulation Standards specified in Title 25, Chapter 1 of the California Administrative Code. Facility design efforts may include refinements to the layout and locations of proposed facility buildings and revisions to the building plans to incorporate the recommendations of further noise and air quality analyses, which could include specification of window and wall insulation and heating, cooling, and ventilation (HVAC) equipment standards.

Response to Comment O1-12

The commenter requests the connection of Olive View Drive and Eldridge Avenue to improve access to the campus and surrounding community for members of the community and for emergency vehicles serving the project area.

The traffic analysis prepared in support of the Draft EIR evaluated the impacts of traffic generated by Tier I development in detail and determined that significant traffic impacts on study intersections in the vicinity of the campus would not occur. Consequently no street improvements or other measures were proposed or are required under CEQA to address the increase in traffic that would be generated by Tier I development. Additionally, the connection identified in the comment is under the jurisdiction of the City of Los Angeles; therefore, the city would be responsible for developing

this new roadway connection. However, the comment is noted by the County for the record, and the new roadway connection recommended by SNC will be communicated to the appropriate City of Los Angeles staff and elected officials.

Response to Comment O1-13

SNC, in their comment, raise concerns about the current ability of homeless persons to access services at the hospital in a timely manner. As a consequence, the homeless wait in the surrounding area. To address this issue, SNC recommends that the Master Plan take into account the overnight lodging and restroom and shower needs of the homeless.

Patients admitted to the Olive View Medical Center are cared for in the hospital's medical emergency room or psychiatric emergency room until such time as they are taken to a room on the unit or discharged appropriately. They are provided necessary hospital services, such as medical care, as well as food and nutrition and hygiene services. Showers and restrooms are available for patients as needed.

One of the goals of the Olive View UCLA–Medical Center Campus Master Plan (see Chapter 2, *Project Description*, of the Draft EIR) is to locate inpatient and outpatient services into a dedicated building to optimize the quality of care and operational effectiveness, while reducing administrative, operational, and maintenance costs. The proposed Master Plan would also reorganize, expand, and integrate outpatient services with the specific goal of meeting the community's health needs, providing patient-centered care, and improving the operational throughput to meet increasing demands.

Additionally, pages 2-11 to 2-12 of Chapter 2 describe the proposed Recuperative Care Center, which would provide short-term care for individuals recovering from an acute illness or injury who no longer require inpatient hospital care. The Recuperative Care Center will provide a place in which homeless individuals can sleep, eat, and shower as part of their care and will offer an environment for individuals to further recuperate and heal, which helps free up hospital inpatient acute-care resources. Services would include medical monitoring, meals, case management, access to supportive housing for those that need it, and transportation. The facility clients could stay up to 3 months, with an anticipated average length of stay of 30 to 45 days.

Accordingly, implementation of the Master Plan and resulting improvements in operations, coupled with development of the Restorative Care Village facilities described above, which would help free up hospital inpatient acute care resources, could have a beneficial effect on wait times for all persons, including homeless individuals, seeking access to services at the hospital.

Response to Comment O1-14

SNC, in their comment, states that the campus lighting plan should be sensitive to surrounding residential, hillside areas, and neighboring wildlife and recommends that the campus reduce light from traveling into these areas by complying with Dark Sky lighting standards for all exterior lighting.

As stated in Section 3.1, *Aesthetics,* of the Draft EIR, new buildings and parking areas and renovations to the existing hospital and outpatient services facility, in addition to other development, would not significantly alter ambient illumination light levels or result in significant spill light impacts on surrounding land uses. Furthermore, all project lighting features would be

installed in accordance with applicable regulations and Olive View UCLA–Medical Center Campus Master Plan lighting guidelines (see Appendix B of the Master Plan for proposed lighting design guidelines). As a result, the Draft EIR determined that the lighting impacts of the Master Plan would be less than significant. Accordingly, at this time, the County has determined the Master Plan lighting guidelines are sufficient to avoid or minimize spillover lighting impacts and consequently, the County has determined that adherence to Dark Sky Standards is not necessary to reduce light from existing and proposed campus buildings.

Comment Letter I1

Comment Letter I1

Olive View - UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre: Erlin Vanesa Arellano

Affiliation/ Affiliación: Resident

Address/Dirección: 13901 Olive View Lane Unit 13 Sylmar, CA 91342

Phone Number / Teléfono	**Email Address/ Correo electrónico**
(818) 439-9841	evanesa91@gmail.com

I've noticed that a vast majority of the village project illustrates pedestrian circulation. As a pedestrian of the area, I've had issues crossing on foot to the hospital via Olive View Drive due to a lack of adequate signal lights and [redacted] crosswalks.

I1-1 [redacted] Often I find myself, as well as many hospital staff, struggling to outrun the amount of cars and speeders on Olive View Drive. I forsee the village increasing the amount of cars on this street and I would like to see future plans for crosswalks and pedestrian crosswalk lights to assist pedestrians to cross the street to ~~to~~ access the village and perhaps these lights will also help to alleviate the issue of speeders that have no regard for [redacted] those that travel the area by foot or across to grab the metro bus.

Please return this comment sheet at the sign-in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803-1331

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 8, 2019.

Response to Comment from Erlin Vanesa Arellano, Resident

Response to Comment I1-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The comment raises concerns about pedestrian safety issues for pedestrians crossing Olive View Drive.

Although development under the Master Plan would increase traffic on Olive View Drive, improvements to pedestrian crosswalks across Olive View Drive would be located outside the boundaries of the campus and the County's jurisdiction. Accordingly, any pedestrian crosswalk improvements along Olive View Drive would be the responsibility of the City of Los Angeles. Nonetheless, the comments and recommendations expressed, which are noted for the record, will be communicated by the County to the appropriate elected city officials and staff. Additionally, it should be noted that the Master Plan does propose new sidewalks and lighting on the north side of Olive View Drive, as well as within the campus proper, that would improve pedestrian safety and circulation.

Comment Letter I2

Comment Letter I2

Olive View - UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre: Marti Marshall

Affiliation/ Affiliación: Resident

Address/Dirección: 13353 Tregu St Sylmar CA 91342

Phone Number / Teléfono

Email Address/ Correo electrónico marti_m@att.net

I2-1 Our Fire Station ~~are~~ is The only one in Sylmar. Already, as shown in your DEIR, This does not meet minimum Response times. Adding to That the extra Residents in Olive View will streatch our resourses even thinner. This is a Peiority in our area - Fire + Police. This needs to be Resolved.

Please return this comment sheet at the sign-in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803-1331

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 8, 2019.

Response to Comment from Marti Marshall, Resident

Response to Comment I2-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The Draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services, including fire, police, and emergency medical services. However, an increase in demand for fire protection services (and other public services) is not considered to be a significant impact to the environment pursuant to California Environmental Quality Act (CEQA) regulations. As stated in the Draft EIR, in order to determine if an increased demand for public services would result in a significant environmental impact, it is first necessary to determine whether that increased demand would require "new or altered government facilities" in order "to maintain acceptable service ratios, response times, or other performance objectives," and then, second, if new or physically altered government facilities are required, would construction of those facilities cause significant environmental impacts.

Because the City of Los Angeles Fire Department (LAFD) provides fire and emergency medical services to the campus and adjacent Sylmar community, during initial data collection efforts for the EIR, LAFD was contacted in July of 2016, and a number of questions were posed, to which they responded (see questions and LAFD responses included in Appendix L of this Final EIR).

Based on the LAFD's responses, no new fire station(s) are required at this time. Since a station is not anticipated at this time, and no description of size or location has been provided, in the event a station is required in the future, it is not possible to conclusively determine whether construction of a new fire station would result in significant impacts to the environment. Therefore, to conclude that the increased demand for fire protection services would result in construction of a new fire station and that the construction of that station would result in significant impacts to the environment would be speculative, and CEQA does not require a Lead Agency, in the absence of relevant information and data, to speculate as to a proposed project's impacts (pursuant to Section 15145 of the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."). For the reasons stated above, the Draft EIR concluded that the impacts to fire protection services are less than significant. Further detail on the analysis can be found in Section 3.13, *Public Services,* of the Draft EIR, on page 3.13-19.

Comment Letter I3

Comment Letter I3

Olive View - UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre: Peggy Bennett

Affiliation/ Affiliación: Neighbor Sylmar Resident

Address/Dirección: 13135 Hubbade St Sylmar CA 91342

Phone Number / Teléfono 818 822-5615

Email Address/ Correo electrónico PeggyBennett20@yhoo.com

I3-1 Concerned about Fire Dept there's a Fire Dept next Door to you not in use why can't it be opened back up.

I3-2 why weren't we told about the NOP / Scoping 2016? We need to be informed of meetings we provided Phone number and emails and postal adres's!

Please return this comment sheet at the sign-in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803-1331

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 8, 2019.

Responses to Comments from Peggy Bennett, Resident

Response to Comment I3-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The Draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services, including fire, police, and emergency medical services. However, an increase in demand for fire protection services (and other public services) is not considered to be a significant impact to the environment pursuant to California Environmental Quality Act (CEQA) regulations. As stated in the Draft EIR, in order to determine if an increased demand for public services would result in a significant environmental impact, it is first necessary to determine whether that increased demand would require "new or altered government facilities" in order "to maintain acceptable service ratios, response times, or other performance objectives" and then, second, if new or physically altered government facilities are required, would construction of those facilities cause significant environmental impacts.

Because the City of Los Angeles Fire Department (LAFD) provides fire and emergency medical services to the campus and adjacent Sylmar community, during initial data collection efforts for the EIR, LAFD was contacted in July of 2016, and a number of questions were posed, to which they responded (see questions and LAFD responses included in Appendix L of this Final EIR).

Based on the LAFD's responses, no new fire station(s) are required at this time. Since a station is not anticipated at this time, and no description of size or location has been provided, in the event a station is required in the future, it is not possible to conclusively determine whether construction of a new fire station would result in significant impacts to the environment. Therefore, to conclude that the increased demand for fire protection services would result in construction of a new fire station and that the construction of that station would result in significant impacts to the environment would be speculative, and CEQA does not require a Lead Agency, in the absence of relevant information and data, to speculate as to a proposed project's impacts (pursuant to Section 15145 of the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."). For the reasons stated above, the Draft EIR concluded that the impacts to fire protection services are less than significant. Further detail on the analysis can be found in *Section 3.13, Public Services*, of the Draft EIR on page 3.13-19.

Response to Comment I3-2

Notification of the availability of the NOP and the date, time, and location of the public scoping meeting, which was held on April 15, 2016, was provided in accordance with CEQA requirements and included direct mailings and newspaper notices.

With regards to providing notice of the availability of the Draft EIR and Draft EIR public meetings, CEQA Guidelines Section 15087, *Public Review of Draft EIR,* states:

(a) The lead agency will provide public notice of the availability of a Draft EIR at the same time it sends a notice of completion to the Office of Planning and Research. This public notice will be

given as provided under Section 15105 (a sample form is provided in Appendix L). Notice will be mailed to the last known name and address of all organizations and individuals who have previously requested such notice in writing, and will also be given by at least one of the following procedures:

(1) Publication at least one time by the public agency in a newspaper of general circulation in the area affected by the proposed project. If more than one area is affected, the notice will be published in the newspaper of largest circulation from among the newspapers of general circulation in those areas.

(2) Posting of notice by the public agency on and off the site in the area where the project is to be located.

(3) Direct mailing to the owners and occupants of property contiguous to the parcel or parcels on which the project is located. Owners of such property will be identified as shown on the latest equalized assessment roll.

Upon completion of the Draft EIR, English and Spanish versions of the Draft EIR Notice of Availability (NOA) were mailed on May 23, 2019. The NOA mailing list included addresses within a 0.5-mile radius from the campus boundary, the addresses from the sign-in sheet for the April 14, 2016, scoping and the March 23, 2019, community meetings, responsible and trustee public agencies, and residents and organizations that asked to be notified. The NOA was published in three newspapers: the *Los Angeles Daily News*, *San Fernando Business Journal*, and *San Fernando Valley Sun/El Sol de Valle San Fernando*. Flyers of the NOA, in both English and Spanish, were also distributed at 14 locations that included recreation centers, libraries, and City Council Field Offices. The Draft EIR was made publicly available at the Olive View–UCLA Medical Center Campus, the Sylmar Branch Library, the Los Angeles Mission College Library, and the County of Los Angeles Public Information Office. These actions fulfilled CEQA requirements.

A Draft EIR public meeting was held on June 6, 2019, from 6:30 to 8:00 p.m. at Olive View–UCLA Medical Center Campus. During the public meeting, members of the community expressed concerns about the Draft EIR notification and outreach efforts. In response, the County extended the Draft EIR public review period from July 8 to July 29, 2019, and scheduled a second public meeting for July 13, 2019, at Los Angeles Mission College.

On June 21, 2019, flyers regarding the public meeting were mailed to 29,645 addresses within a 3-mile radius from the project site as well as those individuals, agencies, and organizations included in the May 23, 2019, mailing list, plus those individuals identified in the sign-in sheet for the June 6, 2019, Draft EIR public meeting. Furthermore, an email blast was sent on June 20, 2019, and on July 8, 2019, reminding recipients of the Draft EIR public meetings.

Comment Letter I4

Comment Letter I4

Mountain-Castro, Jenelle

From: Lisecki, Lee
Sent: Tuesday, June 25, 2019 3:57 PM
To: Hoda ElSokkary
Cc: Mathias, Marissa
Subject: FW: Olive View Medical Center Master Plan DRAFT Environmental Impact Report (DEIR)

Hi Hoda,

Unfortunately this email from Laurie Fadness and another earlier email from Laurie went to my junk email inbox so I didn't see them until this afternoon.

Lee

ICF LEE LISECKI | Senior Environmental Project Manager | Office: 213.312.1800 Direct: 213.312.1750 Mobile: 310.597.7064 | Lee.Lisecki@icf.com | icf.com
ICF | 555 W. Fifth St., Ste. 3100, Los Angeles, CA 90013
Learn how ICF makes big things possible for its clients.
ICF50 1969 2019
Celebrating **50 Years** of Making Big Things Possible

From: Laurie Fadness [mailto:sylmarcowgirl@aol.com]
Sent: Friday, June 07, 2019 8:56 AM
To: OVMCEIR@dpw.lacounty.gov
Subject: Re: Olive View Medical Center Master Plan DRAFT Environmental Impact Report (DEIR)

I4-1

I am a very active equestrian in this community and would have loved to have come to this meeting. However I was informed only 24 hours before the meeting and could not get the time off work with such short notice. I dam starting to think that this was done intentionally. This is the second meeting in which I was given only 24 hours notice. Please in the future give at least 3 days notice so that everyone in the surrounding communities has a chance to come to the meetings that effect our community in general.

Happy Trails
Laurie Fadness

1

Olive View-UCLA Medical Center
Draft Environmental Impact Report (DEIR) Public Meeting

Please join us for a conversation about improvements to the Olive View-UCLA Medical Center Campus Master Plan and Environmental Impact Report (EIR). The improvements to the campus will come in the form of a Restorative Care Village which will provide comprehensive health care services to our community. These services will build upon the longstanding commitment of Olive View-UCLA Medical Center to patient centered care. At this community meeting, Olive View and LA County department staff will share information about the proposal and answer your questions.

When: Thursday, June 6, 2019

Time: 6:30 PM - 8:00 PM

Location: Olive View-UCLA Medical Center
Hospital Auditorium, First Floor
14445 Olive View Drive
Sylmar, CA 91342

For more information, please contact Olive View-UCLA Administration at 747-210-3001 or via email at ovmcmasterplan@dhs.lacounty.gov

Please note that all visitors are subject to routine screening.

-
- Free parking is available in public lots accessed from Kennedy Road; the campus is served by Metro Lines 90 and 224.
- Families and children welcome!
- Spanish translation will be provided.

If you would like access to the full Draft EIR, click on the link below:

- ftp://dpwftp.co.la.ca.us/pub/pmd/OVMC

3

Olive View-UCLA Medical Center

Borrador del Reporte de Impacto Ambiental (Borrador EIR)

REUNIÓN PÚBLICA

Acompáñenos para una conversación sobre los mejoramientos en el plan maestro del campus de Olive View-UCLA Medical Center y el informe de impacto ambiental (EIR). Las mejoras en el campus vendrán en forma de un centro de cuidado restaurador que proporcionará servicios integrales de atención médica a nuestra comunidad. Estos servicios se basarán en el compromiso de larga data del centro médico de Olive View-UCLA con la atención centrada en el paciente. En esta reunión comunitaria, el centro médico de Olive View y el personal del Departamento del Condado de Los Angles, compartirán información sobre la propuesta y responderán sus preguntas.

Cuándo: Jueves, 6 de junio de 2019

Horario: 6:30 PM - 8:00 PM

Direccion: Olive View-UCLA Medical Center Hospital Auditorium, First Floor
14445 Olive View Drive
Sylmar, CA 91342

Para más información, por favor comunicase con a la administración de Olive View-UCLA por teléfono al 747-210-3001 o por correo electrónico a **ovmcmasterplan@dhs.lacounty.gov**

- Por favor tenga en cuenta que todos los visitantes son sometidos a exámenes de rutinaria.
- Hay estacionamiento gratuito disponible en los lotes públicos a los que se accede desde Kennedy Road; El campus es servido por las líneas de metro 90 y 224.
- ¡Familias y niños son bienvenidos!
- Traducción en español disponible

Si desea acceder al Borrador EIR completo, viste nuestro sitio web

- ftp://dpwftp.co.la.ca.us/pub/pmd/OVMC

4

Response to Comment from Laurie Fadness, Resident

Response to Comment I4-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

CEQA Guidelines Section 15087, *Public Review of Draft EIR,* states:

(a) (The lead agency will provide public notice of the availability of a Draft EIR at the same time it sends a notice of completion to the Office of Planning and Research. This public notice will be given as provided under Section 15105 (a sample form is provided in Appendix L). Notice will be mailed to the last known name and address of all organizations and individuals who have previously requested such notice in writing, and will also be given by at least one of the following procedures:

(1) Publication at least one time by the public agency in a newspaper of general circulation in the area affected by the proposed project. If more than one area is affected, the notice will be published in the newspaper of largest circulation from among the newspapers of general circulation in those areas.

(2) Posting of notice by the public agency on and off the site in the area where the project is to be located.

(3) Direct mailing to the owners and occupants of property contiguous to the parcel or parcels on which the project is located. Owners of such property will be identified as shown on the latest equalized assessment roll.

Upon completion of the Draft EIR, English and Spanish versions of the Draft EIR Notice of Availability (NOA) were mailed on May 23, 2019. The NOA mailing list included addresses within a 0.5-mile radius from the campus boundary, the addresses from the sign-in sheet for the April 14, 2016, scoping and the March 23, 2019, community meetings, responsible and trustee public agencies, and residents and organizations that asked to be notified. The NOA was published in three newspapers: the *Los Angeles Daily News*, *San Fernando Business Journal*, and *San Fernando Valley Sun/El Sol de Valle San Fernando*. Flyers of the NOA, in both English and Spanish, were also distributed at 14 locations that included recreation centers, libraries, and City Council Field Offices. The Draft EIR was made publicly available at the Olive View–UCLA Medical Center Campus, the Sylmar Branch Library, the Los Angeles Mission College Library, and the County of Los Angeles Public Information Office. These actions fulfilled CEQA requirements.

A Draft EIR public meeting was held on June 6, 2019, from 6:30 to 8:00 p.m. at Olive View–UCLA Medical Center Campus. During the public meeting, members of the community expressed concerns about the Draft EIR notification and outreach efforts. In response, the County extended the Draft EIR public review period from July 8 to July 29, 2019, and scheduled a second public meeting for July 13, 2019, at Los Angeles Mission College.

On June 21, 2019, flyers regarding the public meeting were mailed to 29,645 addresses within a 3-mile radius from the project site as well as those individuals, agencies, and organizations included in the May 23, 2019, mailing list, plus those individuals identified in the sign-in sheet for the June 6, 2019, Draft EIR public meeting. Furthermore, an email blast was sent on June 20, 2019, and on July 8, 2019, reminding recipients of the Draft EIR public meetings.

In conclusion, the County recognized the community's concerns, extended the public review period, and hosted an additional public meeting.

Comment Letter I5

Comment Letter I5

Mountain-Castro, Jenelle

From: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Sent: Tuesday, June 25, 2019 9:51 AM
To: Laurie Fadness; DPW-OVMCEIR
Cc: Lisecki, Lee; Mathias, Marissa; Alicia Ramos; Lauren Dods
Subject: RE: Olive View Medical Center

Dear Laurie Fadness,

Thank you for your email and concerns regarding the OVMC Master Plan. Your questions will be addressed and answered in writing along with all other questions and comments we receive at the end of the public review period. If you plan to attend the public review meeting on 7/13/19, there will be an open forum for all attendees to ask questions pertaining to their areas of interests. County professionals and technical experts will be present at different tables to respond.

Please le me know if you have further questions.

Hoda El Sokkary, P.E., MSc.
Senior Capital Projects Manager
Los Angeles County Public Works
HQ: (626) 300-2332
Cell: (626) 238-4047

From: Laurie Fadness <sylmarcowgirl@aol.com>
Sent: Monday, June 24, 2019 4:49 PM
To: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Subject: Olive View Medical Center

Dear Hoda Elsokkary,

I5-1 My name is Laurie Fadness. First I would like to thank you for the early notification on the July 13 meeting for the Olive View Medical Center expansion. I will be attending the meeting as well as letting some of my neighbors know about the meeting. I have a few questions prior to the meeting? Not sure if you want to answer them through email or during the meeting. First question, What kind of safety procedures will be put into place during the construction phase of the project to ensure that equestrians who ride past the project location will be safe? I ask this because for the past 3 years during the continued dumping of sediment at the May

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sediment site which is connected to the county land that will be used for the project I as well as many others were almost hit by large semi trucks coming directly down the horse trail along the
I5-1 cont wash. It was only after a near collision between my horse and a semi truck carrying sediment that the head foreman of the job took action. He immediately designated a new route for the semi trucks to go up to the sediment dump site. The new route is still being used today. I am just trying to prevent any horse vs. semi truck collisions in the future. I currently ride just about every day. Can you let me
I5-2 know if I will lose any access point to the mountain trails during the construction phase of this project? I also wanted to know what, if any, are the biohazards that could come up from the soil if the soil is disturbed? I know that for many years the old VA Hospital old buildings were left standing but red tagged after the 1972 earthquake. The buildings were left standing because it was safer to leave them standing than to tear them down due to the possible contamination of TB (Tuberculosis). The old VA Hospital as I'm sure you know, specialized in treating patients with TB. After the Sayre fire wiped most of the buildings out, I did see HAZMAT crews
I5-3 doing the cleanup. With that being said, are there any plans on having the existing soils tested for TB or any other known, or not known bio Hazards? I know that many people don't even know about the old VA Hospital and that it specialized in TB. So I didn't want to go into a lengthy discussion on it during the limited 2-hour meeting. Can you answer any of my questions on this topic? And the last question is who is helping your team with any of the design concepts of the possible equestrian friendly areas? I use to be on the equestrian committee for Sylmar, I am not on it currently. I do however ride these mountains and trails daily so I can assure you I
I5-4 know the areas that need immediate safety protocols put into motion to ensure the safety of everyone that travels through this area. If you would like to speak with me I can be reached by phone (if I am not riding) at 818-970-0966 or by email at sylmarcowgirl@aol.com. Please feel free to reach out to me in any

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I5-4 cont way that is convenient for you. I look forward to hearing from you and your team. Thank you. Have a blessed day.

Happy Trails
Laurie Fadness

3

Responses to Comments from Laurie Fadness, Resident

Response to Comment I5-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The comment provides an introduction and expresses issues of safety regarding construction trucks and equestrians sharing the road. As described in Section 3.15*, Transportation and Traffic,* of the Draft EIR on pages 3.15-22 through 3.15-23; the proposed project could involve intermittent lane and sidewalk closures during construction of Tier I and Tier II development, which could impede or diminish equestrian and pedestrian circulation. To ensure that potential construction traffic impacts remain less than significant, the mitigation measure below was proposed and included in the Draft EIR. The measures identified below will minimize potential circulation impacts and enhance safety for motorists, pedestrians, and equestrians during construction.

MM-TRAF-1: The County will develop and implement traffic control measures for Master Plan projects that result in lane or sidewalk closures, removal of parking, or similar traffic disruptions. Temporary traffic controls during construction will meet CA-MUTCD requirements. Daytime closures will be covered by the applications shown in Chapter 6 of the manual. Overnight closures, long-term closures, and detours will require a traffic control plan, which will be prepared as part of the project design package, according to CA-MUTCD requirements. The traffic control plan may include, but would not be limited to, the elements listed below. Note that some of these elements may not be feasible or appropriate in all circumstances. The project-level environmental analysis will identify the appropriate measures for each project.

- Provide a roadway layout that shows the locations of construction activity and surrounding roadways to be used as detour routes, including special signage.
- Establish detour routes in coordination with the city of Los Angeles to minimize disturbances to local traffic conditions; review potential detour routes to make sure adequate capacity is available.
- Avoid creating additional delays at intersections that are currently operating under congested conditions, either by choosing routes that avoid these locations or constructing during non-peak times of day.
- Maintain access to existing residences at all times.
- Work with the Los Angeles Unified School District, Los Angeles Fire Department, and Los Angeles Police Department to coordinate all construction-related plans and minimize disturbances for local emergency medical service providers; ensure that alternative evacuation and emergency routes are designed to maintain response times during construction.
- Provide adequate off-street parking areas at designated staging areas for construction-related vehicles.
- Work with local and regional transit providers to maintain access and circulation routes to existing stops and stations during construction phases, and identify appropriate detours to provide traffic rerouting during construction while minimizing disturbance to bus services.

- Work with the city of Los Angeles to maintain continuity and operation of existing pedestrian and bicycle facilities during construction.

Response to Comment I5-2

The commenter requests notification of any mountain trail access point closures during the construction phase of the proposed project. As discussed in Section 3.15*, Transportation and Traffic,* of the Draft EIR on page 3.15-22, the proposed project could involve intermittent lane and sidewalk closures during construction of the Master Plan elements, which could impede vehicle, pedestrian, equestrian, and bicycle circulation. However, no long term closure of offsite roadways, bicycle, or equestrian paths or sidewalks are anticipated, and impacts are expected to be less than significant.

As discussed in Section 3.14*, Recreation,* of the Draft EIR, proposed recreational areas under Tier II include the expansion of equestrian, bicycle, and pedestrian pathways.

As discussed in Response I5-1 above, mitigation measure **MM-TRAF-1** would implement various traffic control measures to reduce pedestrian, bicycle, and vehicle circulation impacts.

Response to Comment I5-3

The commenter provides an introduction pertaining to biological hazards and questions whether biological hazards generated by past facilities could pose risks during ground disturbance activities. As noted in Chapter 2, *Project Description*, the Olive View–UCLA Medical Center, which is the largest public facility in Sylmar, was historically established as a tuberculosis sanitarium in October 1920 and converted to an acute care hospital in 1970. Given the number of years that have transpired since the tuberculosis sanitarium operated on the campus and the implementation of strict regulations governing the handling, treatment, and disposal of biohazardous materials in the intervening years, it is unlikely that soil disturbance during construction activities would expose the public or environment to significant bio hazards.

Additionally, as stated in Section 3.8, *Hazards and Hazardous Materials,* on pages 3.8-4 through 3.8-6, the project site was identified in multiple environmental databases. According to the Environmental Site Assessment (ESA) prepared for the project by Ninyo & Moore in 2016, there were no violations associated with the aforementioned listings. However, the Los Angeles County Fire Station #04, located within the project footprint, was listed in the Leaking Underground Storage Tanks (LUST) database as having contaminated soil and no current site status. It is unknown whether the soil remains onsite. Although no Recognized Environmental Concerns were identified during the completion of the ESA, the presence of the LUST case on the proposed project site was identified as a Potential Environmental Concern (PEC). In addition, the presence of the underground storage tanks in the hospital loading dock and a paint and solvent spray booth were also identified as PECs. As such, there is a possibility that contaminated soils could exist within one of these areas, which could be exposed during project construction, a potential significant impact.

Mitigation measures **MM-HAZ-1** through **MM-HAZ-4** would be implemented to reduce the risk of exposure to contaminated media.

Response to Comment I5-4

The commenter asks for information regarding the contact information design/designer of the equestrian areas of the proposed project. At this time, the design team has not been identified.

Comment Letter I6

Comment Letter I6

Mountain-Castro, Jenelle

From: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Sent: Thursday, July 11, 2019 10:12 AM
To: Lisecki, Lee; Mathias, Marissa; Alicia Ramos; Parisa Dadmehr
Subject: FW: Olive View-UCLA Medical Center Campus Master Plan

FYI

Thanks!

Hoda El Sokkary, P.E., MSc.
Senior Capital Projects Manager
Los Angeles County Public Works
HQ: (626) 300-2332
Cell: (626) 238-4047

From: Bobbi B <bobbibb@msn.com>
Sent: Thursday, July 4, 2019 6:10 PM
To: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Subject: Olive View-UCLA Medical Center Campus Master Plan

I6-1 As a Stakeholder in Sylmar, I think it is VERY important that if you are going to put in these facilities that expand the population of this area, you need to put in an additional fire station and extra police. We are a very high fire area and our fire station is small and under staffed and without enough equipment. This plan MUST include an additional fire station right next to the facilities.

Bobbi Burger Brunoehler
(pronounced: brew-nailer)
Bobbibb@msn.com

1

Response to Comment from Bobbi Burger Brunoehler, Resident

Response to Comment I6-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The Draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services, including fire, police, and emergency medical services. However, an increase in demand for fire protection services (and other public services) is not considered to be a significant impact to the environment pursuant to California Environmental Quality Act (CEQA) regulations. As stated in the Draft EIR, in order to determine if an increased demand for public services would result in a significant environmental impact, it is first necessary to determine whether that increased demand would require "new or altered government facilities" in order "to maintain acceptable service ratios, response times, or other performance objectives" and then, second, if new or physically altered government facilities are required, would construction of those facilities cause significant environmental impacts.

Because the City of Los Angeles Fire Department (LAFD) provides fire and emergency medical services to the campus and adjacent Sylmar community, during initial data collection efforts for the EIR, LAFD was contacted in July of 2016 and a number of questions were posed, to which they responded (see questions and LAFD responses included in Appendix L of this Final EIR).

Based on the LAFD's responses, no new fire station(s) are required at this time. Since a station is not anticipated at this time, and no description of size or location has been provided, in the event a station is required in the future, it is not possible to conclusively determine whether construction of a new fire station would result in significant impacts to the environment. Therefore, to conclude that the increased demand for fire protection services would result in construction of a new fire station and that the construction of that station would result in significant impacts to the environment would be speculative and CEQA does not require a Lead Agency, in the absence of relevant information and data, to speculate as to a proposed project's impacts (pursuant to Section 15145 of the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."). For the reasons stated above, the Draft EIR concluded that the impacts to fire protection services are less than significant. Further detail on the analysis can be found in Section 3.13, *Public Services*, of the Draft EIR on page 3.13-19.

Comment Letter I7

Comment Letter I7

Mountain-Castro, Jenelle

From: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Sent: Thursday, July 11, 2019 10:21 AM
To: Lisecki, Lee; Mathias, Marissa
Cc: Leticia Toy (Consultant)
Subject: FW: Olive View

FYI

Thanks!

Hoda El Sokkary, P.E., MSc.
Senior Capital Projects Manager
Los Angeles County Public Works
HQ: (626) 300-2332
Cell: (626) 238-4047

From: Bisnoff Email <bisnoff@gmail.com>
Sent: Sunday, July 7, 2019 6:07 PM
To: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Subject: Olive View

I7-1 Dear Hoda,
I hope you are well and enjoyed the holiday!
My purpose for reaching out is to determine if there is any further room at Olive View to build additional units of long term housing for mental health patients who may require lengthier stays?
We have an affordable housing builder who is willing to self finance and build only Section 8 housing - which has been successful in San Fran and Oakland.
See below:
https://www.panoramic.com/cityspaces-location/cityspaces-micropad/

If possible, can you direct me to your peers at Rancho Los Amigos and County USC?

Thank you
Michelle Bisnoff

Michelle A. Bisnoff
Chair, Brentwood Community Council
Commissioner, City of Los Angeles Innovation and Performance Commission & Chair, Fund Committee

Disclaimer and Privacy Statement: While I am member of the Brentwood Community Council, the foregoing may not represent the ratified position or views of the BCC.

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Response to Comment from Michael Bisnoff, Resident

Response to Comment I7-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter inquires if there is space available to build additional units of long-term housing for mental health patients for extended periods of time.

At this time, the Restorative Care Village, which would provide short-term housing facilities, is the only housing component that is currently envisioned under the Master Plan. However, the Master Plan in general is conceptual, and development of the individual projects may change over time.

Comment Letter I8

Comment Letter I8

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Carin Janis

Affiliation/ Affiliación : resident of Sylmar - homeowner

Address/Dirección: : 13653 Linfield Ave. Sylmar CA 91342

Phone Number / Teléfono 818.362.4303

Email Address/ Correo electrónico

I-1 I have owned a home in Sylmar for 30 years + have paid over $100,000 in property taxes on my home over that period. I want to see better services for the mentally ill who are not capable of taking care of themselves + are ending up homeless, while also being concerned for keeping my property values intact. I also am disgusted that

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

we are allowing our streets + parks to be homeless encampments that breed unsafe + unsanitary conditions. Is the Restorative Care Facility going to solve anything or just attract this population to Sylmar where they will end up on our streets?

18-2 Where is the funding coming from for this expansion of Olive View? Is this going to be paid out of taxpayer's pockets + just another project that hard working Californians have to fund out of ever-increasing tax burden?

Responses to Comments from Carin Janis, Resident

Response to Comment I8-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter questions whether the Restorative Care Facility is going to solve any problems, or if it will just attract the homeless population to Sylmar, and the homeless individuals may end up on the streets.

Restorative Care Facilities is a countywide initiative, and these facilities will be integrated at every Supervisorial District. The proposed Restorative Care Village facilities will provide services urgently needed by members of the Sylmar community. The mental health services that would be provided by these facilities are a key component to a comprehensive system of care, and the County recognizes a growing need in general for these services in our communities. The creation of the Restorative Care Village is a direct response to this emerging trend and will provide focused programs to serve the mental health needs that already exist in our communities. Through the Restorative Care Village, housing resources will be more readily available for those who do not have stable housing conditions for a successful recovery and will provide a platform for vulnerable patients to secure housing alternatives and continued care to stabilize their specific situations. Security and safety on the Olive View campus is a high priority and will continue to be monitored throughout the development of the campus.

Response to Comment I8-2

The commenter questions where the funding for the projects will come from and if it will come from public tax revenue. The funding for the Restorative Care Village facilities will be provided from a combination of the California Health Facilities Financing Authority (CHFFA) grant and net County funds. Funding sources for other Tier I projects and the Tier II projects, which would be constructed further in the future, have not yet been identified.

Comment Letter I9

Comment Letter I9

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Cherry Rose

Affiliation/ Affiliación :

Address/Dirección: :

Phone Number / Teléfono	**Email Address/ Correo electrónico**

I9-1 How are City Provided infrastructure needs Reconciled with the increased demands Placed by the Project?

One of the Goals Stated is for the Project to be Compatable with the area.

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Cheri Blose, Resident

Response to Comment I9-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter inquiries how potential increase in infrastructure demands required by the project would be adequately met by city infrastructure. The commenter also notes that one of the goals of the project is to be compatible with the surrounding area.

The first projects to be constructed under the Master Plan, if approved, would be the Restorative Care Village facilities, which would be constructed over the next 1 to 2 years. The funding and construction schedules for other individual Master Plan development projects have not yet been identified, but if buildout of the Master Plan occurs, it is expected that will happen over a long period of time (i.e., 15 to 20+ years). As individual Master Plan projects are implemented, on-campus infrastructure improvements (see the Master Plan in Appendix B) will be needed to accommodate and serve those projects. Periodically, over the course of Master Plan implementation, and, as needed, the County will coordinate and consult with the city of Los Angeles to identify any off-campus infrastructure improvements needed to serve proposed individual Master Plan projects, e.g., new water or sewer lines. It is also anticipated that various city departments, including the Department of Public Works, Department of Transportation, and the Fire and Police departments, will take into account the County's proposed projects on the Medical Center campus when determining what, if any, future infrastructure improvements and new or expanded public facilities would be required to serve the Sylmar community, including the Medical Center campus. Also, please see the additional information on public utilities and services provided in Section 3.13, *Public Services*, and Section 3.17, *Utilities/Services*, of the Draft EIR.

Comment Letter I10

Comment Letter I10

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Christine Zeiger

Affiliation/ Affiliación :

Address/Dirección: : Sylmar, CA

Phone Number / Teléfono

Email Address/ Correo electrónico btheeagles@verizon.net

I10-1 1) Construction disturbances - Once construction begins, what streets will be predominantly used to transport building equipment and remove debris?

I10-2 As a resident in the area, I would prefer that trucks avoid Polk/Tyler pathway to Olive View. Preferred route: Roxford to site (along Olive View) to avoid residential areas. (Please!)

I10-3 2) Security issues - Hopefully, the proposed campus will have many cameras to monitor the campus and call Ropes to alert Sheriff Substation, if needed.

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Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Responses to Comments from Christine Zeiger, Resident

Response to Comment I10-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The comment is concerned about construction disturbances and would like to know which streets would be used to haul equipment and remove debris from the construction site.

Mitigation measure **MM-TRAF-1** (see Section 3.15, *Transportation and Traffic*, of the Draft EIR), which includes measures to address impacts associated with streets that will be used as haul routes, states that the County will establish detour routes in coordination with the City of Los Angeles to minimize disturbances to local traffic condition, review potential detour routes to make sure adequate capacity is available, and maintain access to existing residences at all times. At the time of actual construction of the proposed projects, the County will provide notice to local residents of construction detours, haul routes, and temporary closures.

Response to Comment I10-2

The commenter states that they would prefer that construction trucks avoid the Polk/Tyler pathway to Olive View–UCLA Medical Center Campus and instead utilize Roxford Street and avoid residential areas. The specific construction haul routes for individual Master Plan projects remain to be determined, but the comment is noted for the record. Also, see the response to Comment I10-1, above.

Response to Comment I10-3

The commenter requests that security cameras and call boxes be located throughout the Olive View–UCLA Medical Center Campus. At this time, the specific details of the proposed safety and security improvements on the campus have not been developed, but the comment has been noted. However, it should be noted that the Olive View–UCLA Medical Center Campus currently has a Security Plan (see Appendix L of this Final EIR). On an annual basis, the Olive View–UCLA Medical Center Campus's Safety Officer evaluates the scope, objectives, performance, and effectiveness of the Safety Plan to security risks to staff, patients, and visitors. As individual Master Plan development projects are proposed, the Safety Officer will reevaluate the Security Plan and make necessary adjustments to meet current security needs.

Comment Letter I11

Comment Letter I11

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Christine Zeiger

Affiliation/ Affiliación :

Address/Dirección: : Sylmar Resident

Phone Number / Teléfono

Email Address/ Correo electrónico

I11-1 1) When will ground-breaking begin?
Specific Date

I11-2 2) What traffic pattern will be used?
POLK to Olive View?
OR
Roxford to Olive View?

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Responses to Comments from Christine Zeiger, Resident

Response to Comment I11-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter requests a specific date for construction groundbreaking. The Restorative Care Village facilities would be the first projects that would be constructed under the Master Plan. Construction of those projects is expected to begin within the next year, if the Master Plan is approved by the County Board of Supervisors. The construction schedules for other Tier I projects and future Tier II projects have not yet been identified and are contingent upon when funding becomes available and approvals are obtained. However, as noted in Chapter 2*, Project Description,* of the Draft EIR, construction of campus buildings, facilities, and open space and infrastructure improvements under the Master Plan would occur over a number of years and could continue beyond the year 2035.

The precise timing for most of the individual project elements over this timeframe is not known, as they are dependent on securing necessary funding, among other factors.

Response to Comment I11-2

The commenter states that they would prefer that construction trucks avoid the Polk/Tyler pathway to Olive View–UCLA Medical Center Campus. The commenter states that they would prefer that construction trucks utilize Roxford Street to access Olive View–UCLA Medical Center Campus, avoiding residential areas. The comment is noted.

Mitigation measure **MM-TRAF-1** (see Section 3.15, *Transportation and Traffic*, of the Draft EIR), which includes measures to address impacts associated with streets that will be used as haul routes, states that the County will establish detour routes in coordination with the City of Los Angeles to minimize disturbances to local traffic conditions, review potential detour routes to make sure adequate capacity is available, and maintain access to existing residences at all times. At the time of actual construction of the proposed projects, the County will provide notice to local residents of construction detours, haul routes, and temporary closures.

Comment Letter I12

Comment Letter I12

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Craig Baker

Affiliation/ Affiliación : Sylmar Homeowner

Address/Dirección: : 14456 Foothill Blvd Unit 58 Sylmar CA 91342

Phone Number / Teléfono 818-362-5684

Email Address/ Correo electrónico Craig.Baker@USA.Com

I12-1 Please preserve some of the old buildings - houses.

I12-2 Please restore the mini-golf course.

I12-3 Sylmar has some residents who oppose everything, but they do not represent the majority. Please move forward with your plans anyway.

Thank you!

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Responses to Comments from Craig Baker, Resident

Response to Comment I12-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter requests that old buildings on the campus be preserved. Section 3.4*, Cultural Resources*, page 3.4-11, of the Draft EIR, includes a list detailing the historical status of the Olive View–UCLA Medical Center Campus buildings. Although the campus contains buildings that are older than 50 years, there are no historically significant buildings on the campus that would be demolished as a result of implementation of the proposed Master Plan.

Response to Comment I12-2

The commenter requests for a mini-golf course to be preserved. The Olive View–UCLA Medical Center Campus Master Plan does not currently include restoration of a mini-golf course. The comment is noted.

Response to Comment I12-3

The commenter expresses positive support of the proposed project. The comment is noted; no further response necessary.

Comment Letter I13

Comment Letter I13

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Ismael Maldonado

Affiliation/ Affiliación : Disability Rights ADA

Address/Dirección: : 13707 Pinney St Pacoima CA 91331

Phone Number / Teléfono (818) 231-0872

Email Address/ Correo electrónico Ismael.maldonado@yahoo.com

I13-1 ADA compliance in the plans

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Ismael Maldonaels, Resident

Response to Comment I13-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter notes that Master Plan projects should comply with Americans with Disabilities (ADA) requirements.

Proposed projects, including new and renovated buildings, as well as pedestrian improvements, will be designed and constructed to comply with ADA requirements.

Comment Letter I14

Comment Letter I14

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Joanne Fernandez

Affiliation/ Affiliación :

Address/Dirección: :

Phone Number / Teléfono

Email Address/ Correo electrónico joannebal02@aol.com

I14-1 Many concerns have been voiced to increase Sheriff, Fire and Public Works services. What is being done to meet this request

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Joanne Fernandez, Resident

Response to Comment I14-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The Draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services, including fire, police, and emergency medical services. However, an increase in demand for fire protection services (and other public services) is not considered to be a significant impact to the environment pursuant to California Environmental Quality Act (CEQA) regulations. As stated in the Draft EIR, in order to determine if an increased demand for public services would result in a significant environmental impact, it is first necessary to determine whether that increased demand would require "new or altered government facilities" in order "to maintain acceptable service ratios, response times, or other performance objectives" and then, second, if new or physically altered government facilities are required, would construction of those facilities cause significant environmental impacts.

Because the City of Los Angeles Fire Department (LAFD) provides fire and emergency medical services to the campus and adjacent Sylmar community, during initial data collection efforts for the EIR, LAFD was contacted in July of 2016, and a number of questions were posed, to which they responded (see questions and LAFD responses included in Appendix L of this Final EIR).

Based on the LAFD's responses, no new fire station(s) are required at this time. Since a station is not anticipated at this time, and no description of size or location has been provided, in the event a station is required in the future, it is not possible to conclusively determine whether construction of a new fire station would result in significant impacts to the environment. Therefore, to conclude that the increased demand for fire protection services would result in construction of a new fire station, and that the construction of that station would result in significant impacts to the environment, would be speculative, and CEQA does not require a Lead Agency, in the absence of relevant information and data, to speculate as to a proposed project's impacts (pursuant to Section 15145 of the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."). For the reasons stated above, the Draft EIR concluded that the impacts to fire protection services are less than significant. Further detail on the analysis can be found in Section 3.13, *Public Services*, of the Draft EIR, on page 3.13-19.

Comment Letter I15

Comment Letter I15

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Joanne Fernandez

Affiliation/ Affiliación :

Address/Dirección: :

Phone Number / Teléfono	**Email Address/ Correo electrónico**
	joannebal02@aol.com

Are ~~they~~ you considering increasing a budget item for parking given that the plan only is dated for 175 parking spaces which does not accomodate the increase in vehicles.

I15-1 120 beds

40+ employees

120 - 60 visitors at any one time

High	Low
280	220

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
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900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Joanne Fernandez, Resident

Response to Comment I15-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

Parking for the Restorative Care Village facilities will be provided in accordance with County Code requirements. Additionally, it is anticipated that the demand for parking generated by these facilities will be less than that identified in the comment because the occupants of these facilities would not have cars during their stay that they would park at the proposed facilities, and the number of visitors at any given time would be less than assumed in the comment.

Comment Letter I16

Comment Letter I16

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Kuet Cabrera-Miller

Affiliation/ Affiliación : Resident

Address/Dirección: 13127 Tripoli Ave

Phone Number / Teléfono 818-365-5765

Email Address/ Correo electrónico KuetCabreraMiller@Gmail.com

I16-1 My family and I 100% fully support this plan

good Job!

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Kurt Cabrera Miller, Resident

Response to Comment I16-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The comment, which expresses support for the proposed project, is noted for the record.

Comment Letter I17

Comment Letter I17

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Leah Blose

Affiliation/ Affiliación : Resident / Equestrian

Address/Dirección: : 13271 Herrick Ave

Phone Number / Teléfono (818) 367-0066

Email Address/ Correo electrónico LeeLee3737@gmail.com

The question regarding air quality with the dust raised during the construction & trucking the dirt out. –
I17-1 Is there any plan to increase street cleaning in and around the area to ensure the dust isn't just left on our roads & cause additional pollution in the surrounding streets?

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Leah Blose, Resident

Response to Comment I17-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter is concerned that dust caused by construction could affect local neighborhood air quality and asks whether there is a plan to increase street sweeping.

The proposed project would be subject to South Coast Air Quality Management District (SCAQMD) Rule 43 regarding fugitive dust. This rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area that remains visible beyond the property line of the emission's source. During construction, best available control measures identified in the rule would be required to minimize fugitive dust emissions from proposed earthmoving and grading activities. These measures would include site pre-watering and re-watering as necessary to maintain sufficient soil moisture content. Additional requirements apply to construction projects on properties with 50 or more acres of disturbed surface area or any earthmoving operation with a daily earthmoving or throughput volume of 5,000 cubic yards or more three times during the most recent 365-day period.

The exact dust-control methods used for construction will be specified in a dust-control plan that would be submitted to the SCAQMD per Rule 403 prior to construction. The dust-control management plan may include street sweeping as a mitigating element under the provisions of SCAQMD Rule 1186. The dust-control management plan will be determined at the project level. The comment is noted, and the County will consider this matter as part of their deliberations on project approval.

Comment Letter I18

Comment Letter I18

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Marilyn Jones

Affiliation/ Affiliación: Resident

Address/Dirección: : 14152 Tyler St, Sylmar 91342

Phone Number / Teléfono

Email Address/ Correo electrónico

I18-1 Question: It is my understanding that there may be some old or current hazardous waste sites on the property. What is currently being done by the County or other agency to clean up the existing sites (i.e. the fire station with a leaking underground storage tank), etc.?

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Marilyn Jones, Resident

Response to Comment I18-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter is concerned about the possible presence of hazardous waste sites that may currently be present on the Olive View–UCLA Medical Center Campus. The commenter asks what will be done to manage these sites, if they do exist, and specifically asks about a fire station with a leaking underground storage tank.

As described in Section 3.8, *Hazards and Hazardous Materials*, of the Draft EIR, the old Los Angeles County Fire Station #04 was listed in the Leaking Underground Storage Tanks (LUST) database with a status as of 1995 of "leak being confirmed" and affecting soil. This fire station was decommissioned shortly after 1995. However, the Draft EIR identified a number of mitigation measures (see mitigation measures **MM-HAZ-1** through **MM-HAZ-4**) that will be implemented, including conducting project-level analyses, prior to ground-disturbing activities, to determine if there are hazardous materials conditions that could affect or be affected by construction activities. The proposed mitigation measures also prescribe the measures that would be implemented should contaminated soils are encountered during construction, including measures to minimize risks to workers, the public, and the environment. Compliance with existing regulations and implementation of proposed mitigation measures would ensure potential hazardous waste impacts would be less than significant.

Comment Letter I19

Comment Letter I19

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Marilyn Jones

Affiliation/ Affiliación : Resident

Address/Dirección: : 14152 Tyler St, Sylmar 91342

Phone Number / Teléfono | Email Address/ Correo electrónico

I19-1 There may be historical buildings mostly on the west side of the hospital that date back to the days of the original Sanitorium. Although these buildings may not currently be designated as "official" historical buildings, consideration should definitely be given to their historical significance to the San Fernando Valley and the San Fernando Valley Historical Society should be consulted regarding these buildings.

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Marilyn Jones, Resident

Response to Comment I19-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter states that there are possibly historic buildings dating back to the era of the former Olive View Sanatorium property on the west side of the Olive View–UCLA Medical Center Campus. The commenter states that the buildings may not be designated as official historic buildings, but consideration should be given to their historical significance to the San Fernando Valley.

As described in Section 3.4, *Cultural Resources*, on page 3.4-9 of the Draft EIR, a review of existing literature and historic maps, a record search conducted at the South Central Coastal Information Center, and a pedestrian survey resulted in the identification of a total of two historic built environment resources and one historic district record on the campus, which are all associated with the Olive View Tuberculosis Sanitarium Complex. However, because of the combination of demolition, relocation, reconfiguration, additions, and intrusions that occurred between 1944 and the 1970s, the character and appearance of the district's components, cumulatively, were substantially changed; therefore, the buildings, individually and collectively, no longer retain integrity of design, setting, materials, workmanship, feeling, or association and convey significance as a National Register of Historic Places-eligible property under any criterion, these properties are also not considered eligible for the California Register of Historical Resources.

Comment Letter I20

Comment Letter I20

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Marvin Thompson
Affiliation/ Affiliación : DMH, SFVCMHC
Address/Dirección: : 6556 Bellaire Nohw 91606
Phone Number / Teléfono (626) 219-3037
Email Address/ Correo electrónico horseofcourse7497@gmail.com

I20-1 Recuperative Care Ctr. is necessary due to implicit Bias faced by ~~them who~~ people with MI when receiving treatment by those in the general / physical practices.

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Marvin Thompson, Resident

Response to Comment I20-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter's statement that they believe recuperative care is necessary is noted for the record. No further response is required.

Comment Letter I21

Comment Letter I21

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre: Peggy Bennett
Affiliation/ Affiliación: Resident Patiet at olive vieo
Address/Dirección: 13135 Hubbard st
Phone Number / Teléfono: 818 822-5615
Email Address/ Correo electrónico: Peggybennett20@yahoo.com

When will we get another Fire statoin? Why not on your campus?

I21-1 Please consider Building fire Station!

County can please get a fire station Sylmar alredy has to provide for San Fermdo and Sylmar

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Response to Comment from Peggy Bennett, Resident

Response to Comment I21-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The Draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services, including fire, police, and emergency medical services. However, an increase in demand for fire protection services (and other public services) is not considered to be a significant impact to the environment pursuant to California Environmental Quality Act (CEQA) regulations. As stated in the Draft EIR, in order to determine if an increased demand for public services would result in a significant environmental impact, it is first necessary to determine whether that increased demand would require "new or altered government facilities" in order "to maintain acceptable service ratios, response times, or other performance objectives" and then, second, if new or physically altered government facilities are required, would construction of those facilities cause significant environmental impacts.

Because the City of Los Angeles Fire Department (LAFD) provides fire and emergency medical services to the campus and adjacent Sylmar community, during initial data collection efforts for the EIR, LAFD was contacted in July of 2016, and a number of questions were posed, to which they responded (see questions and LAFD responses included in Appendix L of this Final EIR).

Based on the LAFD's responses, no new fire station(s) are required at this time. Since a station is not anticipated at this time, and no description of size or location has been provided, in the event a station is required in the future, it is not possible to conclusively determine whether construction of a new fire station would result in significant impacts to the environment. Therefore, to conclude that the increased demand for fire protection services would result in construction of a new fire station, and that the construction of that station would result in significant impacts to the environment, would be speculative, and CEQA does not require a Lead Agency, in the absence of relevant information and data, to speculate as to a proposed project's impacts (pursuant to Section 15145 of the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."). For the reasons stated above, the Draft EIR concluded that the impacts to fire protection services are less than significant. Further detail on the analysis can be found in Section 3.*13, Public Services*, of the Draft EIR, on page 3.13-19.

Comment Letter I22

Comment Letter I22

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

Name/Nombre/ : Peter Postlmayr

Affiliation/ Affiliación : Resident Chair SNC PLUC

Address/Dirección: :

Phone Number / Teléfono	Email Address/ Correo electrónico
310 877-8909	PPostlmayr @ Cantwell-Anderson.com

I22-1 Place A County fire station on the Master Plan site.

I22-2 Place A County sheriff station on the master Plan site.

I22-3 How many ~~Patients~~ Patients will be served, when master plan completed what Percentage ~~are~~ will be homeless, what percentage Vulnerable ~~Vulnerable~~?

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Responses to Comments from Peter Postlmayr, Resident

Response to Comment I22-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The Draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services, including fire, police, and emergency medical services. However, an increase in demand for fire protection services (and other public services) is not considered to be a significant impact to the environment pursuant to California Environmental Quality Act (CEQA) regulations. As stated in the Draft EIR, in order to determine if an increased demand for public services would result in a significant environmental impact, it is first necessary to determine whether that increased demand would require "new or altered government facilities" in order "to maintain acceptable service ratios, response times, or other performance objectives" and then, second, if new or physically altered government facilities are required, would construction of those facilities cause significant environmental impacts.

Because the City of Los Angeles Fire Department (LAFD) provides fire and emergency medical services to the campus and adjacent Sylmar community, during initial data collection efforts for the EIR, LAFD was contacted in July of 2016, and a number of questions were posed, to which they responded (see questions and LAFD responses included in Appendix L of this Final EIR).

Based on the LAFD's responses, no new fire station(s) are required at this time. Since a station is not anticipated at this time, and no description of size or location has been provided, in the event a station is required in the future, it is not possible to conclusively determine whether construction of a new fire station would result in significant impacts to the environment. Therefore, to conclude that the increased demand for fire protection services would result in construction of a new fire station, and that the construction of that station would result in significant impacts to the environment, would be speculative, and CEQA does not require a Lead Agency, in the absence of relevant information and data, to speculate as to a proposed project's impacts (pursuant to Section 15145 of the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."). For the reasons stated above, the Draft EIR concluded that the impacts to fire protection services are less than significant. Further detail on the analysis can be found in Section 3.13, *Public Services*, of the Draft EIR, on page 3.13-19.

Response to Comment I22-2

Please see the responses to Comments I22-1 above.

Also, please note that the Olive View–UCLA Medical Center Campus currently has a Security Plan (see Appendix L of this Final EIR). On an annual basis, the Olive View–UCLA Medical Center Campus's Safety Officer evaluates the scope, objectives, performance, and effectiveness of the Safety Plan to security risks to staff, patients, and visitors. As individual Master Plan development projects

are proposed, the Safety Officer will reevaluate the Security Plan and make necessary adjustments to meet current security needs.

Response to Comment I22-3

The Recuperative Care Center would provide 48 beds, and the Residential Treatment Program Facility would provide 80 beds for the clients it serves. Implementation of the Master Plan would not substantially increase the number of hospital beds. Patients are treated and cared for based on clinical presentation and the need for acute stabilizing and subsequent ongoing care. The patient's condition and post-discharge needs determine the patient's level of care through the continuum and beyond the walls of Olive View–UCLA Medical Center Campus.

Comment Letter I23

Comment Letter I23

Olive View- UCLA Medical Center Campus Master Plan DEIR Public Meeting
Comment Sheet/Oja de Comentarios

PHYSICAL ONLY. ENVIRONMENT

Name/Nombre/ : TIM MARCEAU

Affiliation/ Affiliación :

Address/Dirección: : SYLMAR

Phone Number / Teléfono	**Email Address/ Correo electrónico**
818-262-5451	TMAR422@YAHOO.COM

I23-1 WITH AN EXPECTED EARLY 2020 CONSTRUCTION DATE, WHEN WILL SYLMAR GET ANOTHER FIRE STATION?

I23-2 ALL WE HEAR IS COUNCILWOMAN RODRIGUEZ IS LOOKING INTO IT. THIS PROJECT WILL BEGIN AND END WITHOUT ADDING ANY RESOURCES TO SYLMAR.

Please return this comment sheet at the sign in table or you may also submit your comments by mailing to:
County of Los Angeles Department of Public Works
Attention: Hoda ElSokkary, Senior Capital Projects Manager
900 South Fremont Avenue
Program Management Division I, 5th Floor
Alhambra, California 91803

Or by email to OVMCEIR@dpw.lacounty.gov
Comments need to be submitted and received by July 29, 2019.

Responses to Comments from Tim Marceau, Resident

Response to Comment I23-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

With regards to the need for another fire station, the Draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services, including fire, police, and emergency medical services. However, an increase in demand for fire protection services (and other public services) is not considered to be a significant impact to the environment pursuant to California Environmental Quality Act (CEQA) regulations. As stated in the Draft EIR, in order to determine if an increased demand for public services would result in a significant environmental impact, it is first necessary to determine whether that increased demand would require "new or altered government facilities" in order "to maintain acceptable service ratios, response times, or other performance objectives" and then, second, if new or physically altered government facilities are required, would construction of those facilities cause significant environmental impacts.

Because the City of Los Angeles Fire Department (LAFD) provides fire and emergency medical services to the campus and adjacent Sylmar community, during initial data collection efforts for the EIR, LAFD was contacted in July of 2016, and a number of questions were posed, to which they responded (see questions and LAFD responses included in Appendix L of this Final EIR).

Based on the LAFD's responses, no new fire station(s) are required at this time. Since a station is not anticipated at this time, and no description of size or location has been provided, in the event a station is required in the future, it is not possible to conclusively determine whether construction of a new fire station would result in significant impacts to the environment. Therefore, to conclude that the increased demand for fire protection services would result in construction of a new fire station, and that the construction of that station would result in significant impacts to the environment, would be speculative, and CEQA does not require a Lead Agency, in the absence of relevant information and data, to speculate as to a proposed project's impacts (pursuant to Section 15145 of the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."). For the reasons stated above, the Draft EIR concluded that the impacts to fire protection services are less than significant. Further detail on the analysis can be found in Section 3.13*, Public Services*, of the Draft EIR, on page 3.13-19.

Response to Comment I23-2

Please see the response to Comment I23-1 above.

Comment Letter I24

Comment Letter I24

Mountain-Castro, Jenelle

From: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Sent: Thursday, July 18, 2019 9:38 AM
To: Lisecki, Lee; Mathias, Marissa
Cc: Alicia Ramos; Parisa Dadmehr
Subject: FW: Draft Environmental Impact Report (Draft EIR) for the proposed Olive View - UCLA Medical Center Campus Master Plan

FYI

Thanks!

Hoda El Sokkary, P.E., MSc.
Senior Capital Projects Manager
Los Angeles County Public Works
Office: (818) 362-2071 / (626) 300-2332
Cell: (626) 238-4047

From: H B <hbedolla@hotmail.com>
Sent: Tuesday, July 16, 2019 5:19 PM
To: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Cc: Clarice Nash <CNash@dpw.lacounty.gov>; sheila@bos.lacounty.gov; councilmember.martinez@lacity.org; assemblymember.rivas@assembly.ca.gov; senator.hertzberg@senate.ca.gov
Subject: Draft Environmental Impact Report (Draft EIR) for the proposed Olive View - UCLA Medical Center Campus Master Plan

Good afternoon Ms. Hoda El Sokkary,

I am a long-time resident of Sylmar (north of Route 210) and I have a few comments and concerns on the subject project and DEIR:

I24-1
- There is already a lot of helicopter traffic going to the hospital. This proposed project will probably lead to increased helicopter trips to and from the hospital. There needs to be some mitigation for all the effects of the impacts from the increase in air traffic including noise mitigation to the residents like myself that have to hear it. The project should cover the cost to soundproof homes of affected residents.
- There is probably additional air pollution due to the increase helicopter trips. There should be a study to look at the impacts of the additional helicopter trips to the residents living in the path of the helicopters. Consideration should be given to the neighborhood schools and kids playing in yards while helicopters fly overhead. There may also be aerially deposited contamination to the soil.
- The helicopter paths into/out of the hospital should be restricted. I understand that there should be direct access during emergency trips. This comment is in regards to trips that are not emergency related. The helicopters make tremendous noise when they fly low. They should be restricted to fly high and in a path away from residential neighborhoods.

I24-2
- The improvements will generate additional motor vehicle traffic to existing interchanges at Roxford Street and at Polk Street. These interchanges are very congested already. Mitigation to the project's traffic impacts need to be included in the project. A major item should be the construction of new interchange of Route 118/ Bledsoe Street. This new interchange would provide a direct and short route to the hospital and alleviate congestion to the

1

I24-2 cont. Roxford Street and Polk Street interchanges. Such work could be done under encroachment permits and Cooperative Agreements with Caltrans.

I24-3
- The hospital improvements will generate additional traffic on Route 118. This additional traffic needs to be mitigated. Mitigation could include capacity increasing improvements such as adding an additional lane to the freeway and to the on- and off-ramps to be used by Hospital staff and patrons. Other traffic mitigation measures should include local road widening to increase capacity, construction of traffic signals at already heavily used and congested local intersections. Such work could be done under encroachment permits and Cooperative Agreements with Caltrans.

I24-4
- With the tremendous footprint of the hospital in the community of Sylmar, the improvements proposed need to include benefits to the immediate community. There should be free services offered to the neighboring communities. Services could be targeted to the youth and seniors of the area. Educational opportunities should be offered to students. Perhaps there could be a small high school on the hospital campus that could somehow be tied to acceptance into UCLA. The facility should have programs designed to motivate local students to follow a medical career path. For senior citizens, the hospital should offer interesting activities, jobs, and volunteer opportunities to keep them an active part of society.

I24-5
- The proposed improvements will increase the patient base, including mental-health patients. With this increase on a public hospital, there is a high chance that many discharged patients will be homeless. Once discharged, they may not have resources to travel, and thus they may stay in the neighborhood. The project needs to address the homeless issue. A possibility may be to impose on the project the funding needed to transport homeless patients to the locations where they consider home.

I24-6
- The project improvements will bring more people to the area. These people may realize the attractiveness of the open space and trails near the hospital and may decide to visit at other times. Therefore, the project should include mitigation for the additional use of the existing open space and trails. Mitigation should include improvements to these existing trails and perhaps new trails. Same should apply for other park and recreation facilities.

I24-7
- The increase of staff and patrons to the hospital will generate needs for businesses such as restaurants, gyms, florists, convenience stores... In order to mitigate the effects of these new businesses on the neighborhood, there should be preferential treatment to local businesses for opening such businesses on the hospital campus.

I24-8
- With the increase in the patient base at the hospital, there needs to be an increase in law enforcement patrols in the area.

Thank you in advance for considering and addressing my concerns and comments. Let me know if you have any questions.

Hector Bedolla
hbedolla@hotmail.com

2

Responses to Comments from Hector Bedolla, Resident

Response to Comment I24-1

Thank you for your comments. These comments will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter states that there is currently a lot of helicopter traffic to the Olive View–UCLA Medical Center Campus and that the proposed project will likely increase the helicopter traffic to and from the hospital and requests that noise mitigation related to helicopter noise should be provided.

The Draft EIR, Section 3.11, *Noise,* analyzed construction and operational noise impacts for Tier I and Tier II development as well as air traffic. As stated in the Draft EIR, the existing Olive View–UCLA Medical Center Campus includes a helipad for the transportation of patients to the emergency services building by air ambulance. The helipad is located immediately northeast of the existing hospital and emergency services buildings and would remain in the same location under the proposed project. Flight paths associated with the helipad are not anticipated to change, and the overall number of helipad operations are is not expected to increase as a result of the project. In addition, individual landings and takeoffs would be relatively short in duration. For these reasons, the long-term average noise levels generated by helicopters are expected to be relatively low compared to other existing noise sources and are not expected to change as a result of the project.

Therefore, the noise impacts associated with the helipad would be less than significant.

Response to Comment I24-2

The commenter is concerned about the additional automobile traffic (specifically at Polk Street and Roxford Street) that would be generated by the proposed project's improvements and asks that mitigation measures be incorporated into the project. The commenter requests that a new freeway interchange be built at California State Route 118 and Bledsoe Street.

The Draft EIR Section 3.15*, Transportation and Traffic,* addresses impacts related to transportation and traffic and includes mitigation measures to address any such impacts that may occur. The Draft EIR, Section 3.15*, Transportation,* pages 3.15-25 through 3.15-27, address freeway impacts. As stated on page 3.15-25, morning and afternoon peak-hour analysis of two selected I-210 freeway mainline segments in the project vicinity (i.e., I-210 west of State Route 118 and I-210 east of I-5) was conducted in response to a request from Caltrans. Table 3.15-5 shows the existing-plus-project and cumulative-plus-project peak-hour freeway segment analysis. As shown in the table, no freeway mainline segments operate at LOS F and have a V/C ratio increase of more than 2 percent. Therefore, for the purposes of this EIR, these freeway mainline impacts are considered to be less than significant.

A freeway ramp queuing analysis was conducted at five freeway ramp terminal intersections in the project vicinity in response to a request from Caltrans. Table 3.15-6 presents a summary of the ramp queuing analysis for existing conditions, as well as the existing-plus-project and cumulative-plus-project scenarios. The queue lengths are shown to not exceed the available ramp storage at any of the locations, and new freeway improvements are not required as mitigation for the project.

Response to Comment I24-3

The commenter is concerned that the proposed project would generate additional traffic on State Route 118 and requests that mitigation measures be adopted. The commenter suggests that the County work with Caltrans under encroachment permits to address the impacts to the State Route 118.

As described in the response to Comment I24-2 above, the proposed project is not expected to result in significant impacts to State Route 210. Since State Route 118 is located further from the campus than State Route 210, any impacts to State Route 118 are also anticipated to be less than significant,

Response to Comment I24-4

The commenter states that services should be provided to the local community and provides examples of the specific types of services. The commenter's suggested and recommended services are noted for the record. Additionally, the County will continue to engage and consult with members of the community to identify programs and services that could best meet the community's needs, while also fulfilling the County's and Medical Center's objectives. Also, please see the response to Comment O1-7.

Response to Comment I24-5

The commenter states their concern that patients of the Medical Center could experience homelessness after discharge and suggests the Medical Center provide transportation services to homeless shelters. The Social Service Department at the Olive View-UCLA Medical Center is responsible for the discharging of homeless patients from all areas of the hospital. The law requires that the County provide appropriate clothing for the weather, a meal, and a discharge plan for the patient, which includes transportation. Additionally, construction of the Restorative Care Village facilities on the campus will provide housing for patients that are receiving care at the Medical Center and need additional time for recovery. As a consequence, the proposed facilities would not increase the patient base as asserted in the comment.

Response to Comment I24-6

The commenter is concerned that local parks and recreation areas will experience increased use by new visitors to the area that result from the proposed projects improvements. The Draft EIR, Section 3.14, *Recreation,* page 3.14-7 to 3.14-8, addressed such potential impacts. Although Master Plan development would result in an increase in the number of visitors to the campus, the primary purpose of most of those visitors would not be to use local parks and recreational facilities. Consequently, it is not expected that development under the Master Plan would result in an increase in the use of off-campus recreational facilities in the project vicinity such that substantial deterioration of those facilities would occur. Impacts would be less than significant.

Response to Comment I24-7

The commenter states that the increase of staff and visitors to the hospital will generate the need for more businesses (e.g., restaurants, gym, convenience stores, etc.) in the area and suggests that preferential treatment be given to local businesses to mitigate the impact on the neighborhood. This comment raises no environmental issues, and thus no response is required.

Response to Comment I24-8

The commenter also indicated the need for more law enforcement patrols at the hospital as a result of an increase in the number of patients. As part of the Draft EIR, the County analyzed the impact the proposed project would have on public services, such as police protection. With regards to construction impacts, the Draft EIR includes mitigation measures to address any such impacts that may result from the proposed project. The mitigation measures include:

> **MM-PS-1**: The Los Angeles County project manager and construction contractor will regularly notify and coordinate with the LAFD, LASD, and LAPD on project construction design, activities, and scheduling, including any on- and off-campus street or lane closures related to proposed development projects before construction begins.
>
> **MM-PS-2:** The Los Angeles County project manager and construction contractor will continue to coordinate with LASD on project design and development under the Master Plan, to ensure LASD is able to plan and staff adequate resources to continue to serve the campus for police protection services.

The Draft EIR acknowledged that the additional development that could occur under the Master Plan and the resulting increases in the campus employee population and visitors would increase the demand for police protection services. The Department of Health Services (DHS) partners with the Los Angeles County Sheriff's Department (LASD) and Allied Health Security to provide protection on the campus. These services are continually assessed to ensure safety. Police protection services in the community surrounding the campus are provided by the City of Los Angeles Police Department (LAPD). It is anticipated that LAPD, similar to LASD, will continually assess the need for additional services or patrols as development under the Master Plan occurs.

Comment Letter I25

Comment Letter I25

Mountain-Castro, Jenelle

From: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Sent: Thursday, August 01, 2019 9:37 AM
To: Lisecki, Lee; Mathias, Marissa
Cc: Alicia Ramos
Subject: FW: Olive View Medical Center - Draft EIR (Comments)

FYI

Thanks!

Hoda El Sokkary, P.E., MSc.
Senior Capital Projects Manager
Los Angeles County Public Works
HQ: (626) 300-2332
Cell: (626) 238-4047

From: Diane Valencia <diane.valencia@aol.com>
Sent: Monday, July 29, 2019 2:39 PM
To: DPW-OVMCEIR <OVMCEIR@dpw.lacounty.gov>
Subject: Olive View Medical Center - Draft EIR (Comments)

PUBLIC SERVICES

One of the many impacts of the project, when complete, will be to add over 3,200 people (3.12.4.3 DEIR) and add 1.3 million square feet of developed bulding space (2.4 of the DEIR) requiring both EMS and fire response from the City of Los Angeles.The entire project is within the City and it is therefore responsible for providing those services.

I25-1 Much of the project is outside of the one to 1.5 miles of driving distance to the nearest fire station, LAFD station 91. Response distance is one of the objectives put forth in the Los Angeles General plan dated 2013.

Adding a significant number of people and buildings to protect will impact the already substandard response times to both the project area and to the surrounding community. A plan to mitigate this negative impact should be developed and documented. Replacing brush, landscaping and widely dispersed, small, fire prone buildings with few occupants with large, modern, high value buildings with high occupancy does not reduce the need for rapid response to a emergency.

During the first hours of the 2008 Sayre Fire, significant fire resources were drawn from the surrounding residential areas to assist with fire protection and evacuation of Olive View Medical Center.

Failing to address this would also contradict the LA City Planning objective 9-1 as noted in 3.10.2.4 of the DEIR.

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Response to Comment from Diane Valencia, Resident

Response to Comment I25-1

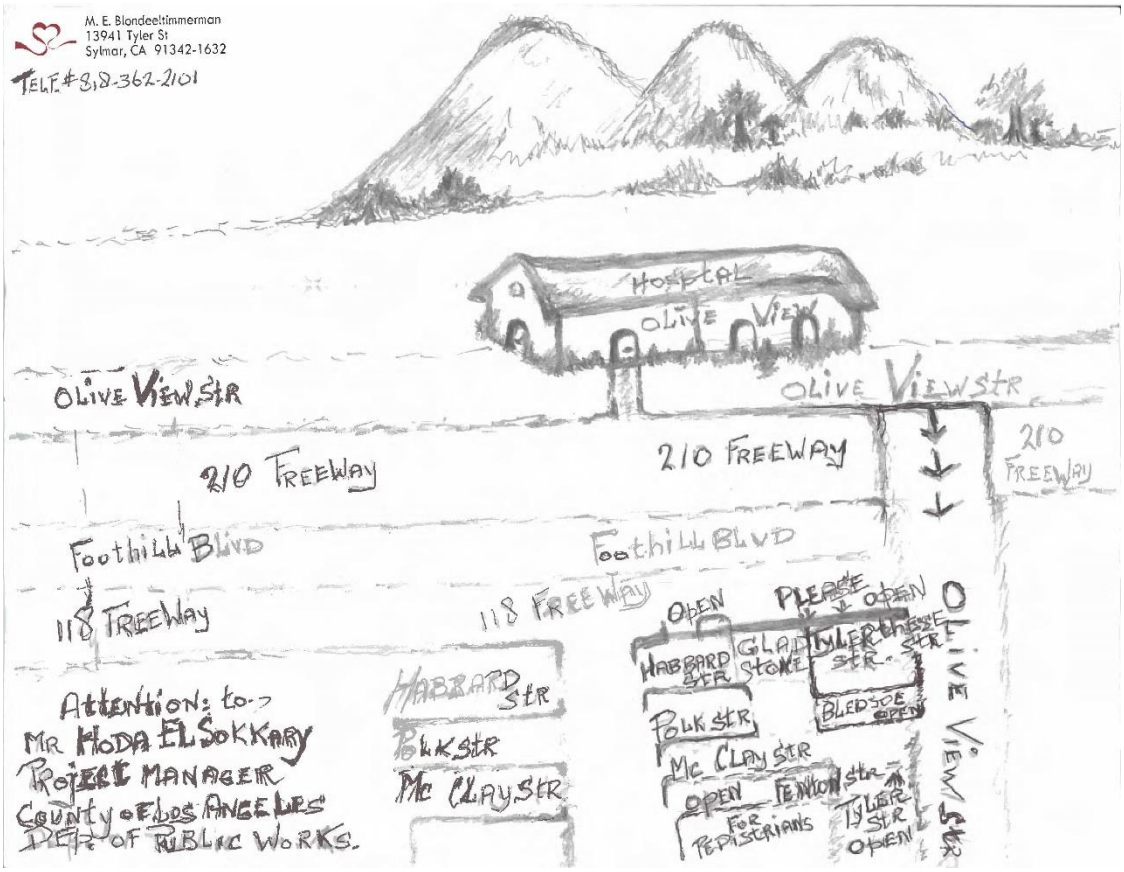
Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The Draft EIR acknowledged that additional development under the Master Plan and the resulting increase in the number of campus employees and visitors could result in an increased demand for public services, including fire, police, and emergency medical services. However, an increase in demand for fire protection services (and other public services) is not considered to be a significant impact to the environment pursuant to California Environmental Quality Act (CEQA) regulations. As stated in the Draft EIR, in order to determine if an increased demand for public services would result in a significant environmental impact, it is first necessary to determine whether that increased demand would require "new or altered government facilities" in order "to maintain acceptable service ratios, response times, or other performance objectives" and then, second, if new or physically altered government facilities are required, would construction of those facilities cause significant environmental impacts.

Because the City of Los Angeles Fire Department (LAFD) provides fire and emergency medical services to the campus and adjacent Sylmar community, during initial data collection efforts for the EIR, LAFD was contacted in July of 2016, and a number of questions were posed, to which they responded (see questions and LAFD responses included in Appendix L of this Final EIR).

Based on the LAFD's responses, no new fire station(s) are required at this time. Since a station is not anticipated at this time, and no description of size or location has been provided, in the event a station is required in the future, it is not possible to conclusively determine whether construction of a new fire station would result in significant impacts to the environment. Therefore, to conclude that the increased demand for fire protection services would result in construction of a new fire station, and that the construction of that station would result in significant impacts to the environment, would be speculative, and CEQA does not require a Lead Agency, in the absence of relevant information and data, to speculate as to a proposed project's impacts (pursuant to Section 15145 of the CEQA Guidelines, "If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."). For the reasons stated above, the Draft EIR concluded that the impacts to fire protection services are less than significant. Further detail on the analysis can be found in Section 3.13, *Public Services*, of the Draft EIR, on page 3.13-19.

Comment Letter I26



B
M. E. Blondeeltimmerman
13941 Tyler St
Sylmar, CA 91342-1632

C Blondeel Timmerman

PLEASE HELP!

THANK YOU

I26-1

NO ONE DOES MORE FOR VETERANS.®

BD3365

Response to Comment from Blondeel Timmerman, Resident

Response to Comment I26-1

Thank you for your comment. This comment will be provided to the Los Angeles County Board of Supervisors for consideration as part of the Final EIR for the proposed Olive View–UCLA Medical Center Campus Master Plan project.

The commenter included a drawing of the community streets surrounding Olive View and appears to be concerned about local street connections that are currently closed to cars and that those closures make it more difficult to access the neighborhood. As a consequence, the commenter has requested that these streets be opened to traffic. As noted in the Draft EIR, Tier I development would result in less-than-significant traffic impacts at local study intersections. Consequently, no mitigation measures are required under the California Environmental Quality Act (CEQA) or proposed by the County that would address the commenter's local access concerns. Additionally, the streets in question are under the jurisdiction of the City of Los Angeles, and any new street connections to improve local access would be the responsibility of the city. However, Ms. Blondeel Timmerman's recommendation is noted for the record and will be communicated to the appropriate elected officials and City of Los Angeles staff.

FINDINGS OF FACT AND STATEMENT OF OVERRIDING CONSIDERATIONS SCH# 2016031090

OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN EIR

PREPARED FOR:

County of Los Angeles
900 South Fremont Avenue
Alhambra, California 91803

PREPARED BY:

ICF

SEPTEMBER 2019

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1 Introduction

This document presents the findings required by the California Environmental Quality Act (CEQA) for each of the significant environmental effects identified in the Environmental Impact Report (EIR) (SCH No. 2016031090) that was prepared for the proposed Olive View-UCLA Medical Center Campus Master Plan (proposed project) and includes a Statement of Overriding Considerations, pursuant to CEQA, which states the reasons why the benefits of the project outweigh the project's unavoidable significant adverse effects. This document also describes the alternatives to the proposed project considered in the EIR, discusses whether the alternatives would avoid or minimize the significant impacts of the proposed project, identifies the environmentally superior alternative, and explains why the alternatives were rejected in favor of the proposed project.

1.1 Purpose of Findings and the Statement of Overriding Considerations

Section 21081 of the California Public Resources Code and Section 15091 of the CEQA Guidelines require a public agency, prior to approving a project, to identify significant impacts of the project and make one or more written findings for each such impact. According to Section 21081, "no public agency shall approve or carry out a project for which an environmental impact report has been certified which identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless both of the following occur:

(a) The public agency makes one or more of the following possible findings with respect to each significant effect:

1. Changes or alterations have been required in, or incorporated into, the project to mitigate or avoid the significant effects on the environment.
2. Those changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency.
3. Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report.

(b) With respect to significant effects which were subject to a finding under paragraph(3) of subdivision (a), the public agency finds that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment."

Section 21081.6 of CEQA also requires public agencies to adopt a monitoring and reporting program for assessing and ensuring the implementation of proposed mitigation measures. The mitigation measures identified in the Mitigation Monitoring and Reporting Program (MMRP) for the proposed project, which is provided under separate cover, are those identified within this Findings and the Statement of Overriding Considerations. Pursuant to Section 21081.6, public agencies are required to provide that measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures.

The Statement of Overriding Considerations is a written statement explaining the specific reasons why the social, economic, legal, technical or other beneficial aspects of the proposed project outweigh the unavoidable adverse environmental impacts and why the Lead Agency is willing to accept such impacts. This statement shall be based on the final EIR and/or other substantial evidence in the record.

1.2 Overview of the Proposed Project

The proposed Olive View-UCLA Medical Center Campus Master Plan would guide development of the campus and influence the delivery of health care services and health-related community programs over a period of approximately 20+ years.

The objectives of the Master Plan are to:

1. Provide for development opportunities that are consistent with the goals and policies of the County's General Plan.
2. Reorganize, expand, and integrate outpatient services with the specific goal of meeting the community's health needs, providing patient-centered care, and improving the operational throughput to meet increasing demands.
3. Locate inpatient and outpatient services into dedicated buildings to optimize the quality of care and improve operational effectiveness, while reducing administrative, operational, and maintenance costs.
4. Comply with the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983 (Senate Bill [SB] 1953) required by the Office of Statewide Health Planning and Development in order to ensure that the hospital can maintain its license as an inpatient care facility beyond the year 2030.
5. Identify feasible opportunities to exceed state energy requirements and pursue green building sustainable design to the maximum extent possible.
6. Develop resources that are consistent with the needs of the 2035 planning horizon.
7. Provide new medical facilities, including a new replacement hospital, to meet state standards and code requirements.
8. Provide integrated direct and coordinated care, including physical health, behavioral health, social, and other supportive services to the County's most vulnerable populations, such as those suffering from mental illness, addiction, or physical disabilities, in facilities located in a welcoming campus setting with green spaces to:
    a. ensure a seamless transition upon discharge to home or other housing options, and help patients avoid cycling in and out of emergency interventions and establish a sustainable functional life;
    b. reduce morbidity and costs, while restoring function and dignity; and
    c. improve the quality of life for the people and communities of Los Angeles County.

For the purposes of the EIR, two tiers of development have been defined and analyzed. Tier I entails near-term projects that are better defined and could be constructed subject to securing

the necessary approvals and funding, as well as other subsequent development that could occur over the next 17 years, through the year 2035. Tier I development could include the Restorative Care Village, which is composed of the Recuperative Care Center, Residential Treatment Program facility, Mental Health Wellness Center, and the new Mental Health Urgent Care Center, as well as the Ambulatory Care Center, Community Center, improvements to the existing hospital, new parking facilities, and other campus improvements that would be located predominantly in the eastern half of the current campus. Tier II development would occur beyond 2035 and could include the construction of a new inpatient hospital, Long Term Care facility, support services building, retail space, County department buildings, and the renovation and reuse of the existing inpatient hospital for other purposes. If build-out of the campus occurs as envisioned under the Master Plan, the net increase in building square footage would be approximately 1.3 million square feet, which would occur throughout the campus.

The main elements of the proposed Master Plan are listed below.

1.3 Tier I One Development

As identified above, for the purposes of this EIR, development under the Master Plan is described as occurring in two tiers, Tier I and Tier II.

Tier I Development includes:

- Recuperative Care Center
- Residential Treatment Program Facility
- Mental Health Urgent Care Center
- Mental Health Wellness Center
- Ambulatory Care Center
- Inpatient Services Improvements
- Community Center
- Central Utility Expansion
- Materials Management/Supply Services Building
- Administrative Services Building
- Community Open Space and Landscaping
- Parking, Vehicle and Pedestrian Circulation Improvements

1.4 Tier II Development

- Inpatient Services (Future Hospital)
- UCLA Faculty Offices and Medical Office Building, Educational Facilities, and Research Facilities
- Senior, Fitness, and Child Care Centers

- Long-Term Care Facility
- Retail Space
- Community Open Space and Landscaping Improvements
- Parking, Vehicle and Pedestrian Circulation Improvements
- County Fire Department, Agricultural Commissioner, and Sheriff's Buildings

1.5 Document Organization

This Findings and the Statement of Overriding Considerations are organized in the following way:

- Section 1.0, Introduction, provides background information of the purpose of Findings and the Statement of Overriding Considerations and presents the organization of this document and provides a brief overview of the proposed project.
- Section 2.0, Statement of Environmental Effects and Required Findings, identifies the issue areas for which the proposed project would have no impact or a less than significant impact, and presents a summary of the significant effects of the proposed project along with the one or more written findings made by the public agency explaining how it dealt with each of the significant effects and mitigation measures.
- Section 3.0, Alternatives Considered, describes the alternatives evaluated in the EIR, and the findings and rationale for selection of the proposed project.
- Section 4.0, Statement of Overriding Considerations, explains in detail why the social, economic, legal, technical or other beneficial aspects of the proposed project outweighs the unavoidable, adverse environmental impacts and why the agency is willing to accept such impacts.

2 Statement of Environmental Effects and Required Findings

This section discusses the impacts and mitigation measures identified for the proposed project, and makes findings for all significant impacts identified in the EIR for the proposed project.

The EIR focused on those potential effects of the proposed project on the environment that the Lead Agency has determined may be significant. Chapter 3 of the EIR determined that the proposed project would have either no impact or less than significant impacts regarding the following issue areas (please note that Chapter 3 of the EIR was organized according to the environmental categories and questions identified in the Environmental Checklist in Appendix G of the State CEQA Guidelines, which are referenced below):

No Impacts

- Biological Resources
  - Conservation Plan (Appendix G, Checklist Question IV,a)
    - Tiers I and II (construction and operational)

- Cultural Resources
  - Historical Resources (Appendix G, Checklist Question V,a)
    - Tiers I and II (construction and operational)
  - Archaeological Resources (Appendix G, Checklist Question V,b)
    - Tiers I and II (operational)
  - Human Remains Disturbance (Appendix G, Checklist Question V,c)
    - Tiers I and II (operational)
- Geology and Soils
  - Septic Tanks or Alternative Waste Disposal Systems (Appendix G, Checklist Question VII,e)
    - Tiers I and II (construction and operational)
  - Paleontological Resources (Appendix G, Checklist Question VII,f)
    - Tiers I and II (operational)
- Hazards and Hazardous Materials
  - Routine Transport, Use, or Disposal of Hazardous Materials (Appendix G, Checklist Question IX,a)
    - Tiers I and II (construction and operational)
  - Release of Hazardous Materials (Appendix G, Checklist Question IX,b)
    - Tiers I and II (operational)
  - Hazards to Schools (Appendix G, Checklist Question IX,c)
    - Tiers I and II (operational)
- Hydrology
  - Seiche, Tsunami (Appendix G, Checklist Question X,d)
    - Tiers I and II (construction and operational)
- Land Use and Planning
  - Conflicts with Applicable Plans and Policies (Appendix G, Checklist Question XI,b)
    - Tiers I and II (construction and operational)
  - Cumulative Impacts
- Noise
  - Groundborne Vibration or Groundborne Noise Levels (Appendix G, Checklist Question XIII,b)
    - Tiers I and II (operational)
  - Airstrip (Appendix G, Checklist Question XIII,c)
    - Tiers I and II (operational)
- Population and Housing
  - Displacement of Housing and People (Appendix G, Checklist Question XIV,b)
    - Tiers I and II (construction and operational)

Additionally, the County of Los Angeles, as the CEQA lead agency, determined in the NOP/IS (see Appendix A of the EIR) that the proposed project would not result in impacts in the following areas and no further environmental review of those resource areas was conducted as part of this EIR.

- Agricultural and Forestry Resources (Appendix G, Checklist Questions X,a-e)
- Mineral Resources (Appendix G, Checklist Questions XII,a-b)

Less than Significant Impacts

The analyses presented in Chapter 3, *CEQA Environmental Impact Assessment*, of this EIR, concluded that the proposed project would result in less than significant impacts in the following categories, and therefore, no mitigation measures are required.

- Aesthetics
  - Scenic Resources (Appendix G, Checklist Question I,b)
    - Tiers I and II (construction and operational)
  - Visual Character (Appendix G, Checklist Question I,c)
    - Tiers I and II (construction and operational)
  - Light and Glare (Appendix G, Checklist Question I,d)
    - Tiers I and II (construction and operational)
  - Cumulative Impacts
- Air Quality
  - Obstruct Implementation of the Applicable Air Quality Plan (Appendix G, Checklist Question III,a)
    - Tiers I and II (construction and operational)
  - Violate Air Quality Standard (Appendix G, Checklist Question III,b)
    - Tiers I and II (operational)
  - Expose Sensitive Receptors to Substantial Pollutant Concentrations (Appendix G, Checklist Question III,c)
    - Tier I (construction and operational)
  - Objectionable Odors (construction and operation) (Appendix G, Checklist Question III,d)
    - Tiers I and II (construction and operational)
- Biological Resources
  - Species (Appendix G, Checklist Question IV,a)
    - Tiers I and II (operational)
  - Wetlands (Appendix G, Checklist Question IV,c)
    - Tiers I and II (construction and operational)
  - Wildlife Corridors and Movement (Appendix G, Checklist Question IV,d)
    - Tiers I and II (operational)
  - Local Policies or Ordinances
    - Tiers I and II (operational)
  - Riparian Habitat and Sensitive Natural Communities
    - Tiers I and II (operational)
  - Cumulative Impacts
- Energy
  - Consumption of Energy (Appendix G, Checklist Question VI,a)
    - Tiers I and II (construction and operational)
  - Local Plans (Appendix G, Checklist Question VI,b)
    - Tiers I and II (construction and operational)
  - Cumulative Impacts
- Geology and Soils
  - Soil Erosion or Loss of Top Soil (Appendix G, Checklist Question VII,b)
    - Tiers I and II (operational)
  - Use of Septic Tanks or Alternative Waste Disposal Systems (Appendix G, Checklist Question VII,e)

        - Tier I and II (construction and operational)
- Greenhouse Gas Emissions
    - Policies (Appendix G, Checklist Question VIII,b)
        - Tiers I and II (construction and operational)
- Hazards and Hazardous Materials
    - Routine Transport (Appendix G, Checklist Question IX,a)
        - Tiers I and II (construction and operational)
    - Upset and Accident conditions (Appendix G, Checklist Question IX,b)
        - Tiers I and II (operational)
    - Hazardous Materials Sites (Appendix G, Checklist Question IX,d)
        - Tiers I and II (operational)
    - Emergency response (Appendix G, Checklist Question IX,f)
        - Tier I (construction)
        - Tier II (construction and operational)
    - Cumulative Impacts
- Hydrology and Water Quality
    - Water Quality Standards (Appendix G, Checklist Question X,a)
        - Tiers I and II (operational)
    - Groundwater Supplies (Appendix G, Checklist Question X,b)
        - Tiers I and II (operational)
    - Drainage and Flooding (Appendix G, Checklist Question X,c)
        - Tiers I and II (construction and operational)
    - Stormwater Runoff (Appendix G, Checklist Question X,c)
        - Tiers I and II (construction and operational)
    - Cumulative Impacts
- Noise
    - Airstrip (Appendix G, Checklist Question XIII,c)
        - Tiers I and II (construction and operational)
    - Cumulative Impacts
- Population and Housing
    - Population Growth (Appendix G, Checklist Question XIV,a)
        - Tiers I and II (construction and operational)
    - Displace Substantial Numbers of Existing Housing Units (Appendix G, Checklist Question XIV,b)
        - Tiers I and II (construction and operational)
    - Cumulative Impacts
- Public Services
    - Police and Fire services (Appendix G, Checklist Question XV,a)
        - Tiers I and II (operational)
    - Schools (Appendix G, Checklist Question XV,a)
        - Tiers I and II (operational)
    - Parks (Appendix G, Checklist Question XV,a)
        - Tiers I and II (operational)
    - Cumulative Impacts
- Recreation
    - Increased Use of Existing Parks (Appendix G, Checklist Question XVI,a)
        - Tiers I and II (construction and operational)

    - Require Construction of Recreational Facilities (Appendix G, Checklist Question XVI,b)
        - Tiers I and II (construction and operational)
    - Cumulative Impacts
- Transportation/Traffic
    - Conflict with Transportation Program, Plan, Ordinance, or Policy (Appendix G, Checklist Question XVII,a)
        - Tier I (construction and operational)
    - Conflict with CEQA Guidelines Section 15064.3 subdivision (b) (Appendix G, Checklist Question XVII,b)
        - Tiers I and II (construction and operational)
    - Increase Hazards due to Geometric Design Feature (Appendix G, Checklist Question XVII,c)
        - Tiers I and II (operational)
    - Inadequate Emergency Access (Appendix G, Checklist Question XVII,d)
        - Tiers I and II (operational)
- Tribal Cultural Resources
    - Tribal Cultural Resources (Appendix G, Checklist Questions XVIII,a-b)
        - Tiers I and II (operational)
- Utilities
    - Exceed Water or Wastewater Treatment Stormwater Drainage, Electric Power, Natural Gas, or Telecommunications Facilities (Appendix G, Checklist Question XIX,a)
        - Tiers I and II (construction)
    - Water Supplies (Appendix G, Checklist Question XIX,b)
        - Tiers I and II (construction)
    - Adequate Capacity for Wastewater Treatment Provider (Appendix G, Checklist Question XIX,c)
        - Tiers I and II (construction)
    - Generation of Waste (Appendix G, Checklist Question XIX,d)
        - Tiers I and II (construction)
    - Compliance with Solid Waste Regulations (Appendix G, Checklist Question XIX,e)
        - Tiers I and II (construction and operational)
- Wildfire Hazards
    - Emergency Response Plan (Appendix G, Checklist Question XX)
        - Tiers I and II (operational)

As described in Section 15128 of the CEQA Guidelines, and detailed in the EIR, these issues have no potential for significant impacts and required no further environmental review or analysis beyond the discussion in the EIR.

Potentially Significant Impacts Requiring Mitigation

The following impacts were identified as potentially significant but would be reduced to less than significant with incorporation of proposed mitigation measures.

- Air Quality
    - Violate Air Quality Standard (Appendix G, Checklist Question III,b)
        - Tier I (construction)
- Biological Resources
    - Species (Appendix G, Checklist Question IV,a)

        - Tiers I and II (construction)
    - Local Policies (Appendix G, Checklist Question VI,e)
        - Tiers I and II (construction)
- Cultural Resources
    - Archaeological Resources (Appendix G, Checklist Question VI,b)
        - Tiers I and II (construction)
    - Human Remains Disturbance (Appendix G, Checklist Question VI,c)
        - Tiers I and II (construction)
    - Cumulative Impacts
- Geology and Soils
    - Earthquake Fault Rupture, Seismic Shaking, Ground Failure, or Landslides (Appendix G, Checklist Question VII,a)
        - Tiers I and II (construction and operational)
    - Soil Erosion or the Loss of Topsoil (Appendix G, Checklist Question VII,b)
        - Tiers I and II (construction)
    - Liquefaction (Appendix G, Checklist Question VII,a)
        - Tiers I and II (construction and operational)
    - Expansive Soil (Appendix G, Checklist Question VII,d)
        - Tiers I and II (construction and operational)
    - Paleontological Resources (Appendix G, Checklist Question VII,f)
        - Tiers I and II (construction)
    - Cumulative Impacts
- Greenhouse Gas Emissions
    - Generate GHG Emissions (Appendix G, Checklist Question VIII,a)
        - Tiers I and II (construction and operational)
- Hazards and Hazardous Materials
    - Upset and Accident Conditions (Appendix G, Checklist Question IX,b)
        - Tiers I and II (construction)
    - Hazardous Materials Sites (Appendix G, Checklist Question IX,d)
        - Tiers I and II (construction)
- Hydrology
    - Water Quality Standards (Appendix G, Checklist Question X,a)
        - Tiers I and II (construction)
    - Groundwater Supplies (Appendix G, Checklist Question X,b)
        - Tiers I and II (operational)
    - Drainage (Appendix G, Checklist Question X,c)
        - Tiers I and II (construction)
    - Degrade Water Quality (Appendix G, Checklist Question X,a)
        - Tiers I and II (construction)
- Noise
    - Increased Ambient Noise (Appendix G, Checklist Question XIII,a)
        - Tiers I and II (operational)
- Public Services
    - Police and fire services (Appendix G, Checklist Question XIV,a)
        - Tiers I and II (construction)
- Transportation/Traffic
    - Inadequate Emergency Access (Appendix G, Checklist Question XVII,d)

        - Tiers I and II (construction)
- Tribal Cultural Resources (Appendix G, Checklist Question XVIII)
    - Cumulative Impacts
- Utilities
    - Water Supplies (Appendix G, Checklist Question XIX,a)
        - Tiers I and II (construction)
    - Adequate Capacity for Wastewater Treatment Provider (Appendix G, Checklist Question XIX,c)
        - Tiers I and II (operational)
- Wildfire Hazards (Appendix G, Checklist Question XX)
    - Cumulative Impacts

Significant Unavoidable Impacts

Significant unavoidable impacts would occur as a result of the proposed Olive View–UCLA Medical Center Campus Master Plan Project in the following resource areas:

- **Air Quality (only Tier II Construction, Operational, and Cumulative Impacts)** (Appendix G, Checklist Questions III,b-c)

  Tier II would result in the generation of air pollutant emissions from heavy-duty construction equipment, construction worker vehicle trips, material deliveries, trips by heavy-duty haul trucks, earthwork activities, and other construction activities. Such emissions could exceed construction thresholds for regional and localized pollutant emissions and expose sensitive receptors to substantial pollutant concentrations depending on the schedules, equipment used, and material movement required. Implementation of Mitigation measures MM-AQ-1, MM-AQ-2, MM-AQ-3, and MM-AQ-4 would reduce emissions, however, emissions from Tier II construction activities may still exceed South Coast Air Quality Management District (SCAQMD) thresholds. Therefore, this impact would be considered significant and unavoidable.

  Tier II operations would involve emissions of air pollutants from building natural gas use, stationary sources, worker and vehicle trips, and other sources that could exceed operational thresholds. Mitigation measures MM-AQ-5 would reduce operational emissions but may not reduce emissions to a less-than-significant level.

  Cumulative impacts on Basin air quality with respect to criteria pollutant emissions could exceed applicable thresholds under Tier II. Therefore, cumulative impacts would be considered significant and unavoidable.

- **Greenhouse Gas Emissions (both Tier I and Tier II Construction, Operational, and Cumulative Impacts)** (Appendix G, Checklist Question VIII,a)

  Greenhouse Gas Emissions generated during construction and operational activities for both Tier I and Tier II could exceed the 3,000 MT CO_2e annual threshold. While MM-GHG-01 would reduce the project's GHG emissions, it cannot be stated with certainty that emissions would be reduced to comply with the long-term GHG reduction targets and goals of applicable regulatory programs. As such, impacts would be significant and unavoidable.

GHG emissions and climate change are exclusively cumulative impacts. The project would be inconsistent with statewide targets in the post-2030 timeframe. Due to the lack of a details regarding buildout long-term, the proposed project's incremental contribution to cumulative impacts related to GHG emissions and reduction targets and plans would be cumulatively considerable even with implementation of MM-GHG-C1 and MM-GHG-O1. Therefore, it cannot be stated with certainty that the proposed project would result in emissions that would represent a fair share of the requisite reductions to achieve statewide reduction targets. As such, cumulative impacts would be significant and unavoidable.

- **Noise and Vibration (both Tier I and Tier II Construction and Operational Impacts)** (Appendix G, Checklist Questions XIII,a,b)

  While mitigation measure MM-NOI-1 would reduce construction noise levels, it would not eliminate the predicted noise impacts entirely; therefore, construction noise impacts are considered significant and unavoidable. Construction vibration impacts could significantly affect nearby noise sensitive uses, while mitigation measure MM-NOI-C2 reduce construction vibration levels, it may not eliminate the predicted significant impacts entirely, therefore, construction vibration impacts would be considered significant and unavoidable after mitigation.

- **Transportation/Traffic (Tier II Operational and Cumulative Impacts)** (Appendix G, Checklist Question XVII,a)

  The increase in the number of project trips associated with full buildout of Tier II development and the expected increase in the number of ambient trips beyond 2035 could lead to significant impacts at some intersections in the vicinity. Tier II development could also result in significant traffic impacts on freeway mainline segments and freeway ramp queues. However, given that Tier II development would occur far in the future, beyond 2035, the extent of potential impacts on the local and regional transportation system have not been quantified and consequently mitigation measures have not been identified, but for the purposes of this EIR, the Tier II traffic impacts are considered to be significant and unavoidable.

- **Utilities (both Tier I and Tier II Operation and Cumulative Impacts)** (Appendix G, Checklist Questions XIX,b-c)

  Proposed development under the Master Plan would increase the consumption of water. The Water Supply Assessment prepared for the proposed project concluded that projected water supply during normal, single-dry, and multiple-dry water years, as included in the 25-year projection contained in the city of Los Angeles's *Urban Water Management Plan*, can accommodate the projected maximum water demand associated with Tier I and Tier II development. However, it should be noted that the UWMP projections end in 2040, while the Master Plan is intended to provide a framework and vision for development on the campus that could occur beyond 2040. For projects constructed in Tier II of the Master Plan, if it is determined that the water supplies are insufficient, and new offsite water infrastructure is required, there could potentially be significant and unavoidable impacts. Similarly, development under the Master Plan would also increase wastewater flows from the campus that would be conveyed to local sewer lines. The city of Los Angeles Bureau of Sanitation (BOS) conducted a preliminary evaluation of the project's potential impacts on

existing wastewater flows, which found that based on the current approximate flow levels, the sewer system may be able to accommodate the additional wastewater flow that could occur due to new development under the Master Plan for Tiers I and II. However, further evaluation would be needed as part of the permit process to identify a specific sewer connection point. If BOS determines that there is insufficient capacity in the local sewer lines that would serve an individual future project, then the impact would be considered to be significant. Since the County cannot compel BOS to conduct further gauging and evaluation, for the purposes of the EIR, the impacts on local sewer lines are considered to be potentially significant and unavoidable.

The cumulative increases in regional and local study area populations would increase the demand for utilities services. Because the service areas for the various utility providers (water, sewer and wastewater, stormwater, solid waste, natural gas, and electricity) varies widely, and, in some cases, covers large geographic areas (e.g., SoCalGas or LADWP), it is possible that increased demand due to future cumulative development within the service areas could require additional utility capacity and supplies to meet projected future demand and maintain adequate levels of service, notwithstanding future savings resulting from increased energy efficiencies. As such, cumulative impacts would be considered significant and unavoidable.

3 Required Findings

Each of the resource areas analyzed in the EIR is discussed in terms of:

- *Description of Potential Effects* are specific descriptions of the environmental effects identified in the EIR as significant or potentially significant.
- *Mitigation Measures* are the proposed mitigation measures for the impacts identified as significant or potentially significant.
- *Findings* are the findings made in accordance with Section 21081 of CEQA. One of the three possible findings is made for each significant or potentially significant impact, in response to Section 15091 of the CEQA Guidelines. The significance of the environmental impacts after mitigation is also provided.
- *Rationale* is a summary of the reasons for the findings.
- *References* are notations on the specific section in the EIR or other information source that support the findings.

3.1 Air Quality

3.1.1 Description of Potential Effects (Appendix G, Checklist Questions III,b-c)

Tier I

The proposed project would be consistent with the City of Los Angeles' General Plan and regional planning documents and thus consistent with the region's air quality plan.

During construction, estimated daily criteria pollutant emissions could exceed South Coast Air Quality Management District (SCAQMD) regional construction-period thresholds for volatile organic compounds (VOCs). However, implementation of proposed mitigation measures would reduce construction-related emissions to a less-than-significant level.

Emissions from Tier I construction activities that overlap with Tier I development operational emissions could exceed SCAQMD thresholds for VOCs and NOx, a significant impact. However, implementation of proposed mitigation measures would reduce potential impacts to less than significant.

Tier II

Construction and operational emissions under Tier II could exceed, depending on specific project details including construction schedule and activities, the applicable air quality thresholds. Because Tier II projects are expected to occur far in the future, and specific details about Tier II are unknown, emissions associated with construction and operational activities under Tier II have not been quantified. Although the mitigation measures identified below would be implemented, Tier II could potentially result in emissions that still exceed regional or localized standards and would be a significant impact.

Cumulative Impacts

As stated above, the project is consistent with City of Los Angeles' General Plan and regional planning documents and thus consistent with the region's air quality plan. However, emissions associated with construction and operation of Tier II of the proposed project have not been quantified as details have not been fully developed, and are therefore considered significant and unavoidable. Cumulative impacts on Basin air quality with respect to criteria pollutant emissions could exceed applicable thresholds under Tier II. As a consequence, Tier II development could result in a cumulatively considerable contribution to a significant cumulative air quality impact.

3.1.2 Mitigation Measures

Tiers I and II

MM-AQ-1: To reduce VOC emissions during construction, the County (or its contractors) shall use low-VOC coatings that go beyond the requirements of SCAQMD Rule 1113 and have a VOC content of 10 g/L or less during construction.

MM-AQ-2: To minimize particulate matter and NO_X emissions during construction of Tier I projects, the County (or its contractors) will use off-road equipment that meets or exceeds U.S. Environmental Protection Agency (EPA) Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during construction. Such equipment will be outfitted with Best Available Control Technology (BACT) devices including, but not limited to, CARB-certified Level 3 Diesel Particulate Filter (DPFs) or equivalent.

Tier II

MM-AQ-3: In the event that construction-period emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following or more effective measures to achieve emissions reductions:

1. For exceedances of particulate matter or NO_X regional or localized significance thresholds, the County (or its contractors) will:

    a. Use off-road equipment that meets or exceeds U.S. Environmental Protection Agency Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during all phases of construction;

    b. Outfit all off-road equipment with Best Available Control Technology (BACT) devices including, but not be limited to, CARB certified Level 3 Diesel Particulate Filters (DPFs); and

    c. Require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year or newer trucks (e.g., material delivery trucks and soil and aggregate import/export) that meet CARB's 2010 engine emission standards of 0.01 gram per brake horsepower-hour (g/bhp-hr) of PM and 0.20 g/bhp-hr of NO_X emissions or newer, cleaner trucks.

    d. The aforementioned off-road and on-road requirements will be included in the County's applicable bid documents, and the awarded construction contractor must demonstrate the ability to successfully supply compliant equipment prior to commencement of any construction activities. A copy of each equipment unit's certified tier specification and, where applicable, CARB or SCAQMD operating permits, will be made available to the Construction Monitor upon request at the time of mobilization of each applicable unit of equipment. All construction contractors supplying off-road equipment greater than 50 hp to the campus will be encouraged to apply for SCAQMD SOON funds, and SCAQMD's website containing information about the program will be provided to each contractor.

    e. In recognition that the Tier II developments would occur after 2035 and that more effective measures would likely be available at that time to reduce pollution emissions, the County (or its contractors) will implement all other current and feasible mitigation that are readily available for deployment at the time a Tier II project's details are known, which may include, but is not limited to, the use of construction equipment with the latest emission control systems/technologies that would result in emission reductions exceeding those

achieved by presently available technologies (e.g., Tier 4 off-road equipment and 2010 model year or newer trucks). Such technologies may include zero-emission or near-zero off-road and on-road equipment that is readily available in the South Coast Air Basin. To stay abreast of the latest available mitigation, the County will conduct a review of SCAQMD's Air Quality Analysis Handbook website on an annual basis to ensure that recommended mitigation measures by the District are considered for each future discretionary project.

MM-AQ-4: Prior to issuance of a grading permit for new individual projects occurring under the Tier II development phase that are 1 acre or larger, the County will conduct an air quality analysis of the localized emissions (NO_X, CO, PM_{10}, and $PM_{2.5}$) associated with the maximum daily grading activities for the proposed development. If the localized air quality analysis shows that emissions would exceed SCAQMD's air quality CEQA localized thresholds for those emissions, mitigation identified in **MM-AQ-3** will be implemented and/or the maximum-daily grading activities of the proposed development will be limited to the extent feasible.

MM-AQ-5: In the event that operational emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following to achieve emissions reductions upon construction:

1. Increase energy efficiency by at least 10 percent beyond the Title 24 standard in place at the time of construction, unless demonstrated to be infeasible.
2. Utilize low VOC coatings (VOC content less than or equal to 25 grams per liter) for periodic painting and facility upkeep.
3. Install solar water heaters.
4. Maximize interior day light and utilize high efficiency lighting.
5. Increase roof/ceiling insulation beyond the American Society of Heating, Refrigeration and Air Conditioning Engineers Standard 90.1-2010.
6. Install weather-based irrigation controllers to reduce outdoor water consumption.
7. Implement travel demand reduction measures (TDM) for employees, including, but not necessarily limited to measures such as:
    - Providing bicycle parking for at least five percent of full-time-equivalent campus employees.
    - Providing preferential carpool spaces within proposed parking structures on the campus.
    - Provide shuttles for visitors and employees from Metrolink and/or Metro Rail stations to reduce vehicle trips.
8. Incorporate onsite renewable energy production, including installation of photovoltaic cells or other options.

9. The County will give preference to vendors that use zero-emission and near-zero emission on-road haul trucks in their vehicle fleet as opposed to diesel-powered trucks.

3.1.3 Findings

For the above impacts to air quality, the following findings are made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☐ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☒ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential air quality impacts due to the proposed project are found to be.

☒ Significant ☐ Not Significant

3.1.4 Rationale

Tier I

Proposed mitigation measures would reduce construction emissions below SCAQMD regional construction-period thresholds. However, impacts to nearby sensitive land uses due to exposure to substantial pollutant emissions during construction could still exceed thresholds after implementation of proposed mitigation measures. No additional feasible mitigation measures have been identified that would reduce these potential localized construction emissions impacts to a less-than-significant level.

Alternative B (see Chapter 5 of the EIR and Section 4 below) could result in reduced air quality impacts compared to the proposed project. However, Alternative B would not redevelop the campus to the same extent as could occur under the Master Plan and consequently, campus improvements including landscaping, pedestrian and equestrian trails, and infrastructure improvements may be more limited than would occur under the proposed Master Plan.

Tier II

Although mitigation measures identified above would reduce potential construction and operational air quality impacts, because Tier II projects are expected to occur far in the future, beyond the year 2035, specific project details are not and cannot be known at present and accordingly, to avoid speculation, impacts have not been quantified. Nonetheless, it's possible that impacts could be significant after mitigation given the amount of Tier II development that could occur.

Although it is likely Alternative B (see Section 4 below for a discussion of this alternative) could avoid the potentially significant air quality impacts that could occur under Tier II because of the substantial reduction in Tier II development, it would not redevelop the campus to the same extent as could occur under the Master Plan and consequently, campus improvements including landscaping, pedestrian and equestrian trails, and infrastructure improvements may be more limited than would occur under the proposed Master Plan..

3.1.5 References

Section 3.2 of the EIR addresses the project's air quality impacts. Chapter 5 of the EIR describes the impacts of the alternatives to the proposed project.

3.2 Biological Resources

3.2.1 Description of Potential Effects (Appendix G, Checklist Questions IV,a,e)

Tier I

The project site and biological study area include two sensitive vegetation communities: California sagebrush scrub and coast live oak woodland, if project construction requires the removal of either of these sensitive vegetation communities, the impact could be significant. Lighting, noise, traffic, or other operational impacts from new Master Plan development and activities may affect California gnatcatcher, if present, in the suitable California sagebrush habitat at the eastern end of the campus.

The removal or modification of abandoned buildings that provide suitable roosting habitat within the project area may result in impacts on two bat species: pallid bat and Townsend's big-eared bat. Construction activities may also affect other special-status species, including coast horned lizard, silvery legless lizard, and San Diego woodrat; these species occur throughout Southern California.

Tier I improvements at the eastern end of the campus that are less clearly defined (e.g., recreational trails and facilities) may result in some permanent loss of suitable California sagebrush habitat that may be used by coastal California gnatcatcher.

Construction activities for Tier I may also result in direct and indirect impacts to nesting birds protected under the Migratory Bird Treaty Act and temporarily cause portions of the site to be inaccessible to bird species in the area. Furthermore, construction activities could affect a small amount of potential jurisdictional waters on the campus, including two blue line concrete box culverts and nine blue line and non-blue line features. These features have limited functions and values and are ephemeral in nature.

Tier II

Tier II impacts would be similar to those under Tier I above with the exception of the impacts to California sagebrush habitat on the eastern end of the campus, which would likely not be affected by Tier II improvements.

3.2.2 Mitigation Measures

Tiers I and II

MM-BIO-1: Prior to the commencement of construction activities, a habitat assessment will be done by a qualified bat biologist to identify buildings within the project area that are suitable roosting habitat for bats. The following measures would apply to structures with bat roost potential, as determined by a qualified biologist:

- To avoid impacts to roosting bats, preconstruction surveys will be conducted prior to work occurring within the vicinity of, or removal of, vacant buildings. A qualified bat biologist will be retained to conduct bat and bat roosting site surveys between May 1 and July 30, prior to commencement of construction activities. This pre-construction survey will be conducted at the non-vacant and vacant buildings determined to be potentially suitable for roosting bats. The survey must occur during maternity season to confirm whether Townsend's big-eared bat is present in the vacant buildings, the only locations with potential for this species. The survey at the buildings will involve exit counts and acoustic surveys to determine whether a structure supports a nursery or roost and by which species. For the non-vacant buildings, a structure inspection will be performed by a bat biologist to look for bat sign (e.g., guano, wall streaking).
- Preconstruction bat surveys will include evening emergence surveys performed at dusk using active full-spectrum acoustic monitoring. Work will be performed by qualified biologists, who have knowledge of the natural history of the bat species that could occur in the project area and experience conducting surveys, using full spectrum acoustic equipment. During surveys, biologists will avoid unnecessary disturbance of occupied roosts. Evening (i.e., dusk) emergence surveys will consist of at least one biologist stationed on at different vantage points from the structure, watching for emerging bats from a half hour before sunset to 1–2 hours after sunset or until visibility is no longer optimal. Full-spectrum acoustic detectors will be used during emergence surveys to assist in species identification. All emergence surveys will be conducted during favorable weather conditions (i.e., calm nights with temperatures conducive to bat activity [55°F and above] and no precipitation predicted).
- If roosting sites or bats are not found, a report confirming their absence will be sent to the CDFW, and no further action will be required.
- If it is determined that structures in the project area are being used by bats as roost sites, the following protective measures will be implemented:
    - Disturbance of maternity roosting structures or trees (e.g., structure removal, construction equipment operation near roosts, tree trimming or removal) will not occur between April 15 and the following September 15 (i.e., the maternity period) to avoid impacts on reproductively active females and active maternity roosts, whether colonial or solitary. The maternity roost will remain undisturbed from the time it is located until the following September 15 or until a qualified biologist has determined the roost is no longer active. No construction work will occur at the roost or within a 100-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) until September 15.

- Exclusion devices may be installed outside of the maternity period (i.e., between September 16 and April 14) to preclude bats from occupying buildings during construction. Exclusionary devices will only be installed by or under the supervision of an experienced bat biologist.
- A Bat Management Plan (see **MM-BIO-2**) will be developed if a bat maternity roost, including Townsend's big-eared bat, is found in the vacant building(s), and no construction work within a 250-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) will occur between April 1 and September 30.

MM-BIO-2: A Bat Management Plan will be developed to ensure mortality to bats does not occur. The following items will be included in the plan, at a minimum:

- For each location confirmed to be occupied by bats, the plan will detail, both in text and graphics, where exclusion devices will be placed, type(s) of exclusion material to be used, the timing for exclusion work, and the timeline and methodology needed to exclude the bats.
- Monitoring activities and schedules will be included, including frequency of monitoring, identification of structures that need to be monitored, and reporting requirements.
- The plan will be reviewed and approved by CDFW.

MM-BIO-3: Prior to construction of individual Master Plan projects, a jurisdictional delineation will be conducted within the project site for jurisdictional features, including wetlands. If jurisdictional features are not present, there is no potential for impacts to occur, and no further action will be needed. If a jurisdictional feature is found within the project disturbance limits, then the following measures would be triggered:

- **Full avoidance**: This may be possible if the jurisdictional feature is found in portions of the project site that can be avoided. In this instance, environmentally sensitive area fencing will be placed between the work area and the location of the feature. A biologist will be present during the placement of the fencing.
- **Impact**: If avoidance of jurisdictional features is not feasible, permits/agreements will be obtained from appropriate agencies (i.e., RWQCB, USACE, CDFW) prior to work within the features.

MM-BIO-4: The nesting season for birds will be avoided, or preconstruction nesting bird surveys will be conducted if construction activities are carried out during the nesting season. To ensure compliance with the MBTA and similar provisions under Sections 3503, 3503.5, 3505, 3800, and 3801.6 et seq.of the California Fish and Game Code, the County of Los Angeles, through the general contractor, will conduct all vegetation removal during the non-breeding season, between September 1 and February 14, or implement the following:

- If the removal of vegetation, demolition of buildings, or noise-generating construction activities are scheduled between February 15 and August 31, the proponent or construction contractor will retain a qualified biologist experienced with conducting nesting bird surveys who will conduct a nesting bird survey prior to the start of vegetation removal, building demolition, or noise-generating construction activities within any potential nesting habitat (i.e., all vegetation, buildings, etc.). The size of the nesting bird survey area will be determined by a qualified biologist at the time of the survey and include the entire limits of disturbance. It will also include a buffer area, if deemed necessary by the biologist. The

preconstruction nesting bird survey will be conducted no more than seven days prior to initiation of vegetation removal, building demolition activities, or noise-generating construction activities. If no active nests are detected during these surveys, no restrictions on project activities will be necessary.

- If active nests are not found, then no potential for impact to nesting birds (or raptors) will occur and no further action will be needed.
- If an active nest(s) is observed, then an appropriate buffer (no-construction activity buffer) will be established by the biologist to ensure that nest abandonment does not occur due to the construction activities. All no-construction activity buffer areas will be clearly demarcated in the field with stakes and flagging that are visible to construction personnel.

MM-BIO-5: Prior to construction of Master Plan projects that could result in tree removal or pruning, a qualified arborist will inventory native oak trees on the project site in support of an Oak Tree Permit, if required. Oak Tree Permit requests require a property owner to file an application with the Department of Regional Planning and provide a filing fee, an Oak Tree Report, site plans for the property, and maps of the surrounding area. The Oak Tree Report will include information about the protection of oak trees that may be adjacent to construction activities that are to remain. The Oak Tree Report will also include the proposed replanting plan, in accordance with the required replacement ratio, for any oak trees that are to be removed.

MM-BIO-6: Prior to construction within the eastern portion of the project site that could temporarily affect California sagebrush scrub as identified in Figure 3.3-3 of the Master Plan EIR, a Habitat Mitigation Monitoring Plan (HHMP) will be created. The Plan will include, at a minimum, the following requirements:

- Vegetation monitoring will be performed in the spring-summer, or as specified in the HMMP, within California sagebrush scrub habitat proposed for temporary impact. A list of native species present will be compiled, and the absolute percent cover of each species will be estimated. This information will set the performance standards and success criteria for the HMMP.
- The HMMP will provide a map showing the location of each area proposed for impact and the absolute percent cover of each native species within the impact area.
- Restoration monitoring will be performed for 5 years or until success criteria are met with monitoring every quarter for the first 2 years and annually thereafter.
- The monitoring will include annual vegetation sampling beginning after the first year. The sampling will occur in the window of March to June, or as specified within the HMMP. The sampling will provide absolute percent cover of native shrubs and forbs/grasses.

3.2.3 Findings

For the above impacts to biological resources, the following finding is made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☐ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☐ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential impacts to biological resources due to the proposed project are found to be.

☐ Significant ☒ Not Significant

3.2.4 Rationale

Impacts associated with project construction would be reduced to less than significant with implementation of the above listed mitigation measures.

3.2.5 References

Section 3.3 of the EIR addresses the project's biological resources impacts.

3.3 Cultural Resources

3.3.1 Description of Potential Effects (Appendix G, Checklist Questions IV,b,c)

Archaeological Resources

Tiers I and II

Surface disturbances over the past 130 years have probably destroyed intact archaeological resources on the campus. Therefore, the likelihood of encountering prehistoric and historical archaeological resources is low. However, based on consultation with a tribal representative of the Fernandeño Tataviam Band of Mission Indians in 2017 (see Section 3.16, Tribal Cultural Resources, of this EIR), it has been determined that the campus is within the known use radius of two tribal cultural resources, as well the vicinity of natural springs and mature oak trees. As a consequence, and given the campus' location along the foothills, there is increased potential for subsurface tribal cultural resources in the vicinity of the campus. Therefore, the possibility exists that during construction structural demolition, grading, and excavation for new building foundations, new internal roadways, and utility infrastructure, as well as parking structures, could affect unknown buried archaeological resources for Tiers I and II. Disturbance or destruction of archaeological resources, resulting in a substantial adverse change in the significance of the resource, would be a significant impact for Tiers I and II. Construction impacts would vary, depending on final plans, and need to be analyzed in detail to determine what level of monitoring, if any, would be required.

Cumulative Impacts

The study area for the cumulative impacts analysis of prehistoric archaeological resources consists of the traditional tribal territory of the Tongva nation. The study area for the cumulative impacts analysis of historic archaeological resources consists of the Los Angeles metropolitan region. Growth and development in the cumulative impacts study areas could result in significant impacts if prehistoric or historic archaeological resources are encountered and disturbed or damaged during construction activities. In addition, although the potential for an individual cumulative project to affect significant cultural resources is unknown, given the geographic extent of the cumulative impacts study areas, it is probable for cumulative growth and development to affect significant prehistoric or historical archaeological resources. Although the likelihood of encountering prehistoric or historic archaeological resources on the Olive View–UCLA Medical Center Campus is low, the possibility remains for project excavation to affect unknown archaeological resources, a potentially significant project impact.

3.3.2 Mitigation Measures

Archaeological Resources

Tiers I and II

The following measures are proposed to mitigate impacts to archaeological resources:

MM-CR-1: Train Construction Personnel. Prior to any ground disturbance, all construction personnel will be trained to recognize possible buried cultural and tribal cultural resources during construction. Training will inform construction personnel of the procedures to be followed upon discovery of cultural and tribal cultural resources, including Native American burials. Training will make construction personnel aware that unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order and violators will be subject to prosecution under appropriate state and federal laws. Violations will be grounds for removal from the project.

MM CR-2: **Cultural Resources Monitoring.** Cultural resources monitoring of ground-disturbing activities within undisturbed native soils will be conducted by a qualified archaeologist who is familiar with the types of cultural and tribal cultural resources that could be encountered in the project area. The monitor will be under the direct supervision of an archaeologist who meets the national standards for archaeology, as set by the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation. Ground-disturbing activities include, but are not limited to, auguring, excavation, geotechnical investigations, vegetation clearing, ground-surface leveling, trenching, and conventional mass grading. A single monitor will be assigned to observe two or more simultaneous ground-disturbing activities that occur less than 50 feet away from each other. Additional monitors will be assigned if two or more simultaneous ground-disturbing activities occur more than 50 feet away from each other. Monitors will complete a daily activity log.

MM-CR-3: Native American Tribal Monitoring. If intact prehistoric cultural resource deposits, as determined by the project archaeologist, and/or tribal cultural resources, as determined in consultation between the Fernandeño Tataviam Band of Mission Indians and the County, are

identified during ground-disturbing activities within native soils, Native American tribal monitoring will be conducted by a Native American monitor from the Fernandeño Tataviam Band of Mission Indians. A single tribal monitor will be assigned to observe two or more simultaneous ground-disturbing activities that occur less than 50 feet away from each other. Additional tribal monitors will be assigned if two or more simultaneous ground-disturbing activities occur more than 50 feet away from each other. The tribal monitors will represent the tribe's interests and follow the NAHC's Guidelines for Tribal Monitors. Monitors will complete a daily activity log.

MM-CR-4: **Discovery of Cultural and Tribal Cultural Resources**. If cultural resources or tribal cultural resources are encountered during ground-disturbing activities, cultural and tribal monitors will be empowered to divert ground-disturbing activities within 50 feet of the discovery until a qualified archaeologist can determine whether the resource is a unique archaeological resource or historical resource, as defined in PRC Section 21083.2 and/or 14 California Code of Regulations Section 15064.5, or tribal cultural resource, as defined in PRC Section 21074 and determined in consultation with the tribe. Work may continue in other areas. Tribal monitors will cooperate with the qualified archaeologist to locate all cultural materials exposed during ground-disturbing activities. All cultural resources recovered will be documented on DPR Series 523 forms.

MM-CR-5: Treatment of Cultural and Tribal Cultural Resources. If the qualified archaeologist determines that a discovery is a historical resource (as defined in **MM-CR-4**) of an archaeological nature or, as determined in consultation between the tribe and the County, a tribal cultural resource, then the mitigation standards of 14 California Code of Regulations Section 15126.4(b), which specifies that preservation in place will be the preferred manner of mitigation, will be implemented.

If preservation in place is not feasible, a cultural and/or tribal cultural resources treatment plan will be prepared, pursuant to 14 California Code of Regulations Section 15126.4(b) and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The treatment plan will include provisions for (i) assessing and treating the identified resources, (ii) reporting results in a timely manner, (iii) providing an opportunity for the tribe to recover the material, and (iv) providing comments on the draft report. The tribe will be afforded an opportunity to review the plan prior to implementation. The plan will be submitted to the Los Angeles County Department of Public Works prior to treatment of the historical resource, unique archaeological resource, or tribal cultural resource.

A preliminary draft monitoring compliance report will be submitted within 3 months of the end of project construction activity. The report, which will be prepared by a qualified archaeologist, will include documentation and interpretation regarding the identified or recovered resources. Interpretation will include full evaluation of the eligibility of the resources identified for listing in the CRHR. All surface and subsurface artifacts and features will be mapped and described in the report. The tribe will be afforded an opportunity to provide comments for inclusion in the final report. The final report will be filed at the South Central Coastal Information Center at California State University, Fullerton. One copy of the final report will be provided to the tribe.

Human Remains

Tiers I and II

MM-CR-6: Human Remains. In accordance with California Health and Safety Code Section 7050.5, if human remains are encountered, no further disturbance will occur within 50 feet of the find(s) until the Los Angeles County Coroner has made the necessary findings as to origin. Furthermore, pursuant to PRC Section 5097.98(b), remains will be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Los Angeles County Coroner determines that the remains are Native American, the NAHC will be contacted within 24 hours. The NAHC will identify the Most Likely Descendant, who will make recommendations concerning treatment of the remains within 48 hours, as provided in PRC Section 5097.98. If the County cannot come to an agreement with the Most Likely Descendant, PRC Section 5097.98(e) requires the County to "reinter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance."

3.3.3 Findings

For the above impacts to cultural resources, the following finding is made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☐ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☐ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential impacts to cultural resources from the proposed project are found to be.

☐ Significant ☒ Not Significant

3.3.4 Rationale

Tiers I and II

Project impacts to archaeological resources would be less than significant with implementation of the above listed mitigation measures.

Cumulative Impacts

Cumulative impacts to cultural resources would be less than significant with implementation of the above listed mitigation measures.

3.3.5 References

Section 3.4 of the EIR addresses the project's cultural resources impacts. Chapter 5 of the EIR discusses alternatives to the proposed project including those alternatives that were considered but rejected as infeasible.

3.4 Geology and Soils

3.4.1 Description of Potential Effects (Appendix G, Checklist Questions VII, a,b,d,f)

Geological Hazards

Tiers I and II

The campus is located within the vicinity of known active earthquake faults, including the Santa Susana Fault less than 0.1 mile from the site, the Northbridge Blind Thrust 0.5 miles from the site, and the Sierra Madre (San Fernando) fault 1.7 miles from the site. Moreover, the project site was previously subjected to substantial surface rupture resulting from the 1971 Sylmar Earthquake. The geologic and seismic hazards including liquefaction hazards in the northeastern portion of the project site, potential soil instability due to onsite groundwater, undeveloped areas on the campus that are subject to potential water and wild soil erosion, and the possible presence of expansive soils would be reduced by employing required standard engineering practices and compliance with the California Building Code Standards. Proposed structures would be designed to meet all applicable design and building engineering practices.

Paleontological Resources

Tiers I and II

Construction related structural demolition and grading and excavation for new foundations and access routes, as well as excavation for parking structures, have the potential to affect paleontological resources. Surface grading or shallow excavations in the uppermost few feet of the younger Quaternary alluvium in the proposed project area are unlikely to uncover significant fossil vertebrate remains. However, deeper excavations in the proposed project area that extend down into older sedimentary deposits, as well as any excavations in the Pacoima Formation in the northern portion of the campus may well encounter and consequently, could damage or destroy significant vertebrate fossils, which would be considered a significant impact for Tiers I and II.

Cumulative Impacts

Cumulative impacts could occur in three areas: soil erosion, subsidence, and unstable soils. Cumulative soil erosion impacts could occur when multiple projects disturb and expose soils during construction, resulting in erosion and the cumulative loss of topsoil. Wind or water transport of eroded soils could also result in cumulative adverse impacts on the water quality of local water bodies. Cumulative subsidence impacts could occur when multiple projects result

in the withdrawal of groundwater from the same water source or result in withdrawals, such as oil and natural gas, from local sources, thereby increasing the potential for subsidence to occur. Cumulative soil stability impacts could occur if two or more projects are in very close proximity; excavation or earthmoving activities could cumulatively increase the instability of the local geologic unit or project area slopes. Cumulative impacts to paleontological resources could occur due to construction of related projects that would cumulatively contribute to the progressive loss of paleontological resources in the region. These cumulative impacts are considered to be potentially significant.

3.4.2 Mitigation Measures

Geological Hazards

Tiers I and II

MM-GEO-C1: All recommendations included in the preliminary Geotechnical Evaluation prepared for the proposed project (see Appendix F.1 of this EIR) will be followed. A detailed subsurface geotechnical evaluation will be performed to address site-specific conditions at the locations of the planned improvements and provide detailed recommendations for design and construction.

The geotechnical evaluation will include the following measures to mitigate potential fault rupture, seismic ground shaking, ground failure, and liquefaction hazards identified under Impacts GEO-1 and GEO-2.

- **Fault Rupture:** Future geologic investigations to evaluate the location and relative activity of potentially active fault splays at the project site and the feasibility of locating future site improvements will be conducted by geologic consultants prior to design of structure locations. Fault investigations will be conducted by a California State Certified Engineering Geologist and reviewed by the CGS. Appropriate building setback zones will be established in locations deemed not feasible for construction of occupied structures.
- **Seismic Ground Shaking:** Structural elements of future improvements will be designed to resist or accommodate appropriate site-specific ground motions and conform to the current seismic design standards, including those set forth by the 2013 California Building Code (CBC) and the County of Los Angeles building regulations.
- **Ground Failure:** Assessment of liquefaction potential at the project site will be evaluated by subsurface geotechnical exploration prior to detailed design and construction of project improvements and will be incorporated into the design, as appropriate. Structural design will be developed to reduce the potential impacts of liquefaction, including the incorporation of techniques such as structural design, in-situ ground modification, or supporting foundations with piles at depths designed specifically for seismically induced settlement.
- **Landslides:** A detailed assessment of the landslide and mudflow potential in areas of project improvements will be performed prior to design and construction of improvements and incorporated into the design, as appropriate. Methods for construction in areas with a potential liquefaction hazard may include excavation of potentially unstable material for a

more stable slope configuration; reduction of landslide driving forces by removal of earth materials at the top of the landslide; construction of a buttress and/or stabilization fills; construction of retailing walls, installation of rock bolts on the face of the slope, or installation of protective wire mesh on the slope face; the construction of debris impact walls at the toe of the slope to contain rock fall debris; and/or supporting foundations with piles at depths designed specifically for seismically induced settlement. Graded slopes created for future project site developments will also be designed to reduce the potential for landslides or mudflows.

The geotechnical evaluation will include the following measures to mitigate unstable soil impacts identified under Impact GEO-3.

- **Groundwater:** Excavations for foundations in areas with shallow perched groundwater may need to be cased/shored and/or dewatered to maintain stability of the excavations and adjacent improvements and provide access for construction. All recommendations included in the preliminary geotechnical evaluation pertaining to groundwater will be followed. Onsite infiltration of storm water related to Low Impact Development guidelines will be evaluated during the detailed design phase of the project. Further study, including subsurface exploration, will also be performed during the detailed design phase of planned improvements to evaluate the presence of seepage and/or perched groundwater, and to evaluate the potential for stormwater infiltration at the site, and the potential impacts on design and construction of project improvements. Techniques such as casing, shoring, and/or construction dewatering will be incorporated.
- **Collapsible Soils/Settlement:** Assessment of soil settlement will be performed prior to detailed design and construction or project improvements and techniques will be developed, as appropriate, to reduce impacts related to settlement. Surface reconnaissance and subsurface evaluation will be performed. Site-specific geotechnical evaluations will also be performed to assess the settlement potential of onsite natural soils and undocumented fill, which may include drilling of exploratory borings or test pits and laboratory testing of soils, where appropriate, to evaluate site conditions.

Examples of possible mitigation measures for soils with the potential for settlement could include removal of the compressible/collapsible soil layers and replacement with compacted fill, surcharging to induce settlement prior to construction of improvements, allowing for a settlement period after or during construction of new fills, and specialized foundation design, including the use of deep foundation systems to support structures. Various in-situ soil improvement techniques are also available, such as dynamic compaction (heaving tamping) or compaction grouting.

The geotechnical evaluation will include the following measures to mitigate the expansive and corrosive soils hazards identified under Impact GEO-4.

- **Expansive Soils:** Assessment of the potential for expansive soils will be performed during the design phase of the project through subsurface exploration and mitigation techniques such as over-excavation and replacement with non-expansive soils, soil treatment, moisture management, and/or specific structural design for expansive soil conditions will be developed, as appropriate, to reduce impacts to expansive soils.

MM-GEO-C2: A Storm Water Pollution Prevention Program incorporating BMPs for erosion control will be prepared prior to the start of construction in accordance with governing agencies. Long-term erosion management practices and drainage provisions will also be incorporated into the design and maintenance of the project following development of site improvements. BMPs may include surface drainage measures for erosion due to water, such as the use of erosion prevention mats or geofabrics, silt fencing, sandbags and plastic sheeting, and temporary drainage devices. Positive surface drainage will be accommodated at project construction sites to allow surface runoff to flow away from site improvements or areas susceptible to erosion. Wetting of soil surfaces and/or covering exposed ground areas and soil stockpiles will also be considered during construction operations, as appropriate, to reduce wind-related erosion (see air quality impacts and mitigation measures). Project design will address reducing concentrated run-off conditions that could cause erosion and affect the stability of the project.

Paleontological Resources

Tiers I and II

The following measure is proposed to mitigate impacts to paleontological resources:

MM-GEO-C3: Due to the moderate paleontological potential of the Pacoima Formation, monitoring will be conducted during all earthmoving activities that affect native sediments to reduce potential impacts to a less-than-significant level. Excavations will be monitored on a by a qualified paleontological monitor under the supervision of a qualified paleontologist.

Additionally, when initial excavation exceeds depths of 5 feet into areas mapped as Quaternary alluvium, periodic paleontological spot checks should be conducted to determine if older, paleontologically sensitive sediments are present. If present, full-time monitoring will be implemented.

Monitoring may be reduced if some of the potentially fossiliferous units described herein are, upon exposure and examination by qualified paleontologic personnel, determined to have a low potential for containing fossil resources.

The paleontologic monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor will have the authority to temporarily divert grading away from exposed fossils to recover the fossil specimens professionally and efficiently and collect associated data. All efforts to avoid delays in project schedules will be made. To prevent construction delays, paleontological monitors will be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data, including handheld global positioning system receivers, digital cameras, and cell phones, as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (e.g., awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms will be used to record pertinent geologic data, stratigraphic sections will be measured, and appropriate sediment samples will be collected and submitted for analysis.

Fossils collected, if any, will be transported to a paleontological laboratory for processing where they will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility such as LACM.

Following analysis, a Report of Findings with an appended itemized inventory of specimens will be prepared. The report and inventory, when submitted to the appropriate lead agency, along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will signify completion of the program to mitigate impacts on paleontological resources.

3.4.3 Findings

For the above impacts to geology and soils, the following finding is made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☐ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☐ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential geology and soils impacts due to the proposed project are found to be.

☐ Significant ☒ Not Significant

3.4.4 Rationale

Tiers I and II

The project site is located in a seismically active region, and risks posed by earthquakes generally apply to any structure located in southern California, in the event that a major seismic event or identification of onsite geologic or soil hazards, standard building practices and implementation of mitigation measures **MM-GEO-C1** and **MM-GEO-C2** would ensure that the proposed project is designed and constructed in accordance with appropriate seismic protections prescribed for the site's specific geotechnical characteristics. Furthermore, implementation of mitigation measure **MM-GEO-C3** would reduce impacts on paleontological resources for Tiers I and II, if any are found, to a level of less than significant.

Cumulative Impacts

With respect to cumulative soil erosion impacts, projects requiring grading of more than 1 acre would be required to apply for a National Pollutant Discharge Elimination System permit and implement an SWPPP that incorporates BMPs for erosion control. Development on the medical center campus under the Master Plan would be subject to permit requirements and the specific measures identified in **MM-GEO-2.** With respect to cumulative subsidence impacts, the proposed project would not require groundwater, oil, or gas withdrawals from local sources, and therefore would not contribute to any potential subsidence impacts. With respect to unstable soil impacts, none of the 14 related projects shown in Table 2-2 of Chapter 2, *Project Description,* are located adjacent or in very close proximity to the campus. The nearest related

project is located 0.5 miles from the campus at 13530 Glenoaks Boulevard; therefore, none of the related projects would contribute to cumulative slope stability impacts in the immediate vicinity of the campus. However, multiple projects could be developed within the campus under the Master Plan over time, and some of those projects may be constructed simultaneously and in close proximity to each other. The measures identified in **MM-GEO-C1** would minimize landslide hazards; therefore, development on the campus is not expected to result in cumulatively considerable contribution to significant cumulative landslide hazard impacts on or in the immediate vicinity of the campus.

Cumulative impacts associated with geology and soils would be less than significant with implementation of the above listed mitigation measures.

3.4.5 References

Section 3.6 of the EIR addresses the project's geologic/soils and paleontological resources impacts.

3.5 Greenhouse Gas Emissions

3.5.1 Description of Potential Effects (Appendix G, Checklist Question, VIII,a)

Tiers I and II

Construction of the proposed project would generate emissions of CO2, CH4, and N2O associated with mobile and stationary construction equipment exhaust as well as employee and haul truck vehicle exhaust, which would contribute to cumulatively significant GHG impacts for Tiers I and II and would therefore be a significant impact.

Operation of the proposed project would generate long-term emissions of CO2, CH4, and N2O associated with area sources, energy consumption, motor vehicles, waste generation, and water consumption, which would contribute to cumulatively significant GHG impacts for Tiers I and II and would therefore be a significant impact.

Cumulative Impacts

As stated above, construction and operation of the proposed project would contribute to cumulatively significant GHG impacts. Due to the lack of a details regarding buildout long-term, the proposed project's incremental contribution to cumulative impacts related to GHG emissions and reduction targets and plans would be cumulatively considerable.

3.5.2 Mitigation Measures

Tiers I and II

MM-GHG-C1: The County (or its contractors) will implement the following diesel emission-reduction measures during project construction:

- All equipment and delivery truck idling times will be limited by shutting down equipment when not in use and reducing the maximum idling time to less than 3 minutes. Clear signage will be installed at all delivery driveways and loading areas regarding the limitation on idling time.
- All construction equipment will be maintained and properly tuned in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the County's construction contractors will verify that all vehicles and equipment have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the project site. A report by the certified mechanic of the condition of the construction and operations vehicles and equipment will be submitted to the County prior to their use.
- Alternative-fuel (e.g., biodiesel, electric, compressed natural gas) construction vehicles/equipment (comprising at least 15 percent of the fleet) will be used, to the extent feasible.
- Renewable diesel fuel will be used for all diesel-powered heavy construction equipment and on-road vehicles to the extent that it is readily available from a local supplier in the Southern California region.
- Local building materials (at least 10 percent) and recycled products, including cement and concrete made with recycled products, will be used, to the extent feasible.
- A construction waste management plan will be implemented to divert landfilled waste by requiring the recycling of a minimum of 65 percent of all non-hazardous construction waste.

MM-GHG-O1: The County will implement the following GHG reduction measures for all new development within the campus:

- The County (or its contractors) will implement the following water conservation measures, which are in addition to those required by codes and ordinances:
    - Install public bathroom faucet aerators (non-residential & residential over 6 stories) with a flow rate of 0.4 gallons per minute (gpm),
    - Install cooling tower conductivity controllers or cooling tower pH conductivity controllers,
    - Install rotating sprinkler nozzles for landscape irrigation 0.5 to 1.0 gpm,
    - Install drip/subsurface irrigation (i.e., micro-irrigation),
    - Implement proper hydro-zoning (i.e., groups plants with similar water requirements together),
    - Install zoned irrigation,
    - Contour landscaping to minimize precipitation runoff,
    - Install drought tolerant plants in 50 percent of total new landscaping,
    - Install water conserving turf in 100 percent of new turf added to landscaping, and

  - Use recycled water for stationary equipment that requires water cooling, to the extent feasible.
- Install a stormwater retention and filtration system.
- Pursue a net zero water building design for new campus buildings, to the extent feasible.
- Develop a recycled water strategy and implementation plan that increases the campus's use of alternative water sources, such as rainwater, greywater, stormwater, and recycled water.
- Achieve a minimum solid waste diversion rate of 85 percent by 2035 by implementing measures including, but not necessarily limited, to:
  - Installing a food waste diversion program at the campus.
  - Installing an onsite recycling program at the campus.
- Incentivize the use of recycled materials in new and renovated campus buildings.
- Prioritize the use of food vendors with certifications for sustainable agricultural practices related to water and energy use, to the extent feasible.
- Provide plant-based menu options at new and existing campus food facilities, to the extent feasible.
- Pursue zero waste certification requirements for the campus, to the extent feasible.
- Install Energy Star-rated appliances.
- Install electric-only appliances and HVAC (e.g., no natural gas heating or cooling) systems, to the extent feasible. Where natural gas appliances need to be installed, these appliances will meet high-efficiency standards.
- Establish an energy and water use data collection program to benchmark and report energy and water use at the campus, demonstrating an increase in energy and water efficiency over the lifetime of the project.
- Implement travel demand reduction measures (TDM) for employees, including, but not necessarily limited to measures such as:
  - Providing bicycle parking for at least 5 percent of full-time-equivalent campus employees.
  - Providing preferential carpool spaces within proposed parking structures on the campus.
- Dedicate 5 percent of new parking spaces for clean-air vehicles and equip those spaces with electric vehicle charging equipment.
- Purchase new zero-emission passenger vehicles for use by the campus.
- Install a high-efficiency lighting system that takes advantage of natural daylighting, augmented by daylighting controls and occupancy sensors that turn off the lights in unoccupied spaces.

- Maximize the installation of solar systems on new and renovated buildings to the extent these systems are cost-effective.
- Install, in proposed new buildings containing more than 10,000 gsf of space, high-performance glazing with a low solar heat gain coefficient value that reduces the amount of solar heat allowed into the building, without compromising natural illumination.
- Install cool roofs with an R value (i.e., the measurement of the effectiveness of thermal insulating materials) of 30 or better on proposed new buildings, to the extent feasible.
- Implement a net zero carbon building design for all new building developments and building renovations at the campus, to the extent feasible.
- Develop an urban heat island mitigation strategy and implementation plan to guide all future development of the campus.
- Increase urban tree canopy cover to provide shade to a minimum of 40 percent of the length of sidewalks on all campus streets.
- Use electric powered landscaping equipment, rather than fossil-fuel powered landscaping equipment, to the extent feasible.
- Focus selection on native plants and trees to provide new, water-wise landscaping that blends the campus with the ecology of the surrounding natural environment.
- Provide ongoing sustainability education and training for campus employees.

3.5.3 Findings

For the above greenhouse gas emissions impacts, the following findings are made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☐ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☒ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential greenhouse gas impacts due to the proposed project are found to be.

☒ Significant ☐ Not Significant

3.5.4 Rationale

Tiers I and II

Impacts associated with greenhouse gas emissions would be reduced with implementation of the above listed mitigation measures; however, impacts may still be significant after mitigation.

Because no feasible mitigation measures were identified beyond those identified above that would fully mitigate this impact, significant unavoidable cumulative greenhouse gas emissions impacts would occur as a result of the proposed project.

Cumulative Impacts

Due to the lack of a details regarding buildout long-term, it cannot be stated with certainty that the proposed project would result in emissions that would represent a fair share of the requisite reductions to achieve statewide reduction targets. The proposed project's incremental contribution to cumulative impacts related to GHG emissions and reduction targets and plans would be cumulatively considerable.

3.5.5 References

Section 3.7 of the EIR addresses the project's greenhouse gas emissions impacts.

3.6 Hazards and Hazardous Materials

3.6.1 Description of Potential Effects (Appendix G, Checklist Questions IX,b,d)

Tiers I and II

During the construction period for Tiers I and II, routine transport, use, and disposal of hazardous materials such as solvents, paints, oils, grease, and fuels would occur. Such transport, use, and disposal must be compliant with applicable regulations and with construction BMPs implemented in accordance with a site specific SWPPP required as part of the NPDES General Construction Permit.

For both tiers, construction activities could temporarily impair and/or interfere with emergency response access in the vicinity of the project site because of possible lane closures, detours, and construction-related traffic.

The old Los Angeles County Fire Station #04, located within the proposed project footprint, was listed on the LUST database with contaminated soil, which was identified as a Potential Environmental Concern (PEC). The old fire station was decommissioned shortly after 1995, but is currently used for hazardous materials management purposes and office space. The presence of USTs in the hospital loading lock and the presence of a paint and solvent spray booth were also identified as PECs. Demolition of structures built prior to 1980 may result in the exposure of the public and/or the environment to lead based paint (LBP) and/or asbestos containing materials (ACMs) in buildings.

3.6.2 Mitigation Measures

Tiers I and II

MM-HAZ-1: Encountering Contaminated Soils. If odiferous, stained, or discolored soil is encountered near the fire station, USTs, or spray booth a professional environmental consultant specializing in the identification and handling of hazardous materials will be retained by the County to assess the site. Identification of possible hazardous materials would typically involve soil samples and laboratory analysis. The suspect soil will be isolated, covered, and avoided by construction personnel until analytical results are reviewed by qualified personnel. Soils identified as hazardous or contaminated will be handled, transported, and treated in accordance with all federal, state, and local existing hazardous materials regulations (as mentioned under Section 3.7.2, Regulatory Setting, of this EIR) and based on the professional environmental consultant's recommendations. Only when the site has been released by the professional environmental consultant and the applicable oversight agencies (such as the Los Angeles County Fire Department's Health Hazardous Materials Division) will construction activities be allowed to continue on the affected site.

MM-HAZ-2: Engineering Controls and Best Management Practices During Construction. To minimize human exposure to potentially contaminated soils during construction, contractors will employ the use of engineering controls and BMPs. Engineering controls and construction BMPs will include, but are not limited to, the following.

- Contractor employees working on site handling potentially contaminated media will be certified in the Occupational Health and Safety Administration's 40-hour Hazardous Waste Operations and Emergency Response training.
- Contractors will water or mist soil as it is being excavated and stockpiled or loaded onto transportation trucks.
- Contractors will place any stockpiled soil in areas shielded from prevailing winds or cover stockpiles with staked and/or anchored sheeting.

MM-HAZ-3: Encountering Asbestos-Containing Materials and Lead Based Paint. In order to minimize exposure, prior to demolition activities, a Hazardous Building Materials Survey (HBMS) and evaluations for asbestos-containing materials and lead-based paint will be conducted in buildings that are to be demolished or renovated. Abatement measures will be implemented in accordance with the recommendations of these evaluations. Asbestos surveys will be conducted in accordance with SCAQMD Rule 1403, which specifies that all surveys are to be carried out by a Cal/OSHA-certified asbestos consultant and will follow established survey protocols, notification, and work practice requirements. Lead-based paint surveys will be carried out by California Department of Public Health (CDPH)-certified inspector/assessor. If necessary, a lead abatement plan would be prepared by the CDPH-certified project monitor or supervisor, and demolition activities would be performed by CDPH-certified workers.

MM-HAZ-4: Project-Level Hazardous Materials Sites Assessment Prior to Construction Activities. To avoid exposure of construction workers, the public, or the environment to contaminated media, prior to any ground-disturbing activities, contractors will be required to retain a professional environmental consultant specializing in hazardous materials impact assessment to conduct a project-level analysis to determine if there are existing hazardous materials conditions in the vicinity of the construction site and potential for existing hazardous

materials conditions to affect construction. This assessment will consist of a search for environmental-related information present in publicly accessible databases. The information will be reviewed to determine if the construction footprint or adjacent properties are listed in the databases. If the construction footprint or adjacent properties are listed in the databases, the professional environmental consultant will determine the potential risk to construction workers, the public, or the environment from rehabilitation activities and identify all necessary avoidance, abatement, remediation, cleanup, disposal, monitoring, reporting, notifications, and/or other measures to prevent significant impacts. The contractor will implement all measures as directed by the professional environmental consultant.

3.6.3 Findings

For the above impacts to hazards and hazardous materials, the following finding is made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☐ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☐ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential hazards and hazardous materials impacts due to the proposed project are found to be.

☐ Significant ☒ Not Significant

3.6.4 Rationale

Tiers I and II

While construction on the project site has potential to encounter hazardous materials in excavated soils, groundwater, or in the materials of the demolished buildings, Mitigation measures would ensure that, if encountered, these hazardous materials are handled appropriately to minimize the risk of exposure to construction workers and the general population. Furthermore, mitigation measures **MM-PS-1** and **MM-TRAF-1** would mitigate impacts during construction on emergency vehicle access and response times.

3.6.5 References

Section 3.8 of the EIR addresses the project's hazardous waste and materials impacts.

3.7 Noise

3.7.1 Description of Potential Effects (Appendix G, Checklist Questions XIII,a,b)

Tiers I and II

Noise from construction activities could exceed established thresholds and adversely affect noise-sensitive uses residential uses in the vicinity of the campus for Tiers I and II. Heavy construction equipment has the potential to produce groundborne vibration levels that are perceptible to people in the surrounding area. Estimated groundborne vibration levels due to construction of Master Plan facilities could exceed established thresholds at offsite sensitive residential uses. If pile driving occurs during construction, the number of offsite noise-sensitive uses adversely affected by construction activities would increase.

Project operational noise sources for Tiers I and II would include traffic on the surrounding streets and onsite noise sources such as mechanical equipment, parking lot activities, deliveries, and activities at proposed outdoor spaces such as trails and gardens. Because the final type, location, and configuration of mechanical equipment is unknown, the possibility exists that some onsite mechanical equipment would increase ambient noise levels and exceed the applicable noise standards at offsite sensitive receptors, a potentially significant impact.

3.7.2 Mitigation Measures

MM-NOI-C1: Reduce Construction Noise to the Extent Possible. The County will implement the following noise reduction measures during construction:

- Construction activities will be limited to between the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays, and will not occur at any time on Sundays or legal holidays. Construction personnel will not be permitted on the job site, and material or equipment deliveries and collections will not be permitted outside of these hours.
- To the fullest extent practicable, the quietest available type of construction equipment will be used. Newer equipment is generally quieter than older equipment. The use of electric powered equipment typically is quieter than diesel or gasoline powered equipment, and hydraulic powered equipment typically is quieter than pneumatic power.
- Where possible, impact pile driving will be replaced with other piling techniques, such as vibratory pile driving, or vibration–and percussive-free methods (examples include hydraulic press-in piles or cast-in-drilled-hole piles).
- All mobile and fixed noise-producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency will comply with such regulation while in the course of project activity.
- All construction equipment will be properly maintained. Poor maintenance of equipment can cause excessive noise levels.
- All construction equipment, stationary and mobile, will be equipped with properly operating and maintained mufflers, air inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory

specification. Mobile or fixed package equipment (e.g., arc welders, air compressors) will be equipped with shrouds and noise-control features that are readily available for that type of equipment.

- All noisy equipment will be operated only when necessary and will be switched off when not in use.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only. To the extent practicable, temporary barriers will be employed around the project site and/or around noisy construction equipment. For barriers to be effective they will break the line-of site between the equipment and any noise-sensitive receiver. These barriers may be constructed as follows:
    - From commercially-available acoustical panels lined with sound absorbing material (i.e., the sound absorptive faces of the panels will face the construction equipment).
    - From common construction materials such as plywood and lined with sound absorptive material (i.e., the sound absorptive material will face the construction equipment).
    - From acoustical blankets hung over or from a supporting frame. The blankets will provide a minimum sound transmission class (STC) rating of 28 and a minimum noise reduction coefficient (NRC) of 0.80 and will be firmly secured to the framework with the sound absorptive side of the blankets oriented toward the construction equipment. The blankets will be overlapped by at least 6 inches at seams and taped so that no gaps exist. The largest blankets available will be used in order to minimize the number of seams. The blankets will be draped to the ground to eliminate any gaps at the base of the barrier.
- Construction contractors will ensure that construction employees are trained in the proper operation and use of the equipment.
- Storage, staging, parking, and maintenance areas will be located away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies will be positioned in a manner that will function as a noise barrier to the closest sensitive receivers.
- Stationary noise sources, such as generators and compressors, will be positioned as far away as possible from noise-sensitive areas.
- Construction equipment will be stored on the project site while in use. This will eliminate noise associated with repeated transportation of the equipment to and from the site.
- To the extent possible, haul roads should not be designated through noise-sensitive areas.

MM-NOI-O1: Design Project Facilities to Ensure All Mechanical Equipment Complies with Chapter XI of the city of Los Angeles Municipal Code. During the architectural and engineering design phase of each new facility (building, central plant, etc.) that would introduce new mechanical equipment to the project site, and prior to the issuance of any building permits for the facility, the County will retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that the mechanical equipment complies with Chapter XI of the city of Los Angeles Municipal Code. Such recommendations may include, but are not limited to: changes in equipment locations, upgrades to central plant buildings, rooftop parapet walls, acoustical louvers or screens, or intake and exhaust silencers.

MM-NOI-C2: Reduce Construction-Generated Groundborne Vibration to the Extent Possible. The County will implement the following vibration reduction measures during construction:
Where possible, impact pile driving will be replaced with other piling techniques, such as vibratory pile driving or, preferably, vibration–and percussive-free methods (examples include hydraulic press-in piles or cast-in-drilled-hole piles).
To the extent possible, heavy construction equipment will not be operated within 140 feet of onsite or offsite sensitive receptors.

3.7.3 Findings

For the above impacts to noise, the following findings are made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☐ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☒ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential impacts to noise from the proposed project are found to be.

☒ Significant ☐ Not Significant

3.7.4 Rationale

Tiers I and II

Operational noise impacts would be reduced to less than significant with implementation of the mitigation measures above. Construction noise and vibration impacts would be reduced but not to a less-than-significant level. Because no additional feasible mitigation measures were identified beyond those above, significant unavoidable construction noise and vibration impacts could occur as a result of the proposed project.

Alternative B would result in fewer and less intense impacts during construction and operation than the proposed project because of the reduced level of development; however, it may still result in unavoidable significant construction noise and vibration impacts. Additionally, Alternative B would not redevelop the campus to the same extent as could occur under the Master Plan and consequently, campus improvements including landscaping, pedestrian and equestrian trails, and infrastructure improvements may be more limited than would occur under the proposed Master Plan.

3.7.5 References

Section 3.11 of the EIR addresses the project's noise impacts.

3.8 Public Services

3.8.1 Description of Potential Effects (Appendix G, Checklist Question XV, a)

Tiers I and II

Emergency access to the project site could be affected by Master Plan construction activities. Temporary lane closures and construction related-traffic could delay or obstruct the movement of emergency vehicles, a potentially significant impact.

3.8.2 Mitigation Measures

Tiers I and II

The following measures are proposed to mitigate the construction impacts described in Impact PS-1.

MM-PS-1: The Los Angeles County project manager and construction contractor will regularly notify and coordinate with the LAFD, LASD, and LAPD on project construction design, activities, and scheduling, including any on- and off-campus street or lane closures related to proposed development projects before construction begins.

MM-PS-2: The Los Angeles County project manager and construction contractor will continue to coordinate with LASD on project design and development under the Master Plan, to ensure LASD is able to plan and staff adequate resources to continue to serve the campus for police protection services.

3.8.3 Findings

For the above impacts to public services, the following finding is made:

☐ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☐ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☒ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential impacts to public services from the operation of the proposed project are found to be.

☐ Significant ☒ Not Significant

3.8.4 Rationale

Tiers I and II

Mitigation measures will be implemented to ensure adequate emergency access is maintained during construction activities. As described in Chapter 3.13, MM-PS-1would reduce construction impacts to emergency services to less-than-significant levels.

3.8.5 References

Section 3.13 of the EIR addresses the project's public services impacts.

3.9 Transportation and Traffic

3.9.1 Description of Potential Effects (Appendix G, Checklist Question XVII,a,d)

Tiers I and II

Construction could require temporary road or lane closures that could affect emergency vehicle access, a potentially significant impact.

Tier II

The increase in the number of project trips associated with full buildout of Tier II development and the expected increase in the number of ambient trips beyond 2035 could lead to impacts at some intersections in the vicinity. Estimated trip generation at full buildout of the Master Plan would be approximately 190 percent to 280 percent higher than that of Tier I development in each of the analyzed peak hours. Based on projected cumulative-plus-project LOS and applicable threshold criteria, the increased traffic with full development could potentially result in significant impacts at two study intersections: Polk Street and the I-210 eastbound ramps (Intersection 13) and Polk Street and Foothill Boulevard (Intersection 14). Overall, the level of the project-related increase in traffic at the other analyzed intersections would be higher than it would be with Tier I development only. Other locations could also be significantly affected.

Tier II development could also result in significant traffic impacts on freeway mainline segments and freeway ramp queues.

Cumulative Impacts

The projected cumulative-plus-project conditions presented in Section 3.15 *Traffic/Transportation*, of the EIR depict the impacts of traffic generated by cumulative development and related projects combined with project-generated traffic in 2035 on the study area intersections. Under existing conditions, none of the study intersections would operate at LOS E or F; however, three intersections would operate at an unacceptable LOS of E or F in the a.m. or p.m. peak hour under cumulative-plus-project conditions. Therefore, the proposed Tier I development and cumulative development would result in significant cumulative traffic impacts.

In addition, traffic from the proposed Tier I development, related projects, and other cumulative development could also result in significant cumulative impacts on freeway mainline segments and freeway ramps. Similarly, Tier II development could also contribute to significant cumulative traffic impacts.

3.9.2 Mitigation Measures

Tiers I and II

MM-TRAF-1: The County shall develop and implement traffic control measures for Master Plan projects that would result in lane or sidewalk closures, removal of parking, or similar traffic disruptions. Temporary traffic control during construction shall meet the requirements of the California Manual on Traffic Control Devices (CA-MUTCD). Daytime closures shall be covered by the applications shown in Chapter 6 of the manual. Overnight closures, long-term closures, and detours shall require a Traffic Control Plan, which shall be prepared as part of the project design package according to CA-MUTCD requirements. The Traffic Control Plan may include, but is not limited to, the elements listed below. Note that some of these elements may not be feasible or appropriate in all circumstances. The project-level environmental analysis shall identify the appropriate measures for each project.

- Provide a roadway layout that shows the locations of construction activity and surrounding roadways to be used as detour routes, including special signage.
- Establish detour routes in coordination with the City of Los Angeles to minimize disturbances to local traffic conditions; review potential detour routes to make sure adequate capacity is available.
- Avoid creating additional delay at intersections that are currently operating under congested conditions either by choosing haul routes that avoid these locations (such as choosing haul routes that avoid the State Street/Marengo Street and State Street/Cesar Chavez Avenue intersections) or constructing during non-peak times of day (peak periods are generally 7 a.m. to 9 a.m. and 4 p.m. to 6 p.m., Monday through Friday).
- Maintain access to existing residences at all times.
- Work with LADOT, LASD, LAFD, and LAPD to coordinate all construction-related plans and minimize disturbances to local EMS providers; ensure that alternative evacuation and emergency routes are designed to maintain response times during construction.
- Provide adequate off-street parking areas at designated staging areas for construction-related vehicles.
- Work with local and regional transit providers to maintain access and circulation routes to existing stops and stations during construction phases and identify appropriate detours to provide traffic rerouting during construction while minimizing disturbance to bus services.
- Work with the City of Los Angeles to maintain continuity and operation of existing pedestrian and bicycle facilities during construction.

3.9.3 Findings

For the above impacts to transportation and traffic, the following findings are made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☒ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☐ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential impacts to transportation and traffic from the operation of the project are found to be.

☐ Significant ☒ Not Significant

3.9.4 Rationale

Tiers I and II

Construction traffic impacts could be mitigated with implementation of MM-TRAF-1 above.

Tier II

The traffic generated by Tier II development could result in significant traffic impacts at study intersections. However, the level of service and operational traffic impacts of Tier II development at the study intersections in the project area were not quantified because development would occur far in the future, beyond 2035, and it would, therefore, be speculative to determine the extent of potential impacts on the local and regional transportation system and whether any feasible mitigation measures could be implemented to reduce potential impacts. Additionally, as stated in the EIR, when individual projects under Tier II of the Master Plan are proposed, additional environmental analysis and documentation would be required, in compliance with CEQA regulations, to determine the significance of Tier II project impacts and identify measures to mitigate any significant impacts. If that future analysis determines that there are significant impacts to the City of Los Angeles street system and feasible measures are identified to mitigate those impacts, then those mitigation measures would be need to approved by the City and their implementation would be the responsibility of the City.

Cumulative Impacts

Proposed mitigation measures would reduce transportation/traffic impacts, however the proposed Tier I development and cumulative development would result in significant cumulative traffic impacts. In addition, traffic from the proposed Tier I development, related projects, and other cumulative development could also result in significant cumulative impacts on freeway mainline segments and freeway ramps.

3.9.5 References

Section 3.15 of the EIR addresses the project's transportation and traffic impacts. Chapter 5 of the EIR discusses the alternatives to the proposed project.

3.10 Tribal Cultural Resources (Appendix G, Checklist Question, XVIII,a,b)

3.10.1 Description of Potential Effects

In consultation with Fernandeño/Tataviam Band of Mission Indians pursuant to AB 52, the Fernandeño have provided detailed information about three TCRs, including two villages in the vicinity of the campus. While the proposed project is not directly located within the village habitation areas, it is within the use area for each village, which extends 3 miles from the village center. In addition, the proposed project's location near natural springs, California oak woodland, and known traditional and historic trails indicates a moderate sensitivity for subsurface TCRs. The proposed project has a moderate potential to affect TCRs in areas on the campus not previously disturbed. If TCRs are encountered and disturbed during construction, the impact would be significant under CEQA.

Cumulative Impacts

The project and the related projects are located within a semi-urbanized area that has been disturbed and developed over time. Cumulative growth and development in the cumulative impacts study areas could result in significant impacts if tribal cultural resources (TCRs) are encountered and disturbed or damaged during construction activities. Additionally, although the potential for an individual cumulative project to affect TCRs is unknown, given the geographic extent of the cumulative impacts study areas, it is probable that cumulative growth and development would have impacts on TCRs.

3.10.2 Mitigation Measures

CR-1 through **CR-6**, as presented in Section 3.4, *Cultural Resources*, would mitigate or reduce potential impacts to TCRs, archaeological resources, and human remains, respectively, to a level that is less than significant.

3.10.3 Findings

For the above impacts to tribal cultural resources, the following findings are made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☒ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☒ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential impacts to tribal cultural resources from the operation of the project are found to be.

☐ Significant ☒ Not Significant

3.10.4 Rationale

Tiers I and II

Mitigation measure will be implemented to reduce potential impacts to TCRs, archaeological resources, and human remains, respectively, to a level that is less than significant

Cumulative Impacts

While project excavation activities has the potential to affect unknown TCRs, compliance with applicable regulatory requirements and the City's standard condition of approval in the event of inadvertent discovery would ensure that the cumulative impacts to tribal cultural resources would be reduced. In addition, related projects would be required to comply with the consultation requirements of AB 52 to determine and mitigate any potential impacts to tribal cultural resources. Therefore, cumulative impacts to tribal cultural resources would be less than significant and would not be cumulatively considered.

3.10.5 References

Section 3.16 of the EIR addresses the project's tribal cultural resources impacts. Chapter 5 of the EIR discusses the proposed project alternatives.

3.11 Utilities/ Service Systems

3.11.1 Description of Potential Effects

Tiers I and II

During construction of individual projects implemented under the Master Plan, water would be used by construction workers and activities, e.g., cement mixing and dust suppression, wastewater would be generated by construction workers, and electricity and fuels would be consumed. Construction of new development and facilities under Tier I would require new on-campus infrastructure to accommodate that development, including new water or sewer lines to new on-campus buildings. If construction of new water lines occurs at depths where undisturbed native soils would be encountered, the potential exists that unknown buried archaeological or paleontological resources could be encountered and damaged or destroyed.

Implementation of the Master Plan could result in a net increase of 173,382 gpd of wastewater during operation. The City of Los Angeles Bureau of Sanitation (BOS) has concluded the sewer

system might be able to accommodate the total flow for the proposed project, but that further detail gauging and evaluation may be needed as part of the permit process for individual projects to identify a specific sewer connection point. A final approval for sewer capacity and connection permit shall be made at that time. If BOS determines that there is insufficient capacity in the local sewer lines that would serve an individual future project, then the impact would be considered to be significant.

Tier II

The construction and operation of proposed Master Plan facilities would increase the consumption of utilities. Future water supplies, based on a Water Supply Assessment prepared for the proposed project, are expected to be adequate and can accommodate future demand under the Master Plan. However, the increase in water supply consumption for projects that could be developed far into the future under Tier II of the Master Plan is not accounted for in the Urban Water Management Plan projections, which end in 2040. When future projects (i.e., Tier II development projects that would occur beyond the year 2040), are proposed and building plans are developed, LACDPW will be required to coordinate with the water provider, LADWP, to confirm that adequate water supplies exist to serve these future Master Plan projects. If it's determined the water supplies are insufficient, the impact would be significant.

Cumulative Impacts

The cumulative increases in regional and local study area populations would increase the demand for utilities services. Because the service areas for the various utility providers (water, sewer and wastewater, stormwater, solid waste, natural gas, and electricity) varies widely, and, in some cases, covers large geographic areas (e.g., SoCalGas or LADWP), it is possible that increased demand due to future cumulative development within the service areas could require additional utility capacity and supplies to meet projected future demand and maintain adequate levels of service, notwithstanding future savings resulting from increased energy efficiencies.

3.11.2 Mitigation Measures

Tiers I and II

MM-UTL-1: Prior to issuance of a building permit for any future development project under the Master Plan that could result in an increase in wastewater generation, the County will coordinate with the city of Los Angeles Bureau of Sanitation to conduct further detailed gauging and evaluation to identify a specific sewer connection point with sufficient capacity. If the public sewer has insufficient capacity, then the County will be required to build a sewer line to a point in the sewer system with sufficient capacity.

Also see the mitigation measures identified above for archaeological and paleontological resources.

Tier II

MM-UTL-2: In conjunction with preparation of a subsequent CEQA environmental document for any future individual development project under the Master Plan that is proposed in the year 2040 or beyond that is defined as a "water-demand project" in Section 15155 of the CEQA

Guidelines, the County will request, pursuant to Section 15155, that the water provider determine whether the projected water demand associated with the project was included in the most recently adopted urban water management plan. If required pursuant to Section 15155 and SB 610, the County will request that LADWP prepare a water assessment for the proposed project. The County will determine, pursuant to Section 15155, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

3.11.3 Findings

For the above impacts to utilities/service systems, the following findings are made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☒ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☒ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential impacts to utilities from the operation of the project are found to be.

☒ Significant ☐ Not Significant

3.11.4 Rationale

Tiers I and II

Since the County cannot compel another public entity that has jurisdiction over the services, in this case BOS for wastewater/sewer impacts, to conduct further gauging and evaluation to determine whether local sewer lines have sufficient capacity to accommodate future wastewater flows, for the purposes of this EIR, the impacts on local sewer lines are considered to be significant and unavoidable.

While Alternative B analyzed in the EIR would result in less development and therefore less wastewater than the proposed project, it may still generate wastewater flows that exceed the capacity of local sewer lines, and given local sewer lines are under the jurisdiction and are the responsibility of BOS, impacts are considered to be potentially unavoidable and significant.

Tier II

If it's determined that future water supplies for Master Plan projects far in the future (beyond year 2040) would not be sufficient, the impact would be significant and unavoidable. No feasible measures have been identified to reduce these potential impacts to a less than significant level.

While Alternative B analyzed in the EIR would result in less development and therefore less wastewater than the proposed project, it may still generate wastewater flows that exceed the

capacity of local sewer lines, and given local sewer lines are under the jurisdiction and are the responsibility of BOS, impacts are considered to be potentially unavoidable and significant.

Cumulative Impacts

Although mitigation measures identified above would reduce potential construction and operational utilities impacts, because the planning horizon for the Master Plan extends well into the future (beyond year 2040), it is possible that yet unidentified improvements to the regional providers utility infrastructure may also be required over the life of the Master Plan. Therefore, it is anticipated that the proposed project and other regional development would result in significant cumulative impacts on utilities and energy.

3.11.5 References

Section 3.17 of the EIR addresses the project's utilities impacts. Chapter 5 of the EIR discusses the proposed project alternatives.

3.12 Wildfire Hazards

3.12.1 Description of Potential Effects

Cumulative Impacts

Growth and development in the cumulative impacts study areas could result in significant impacts to wildfire hazards if cumulative impacts substantially impair an adopted emergency response plan or emergency evacuation plan.

3.12.2 Mitigation Measures

The following measure is proposed to mitigate wildfire hazards:

MM-PS-1: The Los Angeles County project manager and construction contractor will regularly notify and coordinate with the LAFD, LASD, and LAPD on project construction design, activities, and scheduling, including any street or lane closures related to proposed development projects before construction begins.

3.12.3 Findings

For the above impacts to wildfire hazards, the following findings are made:

☒ Changes or alterations have been required in, or incorporated into, the project to avoid or substantially lessen the significant environmental effect as identified in the final EIR.

☒ Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding. Such changes have been adopted by such other agency or can and should be adopted by such other agency

☒ Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or project alternatives identified in the final EIR.

The potential impacts to transportation and traffic from the operation of the project are found to be.

☐ Significant ☒ Not Significant

3.12.4 Rationale

Cumulative impacts associated with wildfire hazards would be less than significant with implementation of the above listed mitigation measure.

3.12.5 References

Section 3.18 of the EIR addresses the project's wildfire hazards impacts. Chapter 5 of the EIR discusses the proposed project alternatives.

4 Alternative Considered and Proposed Project

Section 15126.6 of the CEQA Guidelines requires an evaluation of the comparative effects of a reasonable range of alternatives to the project that would feasibly attain most of the project's basic objectives and would avoid or substantially lessen any of the significant impacts of the project. A feasible alternative is one that can be accomplished successfully in a reasonable period of time, taking into consideration economic, legal, social, and technological factors. The range of alternatives is governed by the "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasonable choice. Chapter 5, Comparison of Alternatives, of the EIR describes the impacts of the Alternative A - No Project Alternative (No-Build and Limited Development scenarios), which is required by CEQA, and Alternative B – Reduced Development. Chapter 5 also discusses four alternatives that were eliminated from detailed consideration in the EIR.

4.1 Alternatives Considered but Not Analyzed in the EIR

Alternatives that were considered but not carried forward in the EIR include the Boulevard Site Plan Option, Compact Site Plan Option, Terrace Site Plan Option, and Wilson Canyon Site Plan Option. These alternatives were not carried forward into the EIR because they would not avoid or substantially lessen the proposed Master Plan's significant impacts. It was also determined by the County that the proposed Master Plan would best meet the objectives of the Master Plan, the community, and the County's needs and would result in fewer impacts to the environment and the community, in comparison to these other alternatives. A detailed description of these

alternatives and an explanation of why they were not carried forward are included in Chapter 5 of the EIR.

4.2 Alternatives Analyzed in the EIR

Alternative A – No Project and No Project/Limited Development

For the purposes of this EIR, two No-Project scenarios were defined. Under both scenarios, the Master Plan would not be implemented. However, the first scenario, No Project/No Build, assumes that no new development would occur on the campus other than those projects already approved and, consequently, that environmental conditions on the Olive View–UCLA Medical Center Campus would remain largely unchanged. Although this No Project scenario would result in no or few adverse impacts, it would not provide new and upgraded Olive View–UCLA Medical Center Campus facilities, improved wayfinding, better access/circulation, and open space for visitors, employees, and area residents to the extent or in the manner that could occur under the proposed Master Plan. Therefore, this No Project scenario would not meet any of the Master Plan project objectives.

The second No Project scenario considers what is more likely and could reasonably occur in the future if the proposed Master Plan is not approved: individual projects would be proposed, approved, and then implemented on an ad hoc basis similar to how development has occurred on the campus in the past. As a consequence, development on the campus under this scenario would be greater than the No Project/No Build scenario, but more limited in scope and extent than the development that could occur under the proposed Master Plan or Reduced Development Alternative (Alternative B, below). Given those assumptions, it is likely this No Project scenario would not result in the unavoidable significant adverse impacts that would occur under the Master Plan. Although some changes and impacts to the environment (e.g., construction, noise, and air quality impacts, impacts to archaeological and paleontological resources) could occur under this scenario that may not occur under the No Project/No Build scenario, the scope and extent of the impacts would still likely be substantially less than what could occur with implementation of the proposed Master Plan. However, the No Project/Limited Development Alternative would not provide the benefits to the community that could occur under the proposed Master Plan, nor would it provide a framework to guide development on the campus in a comprehensive and coordinated manner to meet the Olive View–UCLA Medical Center's and County's needs. None or few of the Master Plan objectives would be met with this alternative.

Alternative B – Reduced Development Alternative

Alternative B would be a reduced-development alternative to the proposed Master Plan and would include the following exceptions:

There would be a reduction in size of the administrative services building. This component of the proposed Master Plan would be reduced in size from the 96,000-square-foot facility under the Master Plan to approximately 38,600 square feet. The reduction in the size of this building could be achieved by relocating several offices or departments that would be located in this building under the proposed Master Plan to other existing or proposed new buildings.

Alternative B would consolidate the East and West Central Utility Plants. Under this alternative, one large consolidated central utility plant would be constructed in place of the two proposed under the Master Plan (Central Utility Plant East under Tier I and Central Utility Plant West under Tier II). This consolidated central utility plant would also contain materials management/supply services operations eliminating the need for the separate 68,100-square-foot building proposed under Tier I of the Master Plan.

Alternative B would eliminate the new Materials Management/Supply Services Building. The new 68,100-square-foot Materials Management/Supply Services Building under the proposed Master Plan would be eliminated under this alternative, and instead materials management functions would be co-located with and share large delivery truck tarmac and dock facilities with the consolidated central plant.

Other projects proposed under Tier I, including the Restorative Care Village, Ambulatory Care Center, existing inpatient hospital, and Community Center would be similar to those under the proposed Master Plan. This alternative would also include other Tier I improvements proposed under the Master Plan, including new community open space and landscaping, parking, vehicular circulation, and pedestrian circulation improvements, and utility infrastructure improvements.

Changes in Tier II under Alternative B include constructing a new hospital and repurposing the existing hospital building for other uses defined under the proposed Master Plan, providing an opportunity to use the existing hospital to accommodate several proposed Tier II facilities, rather than constructing new buildings in the western half of the campus, as would occur under the proposed Master Plan. These facilities would include the Long Term Care facility, UCLA medical office and research and development buildings, child care center, fitness center, and retail uses. Accommodating these facilities and uses in the repurposed existing hospital would reduce the Tier II building square footage by approximately 315,000 square feet. Other Tier II Master Plan improvements, including new community open space and landscaping, parking, vehicular circulation, and pedestrian circulation improvements, and utility infrastructure improvements on the western half of the campus would also be implemented under this alternative, but potentially to a lesser extent than would occur under the proposed Master Plan.

4.3 Proposed Project

The proposed project is intended to guide development of the campus over a period of more than 20 years, including the expansion of health care delivery services and health related community programs. The Master Plan provides alternate paths for that development and flexibility to allow the Master Plan to adapt to changes over time. The Master Plan also includes an analysis and assessment of existing campus infrastructure and buildings, future considerations and recommendations for the campus's land use, and a series of design criteria that guide building placement, form, and materials.

For the purposes of the EIR, two tiers of development have been defined and analyzed. Tier I entails near-term projects that are better defined and could be constructed subject to securing the necessary approvals and funding, as well as other subsequent development that could occur over the next 17 years, through the year 2035. Tier I development, which is described in greater detail below, could include the Restorative Care Village, which is composed of the Recuperative Care Center, Residential Treatment Program facility, Mental Health Wellness Center, and the new Mental Health Urgent Care Center, as well as the Ambulatory Care Center, Community Center,

improvements to the existing hospital, new parking facilities, and other campus improvements that would be located predominantly in the eastern half of the current campus. Tier II development would occur beyond 2035 and could include the construction of a new inpatient hospital, Long-Term Care facility, support services building, retail space, County department buildings, and the renovation and reuse of the existing inpatient hospital for other purposes. If build-out of the campus occurs as envisioned under the Master Plan, the net increase in building square footage would be approximately 1.3 million square feet, which would occur throughout the campus.

4.4 Environmentally Superior Alternative

Section 15126.6 of the CEQA Guidelines requires that an "environmentally superior" alternative be identified and the reasons for such a selection be disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the least amount of adverse impacts. In this case, the No Project Alternative would result in fewer impacts on the existing environment. However, Section 15126.6(e)(2) of the State CEQA Guidelines states if the No Project Alternative is the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives. To determine which of the other alternatives would be environmentally superior, the analysis focused on those Master Plan impacts identified as significant and unavoidable. Alternative B would reduce the impacts during construction to air quality, greenhouse gas emissions, noise, and traffic, as it would reduce development on the campus. However, similar to the proposed project, Alternative B could result in significant unavoidable impacts to utilities and service systems. Therefore, Alternative B is the project alternative that would result in the fewest environmental impacts, and would be the environmentally superior alternative. However, Alternative B would not meet all of the project objectives or provide all of the benefits that could occur under the proposed Master Plan.

3 Statement of Overriding Considerations

The proposed project would result in the following unavoidable significant adverse impacts after mitigation:

- **Air Quality (Tier II) (Appendix G, Checklist Questions III,b,c)**

  Construction and operational emissions under Tier II could exceed, depending on specific project details including construction schedule and activities, the applicable air quality thresholds. Because Tier II projects are expected to occur far in the future, and specific details about Tier II are unknown, emissions associated with construction and operational activities under Tier II have not been quantified. Although mitigation measures would be implemented, Tier II could potentially result in construction or operational emissions that still exceed regional or localized standards. Therefore, Tier II air quality impacts are considered to be potentially significant and unavoidable.

- **Greenhouse Gas Emissions (Tier I and Tier II) (Appendix G, Checklist Question VIII,a)**

Greenhouse Gas Emissions generated during construction and operational activities for both Tier I and Tier II could exceed the 3,000 MT CO_2e annual threshold. While MM-GHG-01 would reduce the project's GHG emissions, it cannot be stated with certainty that emissions would be reduced to comply with the long-term GHG reduction targets and goals of applicable regulatory programs. As such, impacts would be significant and unavoidable.

- **Noise and Vibration (Tier I and Tier II)**

  While MM-NOI-1 would reduce construction noise levels, it would not eliminate the predicted noise impacts entirely; therefore, construction noise impacts are considered significant and unavoidable. Construction vibration impacts could significantly affect nearby noise-sensitive uses, while mitigation measure MM-NOI-C2 reduce construction vibration levels, it may not eliminate the predicted significant impacts entirely, therefore, construction vibration impacts would be considered significant and unavoidable after mitigation.

- **Utilities (potential operational impacts under Tiers I and II) (Appendix G, Checklist Question XIX,b,c)**

  Proposed development under the Master Plan would increase the consumption of water. The Water Supply Assessment prepared for the proposed project concluded that projected water supply during normal, single-dry, and multiple-dry water years, as included in the 25-year projection contained in the city of Los Angeles's Urban Water Management Plan, can accommodate the projected maximum water demand associated with Tier I and Tier II development. However, it should be noted that the UWMP projections end in 2040, while the Master Plan is intended to provide a framework and vision for development on the campus that could occur beyond 2040. For projects constructed in Tier II of the Master Plan, if it is determined that the water supplies are insufficient, and new offsite water infrastructure is required, there could potentially be significant and unavoidable impacts.

  Similarly, development under the Master Plan would also increase wastewater flows from the campus that would be conveyed to local sewer lines. The city of Los Angeles Bureau of Sanitation (BOS) conducted a preliminary evaluation of the project's potential impacts on existing wastewater flows, which found that based on the current approximate flow levels, the sewer system may be able to accommodate the additional wastewater flow that could occur due to new development under the Master Plan for Tiers I and II. However, further evaluation would be needed as part of the permit process to identify a specific sewer connection point. If BOS determines that there is insufficient capacity in the local sewer lines that would serve an individual future project, then the impact would be considered to be significant. Since the County cannot compel BOS to conduct further gauging and evaluation, for the purposes of the EIR, the impacts on local sewer lines are considered to be potentially significant and unavoidable.

The benefits of the project are listed below. Any one of the overriding considerations of economic, social, and environmental benefits individually would be sufficient to outweigh the adverse environmental impacts of the proposed project and justify their adoption and certification of the final EIR.

1. Implementation of the proposed project would best meet the County's anticipated needs at the Olive View – UCLA Medical Center campus.
2. Implementation of the proposed project would provide the facilities and campus infrastructure necessary to meet the community's increasing health needs and demands, optimize the quality of care, and improve operational effectiveness, including reducing administrative, operational, and maintenance costs.
3. Implementation of the proposed project would result in the development of urgently needed facilities and supportive services to the County's most vulnerable populations, such as those suffering from mental illness, addiction, or physical disabilities, to ensure a seamless transition upon discharge to home or other housing options and help patients avoid cycling in and out of emergency interventions, while reducing morbidity and costs.
4. Adherence to the Master Plan's building, landscaping, lighting, and signage design guidelines during development of projects under the Master Plan would improve the visual appearance of the campus, improve wayfinding for visitors and employees, and would make the campus more accessible to the surrounding community.
5. Implementation of the proposed project would provide new recreational and open space areas on the campus, including pedestrian and equestrian trails, which would benefit on-campus employees, visitors, and members of the surrounding community.
6. Implementation of the proposed project would replace buildings and underused space with new buildings and space that would meet seismic and fire safety requirements while also achieving sustainability initiatives.
7. Implementation of the proposed project would demonstrate sustainable design and development programs to enhance the long-term social value of the campus by designing for pragmatic long-term operations, promote efficient energy and water use, and implement LEED and CAL Green Program goals.
8. Construction of new development and campus infrastructure improvements under the proposed project would result in new construction jobs and buildout of the proposed Master Plan would result in an increase in the number of employees on the campus. Increased short-term and long-term employment opportunities would provide economic benefits to the surrounding community and the region.

Accordingly, the County hereby concludes that the proposed project's benefits outweigh and override its unavoidable significant impacts for the reasons stated above. The County reached this decision after having done all of the following: (1) adopted all feasible mitigation measures, (2) rejected as infeasible alternatives to the project, (3) rejected alternatives that do not fully meet the project objectives (4) recognized all significant, unavoidable impacts, and (5) balanced the benefits of the proposed project against their significant and unavoidable impacts.

MITIGATION MONITORING AND REPORTING PROGRAM

SCH# 2016031090

OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN

PREPARED FOR:

County of Los Angeles
900 South Fremont Avenue
Alhambra, California 91803

PREPARED BY:

ICF

SEPTEMBER 2019

Mitigation Monitoring and Reporting Program

CEQA requires agencies that adopt EIRs to take affirmative steps to determine that approved mitigation measures are implemented after project approval.

As part of CEQA's environmental review procedures, Section 21081.6 requires a public agency to adopt a reporting or monitoring program for assessing and ensuring efficacy of any mitigation measures applied to a proposed project. Specifically, the lead or responsible agency must adopt a reporting or monitoring program for mitigation measures incorporated into a project or imposed as conditions of approval. The program must be designed to ensure compliance during project implementation. As stated in Public Resources Code Section 21081.6 (a) (1):

> The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.

CEQA Section 15097 provides general guidelines for implementing mitigation monitoring and reporting programs (MMRPs). Specific reporting and/or monitoring requirements, which are to be enforced during project implementation, shall be defined prior to final approval of the proposal by the responsible decision maker(s). In response to established CEQA requirements and those of Public Resources Code Section 21000 et seq., the MMRP for the proposed project shall be submitted for adoption by the decision makers prior to completion of the environmental review process. Under each identified resource, the mitigation measure(s) identified in the Draft EIR and the implementation and monitoring requirements are discussed. The implementation and monitoring requirements set forth in this MMRP are as follows:

- Party Responsible for Implementation of Mitigation;
- Implementation Phase;
- Party Responsible for Monitoring Implementation;
- Monitoring Activity
- Monitoring Period;
- Monitoring Frequency; and
- Outside Agency Coordination.

Mitigation is required to address significant or potentially significant impact(s) in the following issue areas:

- Air Quality
- Cultural Resources
- Greenhouse Gas Emissions
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Public Services
- Noise
- Transportation and Traffic and
- Utilities

The table below presents the MMRP for the proposed project.

Mitigation Monitoring and Reporting Program

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
Air Quality					
MM-AQ-1: To reduce VOC emissions during construction, the County (or its contractors) will use low-VOC coatings that go beyond the requirements of SCAQMD Rule 1113, and have a VOC content of 25 grams per liter (g/L) or less during construction Tier I projects.	County of Los Angeles, construction contractor	Pre-construction, construction	County of Los Angeles	1. Check construction specifications during preparation of construction bid packages to ensure use of low-VOC coatings are specified. 2. Periodically inspect construction sites, as necessary, to confirm use of low-VOC coatings.	None
MM-AQ-2: To minimize particulate matter and NOx emissions during construction of Tier I projects, the County (or its contractors) will use off-road equipment that meets or exceeds U.S. Environmental Protection Agency Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during construction. Such equipment willshall be outfitted with Best Available Control Technology (BACT) devices including, but not limited to, CARB certified Level 3 Diesel Particulate Filter (DPFs) or equivalent.	County of Los Angeles, construction contractor	Pre-construction, construction	County of Los Angeles	1. Use off road equipment that meets or exceeds U.S. Environmental Protection Agency Tier 4 off-road emissions standards	
MM-AQ-3: In the event that construction-period emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following measures to achieve emissions reductions: • For exceedances of particulate matter or NOX regional or localized significance thresholds, the County (or its contractors) shall: • Use off-road equipment that meets or exceeds U.S. Environmental Protection Agency Tier 4 off-road emissions standards for equipment rated at 50 horsepower or greater during all	County of Los Angeles, construction contractor	Pre-construction, construction	County of Los Angeles	1. Check construction specifications during preparation of construction bid packages to ensure use/inclusion of emissions reducing construction equipment and technology. 2. Periodically inspect construction sites, as necessary, to confirm use of off-road equipment that meets EPA Tier 4 off-road emissions standards and newer trucks that meet CARB's 2019 engine emission standards. 3. Review of SCAQMD's Air Quality Analysis Handbook website when constructing Tier II	None

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
phases of construction; • Outfit all off-road equipment with Best Available Control Technology (BACT) devices including, but not be limited to, CARB certified Level 3 Diesel Particulate Filters (DPFs) • Require that construction vendors, contractors, and/or haul truck operators commit to using 2010 model year or newer trucks (e.g., material delivery trucks and soil and aggregate import/export) that meet CARB's 2010 engine emission standards of 0.01 gram per brake horsepower-hour (g/bhp-hr) of PM and 0.20 g/bhp-hr of NOX emissions or newer, cleaner trucks; and • In recognition that the Tier II developments would occur after 2035 and that more effective measures would likely be available at that time to reduce pollution emissions, the County (or its contractors) will implement all other current and feasible mitigation that are readily available for deployment at the time a Tier II project's details are known, which may include, but is not limited to, the use of construction equipment with the latest emission control systems/technologies that would result in emission reductions exceeding those achieved by presently available technologies (e.g., Tier 4 off-road equipment and 2010 model year or newer trucks). Such technologies may include zero-emission or near-zero off-road and on-road equipment that are readily available in the SCAB. To stay abreast of the latest available mitigation, the County					

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
will conduct a review of SCAQMD's Air Quality Analysis Handbook website on an annual basis to ensure that recommended mitigation measures by the District are considered for each future discretionary project.					
MM-AQ-4: Prior to issuance of a grading permit for new individual projects occurring under the Tier II development phase that are one acre or larger, the County willshall conduct an air quality analysis of the localized emissions (NOx, CO, PM10, and PM2.5) associated with the maximum daily grading activities for the proposed development. If the localized air quality analysis shows that emissions would exceed SCAQMD's air quality CEQA localized thresholds for those emissions, mitigation identified in MM-AQ-3 shallwill be implemented and/or the maximum-daily grading activities of the proposed development willshall be limited to the extent feasible	County of Los Angeles, project architect, construction contractor	Pre-construction, construction, and operation	County of Los Angeles	1. Conduct air quality analysis for Tier II individual projects that are one acre or larger	None
MM-AQ-5: In the event that operational emissions under Tier II exceed regional or localized emissions standards in effect at the time that Tier II project details are known, the County (or its contractors) will implement the following to achieve emissions reductions upon construction: 1. Increase energy efficiency by at least 10 percent beyond the Title 24 standard in place at the time of construction, unless demonstrated to be infeasible. 2. Utilize low VOC coatings (VOC content less than or equal to 25 grams per liter) for periodic painting and facility upkeep. 3. Install solar water heaters.	County of Los Angeles, project architect, construction contractor	Design, pre-construction, construction, and operation	County of Los Angeles	1. Check project plans and drawings to confirm inclusion of energy conservation design measures. 2. Check construction specifications during preparation of construction bid packages to ensure use/inclusion of low VOC coatings and energy conservation materials and equipment. 3. Periodically inspect construction sites, as necessary, to confirm compliance with construction specifications. 4. Check new campus facilities to confirm implementation of TDM measures.	None

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
4. Maximize interior day light and utilize high efficiency lighting. 5. Increase roof/ceiling insulation beyond the American Society of Heating, Refrigeration and Air Conditioning Engineers Standard 90.1-2010. 6. Install weather-based irrigation controllers to reduce outdoor water consumption. 7. Implement travel demand reduction measures (TDM) for employees, including, but not necessarily limited to measures such as: o Providing bicycle parking for at least five percent of full-time-equivalent campus employees. o Providing preferential carpool spaces within proposed parking structures on the campus. o Provide shuttles for visitors and employees from Metrolink and/or Metro Rail stations to reduce vehicle trips. 8. Incorporate onsite renewable energy production, including installation of photovoltaic cells or other options. 9. The County will give preference to vendors that use zero-emission and near-zero emission on-road haul trucks in their vehicle fleet as opposed to diesel-powered trucks.					
Biological Resources					
MM-BIO-1: Prior to the commencement of construction activities, a habitat assessment will be done by a qualified bat biologist to identify buildings within the project area that are suitable roosting habitat for bats. The following measures would apply to structures	County of Los Angeles, qualified bat biologist	Pre-construction, May 1-July 30 prior to construction activities	County of Los Angeles, qualified bat biologist	1. Check prior to construction that a qualified biologist is retained to conduct a habitat assessment to identify structures that are suitable for bat roosting. 2. Check once prior to construction that	CDFW

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
with bat roost potential, as determined by a qualified biologist: • To avoid impacts to roosting bats, preconstruction surveys will be conducted prior to work occurring within the vicinity of, or removal of, vacant buildings. A qualified bat biologist will be retained to conduct bat and bat roosting site surveys between May 1 and July 30 prior to commencement of construction activities. This pre-construction survey will be conducted at the non-vacant and vacant buildings determined to be potentially suitable for roosting bats. The survey must occur during maternity season to confirm whether Townsend's big-eared bat is present in the vacant buildings, the only locations with potential for this species. The survey at the buildings will involve exit counts and acoustic surveys to determine whether a structure supports a nursery or roost and by which species. For the non-vacant buildings, a structure inspection will be performed by a bat biologist to look for bat sign (e.g., guano, wall streaking). • Preconstruction bat surveys will include evening emergence surveys performed at dusk using active full spectrum acoustic monitoring. Work will be performed by qualified biologists who have knowledge of the natural history of the bat species that could occur in the project area and experience conducting surveys and using full spectrum acoustic equipment. During surveys, biologists will avoid unnecessary disturbance of occupied roosts. Evening (i.e., dusk) emergence surveys will consist of at least one biologist stationed				pre-construction surveys of buildings suitable for roosting bats have been conducted. 3. If roosting sites or bats are not found, check once to confirm a report confirming their absence has been sent to the CDFW. 4. If it is determined that structures in the project area are being used as roost sites, check that a qualified bat biologist has installed exclusion devices and is monitoring the site to confirm no disturbance of roosting structures or trees occurs and no construction work within a 100-foot buffer zone (or an alternative width, as determined in consultation with CDFW) occurs between April 15 and September 15.	

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on at different vantage points from the structure, watching for emerging bats from a half hour before sunset to 1-2 hours after sunset or until visibility is no longer optimal. Full-spectrum acoustic detectors will be used during emergence surveys to assist in species identification. All emergence surveys will be conducted during favorable weather conditions (i.e., calm nights with temperatures conducive to bat activity [55° F and above] and no precipitation predicted). • If roosting sites or bats are not found, a report confirming their absence will be sent to the CDFW, and no further action will be required. • If it is determined that structures in the project area are being used by bats as roost sites, the following protective measures will be implemented: • Disturbance of maternity roosting structures or trees (e.g., structure removal, construction equipment operation near roosts, tree trimming or removal) will not occur between April 15 and the following September 15 (the maternity period) to avoid impacts on reproductively active females and active maternity roosts (whether colonial or solitary). The maternity roost will remain undisturbed from the time it is located until the following September 15 or a qualified biologist has determined the roost is no longer active. No construction work will occur at the roost or within a 100-foot-wide buffer zone (or an alternative width, as determined in consultation with					

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CDFW) until September 15. • Exclusion devices may be installed outside of the maternity period (i.e., between September 16 and April 14) to preclude bats from occupying buildings during construction. Exclusionary devices will only be installed by or under the supervision of an experienced bat biologist. • A Bat Management Plan (see **MM-BIO-2**) will be developed if a bat maternity roost, including Townsend's big-eared bat, is found in the vacant building(s), no construction work within a 250-foot-wide buffer zone (or an alternative width, as determined in consultation with CDFW) will occur between April 1 and September 30.					
MM-BIO-2: A Bat Management Plan will be developed to ensure mortality to bats does not occur. The following items will be included in the plan, at a minimum: For each location confirmed to be occupied by bats, the plan will provide details both in text and graphics where exclusion devices will need to be placed, type(s) of exclusion material to be used, the timing for exclusion work, and the timeline and methodology needed to exclude the bats. Monitoring activities and schedule will be included, including frequency of monitoring, which structures would need to be monitored, and reporting requirements. The plan will be reviewed and approved by CDFW.	County of Los Angeles, qualified bat biologist	Pre-construction	County of Los Angeles, qualified bat biologist	1. Check prior to construction that a qualified biologist is retained to develop a Bat Management Plan (BMP). 2. Check once to confirm the BMP has been submitted and reviewed and approved by CDFW. 3. Check to confirm bat biologist is monitoring roosting sites as well as the installation and implementation of exclusion devices.	CDFW
MM BIO-3: Prior to construction of individual Master Plan projects, a jurisdictional delineation will be conducted within the	County of Los Angeles,	Pre-construction and	County of Los Angeles, qualified	1. Check once to confirm jurisdictional delineation has been conducted for	Potentially – RWQB, USACE,

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project site for jurisdictional features, including wetlands. If the jurisdictional features are not present, there is no potential for impacts to occur and no further action will be needed. If a jurisdictional feature is found within the project limits, then the following measures would be triggered: • **Full avoidance:** This may be possible if the jurisdictional feature is found in portions of the project site that can be avoided. In this instance, Environmental Sensitive Area (ESA) fencing will be placed between the work area and the location of the features. A biologist will be present during the placement of the fencing. • **Impact:** If avoidance of jurisdictional features is not feasible, permits/agreements will be obtained from appropriate agencies (i.e., RWQCB, USACE, CDFW) prior to work within the features.	qualified biologist	construction for each individual Master Plan Project	biologist	project site. 2. If jurisdictional features are found within the project limits, check periodically to confirm implementation of designated measures and/or necessary permits/agreements are obtained from appropriate agencies.	CDFW
MM-BIO-4: The nesting season for birds will be avoided or preconstruction nesting bird surveys will be conducted if construction activities are carried out during the nesting season. To ensure compliance with the MBTA and similar provisions under Sections 3503, 3503.5, 3505, 3800, and 3801.6 et seq.of the California Fish and Game Code, the County of Los Angeles, through the general contractor, will conduct all vegetation removal during the non-breeding season, between September 1 and February 14, or implement the following: If the removal of vegetation, demolition of buildings, or noise-generating construction activities are scheduled between February 15	County of Los Angeles, construction contractor, qualified biologist	Pre-construction, construction	County of Los Angeles	1. Check construction specifications/ schedule to confirm whether vegetation removal will occur during non-breeding season. 2. If vegetation removal is scheduled to occur during the breeding season, check to confirm a qualified biologist has been retained and conducts nesting bird surveys. 3. If active nests are detected, check with qualified biologist and inspect construction site to confirm buffer areas are clearly demarcated with stakes and flags.	

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and August 31, the proponent or construction contractor will retain a qualified biologist experienced with conducting nesting bird surveys who will conduct a nesting bird survey prior to the start of vegetation removal, building demolition, or noise-generating construction activities within any potential nesting habitat (i.e., all vegetation, buildings, etc.). The size of the nesting bird survey area will be determined by a qualified biologist at the time of the survey and include the entire limits of disturbance. It will also include a buffer area if deemed necessary by the biologist. The preconstruction nesting bird survey will be conducted no more than 7 days prior to initiation of vegetation removal, building demolition activities, or noise-generating construction activities. If no active nests are detected during these surveys, no restrictions on project activities will be necessary. If active nests are not found, then no potential for impact to nesting birds (or raptors) will occur and no further action will be needed. If an active nest(s) is observed, then an appropriate buffer (no-construction activity buffer) will be established by the biologist to ensure nest abandonment does not occur due to the construction activities. All no-construction activity buffer areas will be clearly demarcated in the field with stakes and flagging that are visible to construction personnel.					
MM-BIO-5: Prior to construction of Master Plan projects that could result in tree removal or pruning, a qualified arborist will inventory native oak trees on the project site in support of an oak tree permit, if required. Oak tree	County of Los Angeles, qualified arborist	Pre-construction	County of Los Angeles	1. If tree removal is required, check once to confirm qualified arborist has been retained, inventory of native oak trees on the project site has been conducted, and appropriate permits have been obtained. 2. Check to ensure qualified arborist is	Department of Regional Planning

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permit requests require a property owner to file an application with the Department of Regional Planning and provide a filing fee, an oak tree report, site plans for the property, and maps of the surrounding area. The oak tree report will include information about the protection of oak trees that may be adjacent to construction activities that are to remain. The oak tree report will also include the proposed replanting plan, in accordance with the required replacement ratio, for any oak trees that are to be removed.				monitoring construction site as needed to ensure protection of adjacent oak trees. 3. Check as necessary to confirm arborist is implementing oak tree replanting plan in accordance with oak tree permit.	
MM-BIO-6: Prior to construction within the eastern portion of the project site that could temporarily affect California sagebrush scrub as identified in Figure 3.3-3 of the Master Plan EIR, a Habitat Mitigation Monitoring Program (HHMP) will be created. The Plan will include, at a minimum, the following requirements: Vegetation monitoring will be performed in the spring-summer, or as specified in the HMMP, within California sagebrush scrub habitat proposed for temporary impact. A list of the native species present will be compiled, and the absolute percent cover of each species will be estimated. This information will set the performance standards and success criteria for the HMMP. The HMMP will provide a map showing the location of each area proposed for impact and the absolute percent cover of each native species within the impact area. Restoration monitoring for five years or until success criteria are met with monitoring every quarter for the first two years and annually thereafter. The monitoring will include annual vegetation sampling beginning after the first year. The	County of Los Angeles, qualified biologist	Pre-construction	County of Los Angeles, qualified biologist	1. Check once prior to construction to confirm that a Habitat Mitigation Monitoring Program (HHMP) has been developed. 2. Check once to confirm a qualified biologist has been retained to conduct vegetation monitoring as specified in the HHMP. 3. Check periodically as necessary to confirm the qualified biologist is conducting monitoring pursuant to the HHMP.	None

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sampling will occur in the window of March to June, or as specified within the HMMP. The sampling will provide absolute percent cover of native shrubs and forbs/grasses.					
Cultural Resources					
MM-CR-1: **Train Construction Personnel.** Prior to any ground disturbance activities, all construction personnel will be trained regarding the recognition of possible buried cultural and tribal cultural resources during construction ground-disturbing activities. Training will inform all construction personnel of the procedures to be followed upon the discovery of cultural and tribal cultural resources, including Native American burials. Training will also inform all construction personnel that unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order and that violators will be subject to prosecution under the appropriate state and federal laws, and violations will be grounds for removal from the project.	County of Los Angeles, qualified archaeologist construction contractor	Pre-construction (ground disturbance)	County of Los Angeles	1. Check once to confirm the services of a qualified archaeologist has been retained to provide training on cultural resources procedures to construction contractors. 2. Check once to confirm contractor training has been provided.	None
MM-CR-2: Cultural Resources Monitoring. Cultural resources monitoring of ground-disturbing activities within undisturbed native soils will be conducted by a qualified archaeologist familiar with the types of cultural and tribal cultural resources that could be encountered within the proposed project area. The monitor will be under the direct supervision of an archaeologist who meets the national standards for archaeology as set by the Secretary of Interior's Standards and Guidelines for Archaeology and Historic Preservation. Ground-disturbing activities include but are not limited to: auguring, excavation, geotechnical investigations,	Los Angeles County, qualified archaeologist	Pre-construction, construction	Los Angeles County, qualified archaeologist	1. Check once prior to construction that a qualified archaeologist has been retained to conduct cultural resources monitoring. 2. Check periodically, as necessary, that a qualified archaeologist is monitoring the site during ground disturbance activities pursuant to the mitigation measure requirements.	None

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vegetation clearing, ground surface leveling, trenching, and conventional mass grading. A single monitor will be assigned to observe two or more simultaneous ground-disturbing activities that occur less than 50 feet away from each other. Additional monitors will be assigned if two or more simultaneous ground-disturbing activities occur more than 50 feet away from each other. Monitors will complete a daily monitoring activity log.					
MM-CR-3: Native American Tribal Monitoring. If intact prehistoric cultural resource deposits, as determined by the project archaeologist, and/or tribal cultural resources, in consultation with the Fernandeño Tataviam Band of Mission Indians and the County, are identified during ground-disturbing activities within native soils, Native American tribal monitoring will be conducted by a Native American monitor from the Fernandeño Tataviam Band of Mission Indians. A single tribal monitor will be assigned to observe two or more simultaneous ground-disturbing activities that occur less than 50 feet away from each other. Additional tribal monitors will be assigned if two or more simultaneous ground-disturbing activities occur more than 50 feet away from each other. The tribal monitors will represent the Tribes' interests and will follow the Native American Heritage Commission's Guidelines for Tribal Monitors, which will include completion of a Native American monitoring daily activity log.	Los Angeles County, qualified archaeologist, Native American monitor	Pre-construction, construction	Los Angeles County, qualified archaeologist & Native American monitor	1. Check prior to construction that a Native American monitor has been retained to provide monitoring services in the event prehistoric cultural resources are identified during construction. 2. Check periodically, as necessary, to confirm that a Native American monitor is monitoring construction activities when prehistoric cultural resources are identified during construction activities. Check periodically as necessary to confirm Native American monitoring daily activity logs are completed pursuant to the mitigation measure.	Fernandeño Tataviam Band of Mission Indians
MM-CR-4: Discovery of Cultural and Tribal Cultural Resources. If cultural resources or tribal cultural resources are encountered during ground-disturbing activities, cultural	County of Los Angeles, qualified archaeologist,	Construction	County of Los Angeles, qualified archaeologist	1. Check, as necessary, to confirm that construction activities are diverted pursuant to the mitigation measure and that a qualified archaeologist has	None

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and tribal monitors are empowered to divert ground-disturbing activities within 50 feet of the discovery until a qualified archaeologist can evaluate whether the resource is a unique archaeological resource or historical resource as defined in Public Resources Code Section 21083.2 and/or 14 C.C.R. Section 15064.5, or, in consultation with the Tribe, a tribal cultural resource as defined in Public Resources Code Section 21074. Work may continue in other areas. Tribal monitors will cooperate with the qualified archaeologist to locate all cultural materials exposed during ground-disturbing activities. All cultural resources recovered will be documented on California Department of Parks and Recreation Series 523 Forms.	Native American monitor, construction contractor		& Native American monitor	been contacted to evaluate cultural resources when they are encountered during ground-disturbing activities, Check, as necessary, to confirm that the qualified archaeologist and tribal monitors have located all cultural materials exposed during ground-disturbing activities and that all recovered cultural resources are documented on California DPR 523 forms.	
MM-CR-5: Treatment of Cultural and Tribal Cultural Resources. If the qualified archaeologist determines that the discovery is a historical resource (as defined in MM CR-4) of an archaeological nature, or, in consultation with the Tribe and the County, a tribal cultural resource, then the mitigation standards of 14 C.C.R 15126.4(b) which specifies that	County of Los Angeles, qualified archaeologist, Native American tribe		County of Los Angeles, qualified archaeologist & Native American tribe	1. Check, as necessary during construction, that identified cultural or tribal cultural resources are preserved in place, or if preservation in place is not feasible, that a treatment plan is developed by a qualified archaeologist. Check to confirm that plan is submitted to the County Department of Public Works prior to	Appropriate Native American tribe, South Central Coastal Information Center (SCCIC)

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preservation in place will be the preferred manner of mitigation. If preservation in place is not feasible, a cultural and/or tribal cultural resources treatment plan will be prepared pursuant to 14 C.C.R 15126.4(b) and the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The treatment plan will include (i) provisions for assessment and treatment of the resources identified; (ii) reporting of results in a timely manner; and (iii) the opportunity for the Tribe to engage in the recovery of material and (iv) to provide comments on the draft report. The Tribe will be afforded the opportunity to review the plan prior to implementation. The plan will be submitted to the Los Angeles County Department of Public Works prior to the treatment of the historical resource, unique archaeological resource, or tribal cultural resource. A preliminary draft monitoring compliance report will be submitted within three months of the end of project construction activity. The report will be prepared by a qualified archaeologist and include documentation and interpretation of resources identified or recovered. Interpretation will include full evaluation of the eligibility of the resources identified for listing on the California Register of Historical Resources (CRHR). All surface and subsurface artifacts and features will be mapped and described in the report. The Tribe will be afforded the opportunity to provide comments for inclusion in the final report. The final report will be filed at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. One copy of the final report will be				treatment of the resource and that the appropriate tribe has been afforded an opportunity to review the plan prior to implementation. 2. Check, as necessary, to confirm that a preliminary draft monitoring compliance report has been prepared by a qualified archaeologist pursuant to the mitigation measure requirements and is submitted three months prior to the end of construction. Check to confirm that the tribe has been provided an opportunity to provide comments for inclusion in the report. Check, as necessary, to confirm a copy of the final monitoring compliance report has been submitted to the South Central Coastal Information Center (SCCIC) at California State University, Fullerton and that one copy has been provided to the appropriate tribe.	

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provided to the Tribe.					
MM-CR-6: Human Remains. In accordance with California Health and Safety Code Section 7050.5, if human remains are encountered no further disturbance will occur within 50 feet of the find(s) until the Los Angeles County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resource Code Section 5097.98(b) remains will be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Los Angeles County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the most likely descendant(s) (MLD). The MLD will make recommendations concerning the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. If the County cannot come to an agreement with the MLD, Public Resources Code Section 5097.98(e) requires the County to "reinter the human remains and items associated with Native American human remains with appropriate dignity on the property in a location not subject to further and future subsurface disturbance."	County of Los Angeles, construction contractor	Pre-construction and during construction	County of Los Angeles	1. Check construction specifications during preparation of construction bid packages to ensure all measures listed as part of MM-CR-10 have been. 2. Check, as necessary during construction, to confirm that in the event that human remains are uncovered, construction has been halted in the area of discovery and the area protected per State Health and Safety Code Section 7050.5. Confirm that the County coroner has been notified to determine the origin and disposition of the human remains pursuant to PRC Section 5097.98. 3. Check during construction, as necessary, to confirm the NAHC has been notified within 24 hours and all coordination protocol listed under this mitigation measure has been followed, in the event that the coroner determined the remains to be Native American.	County Coroner, Native American Heritage Commission
Geology/Soils					
MM-GEO-C1: All recommendations included in the preliminary Geotechnical Evaluation prepared for the proposed project (see Appendix F.1 of this EIR) will be followed. A detailed subsurface geotechnical evaluation will be performed to address site-specific conditions at the locations of the planned	County of Los Angeles, project architect/ designer, construction contractor	Design, Pre-construction, construction	County of Los Angeles	1. Check once prior to design that a qualified geotechnical engineer has been retained to perform a detailed subsurface geotechnical evaluation to address site-specific conditions at the locations of the planned improvements and provide detailed recommendations	None

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improvements and provide detailed recommendations for design and construction. The geotechnical evaluation will include the following measures to mitigate potential fault rupture, seismic ground shaking, ground failure, and liquefaction hazards identified under Impacts **GEO-1** and **GEO-2**. *Fault Rupture*: Future geologic investigations to evaluate the location and relative activity of potentially active fault splays at the project site and the feasibility of locating future site improvements will be conducted by geologic consultants prior to design of structure locations. Fault investigations will be conducted by a California State Certified Engineering Geologist and reviewed by the CGS. Appropriate building setback zones will be established in locations deemed not feasible for construction of occupied structures. *Seismic Ground Shaking*: Structural elements of future improvements will be designed to resist or accommodate appropriate site-specific ground motions and conform to the current seismic design standards, including those set forth by the 2013 California Building Code (CBC) and the County of Los Angeles building regulations. *Ground Failure*: Assessment of liquefaction potential at the project site will be evaluated by subsurface geotechnical exploration prior to detailed design and construction of project improvements and will be incorporated into the design, as appropriate. Structural design will be developed to reduce the potential impacts of liquefaction, including the incorporation of techniques such as structural design, in-situ ground modification, or				for design and construction. 2. Check once during project design to confirm a geotechnical evaluation has been conducted. 3. Check design plans to ensure conformance with geotechnical evaluation recommendations. 4. Periodically inspect construction sites, as necessary, to confirm compliance with plans.	

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supporting foundations with piles at depths designed specifically for seismically induced settlement. *Landslides*: A detailed assessment of the landslide and mudflow potential in areas of project improvements will be performed prior to design and construction of improvements and incorporated into the design, as appropriate. Methods for construction in areas with a potential liquefaction hazard may include excavation of potentially unstable material for a more stable slope configuration; reduction of landslide driving forces by removal of earth materials at the top of the landslide; construction of a buttress and/or stabilization fills; construction of retailing walls, installation of rock bolts on the face of the slope, or installation of protective wire mesh on the slope face; the construction of debris impact walls at the toe of the slope to contain rock fall debris; and/or supporting foundations with piles at depths designed specifically for seismically induced settlement. Graded slopes created for future project site developments will also be designed to reduce the potential for landslides or mudflows. The geotechnical evaluation will include the following measures to mitigate unstable soil impacts identified under Impact **GEO-3**. *Groundwater*: Excavations for foundations in areas with shallow perched groundwater may need to be cased/shored and/or dewatered to maintain stability of the excavations and adjacent improvements and provide access for construction. All recommendations included in the preliminary geotechnical evaluation pertaining to groundwater will be followed. Onsite infiltration of storm water related to Low Impact Development					

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guidelines will be evaluated during the detailed design phase of the project. Further study, including subsurface exploration, will also be performed during the detailed design phase of planned improvements to evaluate the presence of seepage and/or perched groundwater, and to evaluate the potential for stormwater infiltration at the site, and the potential impacts on design and construction of project improvements. Techniques such as casing, shoring, and/or construction dewatering will be incorporated. *Collapsible Soils/Settlement*: Assessment of soil settlement will be performed prior to detailed design and construction or project improvements and techniques will be developed, as appropriate, to reduce impacts related to settlement. Surface reconnaissance and subsurface evaluation will be performed. Site-specific geotechnical evaluations will also be performed to assess the settlement potential of onsite natural soils and undocumented fill, which may include drilling of exploratory borings or test pits and laboratory testing of soils, where appropriate, to evaluate site conditions. Examples of possible mitigation measures for soils with the potential for settlement could include removal of the compressible/collapsible soil layers and replacement with compacted fill, surcharging to induce settlement prior to construction of improvements, allowing for a settlement period after or during construction of new fills, and specialized foundation design, including the use of deep foundation systems to support structures. Various in-situ soil improvement techniques are also available, such as dynamic compaction (heaving					

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tamping) or compaction grouting. The geotechnical evaluation will include the following measures to mitigate the expansive and corrosive soils hazards identified under Impact GEO-4. *Expansive Soils*: Assessment of the potential for expansive soils will be performed during the design phase of the project through subsurface exploration and mitigation techniques such as over-excavation and replacement with non-expansive soils, soil treatment, moisture management, and/or specific structural design for expansive soil conditions will be developed, as appropriate, to reduce impacts to expansive soils.					
MM-GEO-C2: A Storm Water Pollution Prevention Program incorporating BMPs for erosion control will be prepared prior to the start of construction in accordance with governing agencies. Long-term erosion management practices and drainage provisions will also be incorporated into the design and maintenance of the project following development of site improvements. BMPs may include surface drainage measures for erosion due to water, such as the use of erosion prevention mats or geofabrics, silt fencing, sandbags and plastic sheeting, and temporary drainage devices. Positive surface drainage will be accommodated at project construction sites to allow surface runoff to flow away from site improvements or areas susceptible to erosion. Wetting of soil surfaces and/or covering exposed ground areas and soil stockpiles will also be considered during construction operations, as appropriate, to reduce wind-related erosion (see air quality impacts and mitigation measures). Project design will address reducing concentrated	County of Los Angeles, construction contractor	Pre-construction	County of Los Angeles	1. Check once prior to construction, that a Storm Water Pollution Prevention Program has been prepared. 2. Periodically inspect construction site, as necessary, to ensure that Storm Water Pollution Prevention Program measures are implemented.	None

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run-off conditions that could cause erosion and affect the stability of the project.					
MM-GEO-C3: Due to the moderate paleontological potential of the Pacoima Formation, monitoring will be conducted during all earthmoving activities affecting native sediments of the Pacoima Formation to reduce potential impacts to a less-than-significant level. Excavations will be monitored by a qualified paleontological monitor under the supervision of the qualified paleontologist. Additionally, periodic paleontological spot checks should initially be conducted when excavation exceeds depths of five feet into areas mapped as Quaternary alluvium to determine if older, paleontologically sensitive sediments are present. If present, full time monitoring will be implemented. Monitoring may be reduced if some of the potentially fossiliferous units described herein are, upon exposure and examination by qualified paleontologic personnel, determined to have a low potential for containing fossil resources. The paleontologic monitors will be equipped to salvage fossils as they are unearthed to avoid construction delays and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor will have authority to temporarily divert grading away from exposed fossils to recover the fossil specimens professionally and efficiently and collect associated data. All efforts to avoid delays in project schedules will be made. To prevent construction delays, paleontological monitors will be equipped with the necessary tools for	County of Los Angeles, qualified paleontologist and paleontologist monitor	During construction	County of Los Angeles, qualified paleontologist	1. Check prior to construction that a qualified paleontologist and paleontological monitor have been retained. 2. Check periodically, as necessary, to confirm paleontological monitoring of earthmoving activities, and salvaging and processing of any fossils, is conducted in accordance with the requirements of the mitigation measure. 3. Once analysis has concluded, check to ensure that a report of findings with an appended itemized inventory of specimens is submitted to County Department of Public Works, along with confirmation of the curation of recovered specimens into an established, accredited museum repository.	accredited museum

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the rapid removal of fossils and retrieval of associated data. This equipment will include handheld global positioning system receivers, digital cameras, and cell phones as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (e.g., awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms will be used to record pertinent geologic data, stratigraphic sections will be measured, and appropriate sediment samples will be collected and submitted for analysis. Fossils collected, if any, will be transported to a paleontological laboratory for processing where they will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility such as LACM. Following analysis, a Report of Findings with an appended itemized inventory of specimens will be prepared, which, when submitted to the County of Los Angeles Department of Public Works. along with confirmation of the curation of recovered specimens into an established, accredited museum repository, will complete the program to mitigate impacts on paleontological resources.					
Greenhouse Gas Emissions					
MM-GHG-C1: The County (or its contractors) will implement the following diesel emission-reduction measures during project construction: • All equipment and delivery truck idling times will be limited by shutting down equipment when not in use and reducing the maximum idling time to less than 3	County of Los Angeles, construction contractor	Pre-construction, construction	County of Los Angeles, construction contractor	1. Check construction specifications during preparation of construction bid packages to all measures listed in MM-GHG-C1 are incorporated. 2. Check to ensure that a report by a certified mechanic of the condition of construction and operations vehicles and equipment is submitted to the	None

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minutes. Clear signage will be installed at all delivery driveways and loading areas regarding the limitation on idling time. • All construction equipment will be maintained and properly tuned in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the County's construction contractors will verify that all vehicles and equipment have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the project site. A report by the certified mechanic of the condition of the construction and operations vehicles and equipment will be submitted to the County prior to their use. • Alternative-fuel (e.g., biodiesel, electric, compressed natural gas) construction vehicles/equipment (comprising at least 15 percent of the fleet) will be used, to the extent feasible. • Renewable diesel fuel will be used for all diesel-powered heavy construction equipment and on-road vehicles to the extent that it is readily available from a local supplier in the Southern California region. • Local building materials (at least 10 percent) and recycled products, including cement and concrete made with recycled products, will be used, to the extent feasible. • A construction waste management plan will be implemented to divert landfilled waste by requiring the recycling of a				County prior to their use. 3. Check prior to construction that a Construction Waste Management Plan requiring the recycling of a minimum of 65 percent of all non-hazardous construction waste has been completed by the construction contractor. 4. Periodically inspect construction sites, as necessary, to confirm the implementation of diesel emission-reduction measures.	

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
minimum of 65 percent of all non-hazardous construction waste.					
MM-GHG-O1: The County will implement the following GHG reduction measures for all new development within the campus: ● The County (or its contractors) will implement the following water conservation measures, which are in addition to those required by codes and ordinances: o Install public bathroom faucet aerators (non-residential & residential over 6 stories) with a flow rate of 0.4 gallons per minute (gpm), o Install cooling tower conductivity controllers or cooling tower pH conductivity controllers, o Install rotating sprinkler nozzles for landscape irrigation 0.5 to 1.0 gpm, o Install drip/subsurface irrigation (i.e., micro-irrigation), o Implement proper hydro-zoning (i.e., groups plants with similar water requirements together), o Install zoned irrigation, o Contour landscaping to minimize precipitation runoff, o Install drought tolerant plants in 50 percent of total new landscaping, o Install water conserving turf in 100 percent of new turf added to landscaping, and o Use recycled water for stationary equipment that requires water cooling, to the extent feasible. ● Install a stormwater retention and	County of Los Angeles, project architect, construction contractor	Design, pre-construction, construction, post construction	County of Los Angeles	1. Check project plans to ensure GHG reduction design measures are incorporated. 2. Check construction periodically to ensure compliance with design plans. 3. Check with medical center management to ensure a recycled water strategy and implementation plan, a food waste diversion program, an onsite recycling program, and other operational measures identified in MM-GHG-01 are developed and implemented.	None

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
filtration system. • Pursue a net zero water building design for new campus buildings, to the extent feasible. • Develop a recycled water strategy and implementation plan that increases the campus's use of alternative water sources, such as rainwater, greywater, stormwater, and recycled water. • Achieve a minimum solid waste diversion rate of 85 percent by 2035 by implementing measures including, but not necessarily limited, to: o Installing a food waste diversion program at the campus, o Installing an onsite recycling program at the campus, • Incentivize the use of recycled materials in new and renovated campus buildings • Prioritize the use of food vendors with certifications for sustainable agricultural practices related to water and energy use, to the extent feasible. • Provide plant-based menu options at new and existing campus food facilities, to the extent feasible. • Pursue zero waste certification requirements for the campus, to the extent feasible. • Install Energy Star-rated appliances. • Install electric-only appliances and HVAC (e.g., no natural gas heating or cooling) systems, to the extent feasible. Where natural gas appliances need to be installed, these appliances will meet high-efficiency standards. • Establish an energy and water use data					

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
collection program to benchmark and report energy and water use at the campus, demonstrating an increase in energy and water efficiency over the lifetime of the project. • Implement travel demand reduction measures (TDM) for employees, including, but not necessarily limited to measures such as: o Providing bicycle parking for at least 5 percent of full-time-equivalent campus employees. o Providing preferential carpool spaces within proposed parking structures on the campus. • Dedicate 5 percent of new parking spaces for clean-air vehicles and equip those spaces with electric vehicle charging equipment. • Purchase new zero-emission passenger vehicles for use by the campus. • Install a high-efficiency lighting system that takes advantage of natural daylighting, augmented by daylighting controls and occupancy sensors that turn off the lights in unoccupied spaces. • Maximize the installation of solar systems on new and renovated buildings to the extent these systems are cost-effective. • Install, in proposed new buildings containing more than 10,000 gsf of space, high-performance glazing with a low solar heat gain coefficient value that reduces the amount of solar heat allowed into the building, without compromising natural illumination. • Install cool roofs with an R value (i.e., the					

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
measurement of the effectiveness of thermal insulating materials) of 30 or better on proposed new buildings, to the extent feasible. • Implement a net zero carbon building design for all new building developments and building renovations at the campus, to the extent feasible. • Develop an urban heat island mitigation strategy and implementation plan to guide all future development of the campus. • Increase urban tree canopy cover to provide shade to a minimum of 40 percent of the length of sidewalks on all campus streets. • Use electric powered landscaping equipment, rather than fossil-fuel powered landscaping equipment, to the extent feasible. • Focus selection on native plants and trees to provide new, water-wise landscaping that blends the campus with the ecology of the surrounding natural environment. • Provide ongoing sustainability education and training for campus employees.					
Hazards and Hazardous Materials					
MM-HAZ-1: Encountering Contaminated Soils. If odiferous, stained, or discolored soil is encountered near the fire station, USTs, or spray booth a professional environmental consultant specializing in the identification and handling of hazardous materials will be retained by the County to assess the site. Identification of possible hazardous materials	County of Los Angeles, professional hazardous materials environmental consultant	Pre-construction, construction	County of Los Angeles, hazardous materials consultant	1. Check to confirm that a hazardous materials consultant has been retained prior to construction in the event contaminated soils are encountered during construction. 2. If contaminated soils are encountered, check, as necessary, to confirm the hazardous materials consultant has	Appropriate oversight agencies

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
would typically involve soil samples and laboratory analysis. The suspect soil will be isolated, covered, and avoided by construction personnel until analytical results are reviewed by qualified personnel. Soils identified as hazardous or contaminated will be handled, transported, and treated in accordance with all federal, state, and local existing hazardous materials regulations (as mentioned under Section 3.7.2, *Regulatory Setting*, of this EIR) and based on the professional environmental consultant's recommendations. Only when the site has been released by the professional environmental consultant and the applicable oversight agencies (such as the Los Angeles County Fire Department's Health Hazardous Materials Division) will construction activities be allowed to continue on the affected site.				assessed the site and contaminated soils are handled, transported, and treated in accordance with the hazardous materials consultant's recommendations. 3. Confirm that the site has been released by the hazardous materials consultant prior to allowing construction to continue.	
MM-HAZ-2: Engineering Controls and Best Management Practices During Construction. To minimize human exposure to potentially contaminated soils during construction, contractors will employ the use of engineering controls and BMPs. Engineering controls and construction BMPs will include, but are not limited to, the following. • Contractor employees working on site handling potentially contaminated media will be certified in the Occupational Health and Safety Administration's 40-hour Hazardous Waste Operations and Emergency Response training. • Contractors will water or mist soil as it is being excavated and stockpiled or loaded onto transportation trucks. • Contractors will place any stockpiled soil	County of Los Angeles, construction contractor	Pre-Construction, construction	County of Los Angeles, construction contractor	1. Check construction specifications during preparation of construction bid packages to ensure inclusion of engineering controls and construction BMPs. 2. Periodically inspect construction sites, as necessary, to ensure the use of engineering controls and construction BMP measures as listed in MM-HAZ-2.	

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
in areas shielded from prevailing winds or cover stockpiles with staked and/or anchored sheeting.					
MM-HAZ-3: Encountering Asbestos-Containing Materials and Lead Based Paint. In order to minimize exposure, prior to demolition activities, a Hazardous Building Materials Survey (HBMS) and evaluations for asbestos-containing materials and lead-based paint will be conducted in buildings that are to be demolished or renovated. Abatement measures will be implemented in accordance with the recommendations of these evaluations. Asbestos surveys will be conducted in accordance with SCAQMD Rule 1403, which specifies that all surveys are to be carried out by a Cal/OSHA-certified asbestos consultant and will follow established survey protocols, notification, and work practice requirements. Lead-based paint surveys will be carried out by California Department of Public Health(CDPH)-certified inspector/assessor. If necessary, a lead abatement plan would be prepared by the CDPH-certified project monitor or supervisor, and demolition activities would be performed by CDPH-certified workers.	County of Los Angeles, Cal/OSHA-certified asbestos consultant, California Department of Public Health(CDPH)-certified inspector/ assessor	Pre-Construction, construction – prior to demolition activities	County of Los Angeles	1. Confirm, prior to building demolition or renovation, that a HBMS for asbestos-containing materials and lead-based paint has been completed. 2. Check that a lead abatement plan, if required, has been prepared. 3. Check to confirm abatement measures have been completed in accordance with survey and plan recommendations.	California Department of Public Health(CDPH)
MM-HAZ-4: Project-Level Hazardous Materials Sites Assessment Prior to Construction Activities. To avoid exposure of construction workers, the public, or the environment to contaminated media, prior to any ground-disturbing activities, contractors will be required to retain a professional environmental consultant specializing in hazardous materials impact assessment to conduct a project-level analysis to determine if there are existing hazardous materials	County of Los Angeles, professional environmental consultant, construction contractor	Pre-construction, construction	County of Los Angeles	1. Check construction specifications during preparation of construction bid packages to ensure the specifications require the construction contractor to retain a professional environmental consultant specialized in hazardous materials impact assessment and that all measures as listed in MM-HAZ-4 have been specified. 2. Check once to confirm that a hazardous materials assessment has been	

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
conditions in the vicinity of the construction site and potential for existing hazardous materials conditions to affect construction. This assessment will consist of a search for environmental-related information present in publicly accessible databases. The information will be reviewed to determine if the construction footprint or adjacent properties are listed in the databases. If the construction footprint or adjacent properties are listed in the databases, the professional environmental consultant will determine the potential risk to construction workers, the public, or the environment from rehabilitation activities and identify all necessary avoidance, abatement, remediation, cleanup, disposal, monitoring, reporting, notifications, and/or other measures to prevent significant impacts. The contractor will implement all measures as directed by the professional environmental consultant.				conducted prior to ground-disturbing activities. 3. Inspect the project site, as necessary, to confirm all necessary measures, as determined by the environmental consultant, to prevent exposure of workers or public to hazardous materials have been implemented.	
Hydrology and Water Quality					
MM-HYD-C1: Where groundwater seepage could occur, permanent monitoring wells will be installed during construction within and around the perimeter of each building to monitor the groundwater level and evaluate the performance of the dewatering system. Before starting dewatering operations, a baseline conditions survey will be made of all adjacent foundations and structures to assess the impact of deep excavation dewatering on adjacent structures. All signs of existing distress will be recorded.	County of Los Angeles, construction contractor	Pre-construction, construction	County of Los Angeles	1. Check construction specifications during preparation of construction bid packages to ensure all measures listed as part of MM-HYD-C1 have been specified. 2. Periodically inspect construction sites, as necessary, to confirm permanent monitoring wells have been installed and that a baseline conditions survey has been performed of all adjacent foundations and structures to assess the impact of deep excavation dewatering on adjacent structures. 3. Check construction, periodically as necessary, to confirm that all signs of existing distress have been recorded.	None

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
MM-HYD-O1: Irrigation water demands above existing irrigation demands will be met by alternative supply sources to the maximum extent technically and financially feasible. The use of alternative water supply sources for irrigation will be maximized to reduce the use of potable water for irrigation and approximate existing irrigation demands. Alternative water supply sources include, but are not limited to, gray water and harvested rainwater (stormwater).	County of Los Angeles, project architect and engineer	Design, construction	County of Los Angeles	1. Check final design specifications during preparation of final design bid packages to ensure all measures listed as part of MM-HYD-1 have been specified to be implemented, as practicable. 2. Check project plans to confirm alternative water sources have been identified. 3. Check construction to confirm compliance with plans.	None
MM-HYD-O2: An O&M Plan will be developed for LID features at the site during the design of the initial development projects and expanded as development progresses and different LID features are added. The plan will consider impacts on water quality and address issues related to Integrated Pest Management (IPM) or organic maintenance practices, including those for hand weeding.	County of Los Angeles	Design, operation	County of Los Angeles	1. Check once to confirm that an O&M plan is developed during project design. 2. Check to confirm the measures in the O&M plan, including those identified in MM-HYD-03, are implemented once projects are operational.	None
MM-HYD-O3: For any proposed LID features located within an area of potential liquefaction, structural design modifications should be included to mitigate the potential impacts of liquefaction on the performance and operation of the LID features and to maintain the water quality performance as originally design. The O&M Plan should include provision for inspection, repair, maintenance, and/or reconstruction after liquefaction events for any LID features located within an area of potential liquefaction.	County of Los Angeles, project architect and engineer, construction contractor	Pre-construction, construction	County of Los Angeles	1. Check project plans to ensure appropriate design modifications are included to mitigate any potential liquefaction impacts on LID features. 2. Check construction specifications during preparation of construction bid packages to ensure all measures as listed in MM-HYD-3 have been specified and structural design modifications are included. 3. Check construction site, periodically as necessary, to ensure compliance with plans.	None
Noise					
MM-NOI-C1: **Reduce Construction Noise to the Extent Possible.** The County will implement the following noise reduction	County of Los Angeles, construction	Pre-construction and	County of Los Angeles	1. Check construction specifications during preparation of construction bid packages to ensure all measures listed	None

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
measures during construction: • Construction activities will be limited to between the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday or 8 a.m. to 6 p.m. on Saturdays, and will not occur at any time on Sundays or legal holidays. Construction personnel will not be permitted on the job site, and material or equipment deliveries and collections will not be permitted outside of these hours. • To the fullest extent practicable, the quietest available type of construction equipment will be used. Newer equipment is generally quieter than older equipment. The use of electric powered equipment typically is quieter than diesel or gasoline powered equipment, and hydraulic powered equipment typically isquieter than pneumatic power. • Where possible, impact pile driving will be replaced with other piling techniques, such as vibratory pile driving, or vibration–and percussive-free methods (examples include hydraulic press-in piles or cast-in-drilled-hole piles). • All mobile and fixed noise-producing equipment used on the proposed project that is regulated for noise output by a local, state, or federal agency will comply with such regulation while in the course of project activity. • All construction equipment will be properly maintained. Poor maintenance of equipment can cause excessive noise levels. • All construction equipment, stationary and mobile, will be equipped with properly operating and maintained	contractor	Construction		as part of MM-NOI-C1 have been specified. 2. Periodically inspect construction sites, as necessary, to confirm compliance with construction hours, equipment maintenance, and noise-producing construction activity mitigation measures.	

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination

mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specification. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) will be equipped with shrouds and noise control features that are readily available for that type of equipment.
• All noisy equipment will be operated only when necessary, and will be switched off when not in use.
• The use of noise-producing signals, including horns, whistles, alarms, and bells, will be for safety warning purposes only. To the extent practicable, temporary barriers will be employed around the project site and/or around noisy construction equipment. For barriers to be effective they will break the line-of site between the equipment and any noise-sensitive receiver. These barriers may be constructed as follows:
  • From commercially-available acoustical panels lined with sound absorbing material (the sound absorptive faces of the panels will face the construction equipment).
  • From common construction materials such as plywood and lined with sound absorptive material (the sound absorptive material will face the construction equipment).
  • From acoustical blankets hung over or from a supporting frame. The blankets will provide a minimum sound transmission class (STC) rating of 28					

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
and a minimum noise reduction coefficient (NRC) of 0.80 and will be firmly secured to the framework with the sound absorptive side of the blankets oriented toward the construction equipment. The blankets will be overlapped by at least 6" at seams and taped so that no gaps exist. The largest blankets available will be used in order to minimize the number of seams. The blankets will be draped to the ground to eliminate any gaps at the base of the barrier. • Construction contractors will ensure that construction employees are trained in the proper operation and use of the equipment. • Storage, staging, parking, and maintenance areas will be located away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies will be positioned in a manner that will function as a noise barrier to the closest sensitive receivers. • Stationary noise sources such as generators and compressors will be positioned as far away as possible from noise-sensitive areas. • Construction equipment will be stored on the project site while in use. This will eliminate noise associated with repeated transportation of the equipment to and from the site. • To the extent possible haul roads should not be designated through noise-sensitive areas.					
MM-NOI-C2: Reduce Construction-	County of	Pre-	County of Los	1. Check construction specifications	None

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
Generated Groundborne Vibration to the Extent Possible. The County will implement the following vibration reduction measures during construction: • Where possible, impact pile driving will be replaced with other piling techniques, such as vibratory pile driving or, preferably, vibration–and percussive-free methods (examples include hydraulic press-in piles or cast-in-drilled-hole piles). • To the extent possible, heavy construction equipment will not be operated within 140 feet of onsite or offsite sensitive receptors.	Los Angeles, construction contractor	construction and construction	Angeles	during preparation of construction bid packages to confirm limits on pile driving and operation of heavy construction equipment near sensitive receptors, as described in this mitigation measure, have been specified. 2. Periodically inspect construction sites, as necessary, to confirm compliance with measures limiting the use of pile driving and operation of heavy construction equipment within 140 feet of on-site or off-site sensitive receptors, to the extent practicable.	
MM-NOI-O1: Design Project Facilities to Ensure All Mechanical Equipment Complies with Chapter XI of the city of Los Angeles Municipal Code. During the architectural and engineering design phase of each new facility (building, central plant, etc.) that would introduce new mechanical equipment to the project site, and prior to the issuance of any building permits for the facility, the County will retain an acoustical consultant to evaluate the design and provide recommendations, as necessary, to ensure that the mechanical equipment complies with Chapter XI of the city of Los Angeles Municipal Code. Such recommendations may include, but are not limited to: changes in equipment locations, upgrades to central plant buildings, rooftop parapet walls, acoustical louvers or screens, or intake and exhaust silencers.	County of Los Angeles, acoustical consultant	Design, construction	County of Los Angeles, acoustical consultant	1. Confirm that an acoustical consultant has been retained. 2. Confirm that the acoustical consultant has reviewed equipment specifications for new sound producing mechanical equipment at proposed new facilities for compliance with Chapter XI of the City of Los Angeles Municipal Code. 3. Check plans and construction, as necessary, to ensure mechanical equipment that complies with Chapter XI of the City of Los Angeles Municipal Code has been installed.	None
Public Services					
MM-PS-1: The Los Angeles County project manager and construction contractor will regularly notify and coordinate with the	County of Los Angeles, construction	Pre-construction,	County of Los Angeles	1. Check construction specifications during preparation of construction bid packages to confirm notification and	City of Los Angeles Fire Department,

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
LAFD, LASD and LAPD on project construction design, activities, and scheduling, including any on and off campus street or lane closures related to the proposed developments before construction begins.	contractor	construction		coordination requirements with public safety providers, as described in this mitigation measure, have been specified. 2. Check periodically during construction, to ensure coordination and proper notification is given to emergency services providers.	City of Los Angeles Police Department, Los Angeles County Sheriff's Department
MM-PS-2: The Los Angeles County project manager and construction contractor will continue to coordinate with LASD on project design and development under the Master Plan, to ensure LASD is able to plan and staff adequate resources to continue to serve the campus for police protection services.	County of Los Angeles, construction contractor	Design, construction	County of Los Angeles	1. Check periodically, as necessary, to confirm coordination and consultation occurs with LASD during project design. 2. Check to ensure construction bid documents include language detailing the necessity to include coordination with LASD during design and development stages of the project. 3. Check periodically, as necessary, to confirm coordination and consultation occurs with LASD during project construction.	Los Angeles County Sheriff's Department
Transportation/Traffic					
MM-TRAF-1: The County will develop and implement traffic control measures for Master Plan projects that would result in lane or sidewalk closures, removal of parking, or similar traffic disruptions. Temporary traffic control during construction will meet the requirements of the *California Manual on Traffic Control Devices* (CA-MUTCD). Daytime closures will be covered by the applications shown in Chapter 6 of the manual. Overnight closures, long-term closures, and detours will require a Traffic Control Plan, which will be prepared as part of the project design package according to CA-MUTCD requirements. The Traffic Control Plan may include, but is not limited to, the elements listed below. Note	County of Los Angeles, construction contractor	Pre-construction, construction	County of Los Angeles	1. Check construction specifications during preparation of construction bid packages to ensure all measures listed as part of MM-TRAF-1 are specified. 2. Check to confirm a Traffic Control Plan has been developed if overnight or long-term closures or detours are required. 3. Periodically inspect construction sites, as necessary, to confirm project traffic control measures have been implemented, as practicable.	Los Angeles Department of Transportation, City of Los Angeles Fire Department, City of Los Angeles Police Department, Los Angeles County Sheriff's Department

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
that some of these elements may not be feasible or appropriate in all circumstances. The project-level environmental analysis will identify the appropriate measures for each project as applicable. • Provide a roadway layout that shows the locations of construction activity and surrounding roadways to be used as detour routes, including special signage. • Establish detour routes in coordination with the city of Los Angeles to minimize disturbances to local traffic conditions; review potential detour routes to make sure adequate capacity is available. • Avoid creating additional delay at intersections that are currently operating under congested conditions either by choosing routes that avoid these locations or constructing during non-peak times of day. • Maintain access to existing residences at all times. • Work with LASD, LAFD, and LAPD to coordinate all construction-related plans and minimize disturbances to local EMS providers; ensure that alternative evacuation and emergency routes are designed to maintain response times during construction. • Provide adequate off-street parking areas at designated staging areas for construction-related vehicles. • Work with local and regional transit providers to maintain access and circulation routes to existing stops and stations during construction phases and identify appropriate detours to provide traffic rerouting during construction					

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
while minimizing disturbance to bus services. • Work with the city of Los Angeles to maintain continuity and operation of existing pedestrian and bicycle facilities during construction.					
Utilities and Service Systems					
MM-UTL-1: Prior to issuance of a building permit for any future development project under the Master Plan that could result in an increase in wastewater generation, the County will coordinate with the city of Los Angeles Bureau of Sanitation to conduct further detailed gauging and evaluation to identify a specific sewer connection point with sufficient capacity. If the public sewer has insufficient capacity, then the County will be required to build a sewer line to a point in the sewer system with sufficient capacity.	County of Los Angeles	Prior to issuance of building permits	County of Los Angeles	1. Check once prior to issuance of any building permits to confirm that the Los Angeles Bureau of Sanitation has conducted further detailed gauging and evaluation and has identified a sewer connection point with sufficient wastewater capacity for proposed development under the campus Master Plan. 2. Check once prior to issuance of building permits to confirm, that in the event that the public sewer has insufficient capacity, a sewer line is built to a point in the sewer system with sufficient capacity.	City of Los Angeles Bureau of Sanitation
MM-UTL-2: In conjunction with preparation of a subsequent CEQA environmental document for any future individual development project under the Master Plan that is proposed in the year 2040 or beyond that is defined as a "water-demand project" in Section 15155 of the CEQA Guidelines, the County will request, pursuant to Section 15155, that the water provider determine whether the projected water demand associated with the project was included in the most recently adopted urban water management plan. If required pursuant to Section 15155 and SB 610, the County will request that LADWP prepare a water assessment for the proposed project. The	County of Los Angeles	Environmental project approval and pre-construction	County of Los Angeles	1. Check to confirm that a water supply assessment has been prepared, if required, prior to proceeding with individual development projects that are proposed in year 2040 and beyond. 2. Check construction specifications during preparation of construction bid packages to confirm any required water conservation design measures, as identified in the water supply assessment, are specified. 3. Check project plans to ensure water conservation measures identified in the water supply assessment and construction specifications have been	Los Angeles Department of Water and Power

Mitigation Measure	Party Responsible for Implementation	Phase	Party Responsible for Monitoring	Monitoring Activity/Period/Frequency	Outside Agency Coordination
County will determine, pursuant to Section 15155, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.				incorporated. 4. Periodically inspect construction sites to confirm water conservation measures are being constructed in accordance with plans.	

Appendix A

NOP/Comments

Appendix A1

NOP

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

NOTICE OF PREPARATION
OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN ENVIRONMENTAL IMPACT REPORT

To: State Clearinghouse, Responsible and Trustee Agencies, and Interested Individuals

Subject: Notice of Preparation of an Environmental Impact Report, Olive View-UCLA Medical Center Campus Master Plan

Project Title: Olive View-UCLA Medical Center Campus Master Plan

Lead Agency: County of Los Angeles

The County of Los Angeles, as the lead agency, has prepared an Initial Study and will be preparing an Environmental Impact Report for the proposed project described below. The County of Los Angeles Department of Public Works (DPW), on behalf of the County, is soliciting input from members of the public, organizations, and government agencies on the scope and content of the information to be included and analyzed in the Environmental Impact Report. Agencies should comment on the elements of the environmental information that are relevant to their statutory responsibilities in connection with the proposed project.

The project description, location, and potential environmental effects of the proposed project are described in this Notice of Preparation and attached Initial Study. This notice and attached Initial Study meet the requirements set forth in the California Environmental Quality Act (CEQA).

Scoping comments on the Environmental Impact Report should be sent to DPW in writing, no later than **Monday, May 2, 2016**. Please send all written comments, including e-mailed comments, to Clarice Nash at the address below. Comments should include the name of a contact person.

Copies of the Notice of Preparation/Initial Study are available for public review at the following Public Library and County office locations:

Olive View-UCLA Medical Center Health Science Library 14445 Olive View Dr Sylmar, CA 91342 (818) 364-4240	Sylmar Branch Library 14561 Polk Street Sylmar, CA 91342 (818) 367-6102
County of Los Angeles Department of Public Works Project Management Division I 900 S. Fremont Ave. Alhambra, CA 91803-1331	San Fernando Library 217 N. Maclay Ave. San Fernando, CA 91340 (818) 365-6928

The Notice of Preparation/Initial Study is also available for public review at the following website: http://dpw.lacounty.gov/pmd/CampusMasterPlans/.

Interested parties may submit their comments to:

Clarice Nash, Project Manager
County of Los Angeles Department of Public Works
Project Management Division I
900 S. Fremont Ave.
Alhambra, CA 91803-1331
E-mail: cnash@dpw.lacounty.gov

Questions regarding this notice should be directed to Clarice Nash at (626) 300-2363 or at the e-mail shown above, Monday through Thursday, between 7:30 a.m. and 6:00 p.m.

A public scoping meeting will be held on Thursday, April 14th, 2016 from 4:30 p.m. to 7:30 p.m., at the location identified below, to solicit input from interested parties on the scope and content of the Environmental Impact Report in conformance with Section 21083.9 of the Public Resources Code.

Location: Olive View-UCLA Medical Center
14445 Olive View Dr
Sylmar, CA 91342

Project Location:

The Olive View-UCLA Medical Center campus is located at 14445 Olive View Drive on several parcels of land owned by the County of Los Angeles in the Sylmar community of the City of Los Angeles, California. Specifically, the site is generally bounded by the Angeles National Forest on the north, Olive View Drive on the south, Wilson Canyon Park on the east, and Bucher Avenue to the west. Kennedy Road and Cobalt Street intersect the project site. The site is located east of the I-5 freeway and north of the I-210 freeway.

Project Description:

An Environmental Impact Report (EIR) will be prepared for the proposed Olive View-UCLA Medical Center Campus Master Plan Project (proposed project). The Master Plan will guide future development of the campus and the delivery of health care services and health related community programs. For the purposes of the EIR, two tiers of development will be analyzed. Tier I entails near-term projects constructed before 2035, including an Ambulatory Care Center, research and development buildings, a Community Center, improvements to the existing hospital, appurtenant parking facilities, and other medical center campus improvements that would be located predominantly in the eastern third of the current campus. Tier II development would occur beyond 2035, and would include the construction of a new inpatient hospital, support services building, mental health outpatient care facility, long-term care and recuperative housing, retail space, County department buildings, and the reuse and renovation of the existing inpatient hospital for other purposes. Full build-out of the Master Plan could result in a total of approximately 1,382,000 square feet of development throughout the campus.

Potential Environmental Effects:

The Initial Study contains a preliminary analysis of the environmental impacts of the proposed project in accordance with the CEQA Guidelines that identify 16 areas where impacts could occur. These impacts, which will be analyzed in detail in the Environmental Impact Report, include: aesthetics, air quality, biological resources, greenhouse gas emissions, cultural resources, hazards and hazardous materials, hydrology and water quality, geology and soils, recreation, population and housing, public services, utilities and service systems, land use and planning, noise, transportation and traffic, and impacts under mandatory findings of significance.

Si desea obtener más información o necesita que la notificación sea traducido a otro idioma, por favor llame al (626) 300-2363.

Upon 72 hours' notice, Public Works can provide program information and publications in alternate formats or make other accommodations for people with disabilities. In addition, program documents are available at our main office in Alhambra (900 S. Fremont Ave.), which is accessible to individuals with disabilities. To request accommodations ONLY or for more Americans with Disabilities Act information, please contact our departmental Americans with Disabilities Act Coordinator at (626) 458-4081 or by TDD (626) 282-7829, Monday through Thursday, from 7:00 a.m. to 5:30 p.m.

Appendix A2

IS

INITIAL STUDY – CHECKLIST

FOR THE PROPOSED

OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN PROJECT

SYLMAR, CALIFORNIA

Prepared at the Direction of

County of Los Angeles
By the Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803

Lead Agency Pursuant to the California Environmental Quality Act

Prepared by

ICF INTERNATIONAL

March 2016

Environmental Checklist

1. **Project Title:** Olive View-UCLA Medical Center Campus Master Plan Project

2. **Lead Agency Name and Address:** County of Los Angeles
by the Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803

3. **Contact Person and Phone Number:** Clarice Nash
(626) 300-2363

4. **Project Location:**
The Olive View-UCLA Medical Center campus is located at 14445 Olive View Drive on several parcels of land owned by the County of Los Angeles in the Sylmar community of the City of Los Angeles, California. Specifically, the site is generally bounded by the Angeles National Forest on the north, Olive View Drive on the south, Wilson Canyon Park on the east, and Bucher Avenue to the west. Kennedy Road and Cobalt Street intersect the project site. The site is located east of Interstate 5 and north of Interstate 210. See Figures 1 and 2 for the project location.

5. **Project Sponsor's Name and Address:** County of Los Angeles
by the Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803

6. **General Plan Designation:**
Public Facilities (P)

7. **Zoning:**
Public Facilities (PF)

8. **Description of Project:**
An Environmental Impact Report (EIR) will be prepared for the proposed Olive View-UCLA Medical Center Campus Master Plan Project (proposed project). The Master Plan will guide future development of the campus and the delivery of health care services and health related community programs. For the purposes of the EIR, two tiers of development will be analyzed. Tier I entails near-term projects constructed before 2035, including an Ambulatory Care Center, research and development buildings, a Community Center, improvements to the existing hospital, appurtenant parking facilities, and other medical center campus improvements that would be located predominantly in the eastern third of the current campus. Tier II development would occur beyond 2035, and would include the construction of a new inpatient hospital, support services building, mental health outpatient care facility, long-term care and recuperative housing, retail space, County department buildings, and the reuse and renovation of the existing inpatient hospital for other purposes. Full build-out of the Master Plan could result in a total of approximately 1,382,000 square feet of development throughout the campus.

Environmental Factors Potentially Affected

The environmental factors checked below could be affected by this project (i.e., the project would involve at least one impact that is a "potentially significant impact"), as indicated by the checklist on the following pages.

☒ Aesthetics	☒ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials	☒ Hydrology/Water Quality
☒ Land Use/Planning	☐ Mineral Resources	☒ Noise
☒ Population/Housing	☒ Public Services	☒ Recreation
☒ Transportation/Traffic	☒ Utilities/Service Systems	☒ Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required.

Signature	Date: 3/25/2016
Printed Name: Lee Lisecki, Consultant – ICF International	For: County of Los Angeles

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational, impacts.
3. Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an environmental impact report (EIR) is required.
4. "Negative Declaration: Less than Significant with Mitigation Incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "Potentially Significant Impact" to a "Less-than-Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. (Mitigation measures from the "Earlier Analyses" section may be cross-referenced.)
5. Earlier analyses may be used if, pursuant to tiering, program EIR, or other California Environmental Quality Act (CEQA) processes, an effect has been adequately analyzed in an earlier EIR or negative declaration [Section 15063(c)(3)(D)]. In this case, a brief discussion should identify the following:
   a. *Earlier Analysis Used*. Identify and state where earlier analyses are available for review.
   b. *Impacts Adequately Addressed*. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c. *Mitigation Measures*. For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.
7. *Supporting Information Sources*: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
   a. The significance criteria or threshold, if any, used to evaluate each question; and
   b. The mitigation measure identified, if any, to reduce the impact to a less-than-significant level.

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
I.	**AESTHETICS –** Would the project:				
a)	Have a substantial adverse effect on a scenic vista? The project site is located at the base of the foothills of the San Gabriel Mountains and is visible from the surrounding area. The proposed project would involve the construction of new medical center buildings and facilities and related campus improvements including new landscaping, pedestrian pathways, and open space. New buildings and structures would require the demolition of a number of existing buildings on the campus to accommodate future development. The proposed project would also include wellness trails to increase access to gardens, riparian areas, and the surrounding mountains and canyons. The proposed project is not expected to have a significant adverse effect on scenic vistas including any existing scenic views of the San Gabriel Mountains from off-campus locations in the surrounding community. Nonetheless, this issue will be analyzed further in the Environmental Impact Report (EIR).	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway? The proposed project is not located within the vicinity of a designated State Scenic Highway (California Scenic Highways Mapping System). The proposed project, however, would include the demolition of a number of buildings on the campus, some of which may be considered historical and/or visual resources, and the removal of some existing trees and landscaping. This issue will be analyzed further in the EIR.	☒	☐	☐	☐
c)	Substantially degrade the existing visual character or quality of the site and its surroundings? The proposed project would include the implementation of a master plan that would guide future development of the campus and the delivery of health care services and health related community programs. The proposed project would include demolition of existing and construction of new buildings, potential renovation and reuse of existing buildings, and the development of public outdoor areas. Campus improvements would include new landscaping, signage, and pedestrian pathways and open space, which could improve the aesthetic appearance of the campus. Therefore, it's not expected that implementation of the proposed master plan would substantially degrade the existing visual quality of the site and surroundings. However, since implementation of the master plan would result in temporary as well as long-term changes to the visual appearance of the campus and may include the demolition of buildings or structures or removal of trees and landscaping that are considered significant visual resources, this issue will be analyzed further in the EIR.	☒	☐	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	Mitigation: Should the Draft EIR identify significant impacts to aesthetics, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
II.	**AGRICULTURE AND FOREST RESOURCES –** In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project, and the forest carbon measures methodology provided in the Forest Protocols adopted by the California Air Resources Board. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use? The project site is largely developed with existing medical center facilities and is located in a developed portion of the Sylmar community in the City of Los Angeles. The project site is not located on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, the proposed project would not convert such farmland to nonagricultural use. No further analysis is warranted.	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use or a Williamson Act contract? The site is not under Williamson Act contract (California Department of Conservation, 2008), nor is it zoned, designated, or used for agricultural purposes. The project site is an existing medical center that includes a hospital and other medical related buildings, surface parking lots, as well as some open space areas. There is no nearby agricultural land. The proposed project would, therefore, have no potential to conflict with agricultural zoning, or lead to other changes in the existing environment that could lead to farmland conversion. No further analysis is warranted.	☐	☐	☐	☒
c)	Conflict with existing zoning for or cause rezoning of forestland (as defined by Public Resources Code Section 12220 (g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by U.S. Government Code Section 51104(g))?	☐	☐	☐	☒

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	The project site is not zoned as forestland, timberland, or timberland zoned Timberland Production. The project site does not contain forestland or timberland. Therefore, the proposed project would not conflict with existing zoning for or cause rezoning of forest or timberland. No impact is anticipated, and thus no further analysis is warranted.				
d)	Result in the loss of forestland or conversion of forestland to non-forest use? The project site is bordered by the Angeles National Forest to the north. However, the project would not include development on current forestland. Therefore, the project would not result in the loss or conversion of forestland. No impact is anticipated, and thus no further analysis is warranted.	☐	☐	☐	☒
e)	Involve other changes in the existing environment that, because of their location or nature, could result in the conversion of farmland to nonagricultural use or the conversion of forestland to non-forest use? The project site is largely developed with existing medical center facilities and is located in a developed portion of the Sylmar community in the City of Los Angeles. The proposed project would not convert farmland or forestland to nonagricultural or non-forest use, respectively. No impact is anticipated, and thus no further analysis is warranted.	☐	☐	☐	☒
III.	**AIR QUALITY –** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a)	Conflict with or obstruct implementation of the applicable air quality plan? The project site is within the South Coast Air Basin (Basin), in which air quality is managed by the South Coast Air Quality Management District (SCAQMD). Potential emissions associated with construction and operation of the project will be evaluated in the EIR for compliance with all applicable air quality plans.	☐	☐	☒	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation? The proposed project would involve construction and redevelopment of the Olive View-UCLA Medical Center campus. The potential exists for construction and net operational emissions to exceed the SCAQMD's thresholds of significance. Therefore, the project could violate an air quality standard or contribute substantially to an existing or projected air quality violation. This issue will be analyzed further in the EIR.	☒	☐	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
c)	Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status under an applicable federal or state ambient air quality standard (this includes the release emissions the exceed quantitative thresholds for zone precursors)? Los Angeles County is currently designated a nonattainment area for the federal 8-hour ozone and fine particulate matter (PM2.5) standards and a nonattainment area for the state 8-hour ozone, PM2.5, and coarse particulate matter (PM10) standards. Net operational emissions may contribute to a cumulatively considerable net increase of these pollutants. This issue will be analyzed further in the EIR.	☒	☐	☐	☐
d)	Expose sensitive receptors to substantial pollutant concentrations? Sensitive receptors are located within the site (patients) and in the surrounding area (residences south of Olive View Drive and further to the east and west of the campus). The potential exists for exposure of these sensitive receptors to pollutant concentrations during construction and operation of the project. This issue will be analyzed further in the EIR.	☒	☐	☐	☐
e)	Create objectionable odors that would affect a substantial number of people? Odor emissions could be produced during project construction, although these emissions would be temporary and would cease once construction is complete. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
	Mitigation: Should the Draft EIR identify significant impacts to air quality, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
IV.	**BIOLOGICAL RESOURCES –** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service? Due to the medical center campus' proximity to open space and recreational areas, as well as its location at the foothills of the San Gabriel Mountains on the edge of the Angeles National Forest, development of new campus facilities or infrastructure has the potential to affect on- and off-site biological resources. Special-status plant and wildlife species that may occur within the project vicinity, include the California gnatcatcher and least Bell's vireo. Additionally, proposed development under the master plan may disturb or remove some mature trees located on the site. These trees may include oak trees protected by the Los Angeles	☐	☒	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	County's Oak Tree Ordinance. The trees also have the potential to serve as habitat for nesting birds. This issue will be analyzed further in the EIR.				
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service? Given the medical center campus' proximity to open space, canyon drainages, and recreational areas within the adjacent national forest, there is a potential for impacts to riparian or other sensitive natural communities. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
c)	Have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including marshes, vernal pools, coastal areas, etc.), through direct removal, filling, hydrological interruption, or other means? Given the campus' proximity to canyon drainages, there is the possibility that federally protected wetlands could be located in the immediate vicinity of and adversely affected by proposed campus development. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites? Due to the medical center campus' proximity to open space, including the San Gabriel Mountains and Angeles National Forest, development of new campus facilities or infrastructure has the potential to affect on-and off-site biological resources. Proposed development under the master plan may disturb or remove some mature trees located on the site that may have the potential to serve as habitat for nesting birds. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
e)	Conflict with any local policies or ordinances to protect biological resources, such as a tree preservation policy or ordinance? The proposed project would include the demolition of campus buildings and the construction of new buildings at the project site. As a consequence, tree removal is likely to occur due to proposed development under the master plan. However, any tree removal would follow applicable local policies and ordinances aimed at tree preservation, including Los Angeles County's Oak Tree Ordinance. This issue will be analyzed further in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
f)	Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan? The project site is developed with the current Olive View-UCLA Medical Center campus. The project site is not located within an area covered under a habitat conservation plan or natural community conservation plan, and no impacts are anticipated. Therefore, further analysis is not warranted.	☐	☐	☐	☒
	Mitigation: Should the Draft EIR identify significant impacts to biological resources, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
V.	**CULTURAL RESOURCES –** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the State CEQA Guidelines? The project site contains buildings older than 50 years that have not been evaluated for historical significance. These buildings would need to be evaluated to determine historical significance prior to any proposed demolition and construction proposed under the proposed project. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines? Given that the project site is largely developed with existing medical center facilities and structures, there is a low probability of unearthing archeological resources during project construction. Nonetheless, since it's still possible for archaeological resources to be encountered, especially in areas that haven't been disturbed by prior construction, this issue will be analyzed further in the EIR.	☐	☒	☐	☐
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? Given the extent of previous ground disturbances due to development of the medical center campus, there is a low probability of unearthing significant paleontological resources during project construction. Nonetheless, the potential for unearthing paleontological resources still exists, especially in areas that haven't been disturbed by prior construction. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☒

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
The project site is not located in an area that contains formal or known informal cemeteries. No impacts are anticipated, however, the issue will be further analyzed in the EIR.				
Mitigation: Should the Draft EIR identify significant impacts to cultural resources, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
VI. <u>GEOLOGY AND SOILS</u> – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☒	☐	☐
The project site is located within a State of California Earthquake Fault Zone (formerly Alquist-Priolo Special Studies Zone), and there is a possibility for seismic surface rupture to occur at the site. The project site was previously subjected to substantial ground shaking, surface rupture and earthquake-related damages resulting from the 1971 San Fernando Earthquake (also known as the Sylmar Earthquake). The M 6.5 earthquake included roughly 12 miles of surface rupture in the site vicinity. Damage to the site included the collapse of stair towers adjacent to buildings, the partial collapse of medical buildings, and the collapse of parking structures. Some structures damaged in the earthquake were later demolished. Geologic evaluations for detailed design of the project would include fault investigations and review by the California Geological Survey. In addition, the proposed project would be required to comply with applicable provisions of the most recently adopted version of the California Building Code (CBC) and County building regulations. The impacts related to surface rupture are potentially significant, but can be reduced with methods such as detailed fault trenching investigations, development of structural setback zones and structural design. Where, feasible, mitigation will be incorporated. This issue will be analyzed further in the EIR.				
ii) Strong seismic ground shaking?	☐	☒	☐	☐
The project site is mapped as being underlain by the active Santa Susana fault and is located in a seismically active region of Southern California. Accordingly, the site is susceptible to strong seismic ground shaking conditions, which are a common hazard in most of Southern California. Future large earthquakes along active faults in the Southern California				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	region could cause sustained ground shaking in the vicinity of the proposed project. The proposed project would involve the construction and operation of medical, office, and community facilities. Newly constructed facilities would comply with applicable provisions of the most recently adopted version of the CBC and County building regulations. Therefore, a substantial risk to life or property from strong seismic ground shaking would not occur. Nonetheless, this issue will be further analyzed in the EIR.				
	iii) Seismically related ground failure, including liquefaction?	☐	☒	☐	☐
	Liquefaction is a condition that occurs when unconsolidated, saturated soils change to a near-liquid state during ground shaking. The northeastern portion of the project site is located within a potential liquefaction zone as identified on the State of California Seismic Hazards Zone Map, San Fernando Quadrangle (California Department of Conservation, March 1999). This issue will be analyzed further in the EIR.				
	iv) Landslides?	☐	☒	☐	☐
	Landslides typically occur on steep slopes and can be exacerbated where slopes have been subjected to fire and/or lack vegetation. The northern portion of the project site contains steep, natural slopes that have been subjected to fires. In addition, portions of the slopes on the northern part of the site have been designated as a zone of required investigation for earthquake–induced landslides on the State Seismic Hazard Zones Map (California Department of Conservation, Division of Mines and Geology 1999). Therefore, there is a potential for landslides to affect or be affected by the project, which will be analyzed further in the EIR.				
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
	Construction of the proposed project could result in ground surface disruption, including disruptions from grading and excavation activities. Such activities could result in erosion at the project site during construction. Additionally, portions of the campus are currently undeveloped and subject to potential water- and wind-related soil erosion. Soil erosion and soil runoff from natural drainages and non-vegetated areas on the adjacent slopes has the potential to affect the site. However, construction projects that result in ground disturbance of 1 acre or more must apply for a Stormwater General Permit under the National Pollutant Discharge Elimination System (NPDES). All construction would follow best management practices (BMPs) to prevent erosion that might move off-site, as required under the Stormwater Pollution Prevention Plan (SWPPP) for compliance with State Water Resources Control Board NPDES Construction General Permit 2009-0009. In accordance with				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	existing regulations, the SWPPP would be prepared to identify BMPs that would be implemented to prevent construction area runoff and sediment from entering the storm drain system. The SWPPP would be implemented during construction. This issue will be analyzed further in the EIR.				
c)	Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse? An area in the northeast portion of the project site is located within a potential liquefaction zone as identified on the State of California Seismic Hazards Zone Map, San Fernando Quadrangle (California Department of Conservation, March 1999). Other areas of the site not indicated on the state map could also be subject to liquefaction. Liquefaction and its associated manifestations could cause damage to future project improvements if not mitigated during detailed project design, and could have potential impacts on the project. Newly constructed facilities would comply with applicable provisions of the most recently adopted version of the CBC and County building regulations. Therefore, a substantial risk to life or property from strong seismic ground shaking would not occur. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? Expansive soils contain minerals that absorb water when wet. This causes the soil to expand. Based on geologic maps, the soil units underlying the project site are composed of coarse-grained bedrock and fine to coarse-grained surficial alluvial soils. Such materials may have the potential to include expansive soils. Geotechnical investigations during the detailed design stage of the project will evaluate the potential for expansive soils, and recommendations would be developed to mitigate the impacts of expansive soils to less than significant levels. This issue will be further analyzed in the EIR.	☐	☒	☐	☐
e)	Have soils that are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? The project would not propose the use of septic tanks or alternative wastewater disposal systems; therefore, further analysis is not warranted.	☐	☐	☐	☒
	Mitigation: Should the Draft EIR identify significant impacts to geology and soils, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
VII.	**GREENHOUSE GAS EMISSIONS –** Would the project:				
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? The proposed project would generate greenhouse gas (GHG) emissions during development. Development of the project would result in a long-term net source of GHG emissions, which may exceed thresholds of significance recommended and adopted by expert agencies. Accordingly, direct and indirect emissions may have a cumulatively considerable GHG impact. This issue will be analyzed further in the EIR.	☒	☐	☐	☐
b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases? The State adopted Assembly Bill 32 (AB 32) in 2006, which identifies a statewide GHG reduction goal of achieving 1990 emissions levels by 2020. The County has also enacted a variety of policies and plans to reduce GHG emissions, including *Los Angeles County Community Climate Action Plan.* Based on the sustainability strategies that would be incorporated into the project design, near-term (2020) emissions are not likely to impede implementation of County or State GHG reduction plans. GHG reduction goals for 2030 and 2050 have been articulated in executive orders, and there are proposals before the State legislature to adopt such goals. However, long-term GHG reduction plans have not yet been developed by the State or County, and recent legal challenges brought under CEQA have successfully raised consistency with the executive order goals as an issue for CEQA review. AB 32 and the *Los Angeles County Community Climate Action Plan* currently only include strategies to reach 2020 targets. While the State is currently updating the AB 32 Scoping Plan, without statewide policies and a framework in place to share the burden of GHG reduction, the project may result in long-term GHG emissions that conflict with the trajectory of statewide plans, policies, or regulations. This issue will be analyzed further in the EIR.	☒	☐	☐	☐
	Mitigation: Should the Draft EIR identify significant impacts to greenhouse gas emissions, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
VIII.	**HAZARDS AND HAZARDOUS MATERIALS –** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	The proposed project would involve the demolition of structures as well as the construction of new structures on the campus. Given the prevalence of asbestos as a prevalent building material and lead paint in the past, it is reasonable to assume that asbestos-containing materials (ACMs) and lead-based paint (LBP) would be encountered during demolition activities. All demolition activities would be performed in a manner consistent with Occupational Safety and Health Administration standards, AQMD Rule 1403, and National Emission Standards for Hazardous Air Pollutants. Further analysis will determine risks related to hazardous materials on or near the project site. If any contaminated soil is encountered, it would be removed and disposed of in accordance with all applicable regulations governing hazardous waste. During project operation, medical wastes, standard janitorial, and paint chemicals, as well as minor amounts of pesticides and/or herbicides for landscaped areas would be used. These chemicals would be secured and safely stored and disposed of, and are not anticipated to pose risks to the public or the environment. With the exception of these chemicals, no other chemicals would be routinely used, transported, or disposed of during project operation. This issue will be analyzed further in the EIR.				
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? Given the prevalence of asbestos as a building material and lead-based paint in the past, it is likely that ACMs and LBP would be encountered during demolition activities on the project site. Compliance with asbestos and LBP removal and demolition regulations would minimize the risk of release into the environment. There is also potential that excavation activities would uncover contaminated soil, but standard construction practices would be observed so that any released hazardous materials would be appropriately contained and remediated as required by local, state, and federal law. No reasonably foreseeable upset and accident conditions are expected during project operation, as the few chemicals used for building and grounds maintenance would be securely stored. Nonetheless, this issue will be analyzed further in the EIR.	☐	☒	☐	☐
c)	Emit hazardous emissions or require the handling of hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	The project boundary is not located within a quarter-mile an existing school. A new child-care facility has been constructed on the campus but is not yet open. It is possible that ACM, LBP, and contaminated soils would be encountered during the construction period. These materials would need to be transported from the project site, although it is unlikely that haul routes would be located near schools. During project operation, hazardous wastes associated with the medical uses on the campus would be routinely transported, as is the case under existing conditions. This issue will be analyzed further in the EIR.				
d)	Be located on a site that is included on a list of hazardous materials sites compiled pursuant to U.S. Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment? According to the State Water Resources Control Board (SWRCB) GeoTracker database and Department of Toxic Substances Control (DTSC) EnviroStor database, there are several off-site locations within one mile of the project site listed as potentially contaminated. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? The project site is not located within an airport land use plan area or within 2 miles of a public airport or public use airport. Further analysis is not warranted.	☐	☐	☐	☒
f)	For a project in the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? The project site is not located in the vicinity of a private airstrip. The campus hospital, however, does have its own heliport (CA64). The environmental impacts of any changes to heliport operations will be discussed further in the EIR.	☐	☐	☒	☐
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? The proposed project would not impair or physically interfere with adopted emergency response or evacuation plans. During construction, temporary lane closures may be required, but vehicular access to existing medical facilities would be maintained at all times. The proposed project includes a direct route for emergency vehicles to the emergency department, which would likely enhance emergency response and access. This issue will be analyzed further in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
h)	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? The project site is bordered by the San Gabriel Mountains and the Angeles National Forest, as well as the Wilson Debris Basin. Implementation of the master plan would increase overall building square footage on the campus and the number of employees and/or visitors to the campus. Thus, the proposed project could expose more people to local hazards. It's not expected, however, that the master plan would exacerbate these hazards.	☐	☐	☒	☐
	Mitigation: Should the Draft EIR identify significant impacts to hazards and hazardous materials, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
IX.	**HYDROLOGY AND WATER QUALITY –** Would the project:				
a)	Violate any water quality standards or waste discharge requirements? The proposed project could alter site drainage patterns and increase impermeable areas or runoff. There is evidence of areas where substantial erosion has occurred on the project site. Implementation of standard BMPs would decrease the potential for any erosion or sedimentation from the soil disturbing activities during the construction period. Standard construction practices related to erosion control, such as the use of tarps to cover stockpiled soil, would apply. During project operation, a campus-wide stormwater management system would be implemented, which would treat runoff before it leaves the site. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	Groundwater accounts for approximately 13 percent of water supply for the City of Los Angeles, but has accounted for as much as 30 percent of the total water supply in drought years (LADWP 2013). During the construction period, water would be used for activities including controlling fugitive dust emissions and mixing of concrete. Project operation would require water for cleaning, irrigation of landscaping, and the operation of sinks and restroom facilities within the buildings. The proposed project would result in an increase in the amount of impermeable surface area (i.e., buildings, pavement, etc.), but may also result in an increase in stormwater infiltration (Low Impact Development [LID]) features such as bioretention, vegetated swales, and permeable pavement on the site and may contribute to groundwater recharge. Additionally, the proposed project would increase the number of patients and staff on the campus, further increasing potable water supply needs. This issue will be analyzed further in the EIR.				
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site? The Olive View site sits between the Schoolhouse and Wilson Canyon Debris Basins. Minor alterations of the existing drainage patterns on the project site may occur related to the implementation of the campus-wide stormwater management system and due to construction of new facilities and improvements, but no change to the course of a stream or river would occur. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site? Due to the increase in impervious cover there is a potential for the increase of surface runoff on site. This could alter drainage patterns and lead to flooding. Implementation of LID or other stormwater features would be required to control the rate of runoff. This issue will be analyzed further in the EIR.	☐	☒	☐	☐
e)	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	The proposed project would potentially increase runoff in the area. Although, the project site is primarily impermeable, occupied by buildings and parking facilities, there are sizeable tracts of undeveloped, permeable land in and around the campus. The proposed project would increase impervious cover on the campus. Implementation of a campus-wide stormwater management system and LID and stormwater features would handle and control stormwater runoff during project operation. Sedimentation and siltation of runoff during the construction period would be addressed through the implementation of standards BMPs. This issue will be analyzed further in the EIR.				
f)	Otherwise substantially degrade water quality?	☐	☒	☐	☐
	As discussed above, the proposed project would include improvements to stormwater quality through the implementation of a campus-wide stormwater management system. Furthermore, construction-phase Best Management Practices (BMPs) would be implemented in accordance with the County of Los Angeles Department of Public Works *Construction Site BMPs Manual* (2007) and the SWPPP that would be prepared in accordance with the requirements of the NPDES Stormwater General Permit. Construction-phase BMPs for the proposed project may involve scheduling, silt fencing, street sweeping and vacuuming, storm drain protection, stabilized construction entrances/exits, water conservation practices, paving and grinding operations, as well as procedures and practices pertaining to vehicle equipment cleaning, vehicle equipment fueling, and vehicle equipment maintenance. Post-construction BMPs may include source control BMPs as well as LID features as required by the City and County of Los Angeles. This issue will be analyzed further in the EIR.				
g)	Place housing within a 100-year flood hazard area, as mapped on a Federal Flood Hazard Boundary Map or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☒
	The project site is not located within a 100-year flood hazard area. While there is a 100-year flood plain associated with the Wilson Canyon Drain through the project vicinity, the 100-year flood plain is contained within this channel. No further analysis is warranted.				
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☒
	The project site is not located within a 100-year flood hazard area. While there is a 100-year flood plain associated with the Wilson Canyon Drain in the project vicinity, the 100-year flood plain is contained within this channel. No further analysis is warranted.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
i)	Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam? Given that the area in which the proposed project would be located is outside the 100-year flood plain, the proposed project would not result in increased exposure to loss, injury, or death involving flooding. Potential for flooding due to dam failure of the debris dams will be investigated further in the EIR.	☐	☐	☒	☐
j)	Inundation by seiche, tsunami, or mudflow? The project site is located approximately 28 miles from the Pacific Ocean, so there is negligible risk to the site from tsunamis. The Pacoima Reservoir, located 4.5 miles east of campus, is unlikely to produce seiches that would affect the project site. Mudflows could pose a potential risk to the project as the site borders the Angeles National Forest, the entire northern border of campus being wildland area. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
	Mitigation: Should the Draft EIR identify significant impacts to hydrology and water quality, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
X.	**LAND USE AND PLANNING –** Would the project:				
a)	Physically divide an established community? The proposed Olive View-UCLA Medical Center Campus Master Plan proposes the development of new buildings and facilities within the boundaries of the existing campus. No structures would be constructed that would divide an established community. Additionally, existing communities to the south of the campus, across Oliver View Drive, would continue to have access to the hiking and equestrian trails to the north of the campus. No impacts would occur. No further analysis is warranted.	☐	☐	☐	☒
b)	Conflict with any applicable land use plan, policy, or regulation of any agency with jurisdiction over the project (including a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? The project site is designated Public Facilities, with the Wilson Canyon Debris Basin and Channel that runs through the site designated as Open Space. The Public Facilities land use designation allows for public facilities such as fire stations, libraries, schools, parks, and police stations. The project site has a zoning designation of Public Facilities – PF. The master plan proposes uses that would be consistent with these	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	designations. Nonetheless, a consistency analysis with applicable land use plans and specific environmental protection policies in those plans will be included in the EIR.				
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan? The project site does not contain any areas within the boundaries of any applicable habitat conservation plan or natural community conservation plan. Therefore, no further analysis is warranted.	☐	☐	☐	☒
	Mitigation: Should the Draft EIR identify significant impacts to land use and planning, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
XI.	**MINERAL RESOURCES –** Would the project:				
a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? The project is not within a mineral resource zone. Therefore, the proposed project would not result in the loss of availability of a known mineral resource that is of value to the region and the residents of the state. No further analysis is warranted.	☐	☐	☐	☒
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan? The project site is not located in a locally important mineral resource discovery site, and thus would not result in the loss of availability of a locally important mineral resource recovery site. Therefore, no further analysis is warranted.	☐	☐	☐	☒
XII.	**NOISE –** Would the project result in:				
a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or ordinance or applicable standards of other agencies? Increased noise levels are anticipated to occur in the vicinity of the proposed project during the construction phase. The project site is located in close proximity to sensitive receptors both on the site and in the immediate vicinity. The nearest noise-sensitive land uses consist of medical uses on the site itself. The nearest off-site noise-sensitive receptors are residences to the west, to the south (across Olive View Drive), and to the east. Undeveloped open space to the north of the project site may include habitat for endangered bird species that would be	☒	☐	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	considered noise-sensitive during the nesting season. Construction and/or operational noise could exceed the exterior or interior noise standards contained in the County noise ordinance during construction. This issue will be analyzed further in the EIR.				
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? Increased groundborne vibration or groundborne noise levels are anticipated to occur in the vicinity of the proposed project during the construction phase. Operation of the proposed project would not have the potential to expose persons to or generate excessive groundborne vibration or noise levels. Given the proximity of the nearby residences and the on-campus medical facilities, the potential exists for construction of the proposed project to expose persons to or generate excessive groundborne vibration or noise levels. Therefore, this issue will be analyzed further in the EIR.	☒	☐	☐	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? On-site project-related operational noise would mostly be interior to buildings, but some activities would occur outdoors. These outdoor activities may be carried out in close proximity to the medical center and other sensitive receptors including residents in the immediate vicinity of the project site. In addition project-related traffic noise could affect the surrounding community. Therefore, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? Construction activities associated with the proposed project would involve the use of noise-generating construction equipment, resulting in a temporary and periodic increase in noise levels at specific locations. The increased noise levels, including noise from trucks hauling material and debris during construction, could occur in close proximity to sensitive uses. This issue will be analyzed further in the EIR.	☒	☐	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? The project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport; therefore, no impacts would occur. No further analysis is warranted.	☐	☐	☐	☒

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
f)	For a project in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? No private airstrips are located in the project vicinity. However, both the existing Olive View-UCLA Medical Center campus and the proposed Master Plan include an on-site helipad for air ambulance operations, Therefore, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
	Mitigation: Should the Draft EIR identify significant impacts to noise, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
XIII.	**POPULATION AND HOUSING –** Would the project:				
a)	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through the extension of roads or other infrastructure)? The proposed project consists of a master plan that would guide future development of the Olive View-UCLA Medical Center campus and the delivery of health care services and health related community programs. Proposed development and improved services that could occur with implementation of the master plan may result in indirect growth. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
b)	Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere? Implementation of the master plan would not displace existing housing. No impacts would occur. No further analysis is warranted.	☐	☐	☐	☒
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? The proposed project would not displace existing housing nor would it require the construction of replacement housing. No further analysis is warranted.	☐	☐	☐	☒
XIV.	**PUBLIC SERVICES**				
a)	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
	i) Fire protection?	☐	☐	☒	☐

	Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
Fire protection services in the project area would be provided by the Los Angeles Fire Department. Los Angeles Fire Station #91, located at 14430 Polk St is located approximately 1.2 miles from the project site. The proposed project may result in intermittent access restrictions for emergency responders during construction. The County would implement traffic control plans in construction areas to accommodate first responders and emergency vehicles and ensure that access would not be obstructed. Operation of proposed new master plan facilities could increase the demand for fire protection services, especially in light of the campus' proximity to wildland fire hazards. This issue will be analyzed further in the EIR.				
ii) Police protection?	☐	☐	☒	☐
Police protection services on-site are provided by the Los Angeles County Sheriff's Department. Streets and areas surrounding the campus are policed by the Los Angeles Police Department (LAPD). The Mission Community Police Station is located at 11121 N. Sepulveda Blvd in Mission Hills, California, and is located about 4 miles from the project site. Proposed new development under the master plan would increase the number of employees and visitors to the campus, which could increase the demand for police protection services. Impacts to police services will be analyzed further in the EIR.				
iii) Schools?	☐	☐	☒	☐
The proposed project would not include new housing that could directly increase enrollment at local schools. However, indirect impacts on student enrollment could occur due to potential increase in the number of employees on the campus. This issue will be evaluated further in the EIR.				
iv) Parks?	☐	☐	☒	☐
Increases in the number of medical center campus employees and visitors that could occur due to proposed development under the master plan are not expected to substantially increase the demand for and use of offsite recreational and park facilities. However, implementation of the proposed project could improve connectivity to hillside recreational areas north of the campus and result in increased use of those areas. Although impacts are not expected to be significant, this issue will be analyzed further in the EIR.				

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
v)	Other public facilities? The project would not direct result in significant population growth that would substantially increase the demand for other public facilities or services. No other public facilities are expected to be significantly affected by the project. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
XV.	**RECREATION**				
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated? Increases in the number of medical center campus employees and visitors that could occur due to the proposed development under the master plan are not expected to substantially increase the use of existing neighborhood and regional parks or other recreational facilities. However, the proposed project could improve connectivity to hillside recreational areas north of the campus and result in increased use of those areas. Although impacts are not expected to be significant, this issue will be further analyzed in the EIR.	☐	☐	☒	☐
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment? The proposed project would include the development of recreation areas and courtyard gardens. Additionally, the proposed project would develop outdoor public areas on the project site for community engagement and recreation. The impacts due development of these facilities will be analyzed further in the EIR.	☐	☐	☒	☐
XVI.	**TRANSPORTATION/TRAFFIC –** Would the project:				
a)	Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation, including mass transit and non-motorized travel, and relevant components of the circulation system, including intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? Construction and operation of the proposed project would result in increased vehicle trips to the site and may alter access to the existing Olive View-UCLA Medical Center campus. A detailed traffic impact analysis will be prepared for the proposed project. Conclusions of the traffic impact analysis will be included in the EIR.	☒	☐	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
b)	Conflict with an applicable congestion management program, including LOS and travel demand measures, or other standards established by the county Congestion Management Agency for designated roads or highways? The proposed project would result in increased vehicle trips to the site and may alter access to the existing Olive View-UCLA Medical Center campus. A detailed traffic impact analysis will be prepared for the proposed project. This issue will be analyzed in the EIR.	☒	☐	☐	☐
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that would result in substantial safety risks? The proposed project is not expected to result in changes to how the heliport on the campus operates. Nonetheless, this issue will be addressed further in the EIR.	☐	☐	☒	☐
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? There are no significant changes associated with the proposed project that are anticipated to substantially increase hazards due to a design feature or incompatible uses. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
e)	Result in inadequate emergency access? The proposed project may result in intermittent access restrictions during construction. However, the construction phase of the project would be temporary and would cease once construction activities have been completed. The county would implement traffic control plans in areas where construction is occurring to accommodate first responders and emergency vehicles, and ensure that emergency access is not obstructed. Under operation, the proposed project would provide emergency vehicles a direct route to the emergency department at the Olive View-UCLA Medical Center. This issue will be analyzed further the EIR.	☐	☐	☒	☐
f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle facilities, or pedestrian facilities or otherwise decrease the performance or safety of such facilities? The proposed project would improve pedestrian mobility and vehicular circulation within the project site. The proposed project would not result in changes to the public transportation system that would conflict with adopted policies plans or programs. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	Mitigation: Should the Draft EIR identify significant impacts to traffic, appropriate mitigation measures will be proposed to reduce impacts to less than significant to the extent practicable.				
XVII.	**UTILITIES AND SERVICE SYSTEMS –** Would the project:				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? Implementation of the master plan would result in the construction and operation of new medical center buildings and facilities, which would generate wastewater. It's not expected that the wastewater generated by new facilities would exceed the wastewater treatment requirements. Additionally, the project site is located in an urban area that is currently served by wastewater infrastructure.	☐	☐	☒	☐
b)	Require or result in the construction of new water or wastewater treatment facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects? Proposed new medical center buildings and facilities would increase the demand for water and would generate wastewater. However, it's not expected that this increased demand would require the construction of new or expanded water or wastewater treatment facilities. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
c)	Require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects? The project site is located in a developed area that is served by existing stormwater drainage facilities. Proposed new medical center buildings and facilities, however, may require new or modified storm drains on the campus to accommodate the new development. This issue will be analyzed further in the EIR.	☐	☐	☒	☐
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? The proposed project would require the use of water during both construction and operation. Proposed water consumption will be analyzed further in the EIR.	☐	☐	☒	☐
e)	Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to existing commitments?	☐	☐	☒	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
	The project would include uses or activities that would generate wastewater and require treatment. Therefore, this issue will be analyzed further in the EIR.				
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? Solid waste would be generated during both construction and operation of proposed new master plan buildings and facilities. It is anticipated that adequate landfill capacity exists to accommodate the potential increases in solid waste generated by the new development that could occur under the master plan. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste? Disposal of all solid waste generated by the proposed project would comply with federal, state, and local statutes and regulations related to solid waste. Nonetheless, this issue will be analyzed further in the EIR.	☐	☐	☒	☐
XVIII.	**MANDATORY FINDINGS OF SIGNIFICANCE**				
a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory? As stated in response to V Cultural Resources, the proposed project may result in potentially significant impacts to historic resources. As stated in response to IV Biological Resources, the proposed project may also result in potentially significant impacts to special-status plant and wildlife species including the California gnatcatcher, least Bell's vireo, and oak trees. These issues will be analyzed further in the EIR.	☒	☐	☐	☐
b)	Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) The EIR will analyze the proposed project's potential to result in cumulative impacts in conjunction with other past, present and future projects. This topic will be analyzed further in the EIR.	☒	☐	☐	☐

		Potentially Significant Impact	Less-than-Significant Impact with Mitigation	Less-than-Significant Impact	No Impact
c)	Does the project have environmental effects that could cause substantial adverse effects on human beings, either directly or indirectly? The EIR will analyze the proposed project's potential to result in significant air quality and noise impacts on individuals in the project area or expose construction workers or other individuals on the site to contaminated soils and groundwater or hazardous materials and wastes during construction and demolition activities.	☒	☐	☐	☐

Figure 1
Regional Location
Olive View-UCLA Medical Center Master Plan

Figure 2
Project Vicinity
Olive View-UCLA Medical Center Master Plan

Figure 3
Olive View Site Plan—Full Build Out
The Smith Group

Appendix A3

Scoping Comments and Responses

STATE OF CALIFORNIA
NATIVE AMERICAN HERITAGE COMMISSION
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Edmund G. Brown Jr., Governor

March 30, 2016

Clarice Nash
Los Angeles County Department of Public Works
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Los Angeles, CA 91803

sent via e-mail:
cnash@dpw.lacounty.gov
Number of pages: 4

RE: SCH# 2016031090 Olive View- UCLA Medical Center Campus Master Plan Project, Draft Environmental Impact Report, Community of Sylmar, Los Angeles County, California

Dear Ms. Nash:

The Native American Heritage Commission has received the Notice of Preparation (NOP) for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code § 21000 et seq.), specifically Public Resources Code section 21084.1, states that a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines Section 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an environmental impact report (EIR) shall be prepared. (Pub. Resources Code § 21080 (d); Cal. Code Regs., tit. 14, § 15064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources with the area of project effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code § 21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code § 21084.3 (a)). **AB 52 applies to any project for which a notice of preparation or a notice of negative declaration or mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. § 800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments. **Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.**

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
   - **a.** A brief description of the project.
   - **b.** The lead agency contact information.
   - **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code § 21080.3.1 (d)).
   - **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code § 21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code § 21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or environmental impact report. (Pub. Resources Code § 21080.3.1(b)).
   - **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code § 65352.4 (SB 18). (Pub. Resources Code § 21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
   - **a.** Alternatives to the project.
   - **b.** Recommended mitigation measures.

c. Significant effects. (Pub. Resources Code § 21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
   a. Type of environmental review necessary.
   b. Significance of the tribal cultural resources.
   c. Significance of the project's impacts on tribal cultural resources.
   d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code § 21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code sections 6254 (r) and 6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code § 21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
   a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
   b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code section 21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code § 21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
   a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
   b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code § 21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code section 21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code section 21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code § 21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code section 21084.3 (b). (Pub. Resources Code § 21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
    a. Avoidance and preservation of the resources in place, including, but not limited to:
       i. Planning and construction to avoid the resources and protect the cultural and natural context.
       ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
    b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
       i. Protecting the cultural character and integrity of the resource.
       ii. Protecting the traditional use of the resource.
       iii. Protecting the confidentiality of the resource.
    c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
    d. Protecting the resource. (Pub. Resource Code § 21084.3 (b)).
    e. Please note that a federally recognized California Native American tribe or a nonfederally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code § 815.3 (c)).
    f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code § 5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An environmental impact report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
    a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code sections 21080.3.1 and 21080.3.2 and concluded pursuant to Public Resources Code section 21080.3.2.
    b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
    c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code section 21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code § 21082.3 (d)).

    This process should be documented in the Cultural Resources section of your environmental document.

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code § 65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code § 65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code section 65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code sections 5097.9 and 5097.993 that are within the city's or county's jurisdiction. (Gov. Code § 65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have been already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

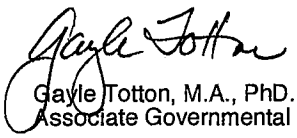
3. Contact the NAHC for:
    a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
    b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
    a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, section 15064.5(f) (CEQA Guidelines section 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
    b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
    c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code section 7050.5, Public Resources Code section 5097.98, and Cal. Code Regs., tit. 14, section 15064.5,

subdivisions (d) and (e) (CEQA Guidelines section 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

Please contact me if you need any additional information at gayle.totton@nahc.ca.gov.

Sincerely,



Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

cc: State Clearinghouse

U.S. Department of Homeland Security
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

April 12, 2016

Clarice Nash, Project Manager
County of Los Angeles, Department of Public Works
Project Management Division
900 South Fremont Avenue
Alhambra, California 91803-1331

Dear Ms. Nash:

This is in response to your request for comments regarding the Notice of Preparation of the Olive View-UCLA Medical Center Campus Master Plan Environmental Impact Report project.

Please review the current effective countywide Flood Insurance Rate Maps (FIRMs) for the County of Los Angeles (Community Number 065043), Maps revised January 6, 2016. Please note that the County of Los Angeles, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.

- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any ***development*** must not increase base flood elevation levels. **The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.

- All buildings constructed within a coastal high hazard area, (any of the "V" Flood Zones as delineated on the FIRM), must be elevated on pilings and columns, so that the lowest horizontal structural member, (excluding the pilings and columns), is elevated to or above the base flood elevation level. In addition, the posts and pilings foundation and the structure attached thereto, is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.

- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at http://www.fema.gov/business/nfip/forms.shtm.

Please Note:

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The Los Angeles County floodplain manager can be reached by calling George De La O, Senior Civil Engineer, at (626) 458-7155.

If you have any questions or concerns, please do not hesitate to call Michael Hornick of the Mitigation staff at (510) 627-7260.

Sincerely,

Gregor Blackburn, CFM, Branch Chief
Floodplain Management and Insurance Branch

cc:
George De La O, Senior Civil Engineer, County of Los Angeles
Garret Tam Sing/Salomon Miranda, State of California, Department of Water Resources, Southern Region Office
Michael Hornick, NFIP Planner, DHS/FEMA Region IX
Alessandro Amaglio, Environmental Officer, DHS/FEMA Region IX

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

April 14, 2016

Clarice Nash, Project Manager
County of Los Angeles Department of Public Works
Project Management Division I
900 S. Fremont Avenue
Alhambra, CA 91803-1331

Notice of Preparation of a CEQA Document for the
Olive View - UCLA Medical Center Campus Master Plan Project

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the Draft EIR. Please send the SCAQMD a copy of the CEQA document upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the Draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). SCAQMD staff also recommends that the Lead Agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD staff requests that the Lead Agency quantify criteria pollutant emissions and compare the results to the recommended regional significance thresholds found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. In addition to analyzing regional air quality impacts, the SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a Draft EIR. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the Lead

Agency perform a localized analysis by either using the LSTs developed by the SCAQMD or performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Perspective*, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the project, including:

- Chapter 11 of the SCAQMD *CEQA Air Quality Handbook*
- SCAQMD's CEQA web pages at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies.
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions
- Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's webpage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the Lead Agency to ensure that project emissions are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact Gordon Mize, Air Quality Specialist by e-mail at gmize@aqmd.gov or by phone at (909) 396-3302.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Program Supervisor
Planning, Rule Development & Area Sources

LAC160407-12
Control Number

Los Angeles Unified School District

Office of Environmental Health and Safety

MICHELLE KING
Superintendent of Schools

THELMA MELÉNDEZ, PH.D.
Chief Executive Officer, Office of Educational Services

ROBERT LAUGHTON
Director, Environmental Health and Safety

CARLOS A. TORRES
Deputy Director, Environmental Health and Safety

April 15, 2016

Clarice Nash, Project Manager
County of Los Angeles Department of Public Works
Project Management Division I
900 S. Fremont Ave.
Alhambra, CA 91803-1331

Submitted via electronic mail

SUBJECT: Olive View-UCLA Medical Center Campus Master Plan

Presented in this email are comments submitted on behalf of the Los Angeles Unified School District (LAUSD) relating to the proposed Olive View-UCLA Medical Center Campus Master Plan Project (proposed project). The proposed project would entail development of the Olive View-UCLA Medical Center Campus and the ongoing delivery of health care services and programs. LAUSD appreciates the opportunity to be a part of the County of Los Angeles' (County's) environmental planning process and looks forward to working with the County to identify and mitigate potential environmental impacts on schools located within the impact zone of the proposed project.

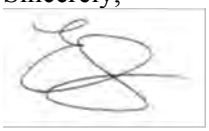
Specific environmental impact categories that are of particular concern to LAUSD include, but are not limited to:

- Air Quality (Construction - cumulative net increases in criteria air pollutants in the region)
- Hazards & Hazardous Materials (Construction & Operation - hazards/hazardous materials transport)
- Traffic & Transportation (Construction & Operation - traffic and pedestrian safety)

LAUSD's charge is to protect the health and safety of students and staff, and the integrity of the learning environment. If additional issues are identified by LAUSD, we will bring them to the attention of the County.

Thank you for your attention to this matter. Please include LAUSD on all future notices related to the proposed project. If you need additional information regarding our schools, you may contact me at (213) 241-3417.

Sincerely,



Eimon Smith
CEQA Project Manager/Contract Professional
LAUSD, Office of Environmental Health & Safety

Rudy Ortega Jr.
Tribal President

Fernandeño Tataviam Band of Mission Indians
Tribal Historic & Cultural Preservation

Tribal Historic & Cultural Preservation Committee
Steve Ortega
Chairman
Arturo Paredes Jr.
David Ortega

April 21, 2016

County of Los Angeles
Department of Public Works
Project Management Division I
P.O Box 1460
Alhambra, CA 91802-1460

RE: Formal Request for Tribal Consultation Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code section 21080.3.1, subdivision (b), (d) and (e) for Olive View-UCLA Medical Center Campus Master Plan

Dear Mr. Moey,

This letter constitutes a formal request for tribal consultation under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)) for the mitigation of potential impacts to tribal cultural resources for the above referenced project (Project).

The Fernandeño Tataviam Band of Mission Indians requests that the lead agency forward to the contact below the estimated cubic yards of soil disturbance for the Project. Additional data may be requested from your agency. Please contact Caitlin Gulley with any questions or for additional information:

Caitlin Gulley, Director
Tribal Historic and Cultural Preservation Department
1019 Second St.
San Fernando, CA 91340

Sincerely,

Sedna Villavicencio
Tribal Historic and Cultural Preservation Department

COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY
FIRE CHIEF
FORESTER & FIRE WARDEN

April 25, 2016

Clarice Nash, Project Manager
Department of Public Works
Project Management Division I
900 South Fremont Avenue
Alhambra, CA 91803

Dear Ms. Nash:

NOTICE OF PREPARATION ENVIRONMENTAL IMPACT REPORT, "OLIVE VIEW-UCLA MEDICAL CAMPUS MASTER PLAN", GUIDES FUTURE DEVELOPMENT OF THE CAMPUS AND THE DELIVERY OF HEALTH CARE SERVICES AND HEALTH RELATED COMMUNITY PROGRAMS, 14445 OLIVE VIEW DRIVE, SYLMAR (FFER 201600049)

The Notice of Preparation Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department. The following are their comments:

PLANNING DIVISION:

1. The subject property is entirely within the City of Los Angeles, which is not a part of the emergency response area of the Los Angeles County Fire Department (also known as the Consolidated Fire Protection District of Los Angeles County). Therefore, this project does not appear to have any impact on the emergency responsibilities of this Department.

LAND DEVELOPMENT UNIT:

The Land Development Unit is reviewing the proposed "Olive View-UCLA Medical Center Campus Master Plan" for access and water system requirements, along with Fuel Modification. The Land Development Unit comments are only general requirements. Specific fire and life safety requirements will be addressed during the review for building and fire plan check phases. There may be additional requirements during this time.

The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrants.

Access Requirements

1. The proposed development will require multiple ingress/egress access for the circulation of traffic and emergency response issues.

2. All on-site Fire Department's vehicular access roads shall be labeled as "Private Driveway and Fire Lane" on the site plan along with the widths clearly depicted on the plan. Labeling is necessary to assure the access availability for Fire Department use. The designation allows for appropriate signage prohibiting parking.

    a. The Fire Apparatus Access Road shall be cross-hatch on the site plan with the width clearly noted on the plan.

3. Every building constructed shall be accessible to Fire Department's apparatus by way of access roadways with an all-weather surface of not less than the prescribed width. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building.

4. Fire Apparatus Access Roads must be installed and maintained in a serviceable manner prior to and during the time of construction.

5. The edge of the Fire Apparatus Access Road shall be located a minimum of 5 feet from the building or any projections there from.

6. The Fire Apparatus Access Roads and designated fire lanes shall be measured from flow line to flow line.

7. The dimensions of the approved Fire Apparatus Access Roads shall be maintained as originally approved by the fire code official.

8. Provide a minimum unobstructed width of 28 feet, exclusive of shoulders and an unobstructed vertical clearance "clear to sky" Fire Department's vehicular access to within 150 feet of all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building when the height of the building above the lowest level of the Fire Department's vehicular access road is more than 30 feet high or the building is more than three stories. The access roadway shall be located a minimum of 15 feet and a maximum of 30 feet from the building and shall be positioned parallel to one entire side of the building. The side of the building on which the aerial fire apparatus access road is positioned shall be approved by the fire code official.

9. If the Fire Apparatus Access Road is separated by island, provide a minimum unobstructed width of 20 feet, exclusive of shoulders and an unobstructed vertical clearance "clear to sky" Fire Department's vehicular access to within 150 feet of all portions of the exterior walls of the first story of the building as measured by an approved route around the exterior of the building.

10. Dead-end Fire Apparatus Access Roads in excess of 150 feet in length shall be provided with an approved Fire Department turnaround. Include the dimensions of the turnaround, with the orientation of the turnaround shall be properly placed in the direction of travel of the access roadway.

11. Fire Department Access Roads shall be provided with a 32 foot centerline turning radius. Indicate the centerline, inside, and outside turning radii for each change in direction on the site plan

12. Fire Apparatus Access Roads shall be designed and maintained to support the imposed load of fire apparatus weighing 75,000 lbs., and shall be surfaced so as to provide all-weather driving capabilities. Fire apparatus access roads having a grade of 10 percent or greater shall have a paved or concrete surface.

13. Provide approved signs or other approved notices or markings that include the words "NO PARKING - FIRE LANE". Signs shall have a minimum dimension of 12 inches wide by 18 inches high and have red letters on a white reflective background. Signs shall be provided for fire apparatus access roads, to clearly indicate the entrance to such road, or prohibit the obstruction thereof and at intervals, as required by the Fire Inspector.

14. A minimum 5 foot wide approved firefighter access walkway leading from the fire department access road to all required openings in the building's exterior walls shall be provided for firefighting and rescue purposes. Clearly identify firefighter walkway access routes on the site plan. Indicate the slope and walking surface material. Clearly show the required width on the site plan.

15. Fire Apparatus Access Roads shall not be obstructed in any manner including by the parking of vehicles or the use of traffic calming devices including but not limited to, speed bumps, or speed humps. The minimum widths and clearances established in Fire Code Section 503.2.1 shall be maintained at all times.

16. Traffic Calming Devices including but not limited to, speed bumps, and speed humps shall be prohibited unless approved by the fire code official.

17. Security barriers, visual screen barriers, or other obstructions shall not be installed on the roof of any building in such a manner as to obstruct firefighter access or egress in the event of fire or other emergency. Parapets shall not exceed 48 inches from the top of the parapet to the roof surface on more than two sides. Clearly indicate the height of all parapets in a section view.

18. Approved building address numbers, building numbers, or approved building identification shall be provided and maintained so as to be plainly visible and legible from the street fronting the property. The numbers shall contrast with their background, be Arabic numerals or alphabet letters, and be a minimum of 4 inches high with a minimum stroke width of 0.5 inch.

19. Multiple residential and commercial buildings having entrances to individual units not visible from the street or road shall have unit numbers displayed in groups for all units within each structure. Such numbers may be grouped on the wall of the structure or mounted on a post independent of the structure and shall be positioned to be plainly visible from the street or road as required by Fire Code 505.3 and in accordance with Fire Code 505.1.

20. Gate Requirements: The method of gate control shall be subject to review by the Fire Department prior to approval. All gates, to control vehicular access, shall be in compliance with the following:

    a. Any single gated opening used for ingress and egress shall be a minimum of 28 feet in-width, clear-to-sky.

b. Any divided gate opening (when each gate is used for a single direction of travel i.e., ingress or egress) shall be a minimum width of 20 feet clear-to-sky.

c. Gates and/or control devices shall be positioned a minimum of 50 feet from a public right-of-way and shall be provided with a turnaround having a minimum of 32 feet of turning radius. If an intercom system is used, the 50 feet shall be measured from the right-of-way to the intercom control device.

d. The security gate shall be provided with an approved means of emergency operation and shall be maintained operational at all times and replaced or repaired when defective. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F220. Gates shall be of the swinging or sliding type. Construction of gates shall be of materials that allow manual operation by one person.

e. Gate plans shall be submitted to the Fire Department prior to installation. These plans shall show all locations, widths, and details of the proposed gates.

Water System Requirements

1. All fire hydrants shall measure 6"x 4"x 2-1/2" brass or bronze, conforming to current AWWA standard C503 or approved equal and shall be installed in accordance with the County of Los Angeles Fire Department Regulation 8.

2. The development may require fire flows up to 8,000 gallons per minute at 20 pounds per square inch residual pressure for up to a five-hour duration. Final fire flows will be based on the size of buildings, the installation of an automatic fire sprinkler system, and type(s) of construction used.

3. The fire hydrant spacing shall be every 300 feet for both the public and the on-site hydrants. The fire hydrants shall meet the following requirements:

   a. No portion of lot frontage shall be more than 200 feet via vehicular access from a public fire hydrant.

b. No portion of a building shall exceed 400 feet via vehicular access from a properly spaced public fire hydrant.

c. Additional hydrants will be required if hydrant spacing exceeds specified distances.

4. All required PUBLIC fire hydrants shall be installed, tested, and accepted prior to beginning construction.

5. All private on-site fire hydrants shall be installed, tested, and approved prior to building occupancy.

   a. Plans showing underground piping for private on-site fire hydrants shall be submitted to the Sprinkler Plan Check Unit for review and approval prior to installation.

6. An approved automatic fire sprinkler system is required for the proposed buildings within this development. Submit design plans to the Fire Department Sprinkler Plan Check Unit for review and approval prior to installation.

Fuel Modification

1. This property is located within the area described by the Fire Department as the Very High Fire Hazard Severity Zone. A "Preliminary Fuel Modification Plan" shall be submitted and approved prior to public hearing. For details, please contact the Department's Fuel Modification Unit which is located at Fire Station 32, 605 North Angeleno Avenue in the City of Azusa CA 91702-2904. They may be reached at (626) 969-5205.

For any questions regarding the report, please contact FPEA Wally Collins at (323) 890-4243, or at Wally.Collins@fire.lacounty.gov.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

1. The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed.

HEALTH HAZARDOUS MATERIALS DIVISION:

1. The Health Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department has no comment regarding the project at this time.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,

KEVIN T. JOHNSON, ACTING CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

KTJ:ad

DEPARTMENT OF TRANSPORTATION
DISTRICT 7-OFFICE OF TRANSPORTATION PLANNING
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897-9140
FAX (213) 897-1337
www.dot.ca.gov

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Help save water!

April 27, 2016

Ms. Clarice Nash
Los Angeles County
Department of Public Works
900 South Fremont Ave.
Los Angeles, CA 91803

RE: Olive View-UCLA Medical Center
Campus Master Plan
Vic. LA-210/PM R1.945
SCH # 2016031090
IGR/CEQA No. 160402AL-NOP

Dear Ms. Nash:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The project, Master Plan, will guide future development of the campus and the delivery of health care services and health related community programs. Full build-out of the Master Plan could result in a total of approximately 1,382,000 square feet of development throughout the campus.

To assist in evaluating the impacts of this project on State transportation facilities, a traffic study should be prepared prior to preparing the Draft Environmental Impact Report (DEIR). Please refer the project's traffic consultant to Caltrans' traffic study guide Website:

http://www.dot.ca.gov/hq/tpp/offices/ocp/igr_ceqa_files/tisguide.pdf

Listed below are some elements of what is generally expected in the traffic study:

1. Presentations of assumptions and methods used to develop trip generation, trip distribution, choice of travel mode, and assignments of trips to I-210 and all off ramps at Roxford St. The traffic consultant should work with Caltrans to identify and confirm the final off-ramp study locations prior to the preparation of the traffic study. The traffic study should also analyze the storage for left-turn pocket at Roxford St. to WB I-210 on-ramps.

For this project, the City should conduct an off-ramp queuing analysis utilizing the Highway Capacity Manual (HCM) queuing analysis methodology. The capacity of the off-ramp should be calculated by the actual length of the off-ramp between the terminuses to the gore point with some safety factor or referenced to Highway Design Manual at 23' point (Figure 504.2A Single Lane Freeway Entrance) or any other justified methods. The queue length should be calculated from the traffic counts and the percent of truck assignments (data from Caltrans) to the ramp with a passenger car equivalent factor of 3.0 (worst case scenario preferred). The analyzed result may need to be calibrated with actual signal timing, not optimal (default) signal timing when necessary. It is also recommended that the City determine whether the existing, existing plus project, and project-related plus cumulative traffic are expected to cause long queues on the on and off-ramps.

2. Project travel modeling should be consistent with other regional and local modeling forecasts and travel data. Caltrans uses the indices to verify the results and any differences or inconsistencies must be thoroughly explained. Please submit modeling assumptions for Caltrans review and comment.

3. Trip generation rates for the project should be based on the nationally recognized recommendations contained in "Trip Generation" manual, 9th edition, published by the Institute of Transportation Engineers (ITE).

4. Analysis of ADT, AM and PM peak-hour volumes for both the existing and future conditions in the affected area with and without project. Utilization of transit lines and vehicles, and of all facilities, should be realistically estimated. Future conditions should include build-out of all projects and any plan-horizon years.

5. Include all appropriate traffic volumes. The analysis should include existing traffic, traffic generated by the project, cumulative traffic generated from all specific approved developments in the area, and traffic growth other than from the project and developments.

6. A discussion of mitigation measures appropriate to alleviate anticipated traffic impacts should also be included. Any mitigation involving transit or Transportation Demand Management (TDM) should be justified and the results conservatively estimated.

7. A fair share contribution toward pre-established or future improvements on the State Highway System is considered acceptable mitigation. (Please see Appendix "B" of the Guide for more information).

We look forward to reviewing the traffic study and expect to receive a copy from the State Clearinghouse when the DEIR is completed. Should you wish to expedite the review process or receive early feedback from Caltrans please feel free to send a copy of the DEIR directly to our office.

Caltrans is committed in working with the City to solve traffic congestion on the State facilities. If you have any questions, please feel free to contact Mr. Alan Lin the project coordinator at (213) 897-8391 and refer to IGR/CEQA No. 160402AL.

Sincerely,

Alan Lin for

DIANNA WATSON
IGR/CEQA Branch Chief

cc: Scott Morgan, State Clearinghouse

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

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May 2, 2016

Ms. Clarice Nash, Project Manager
County of Los Angeles, Department of Public Works
900 South Fremont Avenue
Alhambra, California 91803-1331
E-mail: cnash@dpw.lacounty.gov

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Olive View-UCLA Medical Center Campus Master Plan [SCAG NO. IGR8822]

Dear Ms. Clarice Nash

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the Olive View-UCLA Medical Center Campus Master Plan ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for federal financial assistance and direct development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS) pursuant to Senate Bill (SB) 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.[1] Guidance provided by these reviews is intended to assist local agencies such as local jurisdictions and project proponents to take actions that help contribute to the attainment of the regional goals and policies in the RTP/SCS.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Olive View-UCLA Medical Center Campus Master Plan in unincorporated Los Angeles County. The proposed project includes a master plan that will guide future development of the campus and the delivery of health care services and health related community programs on the 31.7 acre project site.

When available, please send environmental documentation to SCAG's *office in Los Angeles or by email to sunl@scag.ca.gov* providing, at a minimum, the full public comment period for review. If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Lijin Sun, Senior Regional Planner, at (213) 236-1882 or sunl@scag.ca.gov. Thank you.

Sincerely,

Ping Chang

Ping Chang
Acting Manager, Compliance and Performance Monitoring

[1] Lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS for the purpose of determining consistency for CEQA. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a determination of consistency with the 2016 RTP/SCS for CEQA.

The Regional Council consists of 86 elected officials representing 191 cities, six counties, six County Transportation Commissions, one representative from the Transportation Corridor Agencies, one Tribal Government representative and one representative for the Air Districts within Southern California.

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COMMENTS ON THE NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN [SCAG NO. IGR8822]

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS. For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the RTP/SCS.

2016 RTP/SCS GOALS

The SCAG Regional Council adopted the 2016 RTP/SCS in April 2016. The 2016 RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health (see http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx). The goals included in the 2016 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2016 RTP/SCS are the following:

SCAG 2016 RTP/SCS GOALS	
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*
RTP/SCS G3:	*Ensure travel safety and reliability for all people and goods in the region*
RTP/SCS G4:	*Preserve and ensure a sustainable regional transportation system*
RTP/SCS G5:	*Maximize the productivity of our transportation system*
RTP/SCS G6:	*Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking)*
RTP/SCS G7:	*Actively encourage and create incentives for energy efficiency, where possible*
RTP/SCS G8:	*Encourage land use and growth patterns that facilitate transit and active transportation*
RTP/SCS G9:	*Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies**
	**SCAG does not yet have an agreed-upon security performance measure.*

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG 2016 RTP/SCS GOALS		
	Goal	Analysis
RTP/SCS G1:	*Align the plan investments and policies with improving regional economic development and competitiveness*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
RTP/SCS G2:	*Maximize mobility and accessibility for all people and goods in the region*	*Consistent: Statement as to why;* *Not-Consistent: Statement as to why;* *Or* *Not Applicable: Statement as to why;* *DEIR page number reference*
etc.		etc.

2016 RTP/SCS STRATEGIES

To achieve the goals of the 2016 RTP/SCS, a wide range of land use and transportation strategies are included in the 2016 RTP/SCS. Technical appendances of the 2016 RTP/SCS provide additional supporting information in detail. To view the 2016 RTP/SCS, please visit: http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx. The 2016 RTP/SCS builds upon the progress from the 2012 RTP/SCS and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that the SCAG region strives toward a more sustainable region, while the region meets and exceeds in meeting all of applicable statutory requirements pertinent to the 2016 RTP/SCS. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

DEMOGRAPHICS AND GROWTH FORECASTS

Local input plays an important role in developing a reasonable growth forecast for the 2016 RTP/SCS. SCAG used a bottom-up local review and input process and engaged local jurisdictions in establishing the base geographic and socioeconomic projections including population, household and employment. At the time of this letter, the most recently adopted SCAG jurisdictional-level growth forecasts that were developed in accordance with the bottom-up local review and input process consist of the 2020, 2035, and 2040 population, households and employment forecasts. To view them, please visit http://www.scag.ca.gov/Documents/2016GrowthForecastByJurisdiction.pdf. The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts			Adopted Unincorporated Los Angeles County Forecasts		
	Year 2020	Year 2035	Year 2040	Year 2020	Year 2035	Year 2040
Population	19,663,000	22,091,000	22,138,800	1,106,600	1,216,100	1,273,700
Households	6,458,000	7,325,000	7,412,300	332,700	371,800	392,400
Employment	8,414,000	9,441,000	9,871,500	237,500	272,400	288,400

MITIGATION MEASURES

SCAG staff recommends that you review the Final Program Environmental Impact Report (Final PEIR) for the 2016 RTP/SCS for guidance, as appropriate. SCAG's Regional Council certified the Final PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on April 7, 2016 (please see: http://scagrtpscs.net/Pages/FINAL2016PEIR.aspx). The Final PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

Los Angeles LADWP Department of Water & Power

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General Manager

June 15, 2016

Ms. Clarice Nash
County of Los Angeles Department of Public Works
Project Management Division I
900 South Fremont Avenue
Alhambra, CA 91803-1331

Dear Ms. Nash:

Subject: Draft Environmental Impact Report for Olive View – UCLA Medical Center Campus Master Plan

The Los Angeles Department of Water and Power (LADWP) appreciates the opportunity to review the Draft Environmental Impact Report (DEIR) for the Olive View-UCLA Medical Center Campus Master Plan Project. The mission of LADWP is to provide clean, reliable water and power to the City of Los Angeles. The following comments reflect our review for matters related to water resources for the project; you may receive additional comments from other divisions at LADWP separately referring to other respective areas in the DEIR.
The following comments reflect our review:

Water Resources Comments:

1. The project's water demand should be estimated in the DEIR.

   For estimating a project's indoor water demand, we use applicable sewer generation factors (sgf). Please refer to the current factors at the following link: http://www.lacitysan.org/fmd/pdf/sfcfeerates.pdf

   For outdoor (landscape) water demand, we use California Code of Regulations Title 23. Division 2. Chapter 2.7. Model Water Efficient Landscape Ordinance. Please refer to the following link: http://www.water.ca.gov/wateruseefficiency/landscapeordinance/

   If the proposed project scope includes cooling tower(s), then water demand should also be estimated. A mechanical engineer might be one source for this estimate.

   Applicants are encouraged to commit to water conservation measures that are beyond the current codes and ordinances to lower the net additional water demand for the proposed project.

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111 N. Hope Street, Los Angeles, California 90012-2607 *Mailing address:* Box 51111, Los Angeles, CA 90051-5700
Telephone: (213) 367-4211 www.LADWP.com

2. The City's water supply and demand projections should be discussed, including the multiple dry years scenario. The most current Urban Water Management Plan (UWMP) can be used for this discussion. The current document is 2010 UWMP, but 2015 UWMP is expected to be approved by the Board of Water and Power Commissioners in June 2016.

   Link to 2010 UWMP: http://www.ladwp.com/docs/QOELLADWP005416.

   Link to **DRAFT** 2015 WUMP: https://www.ladwp.com/ladwp/faces/wcnav_externalId/a-w-sos-uwmp?_adf.ctrl-state=yhgfnqtbd_4&_afrLoop=92064751715759

3. The DEIR should state that the proposed project will comply with the latest water conservation codes and ordinances. The latest water conservation codes and ordinances can be obtained from https://www.ladwp.com/ladwp/faces/ladwp/aboutus/a-water/a-w-conservation/a-w-c-ordinanceandcodes?_adf.ctrl-state=3tyeqnxor_4&_afrLoop=490627735098901, or by visiting www.ladwp.com and selecting "About Us", "Water", "Water Conservation", and "Ordinance and Codes", and from http://clkrep.lacity.org/onlinedocs/2015/15-0458_ORD_184248_6-6-16.pdf.

   Additionally, applicants are encouraged to implement voluntary water conservation measures beyond those required by codes and ordinances to further reduce water use. DEIR should list the project's voluntary water conservation measures. A few examples of voluntary water conservation measures are waterless urinals and a high percentage of drought tolerant plants of the total landscape area, etc.

4. Discuss whether the project is consistent with the most current Regional Transportation Plan (RTP) demographic projections from the Southern California Association of Governments (SCAG).

5. Discuss the basis for concluding the City has sufficient water supplies to serve the project.

   The LADWP works closely with the City of Los Angeles, Department of City Planning to develop and update our UWMP every five years. The UWMP is the planning document for future water demands for the City. The UWMP identifies short-term and long-term water resources management measures to meet growing water demands during normal, single-dry, and multiple-dry years over a 20-year horizon. The City's water demand projection in the UWMP was developed based on the RTP demographic projection by SCAG.

   In general, projects that conform to the demographic projection from RTP by SCAG and are currently located in the City's service area are considered to have been included in LADWP's water supply planning efforts in the UWMP; therefore, projected water supplies would meet projected demands.

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August 16, 2016

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PROJECT MANAGEMENT DIVISION I
DEPARTMENT OF PUBLIC WORKS

Clarice Nash, Project Manager
County of Los Angeles
Department of Public Works
900 S. Fremont Ave.
Alhambra, CA 91803

Dear Clarice Nash:

OLIVE VIEW – UCLA MEDICAL CENTER CAMPUS MASTER PLAN – NOTICE OF PREPERATION OF AN ENVIRONMENTAL IMPACT REPORT

This is in response to your April 13, 2016 letter requesting a review of your proposed medical project located at 14445 Olive View Drive, Sylmar, CA 91342. LA Sanitation has conducted a preliminary evaluation of the potential impacts to the wastewater and stormwater systems for the proposed project.

WASTEWATER REQUIREMENT

LA Sanitation, Wastewater Engineering Services Division (WESD) is charged with the task of evaluating the local sewer conditions and to determine if available wastewater capacity exists for future developments. The evaluation will determine cumulative sewer impacts and guide the planning process for any future sewer improvement projects needed to provide future capacity as the City grows and develops.

Projected Wastewater Discharges for the Proposed Project:

Type Description	Average Daily Flow per Type Description (GPD/UNIT)	Proposed No. of Units	Average Daily Flow (GPD)
Proposed			
Hospital - Beds	70 GPD/BED	239 BEDS	16,730
Ambulatory Care Center	250 GPD/1000 SQ.FT	296,000 SQ.FT	74,000
Community Center	250 GPD/1000 SQ.FT	20,000 SQ.FT	5,000
Administration	120 GPD/1000 SQ.FT	96,000 SQ.FT	11,520
Materials Management	250 GPD/1000 SQ.FT	30,500 SQ.FT	7,625
Central Utility Plant	50 GPD/1000 SQ.FT	77,000 SQ.FT	3,850
Total			**118,725**

SEWER AVAILABILITY

The sewer infrastructure in the vicinity of the proposed project includes an existing 15-inch line on Olive View Drive. The sewage from the existing 15-inch line splits on an18-inch on Herrick Avenue then joins on a 30-inch line on Hubbard Street before discharging into a 30-inch sewer line on Arleta Avenue. Figure 1 shows the details of the sewer system within the vicinity of the project. The current flow level (d/D) in the 15-inch line cannot be determined at this time without additional gauging.

The current approximate flow level (d/D) and the design capacities at d/D of 50% in the sewer system are as follows:

Pipe Diameter (in)	Pipe Location	Current Gauging d/D (%)	50% Design Capacity
15	Olive View Dr.	*	1.55 MGD
18	Herrick Ave.	47	2.09 MGD
15	Herrick Ave.	20	2.50 MGD
18	Sayre St.	40	3.89 MGD
21	Hubbard St	53	5.03 MGD
30	Hubbard St.	53	8.70 MGD
18	San Fernando Rd	18	2.67 MGD
12	San Fernando Rd.	48	1.80 MGD
15	San Fernando Rd.	53	1.64 MGD
30	Arleta Ave.	35	9.53 MGD
30	Arleta Ave.	37	7.78 MGD

* No gauging available

Based on the estimated flows, it appears the sewer system might be able to accommodate the total flow for your proposed project. Further detailed gauging and evaluation will be needed as part of the permit process to identify a specific sewer connection point. If the public sewer has insufficient capacity then the developer will be required to build sewer lines to a point in the sewer system with sufficient capacity. A final approval for sewer capacity and connection permit will be made at that time. Ultimately, this sewage flow will be conveyed to the Hyperion Water Reclamation Plant, which has sufficient capacity for the project.

If you have any questions, please call Eduardo Perez of my staff at (323) 342-6207.

STORMWATER REQUIREMENTS

LA Sanitation, Watershed Protection Division (WPD) is charged with the task of ensuring the implementation of the Municipal Stormwater Permit requirements within the City of Los Angeles. We anticipate the following requirements would apply for this project.

POST-CONSTRUCTION MITIGATION REQUIREMENTS

The project requires implementation of stormwater mitigation measures. These requirements are based on Stormwater Low Impact Development (LID) requirements. The projects that are subject to LID are required to incorporate measures to mitigate the impact of stormwater runoff. The requirements are outlined in the guidance manual titled "*Development Best Management Practices Handbook – Part B: Planning Activities*". Current regulations prioritize infiltration, capture/use, and then biofiltration as the preferred stormwater control measures. The relevant documents can be found at: www.lastormwater.org. It is advised that input regarding LID requirements be received in the early phases of the project from WPD's plan-checking staff.

GREEN STREETS

The City is developing a Green Street Initiative that will require projects to implement Green Street elements in the parkway areas between the roadway and sidewalk of the public right-of-away to capture and retain stormwater and urban runoff to mitigate the impact of stormwater runoff and other environmental concerns. The goals of the Green Street elements are to improve the water quality of stormwater runoff, recharge local ground water basins, improve air quality, reduce the heat island effect of street pavement, enhance pedestrian use of sidewalks, and encourage alternate means of transportation. The Green Street elements may include infiltration systems, biofiltration swales, and permeable pavements where stormwater can be easily directed from the streets into the parkways and can be implemented in conjunction with the LID requirements.

CONSTRUCTION REQUIREMENTS

The project is required to implement stormwater control measures during its construction phase. All projects are subject to a set of minimum control measures to lessen the impact of stormwater pollution. In addition for projects that involve construction during the rainy season that is between October 1 and April 15, a Wet Weather Erosion Control Plan is required to be prepared. Also projects that disturb more than one-acre of land are subject to the California General Construction Stormwater Permit. As part of this requirement a Notice of Intent (NOI) needs to be filed with the State of California and a Storm Water Pollution Prevention Plan (SWPPP) needs to be prepared. The SWPPP must be maintained on-site during the duration of construction.

If there are questions regarding the stormwater requirements, please call Kosta Kaporis at (213) 485-0586, or WPD's plan-checking counter at (213) 482-7066. WPD's plan-checking counter can also be visited at 201 N. Figueroa, 3rd Floor, Station 18.

GROUNDWATER DEWATERING REUSE OPTIONS

The Los Angeles Department of Water and Power (LADWP) is charged with the task of supplying water and power to the residents and businesses in the City of Los Angeles. One of the sources of water includes groundwater. The majority of groundwater in the City of Los Angeles is adjudicated, and the rights of which are owned and managed by various parties. Extraction of groundwater within the City from any depth by law requires metering and regular reporting to the appropriate Court-appointed Watermaster. LADWP facilitates this reporting process, and may assess and collect associated fees for the usage of the City's water rights. The party performing the dewatering should inform the property owners about the reporting requirement and associated usage fees.

On April 22, 2016 the City of Los Angeles Council passed Ordinance 184248 amending the City of Los Angeles Building Code, requiring developers to consider beneficial reuse of groundwater as a conservation measure and alternative to the common practice of discharging groundwater to the storm drain (SEC. 99.04.305.4). It reads as follows: "Where groundwater is being extracted and discharged, a system for onsite reuse of the groundwater, shall be developed and constructed. Alternatively, the groundwater may be discharged to the sewer."

Groundwater may be beneficially used as landscape irrigation, cooling tower make-up, and construction (dust control, concrete mixing, soil compaction, etc.). Different applications may require various levels of treatment ranging from chemical additives to filtration systems. When onsite reuse is not available the groundwater may be discharged to the sewer system. This allows the water to be potentially reused as recycled water once it has been treated at a water reclamation plant. If groundwater is discharged into the storm drain it offers no potential for

reuse. The onsite beneficial reuse of groundwater can reduce or eliminate costs associated with sewer and storm drain permitting and monitoring. Opting for onsite reuse or discharge to the sewer system are the preferred methods for disposing of groundwater.

To help offset costs of water conservation and reuse systems, LADWP offers the Technical Assistance Program (TAP), which provides engineering and technical assistance for qualified projects. Financial incentives are also available. Currently, LADWP provides an incentive of $1 75 for every 1,000 gallons of water saved during the first two years of a five-year conservation project. Conservation projects that last 10 years are eligible to receive the incentive during the first four years. Other water conservation assistance programs may be available from Metropolitan Water District of Southern California. To learn more about available water conservation assistance programs, please contact LADWP Rebate Programs 1-888-376-3314 and LADWP TAP 1-800-544-4498, selection "3".

For more information related to beneficial reuse of groundwater, please contact Greg Reed, Manager of Water Rights and Groundwater Management, at (213)367-2117 or greg.reed@ladwp.com

SOLID RESOURCE REQUIREMENTS

The City has a standard requirement that applies to all proposed residential developments of four or more units or where the addition of floor areas is 25 percent or more, and all other development projects where the addition of floor area is 30 percent or more. Such developments must set aside a recycling area or room for onsite recycling activities. For more details of this requirement, please contact Daniel Hackney of the Special Project Division at (213)485-3684.

Sincerely,

Ali Poosti, Division Manager
Wastewater Engineering Services Division
LA Sanitation

EP/AP:as

Attachment Figure 1 – Sewer Map

c: Kosta Kaporis, LASAN
Daniel Hackney, LASAN
Eduardo Perez, LASAN

Wastewater Engineering Services Division
LA Sanitation
City of Los Angeles

Figure 1
Olive View - UCLA Medical Center
Campus Master Plan
Sewer Map

N
W E
S

0 500 1,000 2,000 3,000 4,000
Feet

Thomas Brother Data reproduced with permission granted by THOMAS BROS MAP

Olive View – UCLA Medical Center Campus Master Plan Environmental Impact Report Scoping Meeting

Comment Sheet/Oja de Comentarios

April 14, 2016

Name/Nombre: DONNA GOOLEY

Affiliation/ Affiliación :

Address/Dirección:

Phone Number / Teléfono:

Email Address/ Correo electrónico:

NEED SIGNALS OLIVE VIEW/KENNEDY & OLIVE VIEW/BLEDSOE

Please return this comment sheet at the sign- in table or mail your comments by May 2, 2016 to:
County of Los Angeles Department of Public Works
Attention: Clarice Nash
Project Management Division I
900 S. Fremont Ave., Alhambra, California 91803-1331
Or by email to cnash@dpw.lacounty.gov

Olive View – UCLA Medical Center Campus Master Plan
Environmental Impact Report Scoping Meeting

Comment Sheet/Oja de Comentarios

April 14, 2016

Name/Nombre:
William Payne

Affiliation/ Affiliación :

Address/Dirección:
13780 Gladstone Ave. Sylmar CA. 91342

Phone Number / Teléfono:
818-362-5033

Email Address/ Correo electrónico:
billwpayne@gmail.com.

2035 Improvements needed to accommodate raised solar paneling, and electrical car charging station.

Provision for fire station coverage; no increases since 1956. stressed to the limit. contact Mr. Holmes. 3rd Thurs.

Please return this comment sheet at the sign- in table or mail your comments by May 2, 2016 to:
County of Los Angeles Department of Public Works
Attention: Clarice Nash
Project Management Division I
900 S. Fremont Ave., Alhambra, California 91803-1331
Or by email to cnash@dpw.lacounty.gov

Olive View – UCLA Medical Center Campus Master Plan
Environmental Impact Report Scoping Meeting

Comment Sheet/Oja de Comentarios

April 14, 2016

Name/Nombre:
Anthony Castro

Affiliation/ Afiliación :

Address/Dirección:
13769 Berg street Sylmar, CA 91342

Phone Number / Teléfono:
(818) 938-5759

Email Address/ Correo electrónico:
AnthonyEAguilar@yahoo.COM

APR. 25, 2016

Parental & Religious Freedom National Security / Foreign Policy Opportunities For Middle Class Families Expand Veterans Services Welfare Reform Safety Net & Opportunity Expanding Opportunities For Seniors Student Loan Optional Repayment Opportunities Fair & Balanced Immigration Reform Protect & Support 2nd Amendment Expanding Proven Youth Intervention Programs

Life changing Homeless Solutions

My name is Tony Castro

Please return this comment sheet at the sign- in table or mail your comments by May 2, 2016 to:
County of Los Angeles Department of Public Works
Attention: Clarice Nash
Project Management Division I
900 S. Fremont Ave., Alhambra, California 91803-1331
Or by email to cnash@dpw.lacounty.gov

No.	Date	Agency, Organization, Individual	Topic (Air Quality, Noise, Traffic, etc.)	Comment	Response to Comment
Public Agencies/Organizations					
1	3/30/2016	Native American Heritage Commission	Tribal cultural resources and tribal consultation under AB 52 and SB 18	The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project as early as possible and provides a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments to adequately assess the existence and significance of tribal cultural resources, and planning for their avoidance, preservation in place, or barring both, mitigation of project –related impacts to tribal cultural resources.	Consultation with tribes that have requested consultation has been initiated and is underway, and this letter has been forwarded to the project archaeologists to ensure compliance with recommendations by NAHC.
2	4/12/2016	Federal Emergency Management Agency (FEMA)	Floodplain management	Please review the current effective countywide Flood Insurance Rate Maps (FIRMs) for the County of Los Angeles (Community Number 065043), Maps revised January 6, 2016. Please note that the County of Los Angeles, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described	The most current FIRMs will be used for the EIR. Development under the proposed Master Plan will comply with NFIP floodplain management building requirements as described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65. Development under the proposed Master Plan will adhere to Local floodplain management building requirements, and coordination with the County's floodplain manager will

No.	Date	Agency, Organization, Individual	Topic (Air Quality, Noise, Traffic, etc.)	Comment	Response to Comment
				in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65. Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The Los Angeles County floodplain manager can be reached by calling George De La O, Senior Civil Engineer, at (626) 458-7155.	occur as needed during development of the Master Plan projects.
3	4/14/2016	South Coast Air Quality Management District	Recommendations regarding analysis of potential air quality impacts	Recommendations for air quality analysis, mitigation measures, and data sources to be used in the EIR.	The air quality analysis as part of this EIR will be prepared per these guidelines and recommendations
4	4/15/2016	Los Angeles Unified School District, Office of Environmental Health and Safety	Air Quality; Hazards & Hazardous Materials; Traffic & Transportation	Concerned with construction-cumulative net increases in criteria air pollutants in the region Concerned with hazards/hazardous materials transport during construction and operation Concerned with traffic and pedestrian safety during construction and operation	An analysis of criteria air pollutants during construction and their cumulative effects will be included in the Air Quality section of this EIR, along with any identified mitigation measures, as required. This issue will be analyzed in the Hazards and Hazardous Materials section of the EIR, along with any identified mitigation measures, as required. Any special considerations for traffic and pedestrian safety during construction and operation of the project, as required, along with any

No.	Date	Agency, Organization, Individual	Topic (Air Quality, Noise, Traffic, etc.)	Comment	Response to Comment
					identified mitigation measures, will be included in the Transportation section of this EIR.
5	4/21/2016	Fernandeño Tataviam Band of Mission Indians, Tribal Historic & Cultural Preservation Committee	Tribal cultural resources	Formal request to for tribal consultation under the provisions of CEQA PRC section 21080.3.1 subdivisions (b), (d), and (e)) and request for the estimated cubic yards of soil disturbance for the Project.	Response letter has been sent, including the estimated cubic yards of soil disturbance for the Project.
6	4/25/2016	County of Los Angeles Fire Department	Comments regarding fire/life/safety design requirements and various CEQA issues	Response jurisdiction; Access requirements; water system requirements; Preliminary Fuel Modification Plan; erosion control; watershed management; rare & endangered species; archaeological and cultural resources; County Oak Tree Ordinance	All of these topics will be addressed in the EIR, with the exception of specific building access and water system requirements that will be submitted for fire department approval during the individual building permitting process.
7	4/27/2016	California Department of Transportation, District 7 – Office of Transportation Planning	Traffic study	Guidance for what Caltrans would like included in the traffic study, and a request to review the traffic study when it is completed as part of the DEIR.	Fehr & Peers has been in coordination with Caltrans, and Caltrans input/recommendations are included in the traffic analysis, as appropriate.
8	5/2/2016	Southern California Association of Governments	Request to review Draft EIR	When available, please send environmental documentation to SCAG's office in Los Angeles or by email to sunl@scag.ca.gov	The Draft EIR will be submitted to SCAG as requested.
9	6/15/2016	Los Angeles Department of Water & Power	Water Resources	The Project's water demand should be estimated in the DEIR; the most current Urban Water Management Plan should be used (expected approval June 2016); DEIR should include discussion of water conservation codes and ordinances;	These concerns raised in the comment letter will be addressed in the Draft EIR (DEIR) as well as in the project's water supply assessment, in coordination with LADWP.

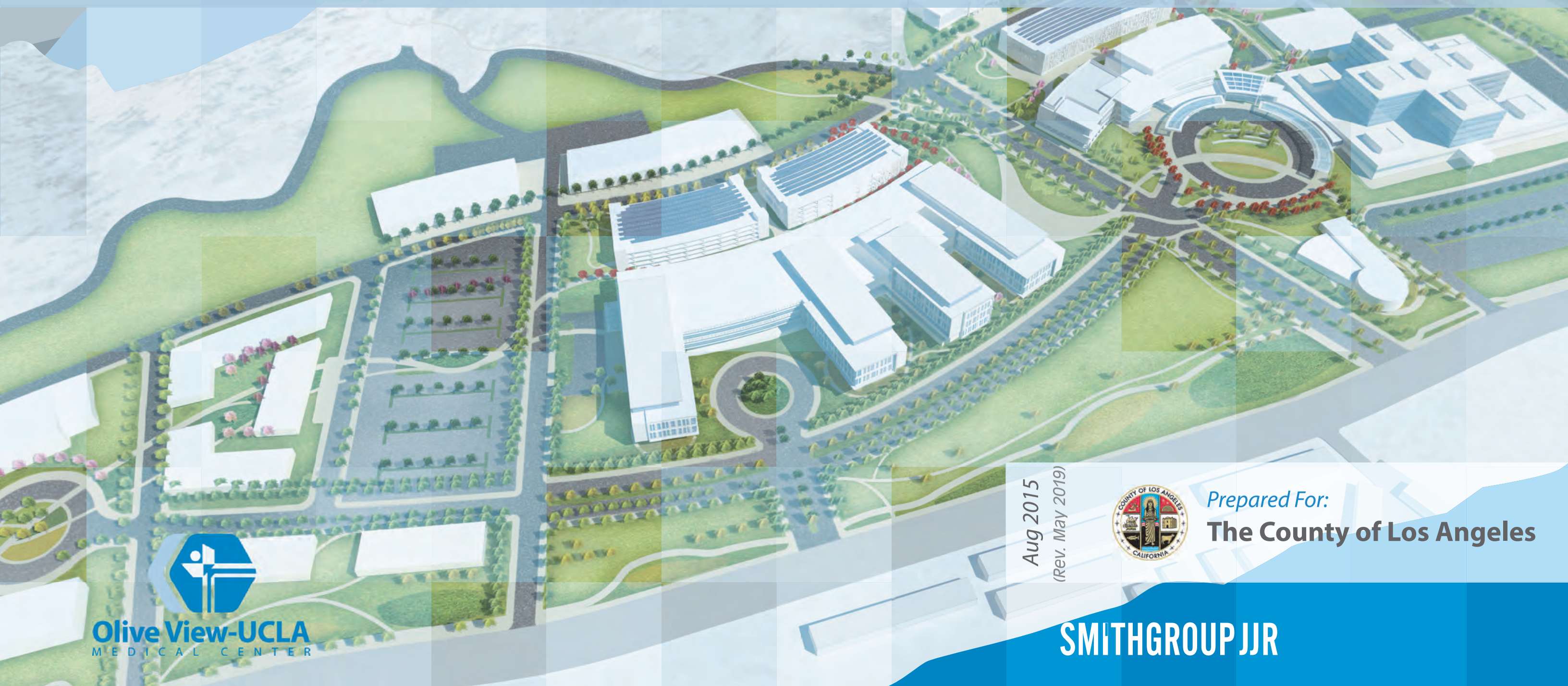
No.	Date	Agency, Organization, Individual	Topic (Air Quality, Noise, Traffic, etc.)	Comment	Response to Comment
				water supply should be assessed; discuss whether the Project is consistent with the most current Regional Transportation Plan demographic projections from SCAG.	
10	6/27/2016	City of Los Angeles Department of Public Works, Wastewater Engineering Services Division – LA Sanitation	Potential sewer system impacts	In order to properly analyze the potential impacts to the sewer system we will need the following information about the proposed facility: <u>Number of beds</u> Hospital Surgical Psychiatric <u>Square footage of</u> Medical building Labs in the hospital Medical offices/clinics Office building Office building w/ cooling tower Retail space Restaurant space (take out/cafeteria/full service) Please reply with this information at your earliest convenience. Once it is received the analysis of the system will begin.	These numbers, if available, or an estimate for input will be sent as requested.
Private Citizens					
1	4/14/2016	Donna Gooley	Need for new traffic signals	Need signals at Olive View/Kennedy and Olive View/Bledsoe	As part of the MOU being prepared between Fehr & Peers and County Traffic & Lighting, along with input from LADOT, the need for these signals

No.	Date	Agency, Organization, Individual	Topic (Air Quality, Noise, Traffic, etc.)	Comment	Response to Comment
					will be considered and recommended, if warranted.
2	4/14/2016	William Payne	Solar panels, electric car charging, and fire department service demands	2035 Improvements need to accommodate raised solar paneling and electric car charging station. Also provision for fire station coverage; no increases since 1956, and current fire department coverage is stretched to the limit.	To the extent that solar panels and electric vehicle charging stations can be incorporated as part of master plan development, where it coincides with the project objectives, it shall be done. Fire department service levels will also be considered in the Public Services section of the EIR.
3	4/25/2016	Anthony Castro	Variety of federal domestic policy and foreign policy concerns.	Parental & religious freedom; foreign policy/national security; Expansion of services for the middle class, veterans, seniors, students; immigration reform; 2nd amendment; Youth intervention and homeless solution programs	Thank you for your comments. This project would not address those issues raised that are of a federal scope, nor are the social and economic policy concerns considered environmental impacts under CEQA. This is an environmental impact report, pursuant to CEQA, for a master plan of an existing hospital campus.

Appendix B

Master Plan

OLIVE VIEW - UCLA MEDICAL CENTER | CAMPUS MASTER PLAN



Olive View-UCLA
MEDICAL CENTER

Aug 2015
(Rev. May 2019)

Prepared For:
The County of Los Angeles

SMITHGROUP JJR

EXECUTIVE SUMMARY

Background

At the request of the County of Los Angeles, the Master Planning team has prepared this report for the development of the Olive View-UCLA Medical Center Campus in Sylmar, California. The medical center campus was originally developed in the 1930s to respond to an overcrowding at the County General Hospital. Because of the dry and warm climate, it was ideal for the treatment of the respiratory disease tuberculosis. In 1970 it was converted to an acute care hospital. Currently, the medical center is a teaching hospital and has a strong relationship with the David Geffen School of Medicine at UCLA providing intern and residency programs in a wide range of medical and surgical specialties. The medical center is a key component in the ValleyCare healthcare network which provides services to residents in the San Fernando and Santa Clarita Valleys, many of who are uninsured or under insured and depend on the County of Los Angeles Department of Health Services.

There are a number of challenges facing the campus such as compliance with code mandated upgrades, a movement towards more outpatient based services, demographic shifts, and site utilization improvements.

The master plan includes analysis and assessment of the existing campus infrastructure and buildings, and future considerations and recommendations for the campus' land use. The existing campus consists of the Main Hospital tower which houses both inpatient and outpatient services. Besides the Main Hospital tower, the density of the campus is very low with small one and two-story support buildings spread across the vast area of the site. The campus has gone through significant and varied changes throughout the development history, and as a result, there is lack of coherance and unity. To resolve these issues, the master plan introduces a series of design guidelines that dictate building placement, form, and materiality.

Challenges

The main goal of the planning effort is to provide flexibility to allow the master plan to adapt to changes over time. There are a number of variables that affect each building component, and the order in which each is constructed. To respond to this need, alternate paths are provided which should guide the development of the campus over time. Given overall healthcare trends and the full impact of the Affordable Care Act, the first priority of the master plan is to move the outpatient services in the existing Hospital into a new Ambulatory Care Center. By locating inpatient and outpatient in dedicated buildings, this responds directly to the overarching goals of the master plan to optimize the quality of care and operational effectiveness.

The future considerations for the existing Hospital are key in developing a flexible, long-range plan for the campus. Four planning options are provided to respond to the budget and time restrictions for this facility. There are various levels of renovation proposed for the existing Hospital from code required minimal renovation to full renovation. Depending on the available funds, the level of disruption during renovation of the existing Hospital, and the ability to provide care to the community, a final option for a hospital replacement is considered.

There are a number of other buildings on the campus that are proposed which relate to the medical center and provide services to the community. These include a new Central Utility Plant, a consolidated Administration Building, rightsized and upgraded Support Buildings, and Long Term Care Residential. In addition, the potential to increase collaboration with the medical center and UCLA has been provided on the site for future development with UCLA Medical Office and Research facilities. There is an opportunity to provide collaboration with the Los Angeles County Department of Mental Health (DMH), geared towards community support and outpatient services. Locations for DMH-related functions are provided in this master plan.

As a result of the input received at the community meetings, there are zones identified in the master plan for more community related functions. These include a Child Care Center/Community Center, Senior Center/Fitness Center, and retail and outdoor opportunities.

Solution

The Olive View - UCLA Medical Center has a history which can be traced back to a more natural setting. Over the course of the development history of the campus, this natural setting and landscape has been lost. Paved areas now occupy an expansive area of the campus. One of the specific goals of the master plan is to create a more community based and patient centered campus. The master plan focuses on providing opportunities for more green space and places for patients, families, visitors, and members of the community to interact. Gardens, courtyards, and quads will help by not only providing places of respite and healing, but also fostering interaction and learning for UCLA. The various open spaces help organize and link the various buildings on the campus. Distinguished entry points are provided for each of the major facilities of the campus to provide clear organization and wayfinding. To help provide relief of the campus to the immediate surroundings, a green belt is introduced along the front edge. This green belt provides an area for community parks and public facilities such as wellness centers and retail shops.

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Kathryn Barger, Supervisor

County of Los Angeles Supervisorial District 3
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Dr.Christina R.Ghaly, Director
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Kimley-Horn Associates, Inc.

Real Estate Advisor
Jones Lang LaSalle

Parking/Traffic Engineer
Walker Parking Consultants

Sustainability
Brightworks

Fire Protection/Fire Life Safety
AON

Information Technology
Vantage

Materials and Waste Management
Lerch Bates

Signage and Wayfinding
SKA Design

Lighting
Horton Lees Brogden

Cost Estimating
Cumming

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08 Implementation
Phasing

SITE PROGRAM SUMMARY

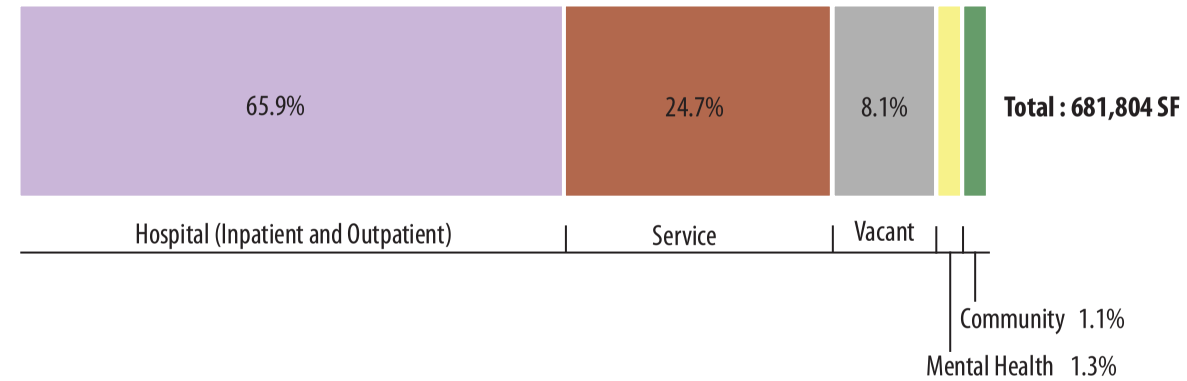
CRITERIA	EXISTING CONDITIONS	MASTER PLAN
Site Area	230 Acres	
Site Area (Buildable)	5,603,700 SF	
in Acres	130 Acres	
Building Area	804,200 SF	1,382,000 SF
Floor Area Ratio (FAR)	0.144	0.247
Maximum Building Height/Number of Stories	100 FT/6 Stories	100 FT/6 Stories
Parking		
Stalls in surface parking	2,672 *Count	1,200
Stalls in structure	0	2,000

BUILDING PROGRAM	EXISTING CONDITIONS	MASTER PLAN	
Hospital	530,000 SF	530,000 SF	***
Ambulatory Care Center		276,000 SF	
UCLA MOB		120,000 SF	
Community	9,300 SF	20,000 SF	
Administration	99,400 SF	96,000 SF	
Retail		40,000 SF	
Mental Health	11,000 SF	20,000 SF	**
Long Term Care Residential		135,000 SF	
Support Services Buildings	35,200 SF	68,000 SF	
Central Utility Plant / Facilities / Shops	64,700 SF	77,000 SF	
Vacant	65,600 SF		
SUBTOTAL	**804,200 SF**	**1,382,000 SF**	

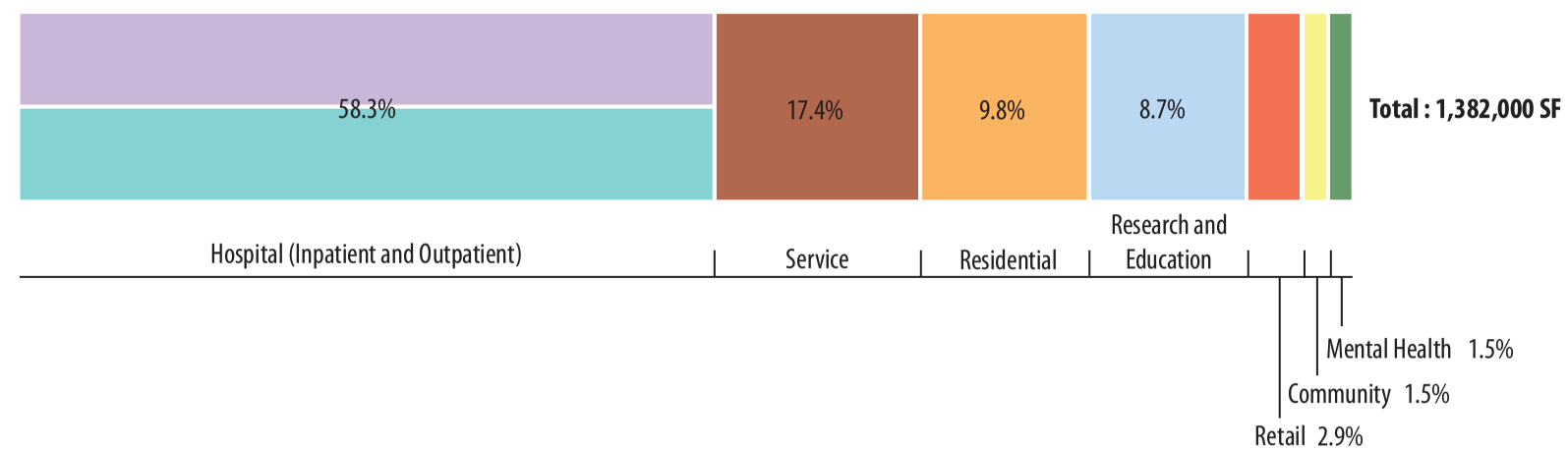
Notes: ** Current demand: 2,251*
*** Anywhere from 15,000 to 40,000 SF*
**** This area is for total renovation. If the building is replaced, the area should be closer to 600,000 SF.*

BUILDING USE

Existing Conditions



Olive View - UCLA Medical Center Master Plan



SMITHGROUP JJR

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

New Ambulatory Care Center and Existing Hospital Drop-off

Future Hospital Entry Plaza and Drop-off

UCLA Research and Education Building

New Ambulatory Care Center Entry Plaza

01 INTRODUCTION

PROJECT DESCRIPTION

1.01 Map of County of Los Angeles and Project Location

The County of Los Angeles Chief Executive Office is preparing a Campus Plan to guide the reorganization and redevelopment of the Olive View-UCLA Medical Center located in the County's San Fernando Valley Cluster/Valley Care region. The County expects significant restructuring of the existing campus, consistent with the 2035 planning horizon, in order to meet its responsibilities to provide essential health care services. Development of a Campus Plan provides an opportunity for comprehensive strategic planning to meet the needs of the County and the surrounding communities.

The master plan includes analysis and assessment of the current campus, future considerations and recommendations, and proposals for the campus' land use. The master plan is based on existing development, social and economic conditions, surveys, public input, physical characteristics, and planning. The 230 acre Olive View-UCLA Medical Center campus is located near Sylmar, California. The address is 14445 Olive View Drive and is bounded by the Angeles National Forest on the North, Olive View Drive on the South, Wilson Canyon Channel on the East, and Bucher Avenue to the West.

HISTORY

SYLMAR

The history of Olive View Medical Center is very much a part of the history of the community of Sylmar. The area of Sylmar was initially developed as an agricultural outgrowth of the City of San Fernando. The earliest recorded inhabitants of the San Fernando Valley were the Tongva Indians, also known as the Gabrielinos. In 1797, the Spaniards founded Mission San Fernando Rey de España which became a center of regional activity in the Valley. In 1874, the city of San Fernando was founded and two years later Southern Pacific Railroads completion connected the valley with the rest of the nation. The area developed into an agricultural center. Because of the rich soil, steady underground water supply, and ideal warm temperatures, the area around Sylmar produced some of the finest olives and olive oil.

Sylmar was officially named in 1913 at the same time in which the Los Angeles Aqueduct was completed. The accelerated urbanization and population growth following World War II brought changes to the character and development of the area. The olive oil industry along with other agricultural farms were eliminated. Many of the current residential homes and neighborhoods today were built during this time between 1940 and 1960. Two major freeways, the Foothill and Golden State Freeways, were also been built creating more links to the region and attracting new businesses. The 1980s saw a growth in Sylmar's population and housing as well as a transition in demographics from Anglo to Latino population majority.

Due to an overcrowding at the County General Hospital, a tuberculosis sanitarium was established at the current Olive View site towards the end of the 1930s. Because of the dry and warm climate, it was ideal for treatment of respiratory problems. It was then converted into an acute care hospital in 1970. After the 1971 Sylmar Earthquake, the hospital was damaged beyond repair. The hospital was reopened in 1983 and is the current facility for the medical center.

OLIVE VIEW - UCLA MEDICAL CENTER

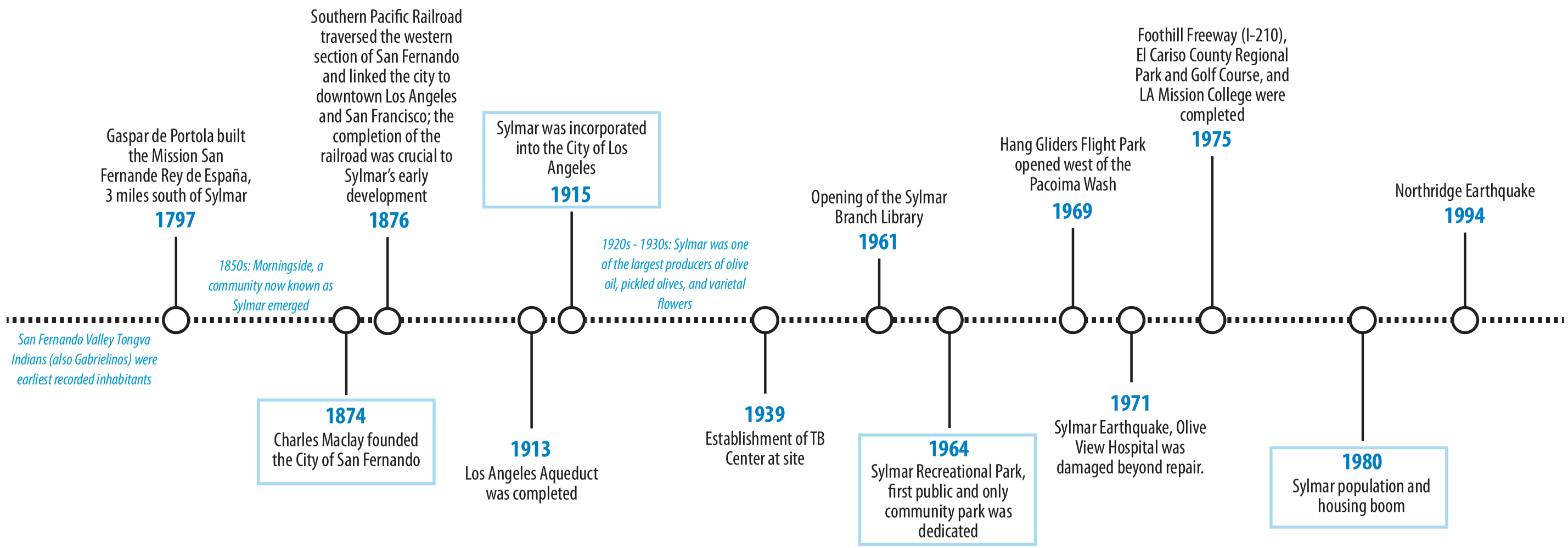
Olive View incorporated UCLA into its name in 1992 becoming Olive View-UCLA Medical Center. The medical center serves much of the San Fernando Valley, Santa Clarita, and Antelope Valley providing a full-range of inpatient and outpatient services including Emergency Medicine, Internal Medicine, Neurology, Pediatrics, Obstetrics and Gynecology, Surgery, Radiology, and Psychiatry. The medical center is a teaching hospital, affiliated with the David Geffen School of Medicine at UCLA, with all physician faculty having academic appointments. In addition to the many residency programs in a variety of specialty areas, the medical center also operates an on-campus School of Nursing. In 1997, the medical center became a part of the ValleyCare system, which maintains responsibility for residents in the San Fernando and Santa Clarita Valleys.

1.02 Historical photo of Sylmar

1.03 Historical photo of Los Angeles Aqueduct

1.04 Photo of Olive View-UCLA Medical Center

HISTORICAL TIMELINE

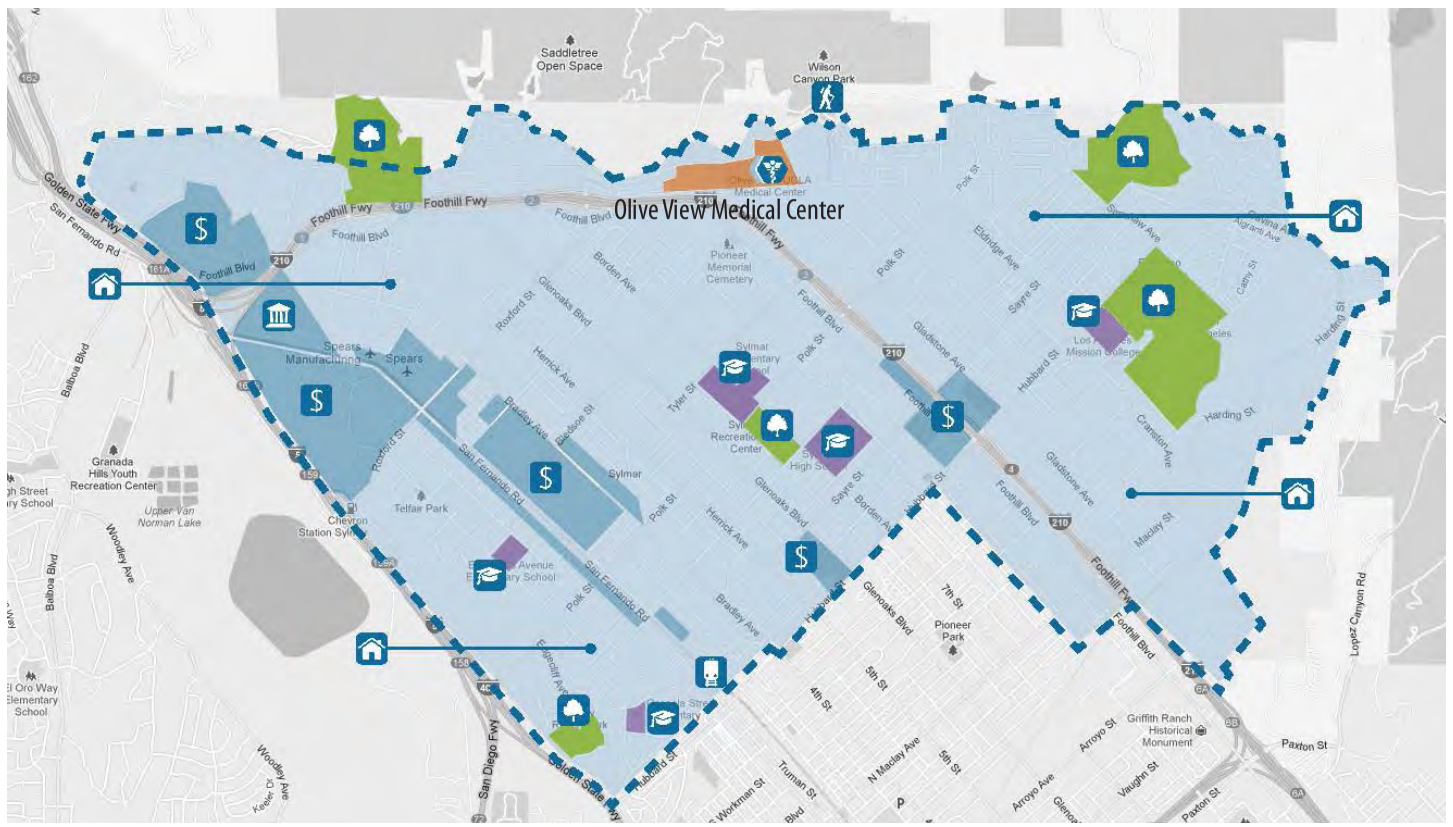


1.05 Timeline of Sylmar and City of Los Angeles

CONTEXT

SYLMAR

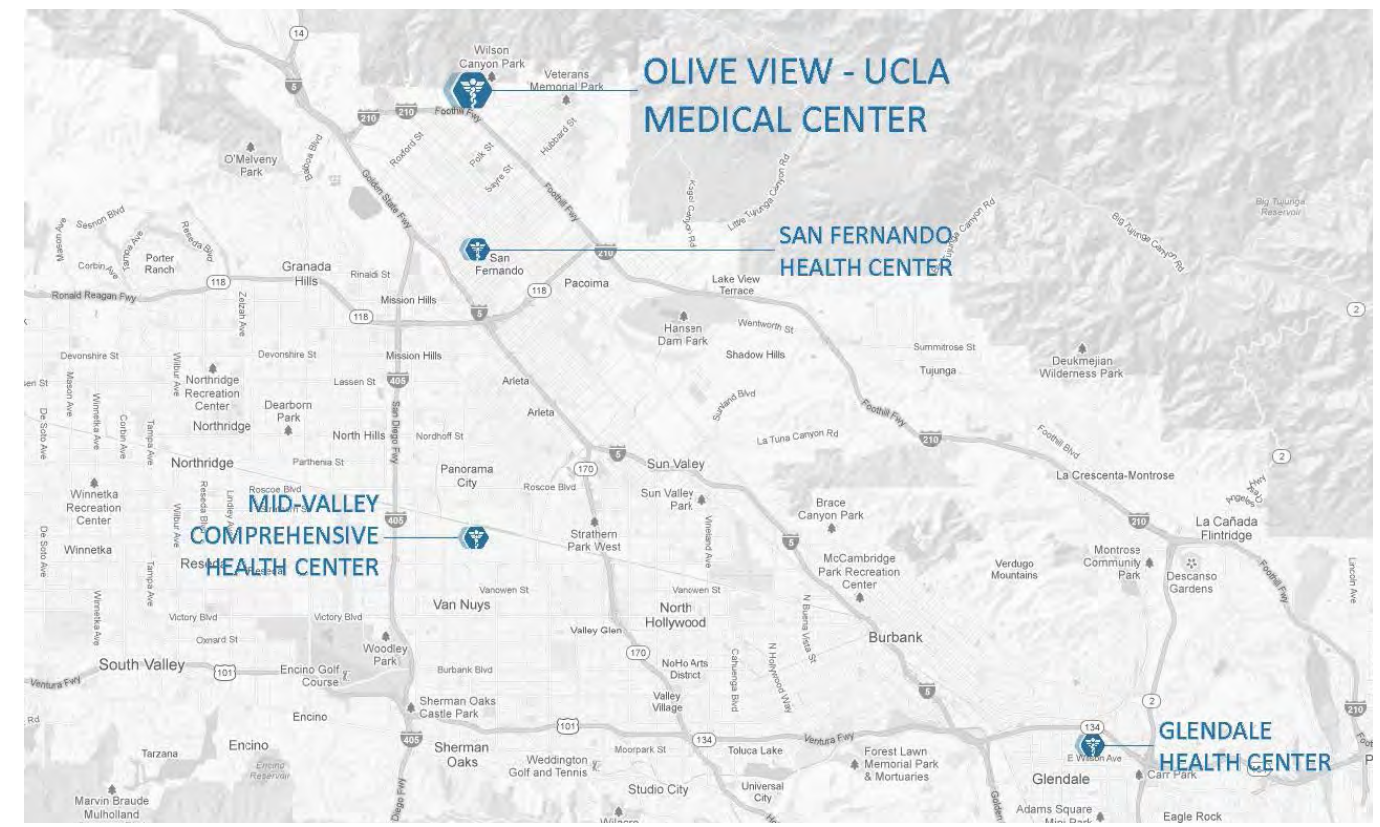
Family residences make up the majority, but distributed in the Sylmar area are also commercial and industrial centers, courthouses, public parks and schools. The Olive View-UCLA Medical Center lies on the northern edge of Sylmar.



1.06 Sylmar Community Plan Map

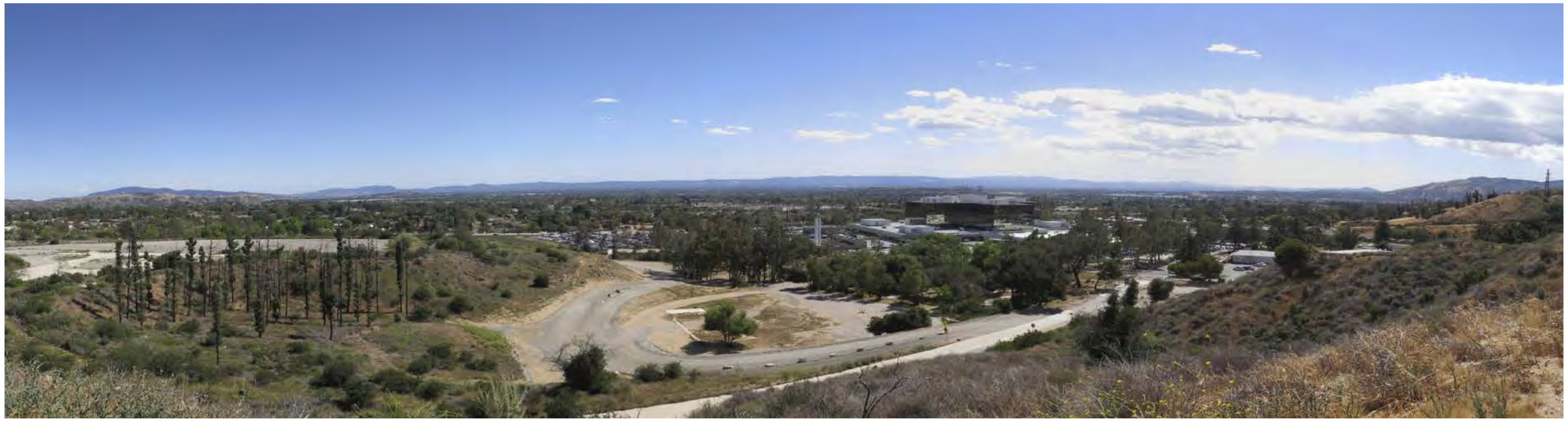
REGIONAL VALLEY CARE LOCATIONS

The Olive View - UCLA Medical Center serves as the hospital for the Valley Care wellness community. In the city of Sylmar, the campus contains a mix of inpatient, outpatient, teaching and support services that serve the entire Valley Care network. The map below identifies the Olive View campus and the other regional health centers that comprise Valley Care.



1.07 Map of Regional ValleyCare Locations

MASTER PLAN GOAL



1.08 Panoramic view of Olive View - UCLA Medical Center from San Gabriel Mountains

The County is **committed to** redeveloping the Olive View-UCLA Medical Center campus to provide an **integrated healthcare** delivery model **in the County's San Fernando Valley** Cluster/Valley Care area.

MASTER PLAN OBJECTIVES

Adopt a Campus Plan that is compatible with the inherent site conditions, and provides for **development opportunities** that are consistent with the goals and policies of the County's General Plan.

A fundamental reorganization, expansion, and integration of outpatient services with the specific goals of being more **community based** and **patient centered.**

Locate **inpatient and outpatient** services into **dedicated buildings** to optimize the quality of care and operational effectiveness, while reducing administrative, operational and maintenance costs.

Ensure that operative costs are reduced in accordance with the prescriptions of the federal injunction.

Comply with the seismic safety regulations developed by the Office of Statewide Health Planning and Development.

Identify feasible opportunities to exceed state energy requirements and pursue green building **sustainable design** to the maximum extent possible.

Develop resources that are consistent with the needs of the **2035 planning horizon**.

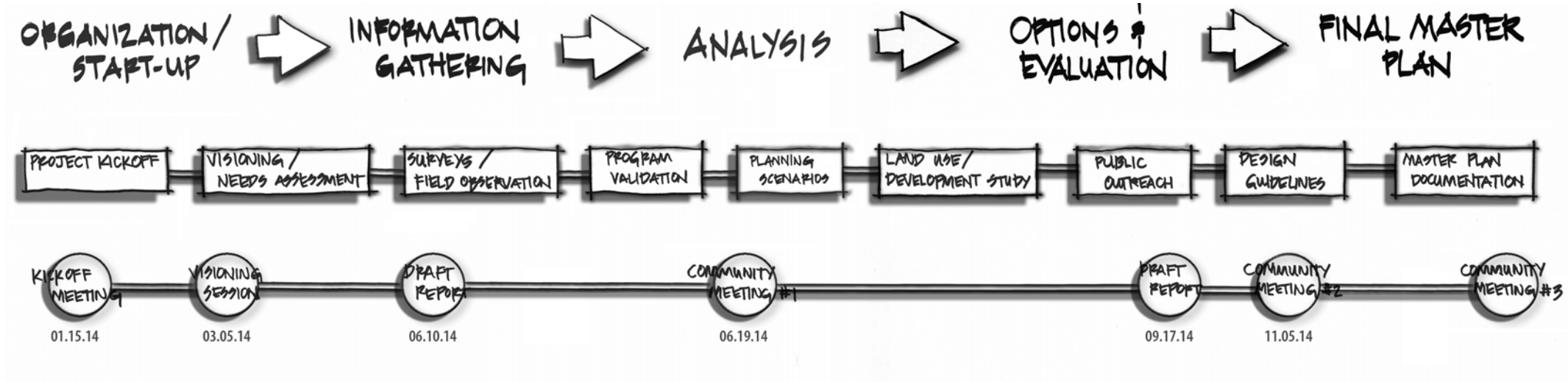
PROCESS

SmithGroupJJR and the consultant team developed a parallel process for working on the Master Plan. The team developed focus groups for Design, Planning and Technical issues. This allowed each consultant to focus on their area of expertise while staying connected with the greater team. Each focus group met with relevant campus user groups to learn about the current state of facilities and operations on campus. This information was used to develop a baseline from which to begin the master plan. In subsequent meetings, the focus groups worked with user teams to identify future possibilities and goals for the campus including re-use of existing facilities, construction of new facilities, improved operational processes and campus design standards.

Using this parallel process as a basis, the master plan was divided into separate phases. The first phase involved an Initial Start-Up which included such activities as a Project Kickoff and Executive Visioning Session with the design team and members of the County of Los Angeles. Once the vision and needs of the master plan were understood, this then led to the next phase of Data Gathering. During this phase, the design team conducted site visits to the campus and hospital facilities, held meetings with Facilities and Hospital staff, and collected documents and drawings of the existing campus. The third phase involved an anaylsis of the data collected including validation of the campus and hospital departments, and development and understanding of the site constraints and campus facilities. Based on the existing conditions assessment and analysis, planning scenarios and land use studies were developed to organize possible options for the master plan. This fourth phase subsequently led to the final phase of the master plan, the proposed vision for the medical center campus.

COMMUNITY INVOLVEMENT

An integral part of the master plan process was engaging with members of the community. Community meetings were held at key stages of the master plan effort which allowed the team to appropriately respond to the needs of the medical center and surrounding community. At each meeting, presentations were given for the proposed designs of the campus in addition to focused group and question and answer sessions to engage with individual members of the community.



1.09 Diagram showing Master Plan Process

Organization / Start-Up

- Project Kick-off with entire Master Plan team
- Executive Visioning Session with Key Stakeholders of the County of Los Angeles
- Establish goals and objectives

Information Gathering

- Meet with key facility personnel and medical center staff
- Review zoning requirements, parking, traffic, wayfinding, and other items related to urban planning
- Interview key stakeholders to determine interest in future campus development and programs including UCLA, Department of Mental Health, and Department of Health Services.
- Conduct on-site investigations of the existing Hospital and support buildings to determine the current state of the campus

Analysis

- Identify key infrastructure needs and improvements
- Based on current state of campus, identify priorities for short and long term campus development
- Based on current utilization of the Hospital departments, identify planning strategies for implementing master plan

Options and Evaluation

- Using a variety of organizational and planning strategies informed by the data gathered and assessed for the existing facility, provide a series of site planning and design options for evaluation by the community and key stakeholders within the County

Final Master Plan

- Establish zones for land use development of the campus
- Address and make proposals for campus circulation, public transit, parking, site utility distribution, materials management, fire and life safety, landscape design, and sustainability
- Prepare a preliminary phasing plan which provides a road map for the future development of the campus
- Create design guidelines to guide proper implementation of the master plan
- Establish standards for building form, shape, materiality, and color, landscaping and open space, wayfinding and signage, and lighting

DESIGN STRATEGY

The Olive View – UCLA Medical Center has a rich history and can be traced back to a more natural setting and a scale that blended with a spectacular backdrop of the Angeles National Forest. The vision for the Master Plan is to **re-capture the natural setting of the campus**.

Unique to this campus is the expansive area which has over time been consumed by surface parking lots to accommodate the growing population that it serves. The result has placed more emphasis on paved areas rather than landscaped areas. The natural setting has been lost and the challenge of this master plan effort is to carefully plan opportunities to incorporate **more green spaces and places for patients, families, staff and the community**.

The design philosophy is rooted in understanding culture and place. The culture at Olive View is dedicated to serving the community and the partnership with UCLA ensures the best care is at the forefront. As a teaching hospital there is a commitment to an open exchange of learning from bedside to classroom which ultimately leads to a collaborative environment of providing excellent care. Providing opportunities for **casual interaction** much like collegial campuses do with **quads, courtyards and gardens** is an overarching goal to reinforce the culture.

The master plan provides an unparalleled opportunity because of the expansive site that nestles at the base of a natural resource along the northern edge. The remainder of the site is surrounded by major thoroughfares and residential communities. A major goal in planning and designing healthcare environments is to **reduce the inherent stress** found in medical centers. This site offers that rare opportunity to provide a transition zone to de-compress as one approaches the facilities because of the expansive land. Introducing a natural edge to the southern edge of the campus will mitigate the transition between arrival and destination. This new edge will serve as an **inviting message to the community** as well as provide a buffer to the built environment. There is a great opportunity to introduce community parks and or public facilities such as health and wellness centers.

The prominent existing Inpatient and Outpatient tower dominates the campus. This valuable resource will play an important part in the development of the master plan. Although this structure will remain for many years, the master plan investigates opportunities to transform the structure to enhance the patient experience and overall image to the community. Ways to bring more natural light into the first two floors will be explored by strategically removing building mass to create courtyards. Also, ways to enhance the energy performance of the tower that may include re-cladding the exterior envelope will be investigated. The goal will be to preserve the structure but transform it both in appearance as well as program efficiency and use.

A successful master plan needs to have a long view but also an initial phase that begins to re-shape and begin the transformation of place making. One of the key ingredients to the initial phase will include a landscaping strategy that sets the stage for re-claiming the spirit of the place. The master plan seeks to overlay a **series of connected outdoor spaces** and environments that will serve as an armature to the various functions and places that are foreseen for a campus setting.

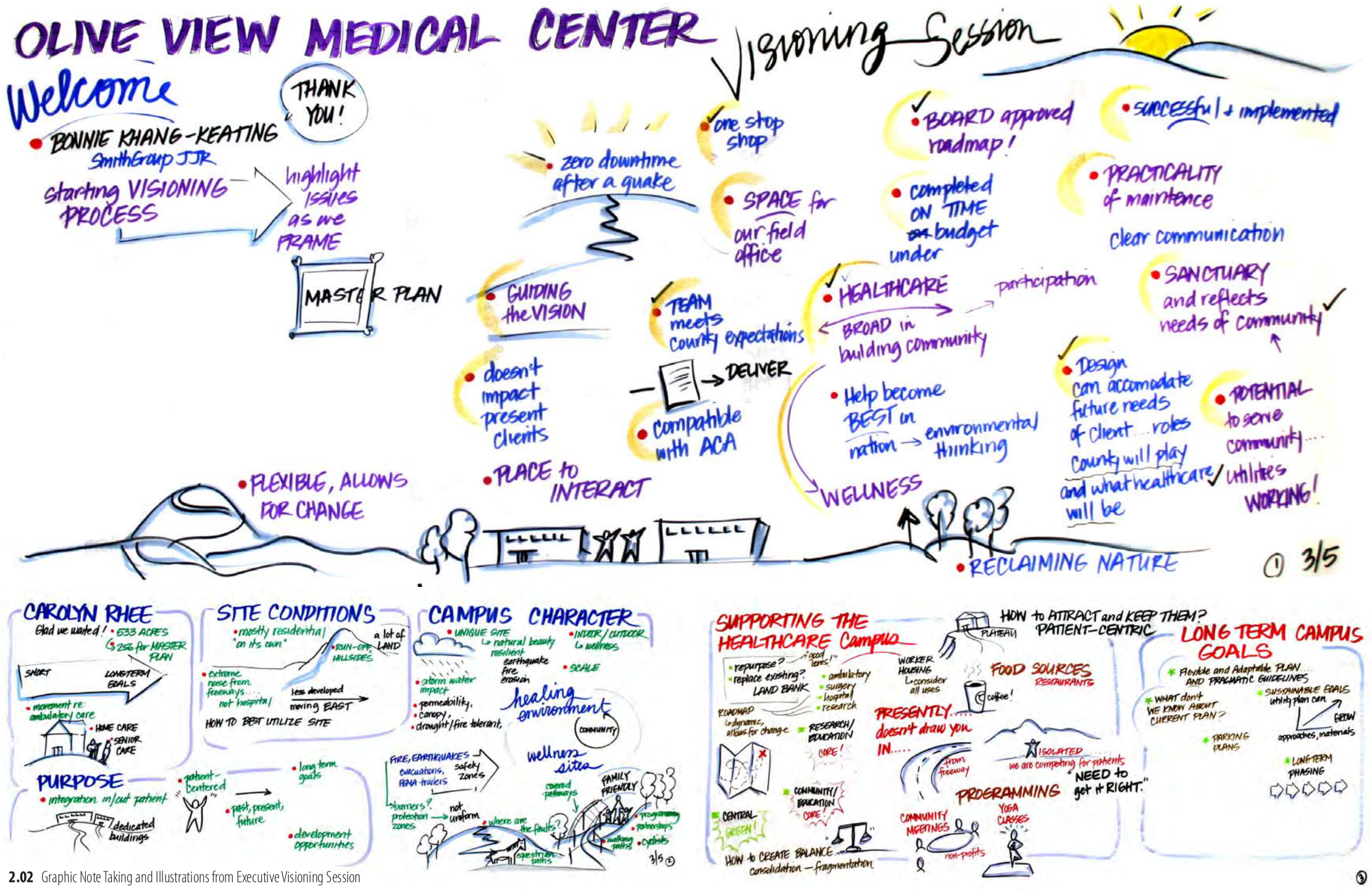
1.10 Examples of green spaces, connection between indoors and outdoors, informal gathering spaces, community activities and engagement

02 OUTREACH

EXECUTIVE VISIONING SESSION

At the onset of the project, a visioning session was held to help establish the goals and objectives for the master plan. The key stakeholders that attended the visioning session included members of the Chief Executive Office, Department of Public Works, Department of Health Services, and representatives from the Board of Supervisors. The key topics that were discussed included a background on the campus, defining the character for the campus, supporting the healthcare campus, and long term goals for the campus.

2.01 Photos from Executive Visioning Session



2.02 Graphic Note Taking and Illustrations from Executive Visioning Session

2.03 Illustration Boards used for the Project Kick-off Meeting and Visioning Session

COMMUNITY MEETINGS

A successful master plan is one that responds to the vision and goals of the community. A major focus of the master plan effort was to learn from, reflect on, and respond to the needs of members of the community. At key intervals during the master plan effort, meetings were held at the campus to get feedback and comments from the various members of the community. These meetings were held at the Olive View-UCLA Hospital Auditorium. Advanced notice was given to the various members of the community through various types of outreach media.

COMMUNITY MEETING 01

The first community meeting was held at the Olive View Hospital Auditorium on June 5th, 2014. A presentation was given by SmithGroupJJR including a description of the history of the campus, existing site conditions, the master plans goals and objectives, planning strategies, and campus design strategies. Following the presentation, a question and answer session was held, and then community members broke into small groups to discuss specific topics with members of the design team.

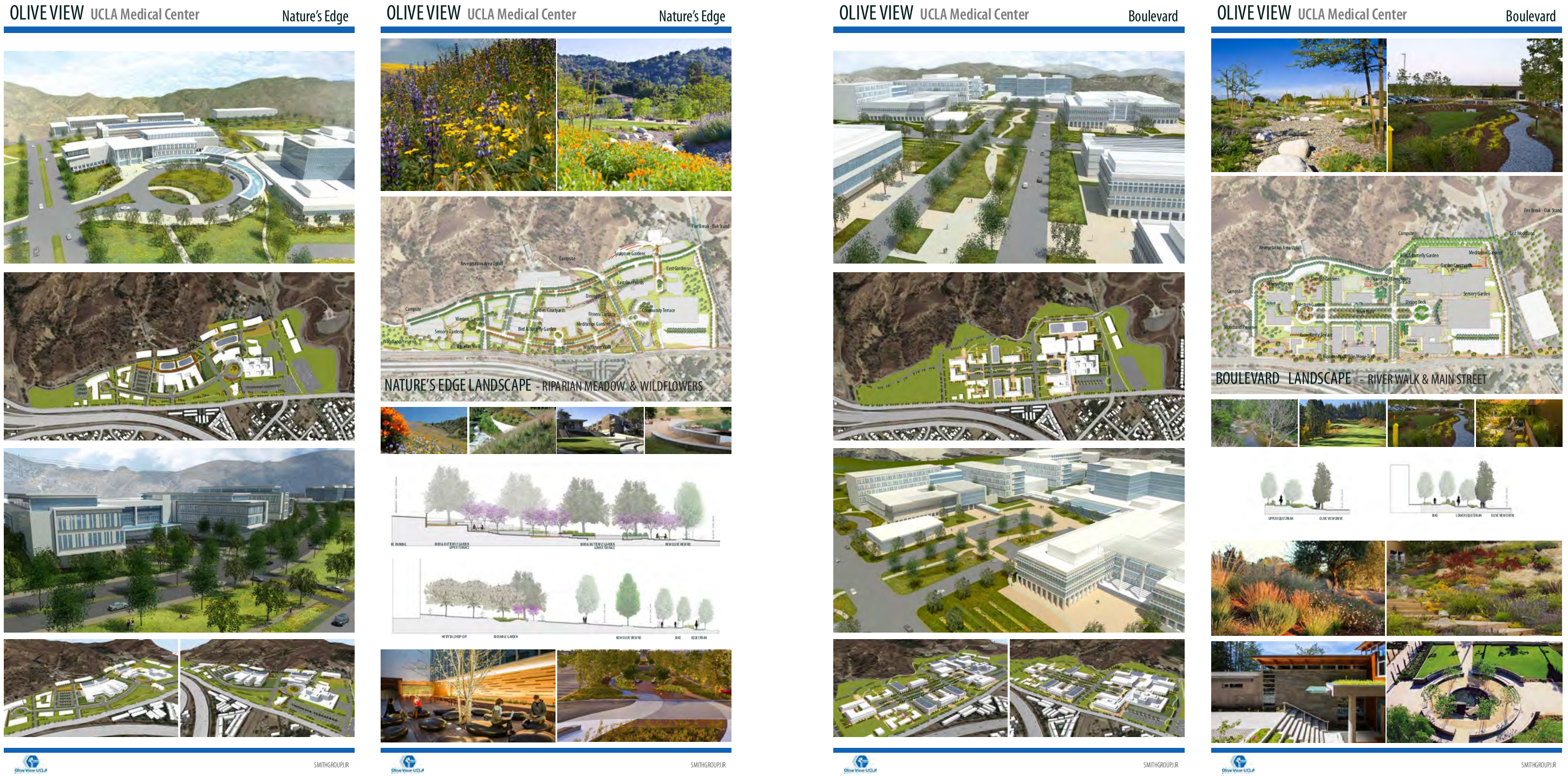
COMMUNITY MEETING 02

The second community meeting was held at the Olive View Hospital Auditorium on November 5th, 2014. After an initial introduction on the results and findings of the first community meeting and master plan effort to date, SmithgroupJJR presented the planning scenarios for the medical center and two preliminary campus master plan design schemes. A question and answer session was held following the presentation as community members were allowed to participate and share their thoughts. The design team gathered and evaluated all the comments shared at the meeting which helped to shape the development of the master plan.

COMMUNITY MEETING 03

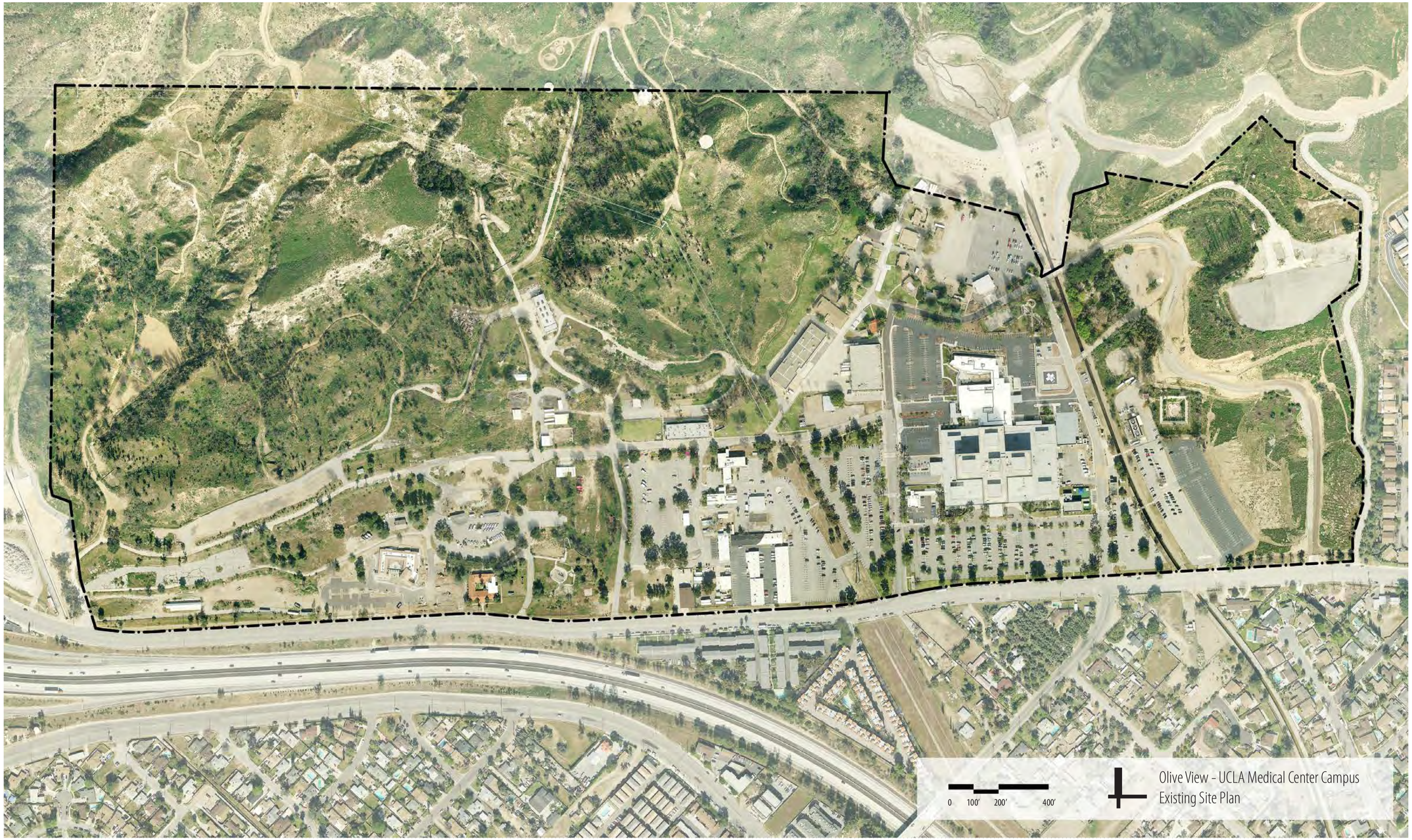
A final community meeting was held at the Olive View Hospital Auditorium on May 21st, 2015 to present the selected campus master plan design. After an introduction and summary of the planning and design effort, SmithGroupJJR presented the selected campus master plan design "Nature's Edge." Following the presentation, opportunities were provided for community participants to share their comments and ask questions. The comments and considerations expressed by members of the community were gathered by the design team to help inform the selected master plan design.

2.04 Photos from Second Community Meeting



2.05 Illustration Boards used for the Second Community Meeting

03 BACKGROUND



Olive View - UCLA Medical Center Campus
Existing Site Plan

EXISTING CAMPUS OVERVIEW

The medical center is surrounded by forests and vegetation. Unique to the campus, horse trails and hiking trails run along the northern edge. All of the parking areas are surface lots. There are designated staff and patient parking areas, but they are not controlled. One of the major complaints of the patients and staffs is the lack of available parking spaces and the large distance to the buildings in which they work.

The existing campus consists of the main hospital tower with one and two story support buildings in the surrounding areas. There are also a number of single story wood structured trailers some of which date back to the 1920s. Some of the original buildings such as the old administration building are vacant and not currently utilized.

The dominant presence at the medical center is the six-story Hospital. Completed in 1987, the Hospital tower is clad with 1/4" tempered vision glass with reflective "solar cool bronze" on all exterior facades from the third floor to the sixth floor. The first and second floor consists of ribbed concrete on all sides. The Central Utility Plant is attached to the Hospital building and serves the aforementioned Hospital and surrounding support buildings. The Emergency Services Building and Isolation Unit are the latest additions to the medical center. The Imaging Center is also attached to the Hospital and serves the radiology department. The support buildings such as the Supply Chain Warehouse, Education Building, and Finance Building are relatively close to the Hospital.

SUMMARY OF SITE ANALYSIS

The following is a summary of the major issues observed during the site analysis effort:

- **There is no comprehensive plan** at the campus which dictates building placement or design aesthetics. As a result, the campus is characterized by buildings with different colors, finishes, and styles.
- **The density of the campus is very low.** The site is mostly comprised of one and two story buildings that are spread across the majority of the site.
- Surface parking is the dominate infrastructure component on the site. There are over a dozen different parking lots scattered throughout the site, and as a result, **wayfinding is very difficult for visitors.**
- Many of the campus roads are geared towards vehicular use, with very **little accomodations made for pedestrians.**
- In terms of landscaping, **there is no coherent palette of trees and planting for the campus.** Landscaping is sparse due in large part to the various surface parking lots. The lack of landscaping and multitude of surface parking creates a dramatic heat island effect increasing the temperature of the campus in the summer months.

Natural Disasters

Olive View Medical Center has suffered a number of natural disasters. The 6.6 magnitude San Fernando (Sylmar) Earthquake in February 1971 significantly damaged the Medical Treatment and Care Building and many other buildings on the campus. In 2008, the campus was threated by the Sayre Fire which damaged a number of smaller buildings. Because of these events, there have been a number of structural upgrades and building repairs to the campus buildings.

Site Constraints

Although the medical center is spread out on a vast 230 acres of land, the site contains several constraints. The 150 feet wide Southern California Edison utility easement dissects the site in two. No buildings are allowed in this easement. The Wilson Canyon Channel at the east end of the project area also divides the site.

Jurisdictions

As the campus is Los Angeles County owned-property, the security of the entire site including the Hospital is under the jurisdiction of the Los Angeles County Sheriffs Department.

Currently, the City of Los Angeles Fire Department has jurisdiction for ground fires at the medical center, and the Los Angeles County Fire Department has jurisdiction for brush fires at the north part of the site. Although there is a County Fire Station on-site, the firefighting for the medical center falls under the City of Los Angeles Fire Department's responsibility.

Utilities

The utilities that serve the campus have seen a multitude of changes and modifications throughout the development history of the campus. Because of the number of changes and the history of development at the campus, a comprehensive utility routing plan does not exist. The major utilities lines are concentrated at the area surrounding the Hospital, Central Utility Plant, and Emergency Services Building. There are a number of other utility lines running throughout the campus which are fed directly from Olive View Drive as opposed to the Hospital which is fed from the Central Utility Plant.

Stormwater Treatment

The stromwater runoff from areas upstream of the campus is being captured and conveyed through the Wilson Canyon Debris Basin located at the northeast corner of the site and Mansfield Canyon Channel located at the southwest corner of the site. The majority of stormwater runoff sheetflows toward a series of on-site catch basins around the site and discharges to the City of Los Angeles storm drain line at Olive View Drive.

THE SITE AND NEARBY AMENITIES

Situated in the neighborhood of Sylmar, Olive View is bound by the Angeles National Forest on the North, a neighborhood of single family houses on the East, the sprawled mostly residential and small commercial-industrial townscape of Sylmar on the South where the Interstate 210 cuts through, and on the West by portions of the mountains and some new residential development flanking the merging point between Interstate 210 and Interstate 5. The Olive View-UCLA Medical Center is the largest public facility in Sylmar.

Part of the greater San Fernando Valley within the city of Los Angeles, Sylmar is a relatively established semi-rural suburban community with a variety of services and amenities. Recent development including those in the commercial and industrial districts are slow but picking up momentum again since growing rapidly in the 1980's and tapering off in the 1990's. The construction of the 1993 Sylmar/San Fernando Metrolink Station revived development interest in the city.

There is a general lack of shared amenities between the neighborhood of Sylmar and the existing medical center facilities. Since Sylmar has very limited commercial accommodations and is too far to walk to the existing hospital, the general feedback from the medical facility users showed little basic service dependence on Sylmar as a community.

Several attributes to this lack of community relationship between the rest of Sylmar and the existing medical facility is also evident in the site's isolation from its immediate neighbors. A potential connection for development between the Sylmar community and the OVMC campus is desirable.

3.01 Amenities Map and Walkable Distance

TRANSIT

The community of Sylmar was reconnected to the rest of Los Angeles when the Sylmar/San Fernando Metrolink Station was constructed in 1993. This rail transit system linked Sylmar to Lancaster and downtown Los Angeles and provided connections to Metro, LADOT, and Santa Clarita Transit bus systems. A number of these transit lines also serve the existing medical center.

Several bus transits serve Olive View:

- 90 - This is a downtown route that serves Downtown LA, Chinatown, Lakeview Terrace, and Sylmar.
- 224 - This is a San Fernando Valley route that serves Sylmar, San Fernando, North Hollywood, and Studio City.

3.02 Sylmar Community Plan Transit Map

LAND USE, PARKS, AND OPEN SPACE

The majority of the land that surrounds Olive View is open space. However, Sylmar's land use is predominantly residential single family at 57% of the land use with occasional multi-family housing at 7% based on the City of Los Angeles Planning data for Land Use Distribution in Sylmar.

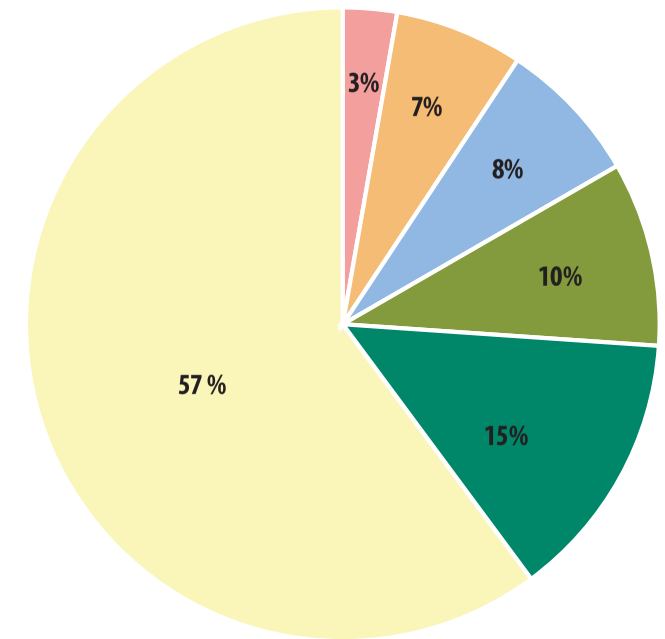
Although suburban sprawl is the main development pattern of Sylmar, the adjacent open space at Olive View adds to the otherwise only 10% of allocated Open Space to the community. Industrial use zone is at 8%. Commercial use zone is at 3%. Public Facilities is at 15%. Olive View site comprises the majority of the community service use zone within Sylmar.

Existing land use within the site is mostly for the medical facility building zones and the central plant areas. Support facilities mostly along the northern edge of the site are comprise of single or low rise bungalows and warehouse/storage type buildings.

North of the site is the southwestern edge of the greater San Gabriel Mountains that form part of the Angeles National Forest. Adjacent open space includes Stetson Ranch on the West and the Saddletree Open Space at north. Immediately East of the site is the access road to Wilson Canyon Park which borders the site on the Northeast.

Sylmar is an equestrian friendly community. Equestrian trails form the nearby amenities within the Stetson Ranch and several existing trails that meander through the northern portion of the site into Wilson Canyon Park. Recreational amenities also include hiking and biking trails within the northern edge of the site and within the surrounding parks.

The nearby community of Sylmar is served by several public parks including El Cariso Regional Park and Veterans Memorial Park, Carey Ranch Park, Sylmar Community Park and Recreation Center, and Telfair Park. A golf course is part of the El Cariso Regional Park approximately 8 miles from the site. Sylmar claims to be the world capital of hang gliding and pilots have been flying hang gliders in the nearby mountains since 1969 at the Flight Park northeast of El Cariso Park.



Land Use Distribution

- Single Family Residential 57%
- Public Facilities 15%
- Open Space 10%
- Industrial 8%
- Multi-Family Residential 7%
- Commercial 3%

3.03 Sylmar Land Use Distribution Chart, City of Los Angeles, Department of City Planning, 2010

LAND USE AND ZONING

The Olive View-UCLA Medical Center is zoned PF-1 Public Facilities Zone per the Sylmar Community Plan, part of the City of Los Angeles General Plan. There are no restrictions to the height of buildings or setbacks. Land use on the property is currently limited to hospital uses, open space, or minimum density housing. The area around the medical center consists of primarily detached one and two family residential dwelling units with some multifamily dwellings. The Wilson Canyon Debris Basin and Channel which runs through the site is classified as OS-1 Open Space Zone.

Residential

- Minimum
- Very Low I
- Very Low II
- Low
- Low Medium I
- Low Medium II
- Medium

Commercial

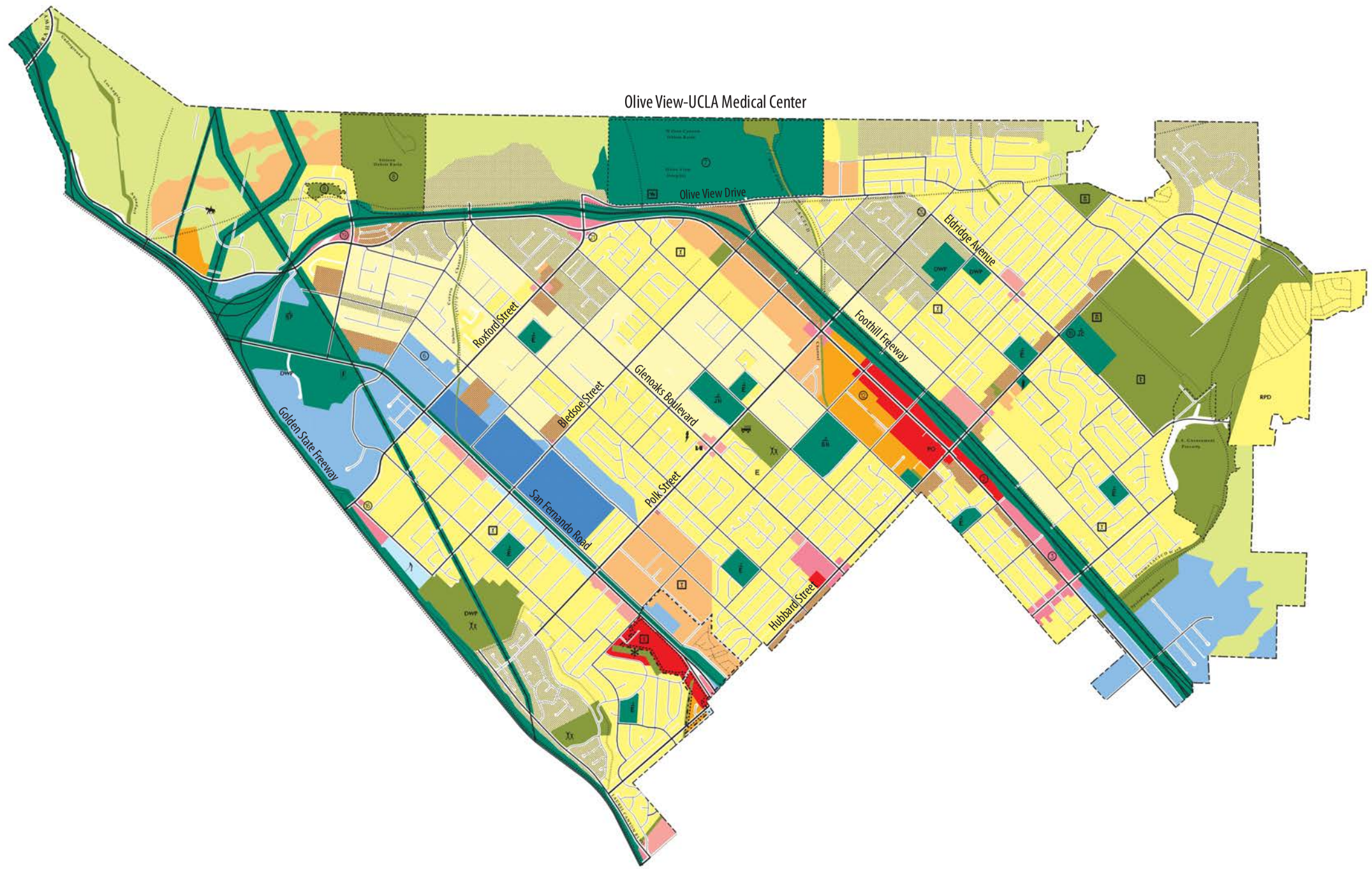
- Neighborhood Commercial
- Limited Commercial
- Highway Oriented
- Community Commercial

Industrial

- Commercial Manufacturing
- Limited
- Light

Open Space / Public Facilities

- Open Space
- Public Facilities



3.04 Sylmar Community Plan Land Use Map, City of Los Angeles, Department of City Planning, 2010

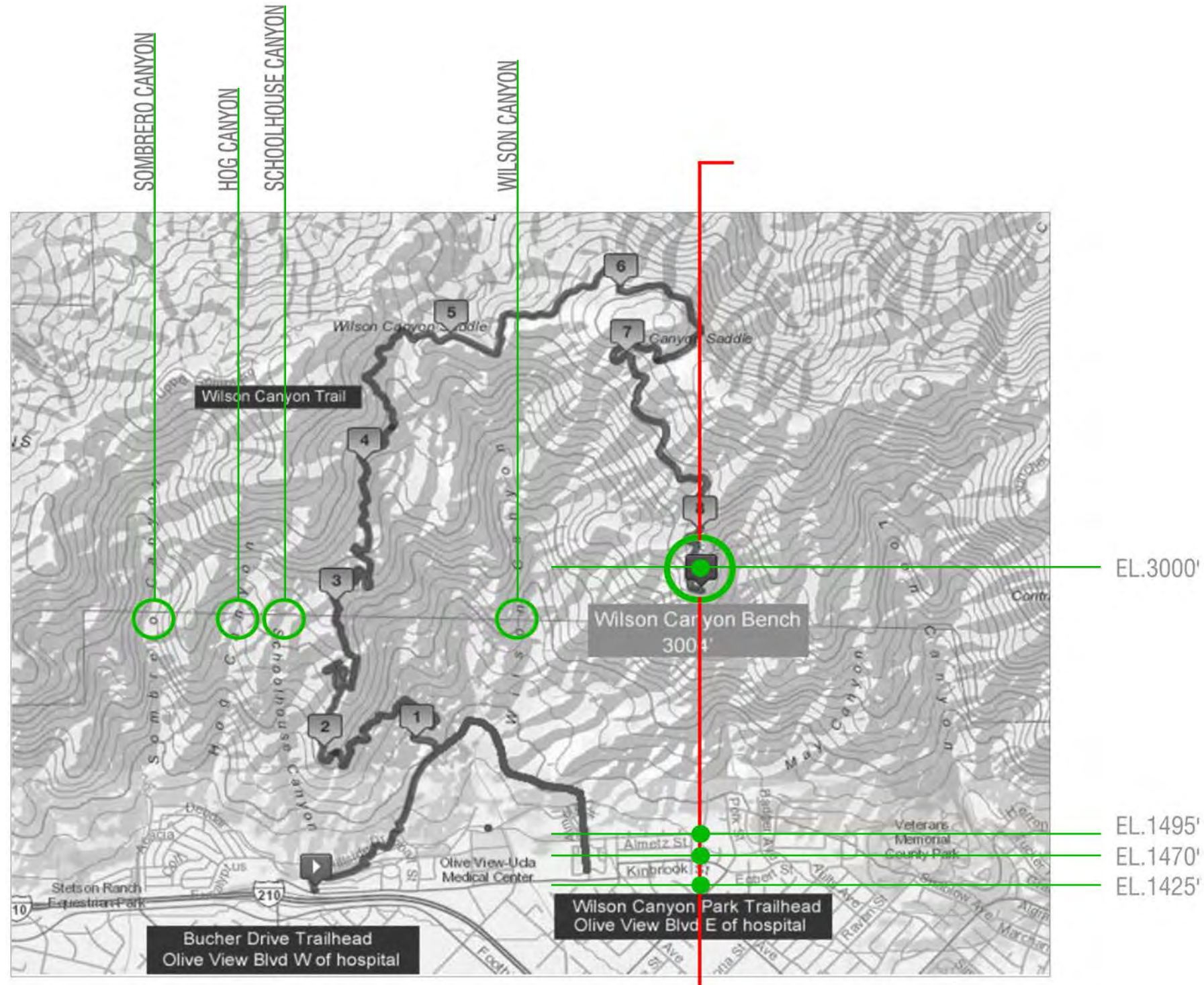
LANDFORM AND TOPOGRAPHY

The San Gabriel Mountains create a dramatic enclosure and an end to vistas from the campus toward that direction from anywhere within the site. Olive View Drive along the southern edge connects the campus to the rest of the adjacent neighborhood.

General soil character is alluvial. This is very good for planting due to high nutrient contents. It is an ideal farming soil but has structural challenges for building foundation systems and hardscape surfacing. The site is a hillside and more than half sits on the foothill of the southwestern portion of the San Gabriel Mountains.

The topography of the campus falls naturally from north to south in a relatively even slope except where developments have occurred. According to the 2012 Topographic Survey, the land elevation rises about 80' high from the midpoint of Olive View Drive and West Way along a 1293' of horizontal distance at West Way toward the mid-northern portion of the hillside. Similar elevation change is indicated by the topographic survey at 1781' of horizontal distance at Kennedy Road next to the existing hospital building toward the hills.

The grade change on the site's eastern portion is immediate along Olive View Drive and the graded pad of the parking area south of the existing hospital. The road and the surrounding paving then gently rise toward the North. The western portion of the site has a more prominent grade change from Olive View to the hillside. The highest elevated graded area of the site, however, is at the northeast portion at about 105' above Olive View Drive at the site's southeast portion of the thoroughfare.



3.05 Canyons and Topography Map

SCALE AND WALKABILITY

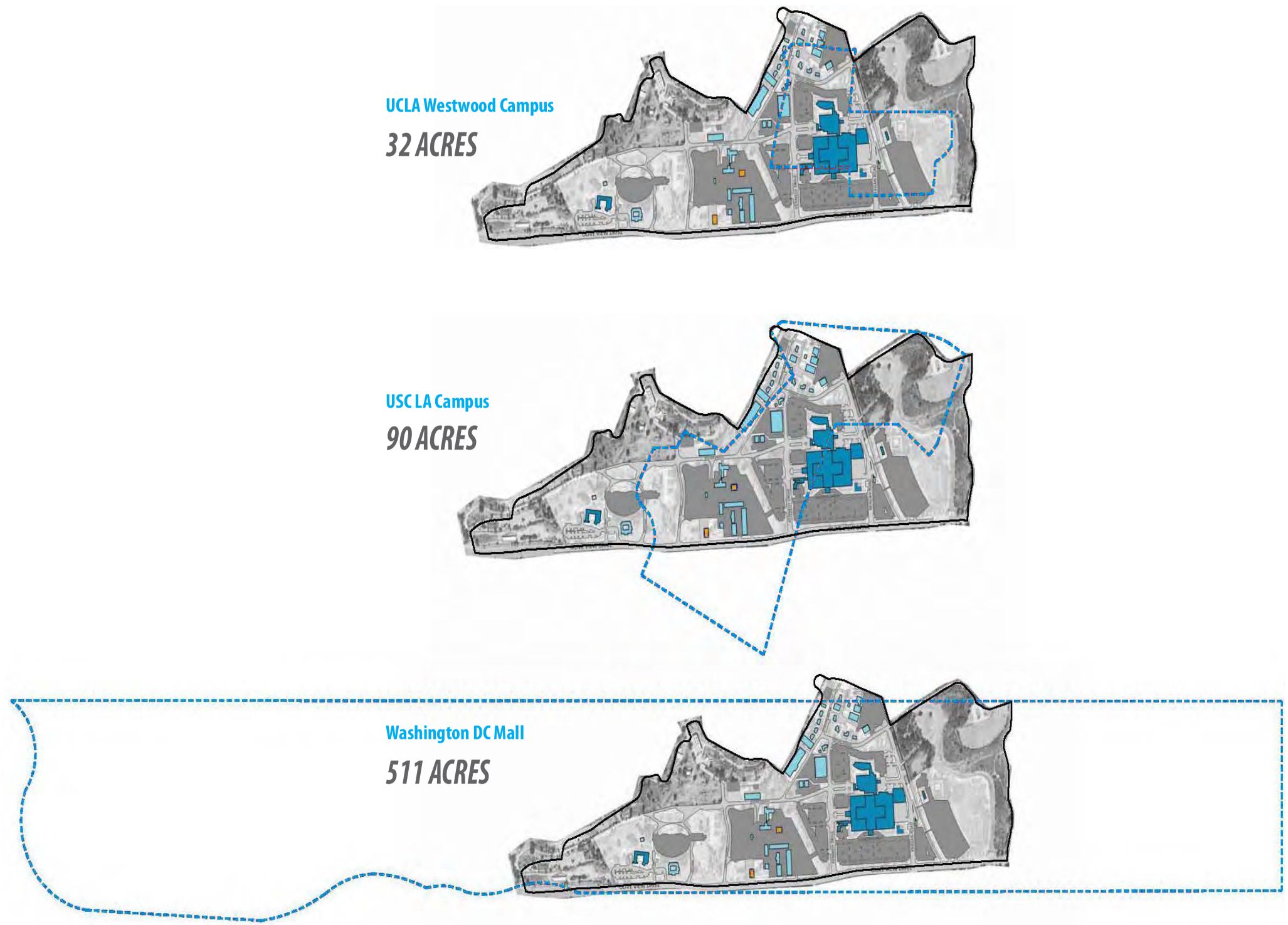
Olive View's location at the north end of the Sylmar community provides a quiet campus, but lacks access to basic services such as food, markets, community center, banks, and other commercial/retail services.

The nearest restaurant or café from the existing hospital (besides the hospital café) is approximately a 2 mile walk from the hospital.

The Olive View site is close to one mile wide East to West and roughly two-fifths of a mile on a straight line vertically North to South. If an average adult can walk about 3.1 miles per hour, the site can be traversed horizontally from the existing Hospital southeast parking to the Northwest end of Hillside Drive in approximately 20 to 25 minutes.

In comparison to the UCLA Westwood Medical Campus, the site is more than twice as big. USC in Los Angeles Campus is roughly less than half of the site. It is roughly one-third the length of the DC Mall.

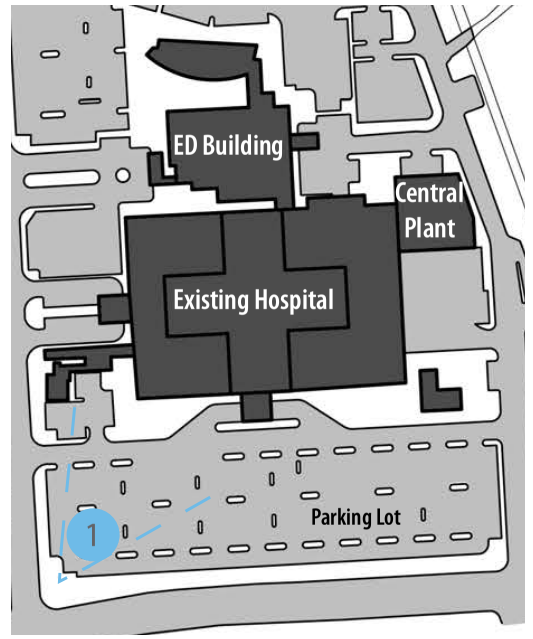
OLIVE VIEW - UCLA MEDICAL CENTER CAMPUS
230 ACRES

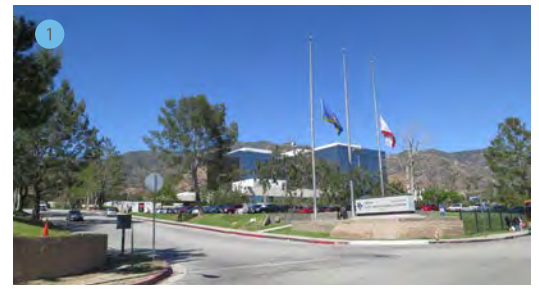


3.06 Site Comparative Scales

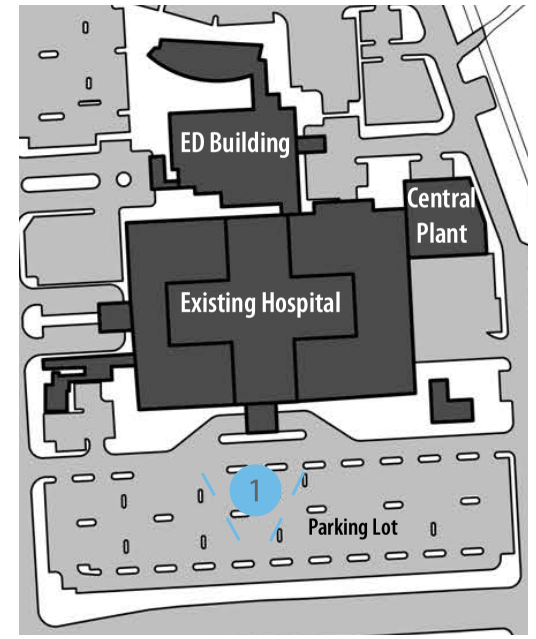
EXISTING SITE PHOTOS

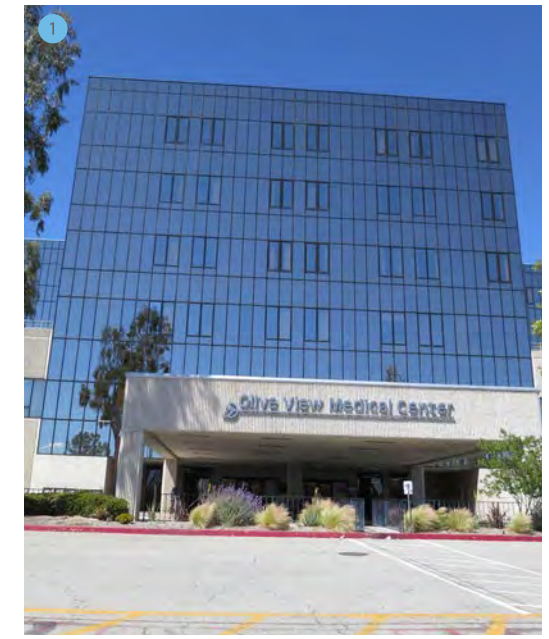
3.07 Key Plan



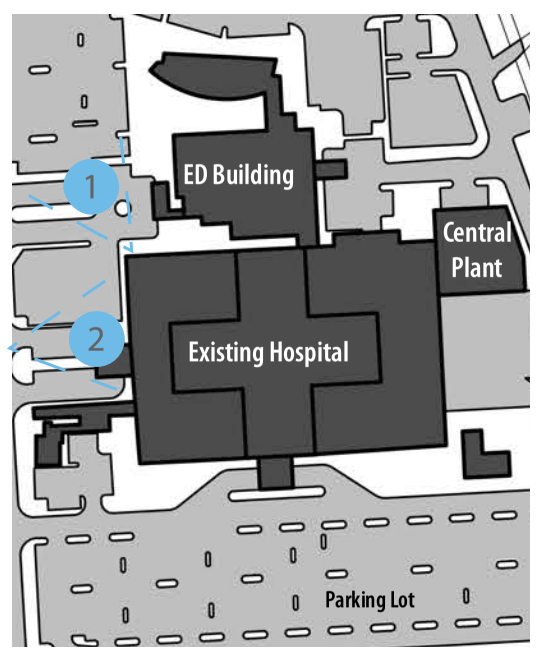


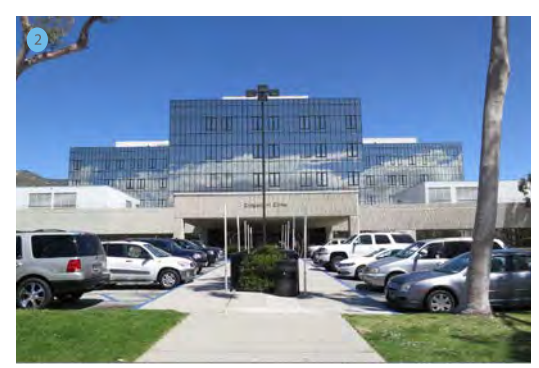
3.08 Main Hospital - Entry from Olive View Drive



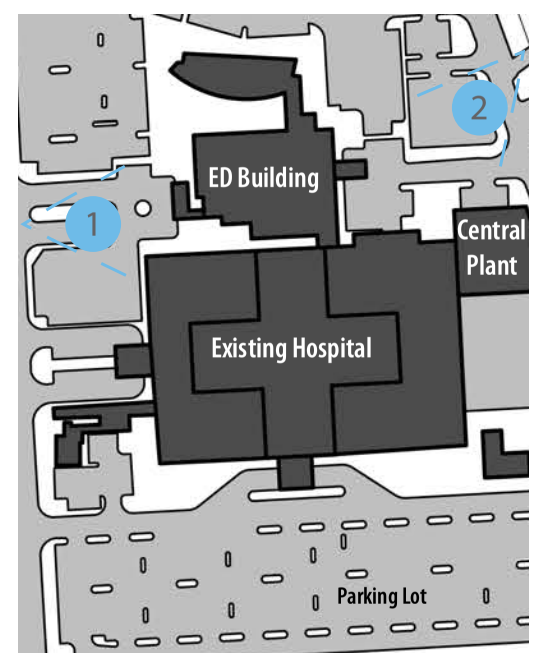


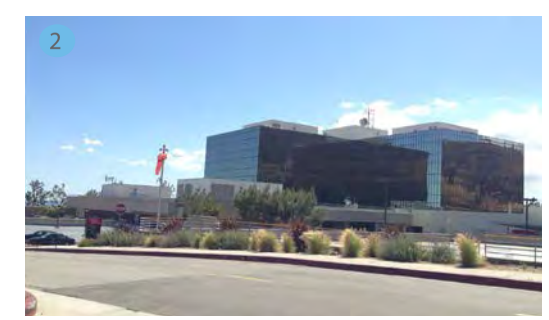
3.09 Main Hospital - Inpatient Entry



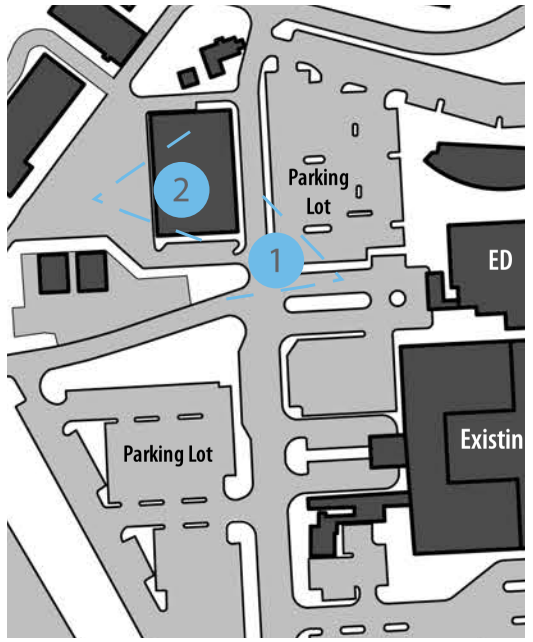


3.10 Main Hospital - Outpatient Entry

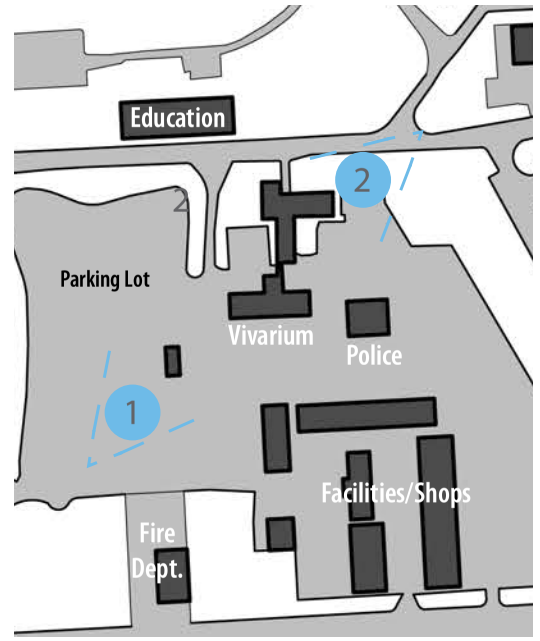




3.11 Emergency Services Building

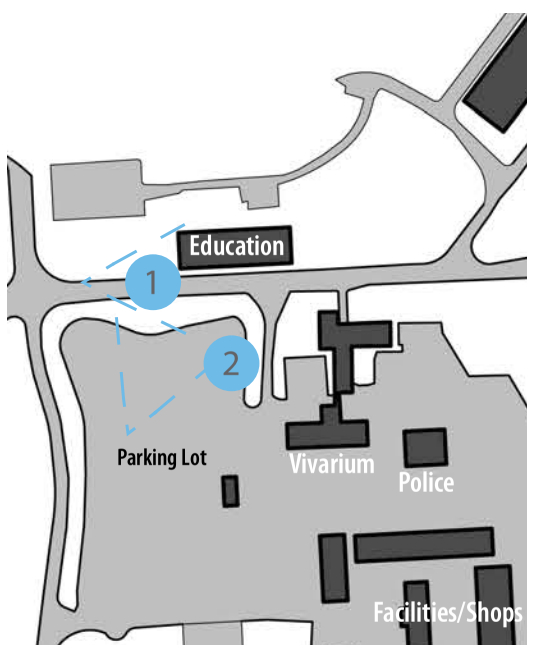


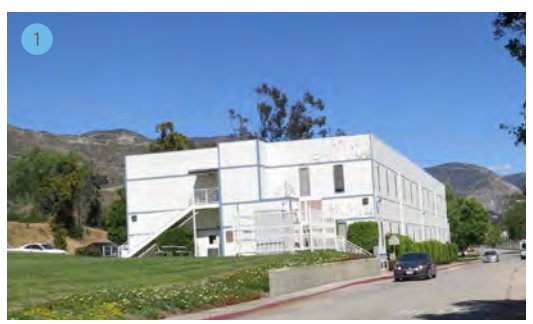
3.12 Service Supply Building

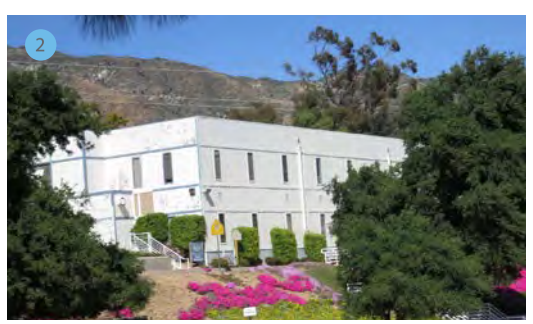


3.13 Old Lab Building and Vivarium

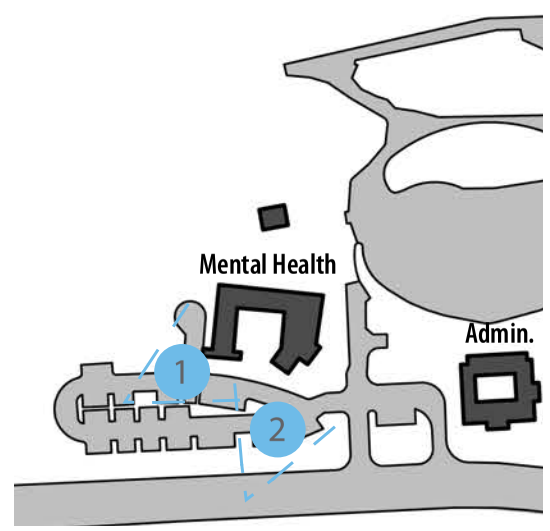
3.16 Key Plan

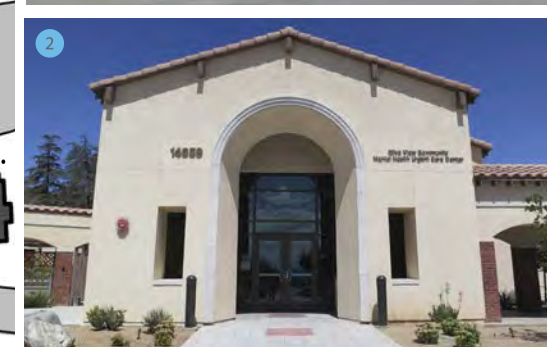






3.14 Nursing Education Building





3.15 Community Mental Health

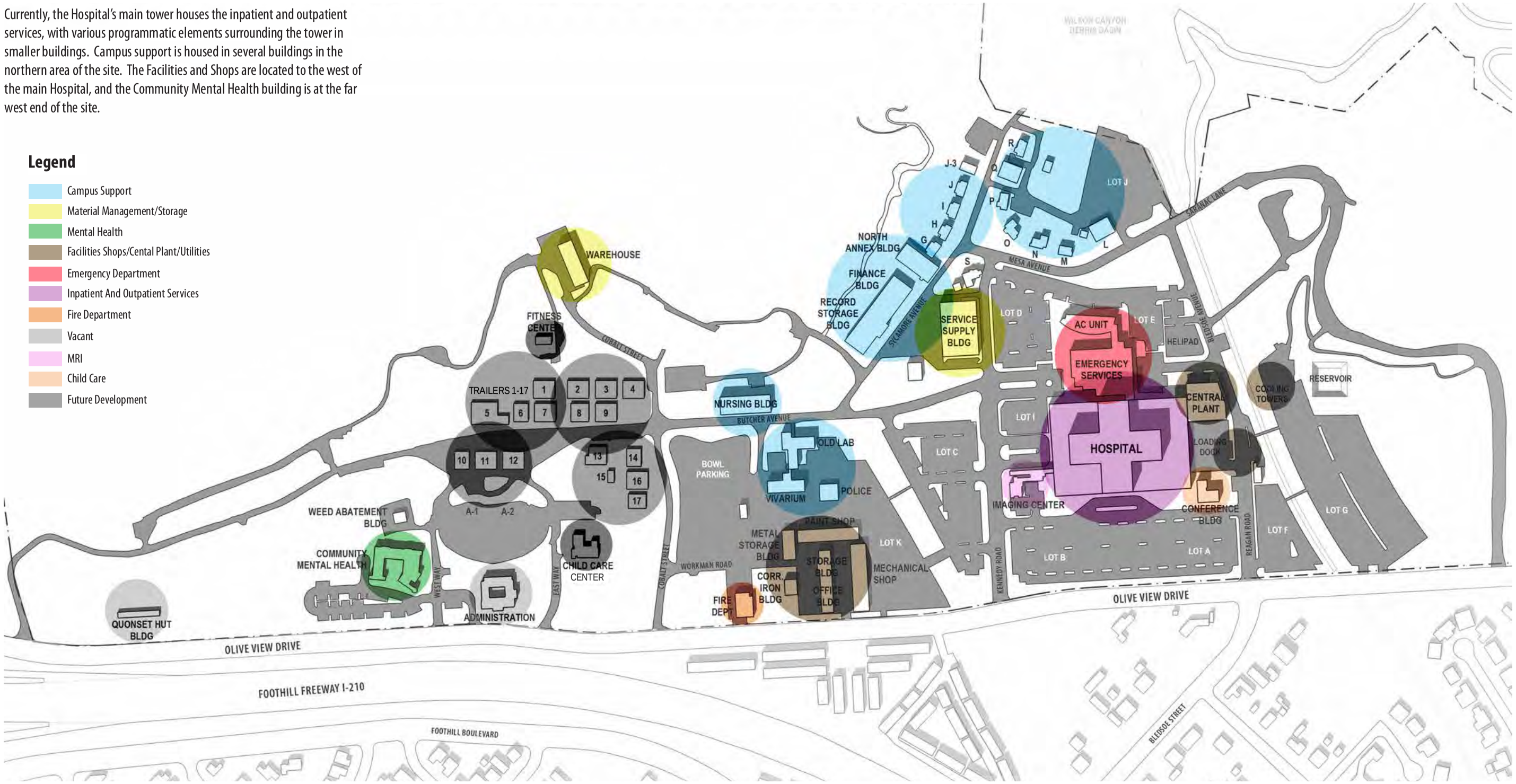
DEVELOPMENT HISTORY

3.17 Existing Campus Development History Diagram

SMITHGROUP JJR

EXISTING CAMPUS LAND USE

Currently, the Hospital's main tower houses the inpatient and outpatient services, with various programmatic elements surrounding the tower in smaller buildings. Campus support is housed in several buildings in the northern area of the site. The Facilities and Shops are located to the west of the main Hospital, and the Community Mental Health building is at the far west end of the site.



3.18 Existing Campus Land Use Diagram

EXISTING CAMPUS AND BUILDINGS

Building Description and Current Uses

There are 31 permanent builings and 29 trailers and other modular structures at the campus. The major concentration of buildings occurs around the Main Hospital and includes the Central Plant, Emergency Services and Isolation Building, and Service Supply Building. The Central Plant is a two-story building constructed at the same time as the Hospital and is in fair condition. There have been some equipment replacement projects, but for the most part, the plant maintains it's original layout. One of the most recent projects at the campus was the construction of the Emergency Services Building and Isolation Unit in 2005. Attached to the Main Hospital on the north, the one-story Emergency Services Building houses the medical center's Emergency Department. Directly attached to this building is the Isolation Unit which functions as a regional treatment center for tuberculosis.

Located north of the Main Hospital are various bungalows and trailers utilized primariily for administrative and hospital support functions. The bungalows are one of the oldest cluster of buildings on the campus dating back to the original tuberculosis sanitarium campus from the 1930s. These are one-story detached dwellings which house administrative, social work, and doctor's offices. Directly west of the Main Hospital is where the Facilities Offices and Shops are located. These buildings were built in the early 1960s and house facility offices, conference rooms, a document control room, maintenance shops, and storage space.

At the far west end of the campus, the Community Mental Health building is located which serves as a psychiatric urgent care center. This one-story building was constructed in 2011. There are a series of trailers which at the time of this master plan are being built northeast of the Community Mental Health Building. There are a total of 17 trailers and the proposed use for these is storage and information systems.

Building Characteristics

The buildings on the campus range in age between 5 years to 80 years old, and ,therefore, a wide range of architectural styles exists. The oldest buildings are remnents from the original campus development in the 1930s and have since been repurposed for campus support uses. The modular structures and trailers provide additional space and storage needs for the medical center and are scattered throughout the campus. Spread across the vast 230-acre site, these mostly one-story structures create a fragmented space utilization and appearance which lacks a common architectural expression and identity. This is not unexpected because of the history of development at this campus.

3.19 Photo of Old Lab Building

3.20 Photo of Emergency Services Building Courtyard

3.21 Photo of Trailers

3.22 Photo of Bungalows

3.23 Photo of Bungalows

EXISTING SITE CIRCULATION

Access

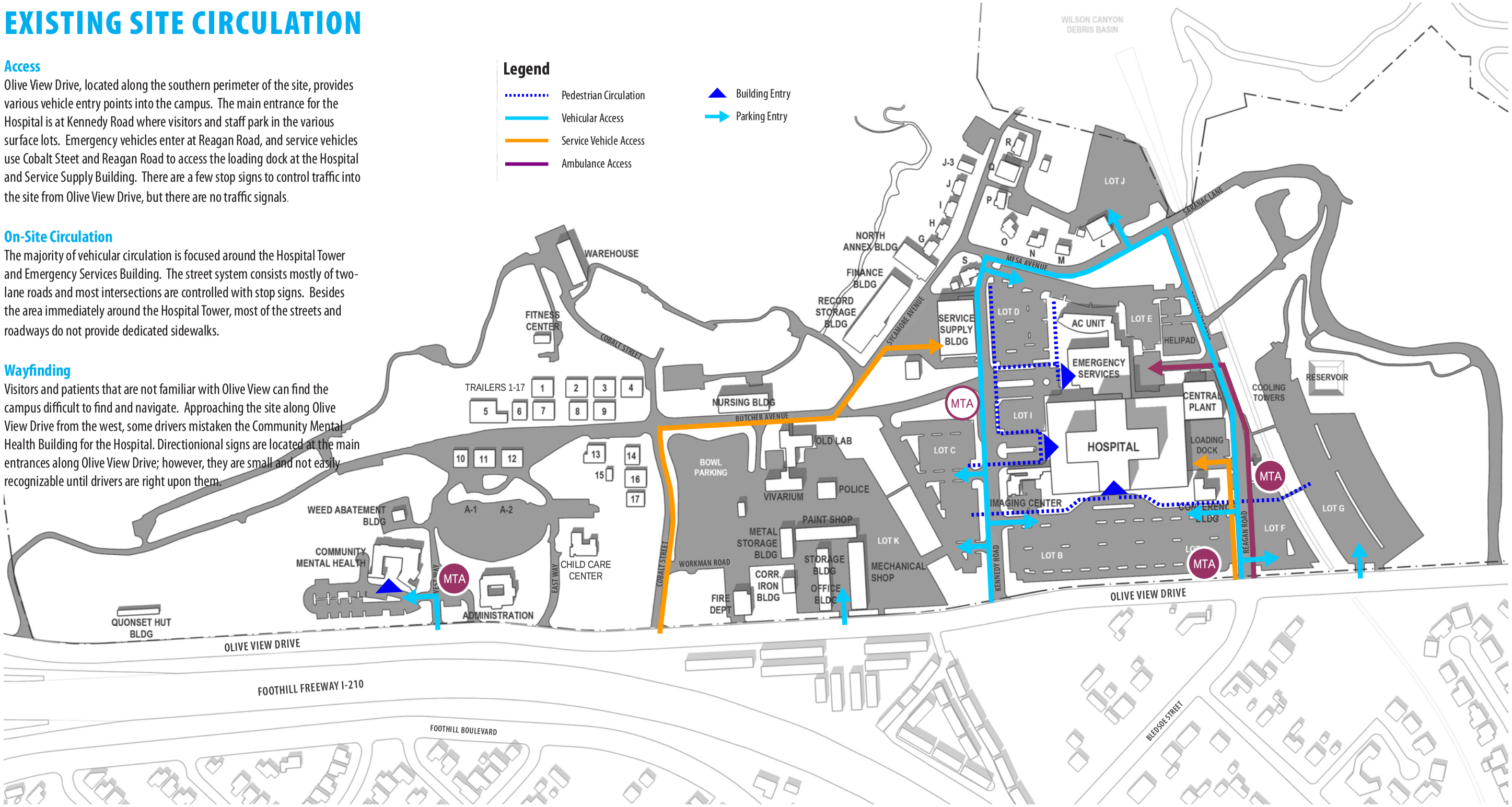
Olive View Drive, located along the southern perimeter of the site, provides various vehicle entry points into the campus. The main entrance for the Hospital is at Kennedy Road where visitors and staff park in the various surface lots. Emergency vehicles enter at Reagan Road, and service vehicles use Cobalt Steet and Reagan Road to access the loading dock at the Hospital and Service Supply Building. There are a few stop signs to control traffic into the site from Olive View Drive, but there are no traffic signals.

On-Site Circulation

The majority of vehicular circulation is focused around the Hospital Tower and Emergency Services Building. The street system consists mostly of two-lane roads and most intersections are controlled with stop signs. Besides the area immediately around the Hospital Tower, most of the streets and roadways do not provide dedicated sidewalks.

Wayfinding

Visitors and patients that are not familiar with Olive View can find the campus difficult to find and navigate. Approaching the site along Olive View Drive from the west, some drivers mistaken the Community Mental Health Building for the Hospital. Directionional signs are located at the main entrances along Olive View Drive; however, they are small and not easily recognizable until drivers are right upon them.



3.24 Existing Campus Site Circulation Diagram

EXISTING PARKING

Existing Parking Inventory

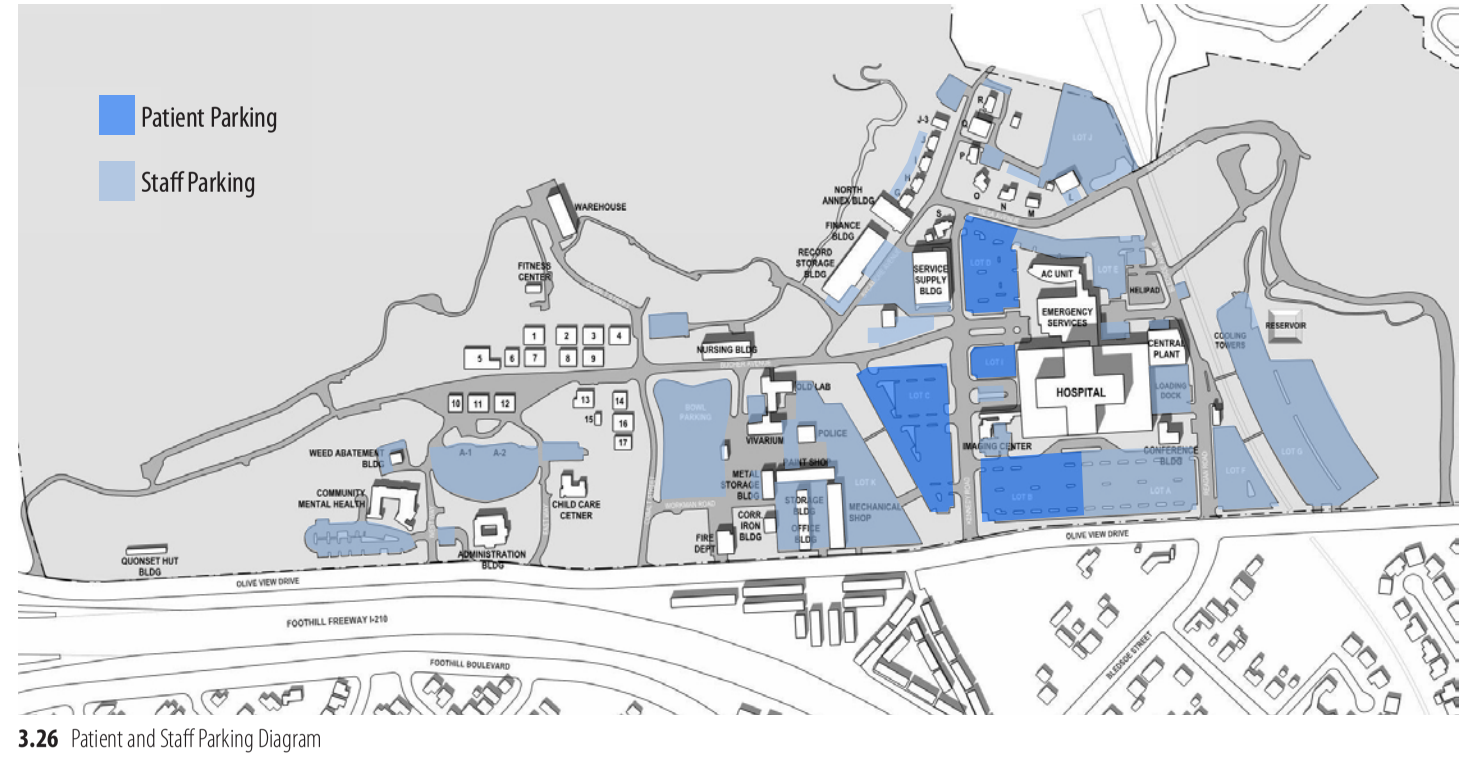
The team visited the Olive View campus on April 4, 2014 to inventory the number of parking spaces available on-site. The campus has several large, named paved lots, in addition to several small, unnamed parking areas. Additionally, there are several small parking areas, generally in the northern part of the campus, that are gravel lots, with loose parking space delineations as well a few areas around the campus where vehicles were observed parking in the dirt.

It was determined that the number paved/delineated parking spaces in the study area totals 2,672+ as shown in Table 1. This total does not include un-delineated gravel and dirt areas where vehicles were observed parking, nor does it include on-street parking on Olive View Drive since the City of Los Angeles has jurisdiction over on-street parking.

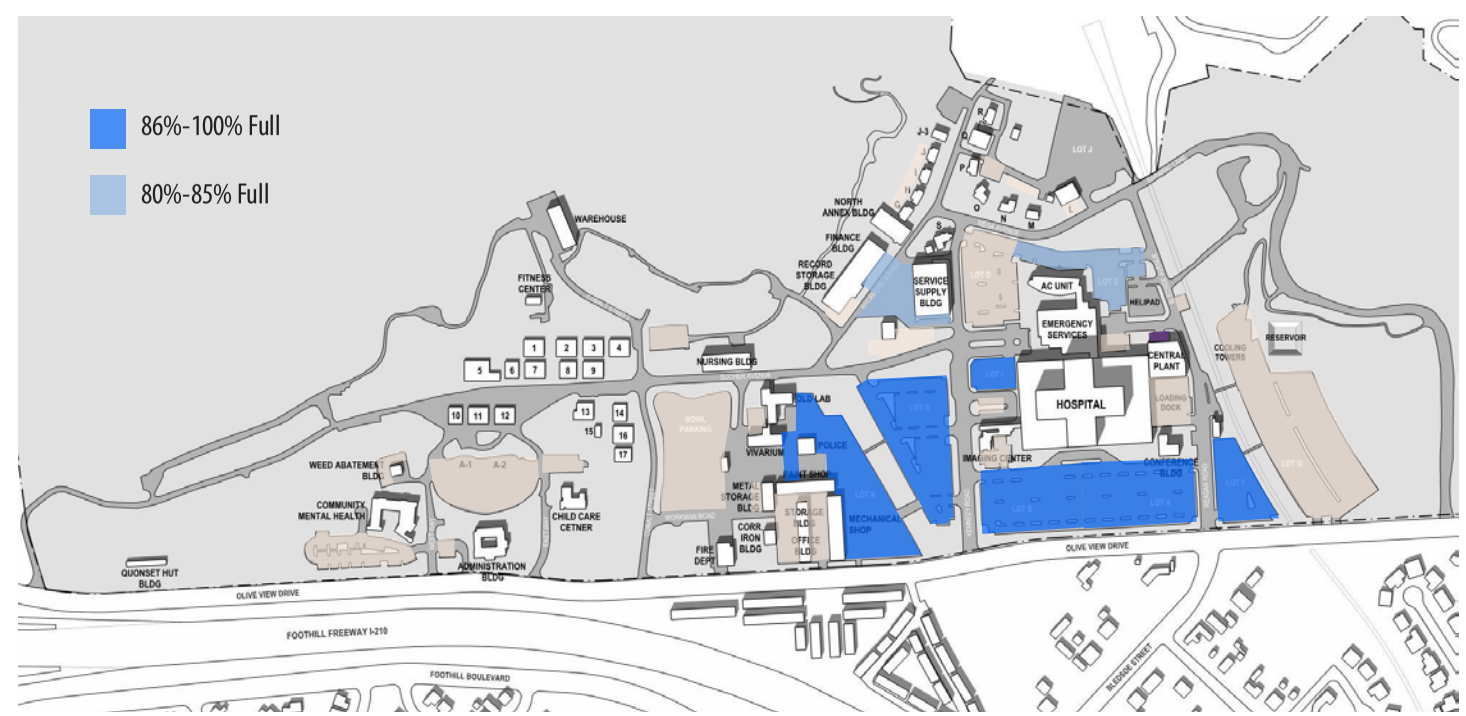
In the four primary visitor Lots (B, C, D & I) there are a total of 629 patient/visitor parking spaces, of which 39 are accessible. Based on the existing inventory, OVMC appears to provide less patient/visitor accessible spaces than required by Federal and State accessibility requirements. These statutes require that hospitals and healthcare centers for ambulatory patients receiving outpatient medical care must devote 10 percent of the patient and visitor parking supply for disabled access ("DA"), of which one in six must be van-accessible.

Parking Lot/Area	Patient/Visitor	Employee	Accessible	Reserved (All Categories)	Timed	Lot Total
Lot A		161	19	3		183
Lot B	190		7	2		199
Lot C	236		13			249
Lot D	147					147
Lot E		103	5	1		109
Lot F		100				100
Lot G		401		9		410
Lot I	17		19			36
Lot J		155				155
Lot K	3	268	4	18		293
Mental Health Center	12	31	8	9		60
Education Center		22	5			32
MRI Lot			13	6		19
All Other Parking Areas			13	6	5	19
Total	**652**	**1,805**	**126**	**84**	**5**	**2,672**

3.25 Campus Parking Inventory Summary



3.26 Patient and Staff Parking Diagram



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SMITHGROUP JJR

Existing Parking Occupancy

Based on discussions with Olive View staff, it was determined that Mondays and Tuesdays are generally the busiest days on the campus. A site visit was conducted on Tuesday, April 29, 2014 to collect parking demand counts during the peak periods of parking demand. This day represents a typical busy day for the campus, as there were no special events occurring that would skew demand higher. Counts were collected at 11:00 AM and again at 1:30PM to best capture peak demand, which is generally late morning or early afternoon. Table 3 summarizes peak parking occupancy per lot.

Observed parking occupancy in parking lots peaked at 11:00 AM at 2,251 spaces or 80.5% of the total supply occupied. It should be noted that the observed parking occupancy in Table 2 does not include observed parking in dirt/unpaved areas around the campus as well as observed on-street parking.

A total of 41 vehicles were parked in dirt/unstriped areas on the campus. Based upon field observations, it is estimated that 60+ on-street parking spaces were occupied by staff during the peak period of parking demand. A quick windshield survey showed that many of the vehicles parked on-street had Olive View parking permits (typically for the Bowl, Lot J or Lot G). It should be noted that staff parking on-street is not a violation of any kind and is permitted since there are no restrictions on street parking on Olive View Drive. However, the observed on-street parking is included in the parking occupancy numbers for the purpose of calculating user group demand ratios. It is possible, that in the future, off-street parking could be restricted and become unavailable for staff parking. Therefore it is important to plan in advance for this possibility. Adding in an additional 101 vehicles of parking demand to account for on-street and on-dirt parking, 84.2% of Olive View's parking supply would be occupied.

Peak Parking Occupancy

The parking supply is generally designated for specific user groups. Lots B, C, D & I are patient/visitor lots. Lots A, E, F, G, J, K and the Bowl are assigned to staff, generally based on office location and other factors such as shift time. Olive View does not provide separate 'Physician/MD Only" parking areas. Lots A, E, F, and G are controlled by gated access systems and require a proximity card for access.

Some cross utilization of the visitor parking areas likely occurs, and was observed. For the purpose of this analysis, it was assumed that each lot was occupied by the intended user type.

Parking occupancy in Lot A and Lot B was virtually full (with the exception of accessible spaces in Lot A). Patient parking in Lot C and Lot D was observed to be less than 100% full.

Parking Lot/Area	11:00 AM	1:30 PM
Lot A	177	176
Lot B	199	192
Lot C	231	208
Lot D	114	99
Lot E	92	92
Lot F	327	89
Lot G	35	328
Lot I	129	35
Lot J	269	127
Lot K	30	266
Mental Health Center	24	26
Education Center	15	16
MRI Lot	139	122
All Other Parking Areas	277	260
Total	**2,150**	**2,061**

3.28 OVMC Campus Parking Occupancy - April 29, 2014

Parking Lot/Area	Lot Total	11:00 AM Occupancy	Occupancy (%)
Lot A	183	177	97%
Lot B	199	199	100%
Lot C	249	231	93%
Lot D	147	114	78%
Lot E	109	92	84%
Lot F	100	92	92%
Lot G	410	327	80%
Lot I	36	35	97%
Lot J	155	129	83%
Lot K	293	269	92%
Mental Health Center	60	30	50%
Education Center	27	24	89%
MRI Lot	19	15	79%
Parking Bowl	267	139	52%
All Other Parking Areas	418	277	60%
Total	**2, 672**	**2,150**	**80%**

3.29 Peak Parking Occupancy

User Group	Supply	Current Peak Occupancy	% Occupancy
Patients/Visitors	693	618	89%
Employees/Physicians	1, 979	1, 633	83%
Total	2, 672	2, 251	84%

3.30 Peak Parking Occupancy by User Group

EXISTING LANDSCAPE

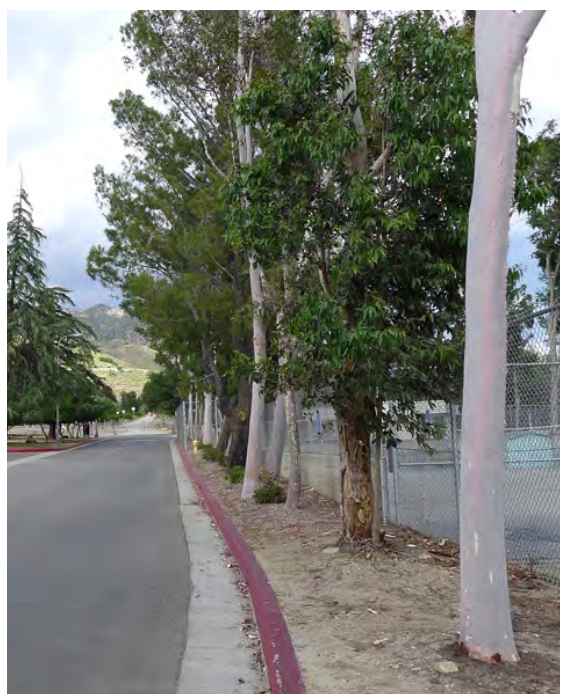
Landscape Context

The general landscape character of the Olive View – UCLA Medical Campus lacks an overall cohesiveness and clarity. Most of the landscaped areas do not correspond with the natural setting of the campus, and the plants are not from a region with a similar climate. There is no unique plant palette of Southern California celebrated except at a recent expansion of the emergency wing at the existing hospital building.

The primary reason for this lack of intended landscape relationship between building and the site is that the architecture of the campus is a collection of unrelated structures: one multi-story Main Hospital building and arrays of single story warehouse looking structures placed about anywhere. In addition, a disparate architecture style of several other buildings seems randomly placed where the building fit or where land was available. Where landscape is present, this misplacement creates a 'left over' landscape fabric or planted patches that have no landscape language to express or represent.

On the other hand, the backdrop of the San Gabriel Mountains along the north edge of the site is a strong presence. Despite the many landscape disparities, the experience of the landscape of the mountains creates some kind of a sense of place. Where vegetation has an opportunity to create its own mass - where the topography begins to rise at the toe of the mountain slopes or where old development was intentionally or unintentionally abandoned - the landscape character becomes more pleasing, calm, and picturesque.

The natural character of the surrounding vegetation is essentially suburban hillside – but only at the northern side. Where the site meets the surrounding neighborhood along Olive View, the character is dusty and dry. Except for a number of mature evergreens that line some edges of the most used areas of the site - generally parking lots - there seems to be no prominence or significant landscape to mark the site from outside.



3.31 Existing Landscape Site Photos

Landscape Character

Unfortunately, plants have not played a major role in defining the character of the existing Olive View campus. Except for several mature pines along Olive View and Kennedy Road, there are not many significant tree canopies at the site.

Relative to the building and site, the existing tree distribution is not enough to help fully appreciate and orient one to key buildings and landscape works. This distribution also does not demonstrate if trees have been intentionally used to create landscape spaces and rooms. None of the building scales or transitions between landscape has been created by existing placement of trees and vegetation.

Most of the site has suffered from natural events - earthquakes, erosions, winds, and fires. Erosion, climate, and fires has over time created the state of ecology at the existing medical campus. The tree canopy coverage on most of the developed portion is minimal. Dominant trees species that remain include eucalyptus, pines, and coast live oaks. Hillside trees are not significant except the bottom of the foothill on the east portion of the site.

The ground vegetation is almost non-existent except at the northern portion of the Edison Easement and at two areas maintained or protected by part of the building – the turf area at West of the Education Center and the small turf area West of the existing Emergency wing of the hospital building. Several fires have damaged trees, yet some still remain in some areas near Wilson Canyon at Saranac Lane and along the west at Hillside Drive. Several stands of olive trees are still evident at the northern edge of the Edison Easement. A small group of Mexican Palms have been randomly placed midway along Bucher Avenue at Sycamore Avenue.

The climate and the hillside topography at the site, like most Southern California valleys lends itself to a dry environment where natural chaparral could thrive. There is a small number of Chaparral vegetation at the bottoms of slopes and where areas have been left undisturbed for quite some time.

WILDLIFE AND VEGETATION

Wildlife

Several wildlife species inhabit the San Gabriel Mountains. Documented predominant species of the southwestern portion include coyotes, mule-deers, owls, and Swallowtail butterflies. As with most natural areas, squirrels, particularly the Gray Squirrel, are considered predominant in this area. Wildlife sightings during the day in the developed areas and graded or disturbed portions of the site has been rare.

Vegetation

The developed portion of the site does not represent the natural vegetation of the surrounding landscape of the San Gabriel Mountains. Much of this diverse vegetation has been altered by development along the foothills and most of Sylmar.

The general ecology and vegetation character of the mountains in this area includes conifers and broadleaf forestation at higher elevations. In riparian areas, willows, alder, and cottonwood are found along the stream courses. Deeper into the canyons at higher elevations and as the mountains begin to face the northern exposure, the vegetation is covered by canopies of widespread coulter pines and firs. On a larger scale, coast live oak forests which once covered much of the southern facing foothills and inland valleys of this area are still evident.

This same oak woodland shares the canopy of a diverse ecosystem with bigleaf maple, walnut, and riparian alders on most of the southwestern portions of the mountains. Scrub oaks, ceanothus, and manzanitas are predominant shrubs among these trees and are more widespread especially at lower elevations. Chaparral vegetation along the lower hillsides includes mimulus, phacelia, poppies, salvias, scotchbroom, wild mustard, and yerba buenas that blanket the ground in multitudes of color for most of the spring through summer.

The thriving settlements of the San Fernando Mission at the turn of the century established a center of trade where fruits, vegetable, olives, wine, and livestock were bought and sold. Sylmar and the current site of the medical campus and most of the southeast foothills were agricultural land with most of the olive plantations along the southeast foothills east of the current site. Most of Sylmar's vegetation was agricultural through the 1950's.

3.32 Photos of types of native California wildlife and vegetation

SITE INFRASTRUCTURE

Overview of Existing Conditions

The existing Central Utility Plant (CUP) was reviewed to assess the condition of equipment, to document operational procedures, to identify existing capacities, and to estimate future needs.

The existing CUP is in relatively fair operating condition with sufficient capacity and redundancy for the most part; however, there are some operational challenges due to the aging equipment that either fail or require more frequently scheduled maintenance. The other concern is the amount of energy usage and inefficiencies of major equipment under current operating conditions.

The major equipment in the Central Utility Plant (including CoGen, chillers, cooling towers, heat exchangers, main electrical equipment) is maintained by the Internal Service Department (ISD), which is the Building Maintenance division of Los Angeles County. The Central Plant holds the majority of the equipment except the cooling towers which are located on the other side of Reagan Road and the Wilson Canyon Channel. Underground piping connects the cooling towers to the chillers in the central plant.

The remaining major equipment (including generators, electrical distribution equipment, fuel tanks, fire pump, medical gas and associated systems) in the plant are maintained by the Hospital Facilities staff.

Per the Olive View Facilities staff, no major equipment replacement project is contemplated at this time - with the exception of an emergency generator relocation project.

The Building Automation Systems (BAS) at the CUP is by Allen-Bradley (Rockwell Automation). The BAS controls at the Hospital is by Honeywell. The systems are mostly digital, with some pneumatic operators. There is no integration between

Site Utility Distribution

The diagram illustrated on the opposite page shows the major site utilities that are distributed throughout the campus. Review of existing facility drawings, site visits, discussions with ISD and Olive View Facilities staff, and data collected from various utility companies were used in compiling the existing conditions assessment for the campus.

The highest concentration of underground utiilities is focused around the existing Hospital. Domestic water, storm drain, and sanitary sewer lines are routed and collected around the Hospital connecting to main lines at Olive View Drive. These services also extend to the west end of the campus serving some of the outlying buildings such as Facilities/Shops, Nursing Building, and Community Mental Health. Electricity and water is provided for the medical center by the Los Angeles Department of Water and Power (LADWP) local utility company along Olive View Drive. There are two independent electrical feeds, one at each end of the campus. The Hospital, Central Utility Plant, Emergency Services Building, and Service Supply Building are served by the LADWP substation located on Reagan Road. The incoming undergound utility feed extends from the LADWP substation to the Main Service Switchboard in the CUP main electrical room. The remaining buildings at the site are fed from a other points of connection by LADWP on Cobalt Street and West Way.

There are multiple connections to the site for fire and water services. The Los Angeles Department of Water and Power provides these services at Olive View Drive.

The backup power for the east side of the campus including the Hospital, Emergency Services Builiding, and Central Utility Plant is provided by two diesel engine generator sets located inside the CUP. Only 2 of the 4 underground fuel oil tanks that serve the generators are currently being used. There is a plan to install new outdoor generators and associated switchboard. The electrical service to the facility is supplemented by the Cogeneration Plant's turbine generators.

Natural gas is provided for the medical center which runs along Reagan Road and connects to the main gas line along Olive View Drive.

The medical gas system comprises of medical vacuum, medical air, oxygen, nitrogen, nitrous dioxide, and carbon dioxide. The medical air compressors are medical vacuum pumps located in the CUP and were recently replaced with newer equipment. There is a Gas Room at the Hospital loading dock where the oxygen, nitrogen, and other gases are stored.

Storm Water Management

They are currently two watersheds north of project site, the Wilson Canyon Channel watershed and the Mansfield Channel watershed. The runoff from these areas is conveyed through the Schoolhouse Canyon Diversion to the Pacoima Wash located at the southeast corner of the Pacoima Canyon and May Canyon.

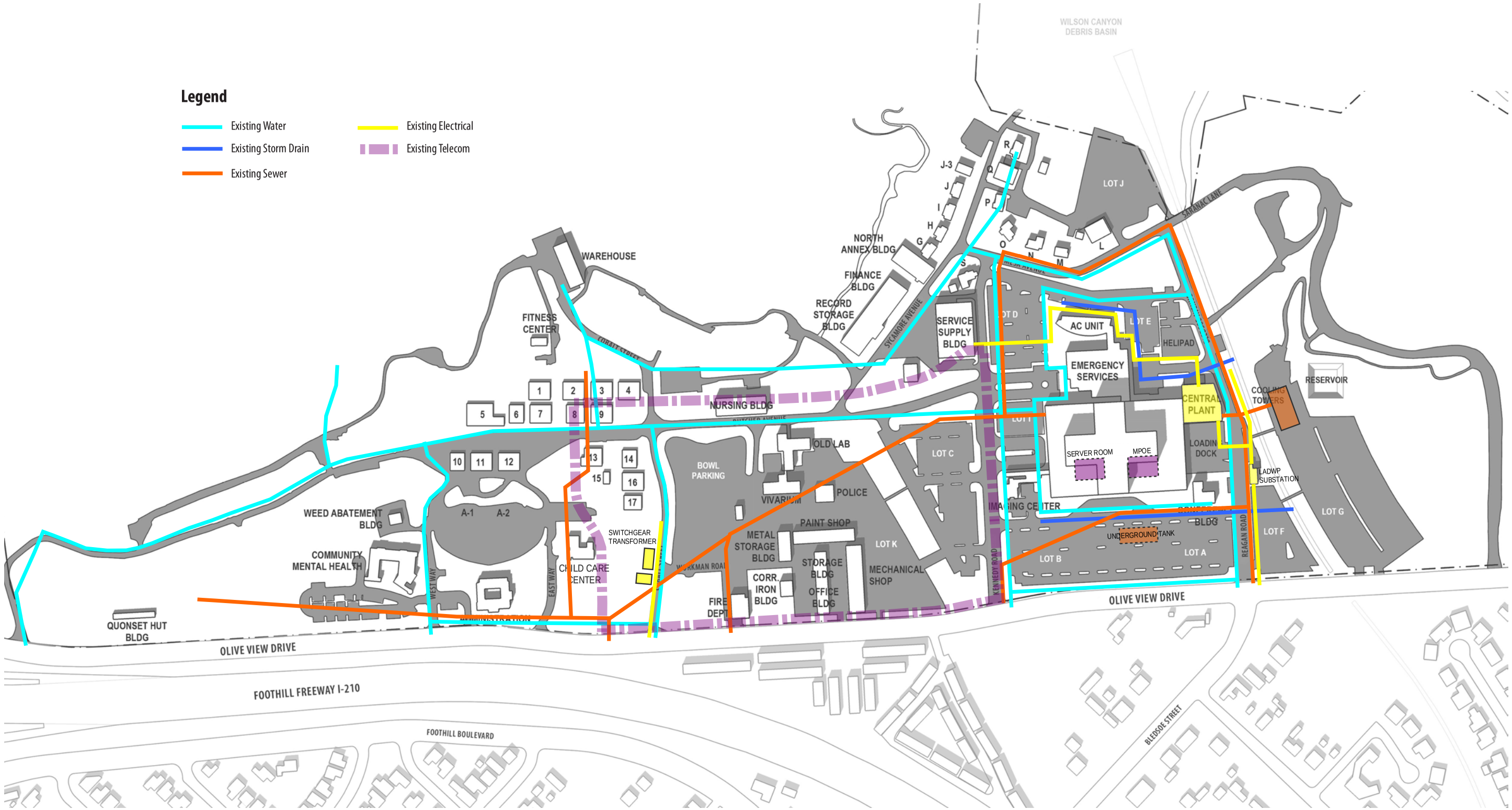
The stormwater runoff from areas upstream of the campus is being captured and conveyed through the Wilson Canyon Debris Basin located at the northeast corner of the site and Mansfield Canyon Channel located at the southwest corner of the site. The majority of stormwater runoff from the developed area sheetflows toward a series of on-site catch basins spread around the site and discharges to the City of Los Angeles storm drain line at Olive View Drive. No stormwater management was observed for the undeveloped area.

Technology Infrastructure

The Data Center, Main Distribution Frame (MDF), and Main Point of Entry (MPOE) Room are all located in the first floor of the existing Hospital. There are multiple Intermediate Distribution Frames (IDF) dispersed in the Hospital and in the outlying buildings and trailers.

The generator upgrade project is in progress and new power lines are being extended to all Technology Rooms and Closets. Once this is completed, power outages will have less of an impact to the IT environment within the Hospital as the generator will power IT equipment in the event of a power outage until power is restored or fuel resources to the generator are exhausted.

The telecommunications fiber network around the campus has been recently repaired within the past two year. The trailers to the west end of the campus all have new conduits provisioned for network connectivity.



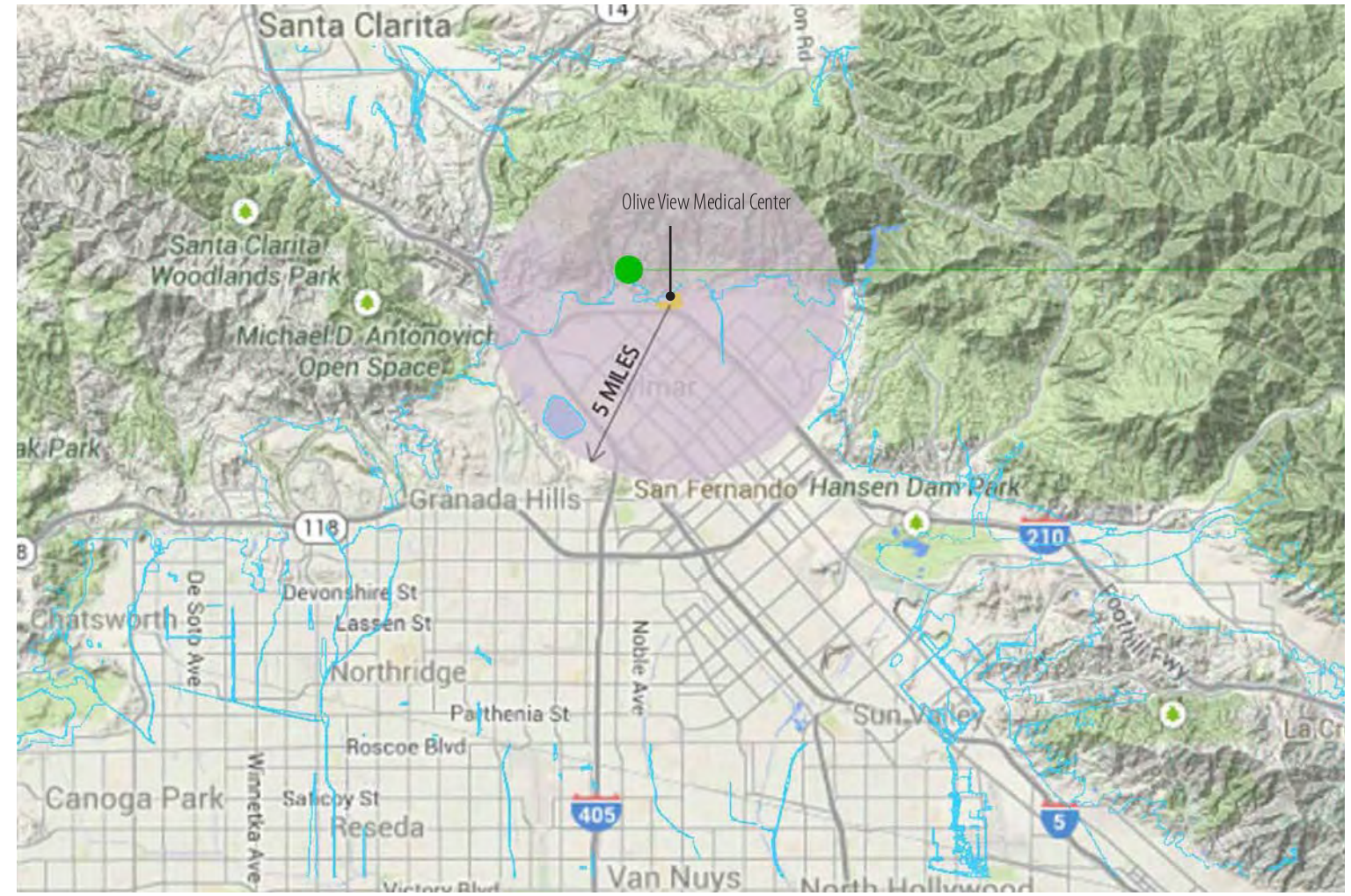
3.33 Existing Site Infrastructure Diagram

WATERSHED

Historically, the canyons of the San Gabriel Mountains fed the watershed of the surrounding lower valley. Numerous springs and water ways found their way to the Los Angeles River in the farther south of the now San Fernando Valley. With the rising demand for agricultural water in the late 1800's, Sylmar saw the construction of the Los Angeles Aqueduct in 1913.

The Los Angeles basin and several areas along the hillsides and the water tributaries were prone to flooding as part of the natural climate and topographic cycle. However, as the valley area grew and population increased, the immediate response during the early 1900's through the 1960's was to channel these tributaries for flood control. Similar to almost every concrete channeling of water ways in the Los Angeles area, storm management was primarily the reasoning behind the two water and debris basins adjacent to the site. The Schoolhouse Debris Basin, completed in 1962, is on the western end of the site and is part of the Mansfield Channel. It is designed to store 19 acre-feet of debris and drain an area of 0.28 square miles. On the northwest edge is the Wilson Debris Basin. Constructed in 1961, the 50 feet high and 666 feet length basin is designed to store 84 acre-feet of debris and drain an area of 2.6 square miles. The Wilson Debris Basin is on the Wilson Canyon River portion of the surrounding watershed.

According to the 2012 Topographic Survey and Easement Plan, water flows generally in two directions within the site – either westward down to the channel coming out of the Schoolhouse Debris Basin and the eastern channel from the Wilson Debris Basin. Occasional flooding occurs over the natural surface slope of the hillside but more prominently northeast of the existing Community Mental Health building.



3.34 Watershed Map

STRUCTURAL

A structural assessment of the existing building inventory at the Olive View – UCLA Medical Center was performed with the primary focus on buildings providing acute care services which are regulated by the Office of Statewide Health Planning and Development (OSHPD). The structural assessment was performed based on the following:

- Cursory review of as-built drawings for the existing buildings
- Review of prior seismic evaluation reports
- Brief visual observation of the building conditions
- Review of the SB1953 legislation requirements
- Review of the fault rupture hazard investigation report for the site
- Understanding of the future needs of the medical center

OSHPD SB1953 Seismic Compliance Overview

Senate Bill 1953 (SB 1953) was introduced on February 25, 1994 and signed into California law on September 21, 1994. The bill is an amendment to and furtherance of the Alfred E. Alquist Hospital Seismic Safety Act of 1983. The Alfred E. Alquist Seismic Safety Act established a seismic safety building standards program under OSHPD's jurisdiction for hospitals built on or after March 7, 1973. The Act was initiated because of the loss of life incurred due to the collapse of hospitals during the Sylmar earthquake of 1971. The Act emphasizes that essential facilities, such as hospitals, should remain operational after an earthquake. Hospitals built in accordance with the standards of the Act resisted the January 1994 Northridge earthquake with minimal structural damage, while several facilities built prior to the act experienced major structural damage and had to be evacuated. However, certain nonstructural components of the hospitals did incur damage, even in facilities built in accordance with the structural provisions of the Act. The provisions and subsequent regulation language of SB 1953 amended the Act to address the issues of survivability of both nonstructural and structural components of hospital buildings after a seismic event. Therefore, the ultimate public safety benefit of the Act is to have general acute care hospital buildings that not only are capable of remaining intact after a seismic event, but also capable of continued operation and provision of acute care medical services after a seismic event.

One of the main provisions of SB 1953 is the development of earthquake or seismic performance categories, specifically the Structural Performance Categories (SPC) and the Nonstructural Performance Categories (NPC). These include seismic performance categories for new and existing general acute care hospital facilities rated on a scale from 1 to 5, with a rating of 5 representing those buildings capable of providing services to the public after a seismic event and a rating of 1 representing those buildings at significant risk of collapse and represent a danger to the public. See the Appendix for tables with a desciption of the stuctural perfromance categories and nonstructural performance categories defined by OSHPD. These tables also specify the timeframes for which each general acute care hospital building must meet each seismic performance category. Legislation enacted subsequent to the original SB 1953 has provisions for facilities to apply for seismic compliance extensions to these timeframes.

Summary of Buildings Assessment

The Main Hospital Building has a structural seismic performance rating of SPC-4 which allows the building to continue operation providing general acute care services indefinitely beyond the year 2030. From a nonstructural seismic performance perspective, the building has an NPC-3 rating which means that all nonstructural systems in the critical care areas of the building have been upgraded to comply with the California Building Code. With an NPC-3 rating, the building is in compliance with current OSHPD SB 1953 timeframe requirements, however, prior to the year 2030, it is required that the remaining nonstructural systems in the building be upgraded in order for the building to provide acute care services beyond the year 2030.

The Central Co-Generation Plant and the Cooling Towers also have SPC-4 and NPC-3 seismic performance ratings meaning that these building are currently in compliance with OSHPD SB 1953 regulations. Similar to the Main Hospital Building, the remaining nonstructural systems in these building are required to be upgraded to NPC-4 prior to the year 2030.

The Emergency Services Building and the Tuberculosis Isolation Building both have an SPC-5 and NPC-4 seismic rating which means that both buildings are in compliance with OSHPD SB 1953 regulations to provide acute care functions beyond the year 2030.

It should be noted that the campus will be required to meet NPC-5 requirements before the year 2030. This involves upgrading campus facilities to provide 72 hours of onsite water supply, sewage holding and emergency electrical power to the buildings that will remain functional providing OSHPD acute care services beyond the year 2030.

MATERIALS MANAGEMENT

Materials Management Building

The Material Management Building or Service Supply Building was originally constructed in 1982 with some additional structural retro-fitting of the building done following the 1994 Northridge Earthquake. The building is located across from the Emergency Services Building entrance. The majority of all incoming supplies and equipment are delivered to, and received at the four truck bays. Linen, Food and Pharmacy supplies are delivered to, and received at the Main Hospital Loading Dock. Supplies and equipment are transported from the Material Management Building to the Main Hospital Loading Dock via facility owned box trucks.

A new Warehouse / Inventory Management System, which will utilize scanning and bar-code technology, was due to be implemented on or by July 1, 2014. Once implemented, MM staff will take over the inventory and replenishment function for the clinics. Speed and accuracy of the supply replenishment function should be greatly improved with the use of this system.

Electric "Golf-cart" vehicles are used to deliver smaller items to the Main Hospital and other out-lying buildings. The space inside the Material Management Building incorporates the following elements: Receiving / Breakout area which includes three receiving desks / PC work stations, and open floor space for supply break-out and staging. The space appears adequately sized, however staged new and / or salvage equipment can encroach on the space.

Main Hospital Loading Dock

The Main Hospital Loading Dock incorporates six (6) truck bays. Two of the dock positions are utilized for delivery and handling of various Food/ Kitchen, Pharmacy, and other non-related medical supplies. In addition, other docks are used for facility trucks to deliver clinic supplies and deliveries from the Material Management Building. Clean and soiled linens are exchanged daily to the staging rooms adjacent to the loading dock. Waste Management is provided at the Hospital Loading Dock including equipment and the necessary staging space.

LIGHTING

Existing Exterior Site Lighting

As a result of this progressive construction and development, the light fixtures installed on the medical center campus vary greatly in visual appearance, lamping, color temperature, performance, and energy efficiency. While LED light fixtures are being installed in specific locations to test the effectiveness of their use on the campus and newly constructed areas have achieved a more regular vocabulary in terms of fixture style, the campus still has an eclectic visual appearance, and many fixtures could benefit from replacement with more energy efficient and efficacious sources.

The new master plan will support the project goals of creating a sense of place and community, reclaiming and celebrating nature, creating visual hierarchies and special areas within the campus, assisting in wayfinding, promoting sustainability and energy efficiency, and unifying the campus through design.

Night Site Lighting Survey

Currently, the light levels on the campus vary widely from well lit areas (such as the main entries of the Emergency Services Buidling and the newly updated parking lots) to very dimly lit or unilluminated areas (service areas behind the bungalows and loading dock facilities). The variety of light sources that have been installed over time include extremely warm Low Pressure Sodium (bungalow area), High Pressure Sodium (poles and wall mounts in Maintenance areas), HID (newly updated parking lots and facades), and Fluorescent (maintenance areas and Main Hospital) which create challenges for people navigating the paths and roadways. Much of the signage is not illuminated, which increases the difficulty of wayfinding.

From an energy standpoint, it was also noted during the site visits that in many support facilities (trailers and bungalows), all the interior lighting was illuminated even though the buildings did not appear to be occupied. Controls such as dimming, timeclocks, and occupancy sensor devices now mandated by Title 24 can help the campus achieve greater energy savings.

The development of a cohesive vocabulary, a family of light fixtures, with consistent light sources and color temperatures will significantly reduce visual inconsistency and clutter, and enhancing lighting for deficient areas and wayfinding elements will provide a greater ease of circulation and feeling of security on the campus.

3.35 Photos of Existing Site Lighting

SIGNAGE

Introduction

This section contains an analysis of the existing signage at the campus addressing both interior and exterior signage. The process was as follows:

The site plan of existing conditions was reviewed and notes were made related to traffic flow, parking lot locations, identification points and public transportation access points. A site visit was conducted, and a thorough photo survey of all existing signage, both exterior and interior was prepared. Locations of exterior signage are located on a key plan and referenced to the photos.

Using these documents and findings, a review of specific signage issues was documented. Signs were grouped into functional categories with areas of concern noted next to applicable photos.

See Appendix for photo documentation of all existing signage types and locations.

Initial Observations

The following is a summary of the initial observations related to the signage:

- There is a mix of signage designs spanning decades, with no consistency.
- Branding / identity on each sign is inconsistent.
- There is no standard font for signage.
- There is no criteria for the use of all caps, or upper and lower case text.
- There is no standard for sign color, arrow design, message alignment or position.
- Sign placement is inconsistent and random. Signs are needed at some key decision points.
- Many signs are run down and /or damaged.
- Many directional signs contain too much text, making legibility difficult.
- Some signs lack sufficient contrast for maximum visibility.

3.36 Photos of Existing Exterior Signage

FIRE AND LIFE SAFETY

Existing Fire Life Safety Analysis

The life safety evaluation of the site included a review of the applicable codes and standards, primary construction types and occupancies, exit discharge locations, paths of travel leading to public ways, and fire department access roads.

The Authority Having Jurisdiction (AHJ) include the Los Angeles County Fire Department (LACFD), the City of Los Angeles Fire Department (LAFD) and the Office of Statewide Health Planning and Development (OSHPD). The LACFD reviews all projects located on site. Group I occupancies are under the jurisdiction of OSHPD. All fire department access roads are under the jurisdiction of the LAFD, since the LAFD responds to all incidents on site.

Since the age of the existing buildings located on site has a wide range, the codes and standards applicable at the time of construction varies for each building. However, all new buildings and renovations, alternations and additions to existing buildings should conform to the applicable provisions of the following:

- California Building and Fire Codes.
- Los Angeles County Building and Fire Codes.
- City of Los Angeles Fire Code.

The primary occupancies on site include Group B, F, I and S. All buildings discharge directly to grade and each building is provided with unobstructed paths of travel leading to the private roads serving the site. Safe dispersal areas are not utilized. Fire apparatus access roads provide the LAFD with access throughout the site. See Appendix for life safety plans depicting the fire apparatus access roads.

Fire apparatus access roads provide the LAFD with access throughout the site. Upon arrival at the site, the LAFD is typically met by the sheriff and escorted to the area of incident on site. The hospital administration conference room (2C159) is used by the LAFD as an emergency command center. However, in the event of a brush fire, the LACFD will be the first responders.

04 STRATEGIC PLANNING AND PROJECTIONS

MARKET SHARE ANALYSIS

OVERVIEW

Various data sources were used to help develop a range of healthcare utiliziation and demographic drivers as the initial step in the planning process for the master plan. Using these data sources and analysis, future projections were established to identify the appropriate number of key spaces needed for the medical center. This analysis allowed the master plan team to estimate future space and area needs by departments and to compare this with available space at the existing facility. The conclusions of this market analysis are used as a guide to delevelop a space program for the various components to the master plan.

The current hospital was originally built in 1987 with a total of 377 acute and specialty care beds. Currently, there are 355 licensed beds that can be activated, and of those, there are 285 beds of all types set-up, available for use, and staffed. Data gathered and analyzed for the existing Hospital services shows:

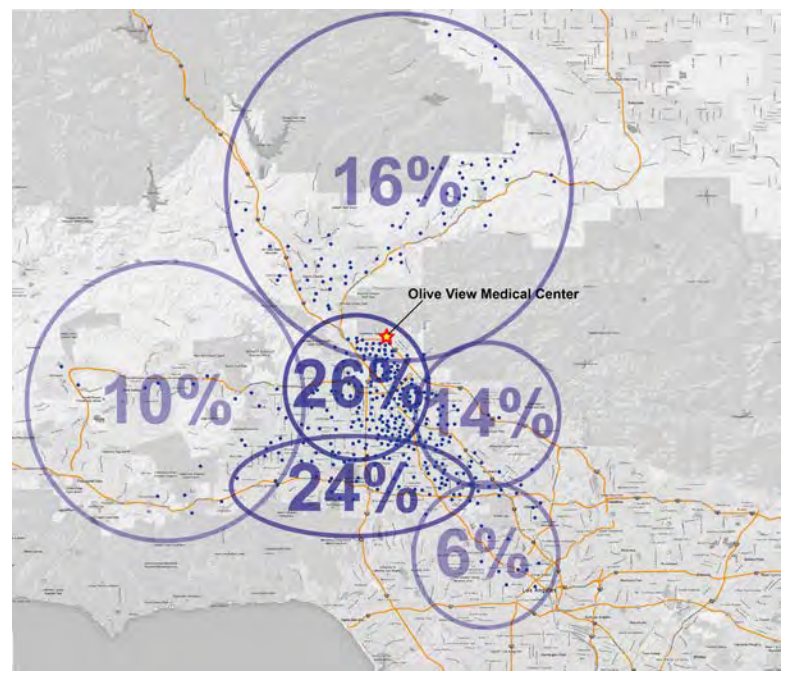
- Staff Medical/Surgical beds and Intensive Care beds capacity are reasonably aligned with the estimated bed need.
- Labor and Delivery births have fell steadily in the past few years.
- The Neonatal Intensive Care Unit (NICU) continues to see a large portion of high-risk births
- The Pediatrics unit has low capacity with typical seasonal variation
- The Acute Psychiatric unit is readily filling to capacity and the ED overflow area is highly utitlized.

Key ancillary services including Emergency, Surgery, and Imaging, as well as other clinical and support functions, all appear to be running at reasonable capacity levels with moderate projected growth. The major focus for growth in the future is expected to be in outpatient and related support services given overall healthcare trends and the full impact of the Affordable Care Act.

A review of patient utilization at other community hospital campuses in the greater San Fernando Valley was conducted. Of all annual patients days generated by these extended/nearby Valley facilities, Olive View serves 9% of the total volume. The greatest overall volumes – in the range of 10% to 14% each – are captured by the larger Glendale Adventist, Providence Holy Cross and Burbank, and Northridge Medical Centers.

Looking specifically at the MediCal and County indigent payer categories, the Olive View-UCLA Medical Center serves the largest percentage (22%) of all such patients for the entire catchment area. For Olive-View-UCLA Medical Center, 83% of its entire patient volume falls into the MediCal and County indigent categories.

Given overall options available for healthcare in the catchment area and Olive View's status as the only county-sponsored hospital option in this large northern Los Angeles County region, it must be assumed that this market share and balance of workload focus will continue. Additional future programs, such as initiatives with UCLA program residents and physicians can bring some variation; however, a primary focus and mission of Olive View is assumed to be the key regional provider for low income and indigent patients.



4.01 Map of Los Angeles showing Patient Origin by Percentage in the Catchment Area

TRENDS AND FORECASTS

California state, local LA County and communities, and recent academic study data has been reviewed and analyzed to provide the master plan team with population trends in the County of Los Angeles. The data shows a marked departure in recent years from the historical growth pattern of the last sixty years displayed in the San Fernando Valley and beyond. Population growth has slowed overall, and this very minor growth is expected to continue in the areas served by the medical center.

Still, the most significant factor driving the overall bed need projection is the change in the population count and age mix. Total population for the areas served by Olive View is projected to increase 10.44% overall by 2035. Most notably, the age group over 64 years will increase by 128%. As a result, Olive View would see an increase in patient days of 10.4% by 2035 and an added increase of 6.8% due to the aging population. Other trends in patient care and the shift to outpatient care is expected to moderate these increases in patient volume. The Staff Medical/Surgical beds show a decrease in admissions and patient days. This is in alignment with trends in general acute care over the past five years and is expected to continue at a steady but slow rate as managed care grows, re-admissions reduce, and the shift to outpatient care increases. Intensive Care has increased significantly for the over 64 year patient population. Finally the drop in birth rates seen at Olive View over the past five years appears to be leveling off and very slow increases can be expected.

These trends yield a projection for 2035 of 193 ADC (Average Daily Census) and 251 total beds needed when utilization rates are applied.

PLANNING STRATEGIES

OVERVIEW

The scope of this master plan is to create a path for the campus development on the site with the year 2035 as its planning horizon. There are, however, a great number of variables that affect the site and all of the activities that may play out over the long term, much beyond the year 2035. One of the cornerstones of a master plan is to set the stage, so that decisions made in the short term do not interfere with the potential long term development of the site. In order to address the primary charges of the master plan, namely the Outpatient and Inpatient services, this study widened the perspective to address the components surrounding these functions. Using a flexible response will allow the medical center campus to adapt to changes over time, as circumstances require.

With regard to medical center development, the planning team undertook two primary activities.

The first was a careful evaluation of the site and buildings currently employed by the medical center. Each building and department was evaluated with regard to its physical condition and how well it served current operational and functional requirements of the particular service using a given space or building. The planning team worked closely with the consultant team to establish a thorough understanding of the physical condition of each building with a focus on determining not only how well the building served current needs, but how much longer could the building be used for such functions. This information is a critical component in understanding the levels of renovation likely required, the construction costs incurred, and levels of disruption caused to building occupants to keep the building operational. Evaluations included area and physical interior conditions, mechanical and electrical systems, structure, site utilizes, central plant, and civil engineering.

The second activity was an evaluation of the programmatic needs for each department or service. The planning team evaluated current department capacity and space, benchmarking against accepted standards to determine current deficiencies. Once the workload projections were completed, future capacity and space needs were developed and used as the basis for planning.

The programing and planning teams met frequently with medical center leadership and department leadership to better understand current issues and future needs. Additional planning meetings were held with members of the County of Los Angeles and UCLA to gain a further understanding of other campus occupants and how their likely future needs could be enhanced with an integrated planning response. Key meetings included the Chief Medical Officer of the LA County Department of Health Services (DHS), the Vice chancellor for UCLA Health Sciences and Dean of the David Geffen School of Medicine at UCLA, the Director of Community Health & Integrated Programs, and the Director of Housing for Health LAC DHS. The projected space needs for these other site occupants are used as placeholders for planning purposes. These projections will need to be verified when the projected buildings become more likely to occur. The master plan will then need to be updated with the new information.

In early conversations with medical center leadership and Department of Health Services, several priorities we clearly stated:

- Provide for a new Ambulatory Care Center in the near term.
- Provide options that include continued reuse of the existing hospital building.

IMPLEMENTATION

To address the points identified by DHS and Olive View leadership, the team has suggested a total of four planning options. All of these options began with the new Ambulatory Care Center as the first step, coupled with a replacement Central Utility Plant (CUP). Of the four, three options respond to the priority of continued reuse of the existing hospital. Each of these renovation options require progressively more complete and extensive levels of remodel, including replacement of the building mechanical and electrical systems, and upgrades to bring the building in compliance with current codes and community standards of care. Although described as renovation options, each option suggests the eventual hospital replacement at some point in the future. The master plan goal is to reserve an area of the campus to accommodate a future hospital replacement.

Because of concerns about years of disruption to hospital operations to accommodate the projected remodels, the team developed a fourth option of hospital replacement. The new Hospital will be located within the center of the campus to provide necessary connections to other building programs on the campus including the New Ambulatory Care Center. The master plan team does not make any recommendations with regard to the future of the existing Hospital when it is replaced by the new hospital. The building could either be repurposed with building upgrades and remodels or demolished, creating an area for future medical center development.

The campus master plan identifies alternate locations for the Administrative Building, the Central Utility Plant, and the Materials Management Building. This is in response to the issue of timing. If the decision is to continue reuse of the existing hospital for an extended period of time, it will be necessary to provide a replacement CUP to support the existing hospital and the new Ambulatory Care Center. Eventually, when the hospital is replaced, a second new CUP will be built closer to the new hospital. The Materials Management Building is a regional asset providing service to both the hospital and regional DHS clinics. The building should be located to create logical relationships with both the existing hospital and future new replacement hospital.

PLANNING STRATEGIES

INPATIENT SERVICES

In order to provide a roadmap of options for the existing building to meet the deadline to comply with seismic safety regulations mandated by OSHPD, there is a considerable amount of area in need of upgrades.

There are several options to meet the compliance deadline which depend on the decisions reached by the County of Los Angeles administration, in combination with the stakeholders in the project, and on the level of development and long term investment in the facility. The three renovation options are:

1. Minimal Renovation
2. Partial Renovation
3. Complete Renovation

The first step of the master plan in all of these options is to decant and consolidate outpatient services into a single, robust, Outpatient Services Center, complete with outpatient surgery, imaging and diagnostic and treatment areas. The preference of the OVMC Hospital is to have a possibility for direct connection between the inpatient and outpatient services buildings.

The decanted areas in the existing hospital building are essential to enable renovation work. All the options will involve disruption to existing hospital functions which should be considered in terms of several factors including phased displacement, noise/vibration concerns, infection control and construction waste management, disruption to patient and staff flow, life safety, replacing mechanical and electrical systems, and code compliance.

The County may also choose to invest in a new long term facility, in which case the functions and elements of the hospital would be relocated into a new building. For the purpose of this master plan, this option is called:

4. Replacement Hospital

1 MINIMAL RENOVATION

- Only renovate areas in need of seismic compliance upgrades
- Maintains existing semi-private / private bed accommodations

2 PARTIAL RENOVATION

- Identify specific areas to renovate in addition to those in need of seismic compliance upgrades
- Prioritize areas found to be operationally constrained or space challenged
- Reuse available space with limited disruption as much as operationally feasible
- Potential use of "empty chair"

3 COMPLETE RENOVATION

- Renovate entire existing hospital building to house inpatient services
- Take advantage of areas made available after moving outpatient services to a separate building
- Provide a higher standard of care (e.g. all private patient rooms) with robust building systems
- Invest capital into extending useful life of existing building

4 REPLACEMENT

- Build a complete replacement to house the Inpatient services in a single phase
- Create an opportunity to integrate Inpatient and Outpatient services
- Minimize operational costs and downtime
- Improve operational performance
- State of the art facility to provide care to the community

4.02 Planning Options for Inpatient Services

Option 1 - Minimum Renovation

The scope of the 'Minimal Renovation' option is defined by the amount of renovation work needed to meet the requirements to upgrade the existing hospital building to comply with seismic safety regulations as mandated by the Office of Statewide Health Planning and Development (OSHPD). The areas that are relocated into the Ambulatory Care Center can be used as future program area depending on the needs of the facility.

All existing patient bed units, including semi-private rooms, remain unchanged. The majority of the renovation consists of upgrades to the MEP systems, for which a considerable amount of the work will be performed inside the ceiling plenums and/or utility rooms and chases. A considerable amount of disruption to the existing hospital functions is expected.

These upgrades have to be completed before January 1, 2030. If the hospital is upgraded to comply with these renovations by the deadline, there are currently no additional requirements beyond that point. Project duration is expected to be the shortest among the proposed planning options, but it should be noted that the duration could vary greatly depending on the existing conditions.

Option 2 - Partial Renovation

'Partial Renovation' includes the renovation described for 'Minimal Renovation' in addition to specific areas found to be operationally constrained or space challenged. Some of these spaces include Surgery and Perioperative, Intensive Care Units, Radiology and Inpatient Pharmacy, and the Inpatient Mental Health nursing unit.

These areas will be upgraded, either in place, or by using the space that is available from decanting outpatient services into a new building. In order to control costs, the renovations of these spaces should be kept to as minimal as technically feasible. Similar to the 'Minimal Renovation' option, most existing semi-private inpatient beds remain in their current configuration.

The limits of this renovation option are variable and depend on such things as the availability of funds, the timing of disruption, and the priorities established by the County of Los Angeles and the medical center. Construction and disruption times vary greatly depending on the extent of renovation.

These upgrades have to be completed before January 1, 2030. If the hospital is upgraded to this renovation by the deadline, there are currently no additional requirements beyond that point. In contrast to the 'Minimum Renovation' option, this renovation option gives the hospital more leverage to meet patient volume demand over a longer timeframe, and also improves customer/staff satisfaction.

Depending on the extent of renovation work and upgrades, the hospital may not need further renovation for a longer time span. However, maintenance work will be an ongoing challenge especially for mechanical and electrical sytems. Project duration is expected to be longer than the 'Minimal Renovation' option. Therefore, if chosen, the renovation should start earlier.

Option 3 - Completion Renovation

Unlike the previous two options, the 'Complete Renovation' option consists of renovating the entire building, with a focus on functional upgrades. The upgraded facility will be able to effectively house and operate the inpatient services program until the planning horizon for this master plan of 2035.

The OSHPD compliance deadline for the projects still remains January 1, 2030. Project duration is expected to be longer than the previous two options, and therefore construction would have to start the earliest. The finished facility will provide a higher standard of care (e.g. all private patient rooms), and provide robust building systems to complement current medical practice standards.

Considerable improvements are possible in addition to all private patient rooms and updated Diagnostic and Treatment areas. Some of these areas include all nursing units, consolidated and updated imaging, and rightsized support and administrative services.

Similar to both previous options, the renovation of the building is expected to be completed in phases, starting with the areas vacated after the outpatient services move to a new dedicated building.

Construction and disruption times, however, will vary greatly depending on the construction phasing, the extent of scope available to each phase, and the functional support available. Areas impacted by renovation will require temporary facilities, or departmental shuttering, which may considerably affect schedule.

Option 4 - Replacem

Each of the renovation options represent a consideration investment in an aging facility, which will eventually need to be replaced. The master plan team studied the very long term development of the site, beyond the 2035 planning horizon. In order to provide a master plan which maintains the best use of the land and long term interests of the campus, the master plan includes the 'Replacement Hospital' as the fourth option.

The triggers to implement a new facility vary depending on the approach. For example, after doing 'Minimal Renovation,' the hospital will be limited to cope with the patient volume demand. Further renovation will be required in the short term, so a new replacement building may be more economically feasible. Looking at the 'Complete Renovation' option, the life of the facility will be extend by several decades. After this, however, the building would be nearing the end of its useful life, and renovation will be no longer be possible. It is also possible that the available time is too short to complete a renovation in time to meet the OSHPD deadlines, in which case a replacement building would provide a shorter construction schedule with the longest lasting investment.

The replacement building provides the Hospital the most flexibility in terms of construction, layout, operations, and schedule. It creates a new platform on which to improve operational performance, minimize operational costs and downtime, and integrate all inpatient services in a state of the art facility to provide care to the community, built in a single phase. Construction is unencumbered, and disruption times are limited to the relocation of services to the new building.

05 OPTIONS EVALUATION

OPTIONS EVALUATION

All of the options were evaluated and reviewed with the Client and Consultant Team to understand the benefits and disadvantages of each. A matrix was produced for evaluating each option for the factors most critical to meeting the goals and objectives of the master plan.

The following parameters were considered:

- Improves land use flexibility
- Sustainability
- Enhanced circulation and wayfinding
- Accommodates phased development
- Optimizes future inpatient zone
- Proximity to other program components
- Optimizes key program adjacencies
- Engages with community
- Provides opportunities for development partnerships
- Maximizes greenspace
- Supports development partnerships with UCLA
- Minimizes travel distance to parking

In addition to the evaluation based on performance criteria, the entire Consultant Team provided feedback and comments for each of the four concepts. The concepts were reviewed for traffic and wayfinding, utility routing, demolition and retention of existing buidlings and infrastructure, stormwater management, parking demand and projections, site lighting, structural design, grading, logistics and material management, and cost impacts.

Understanding the strengths and weaknesses of each option provided for the Team the selection of the preferred option.

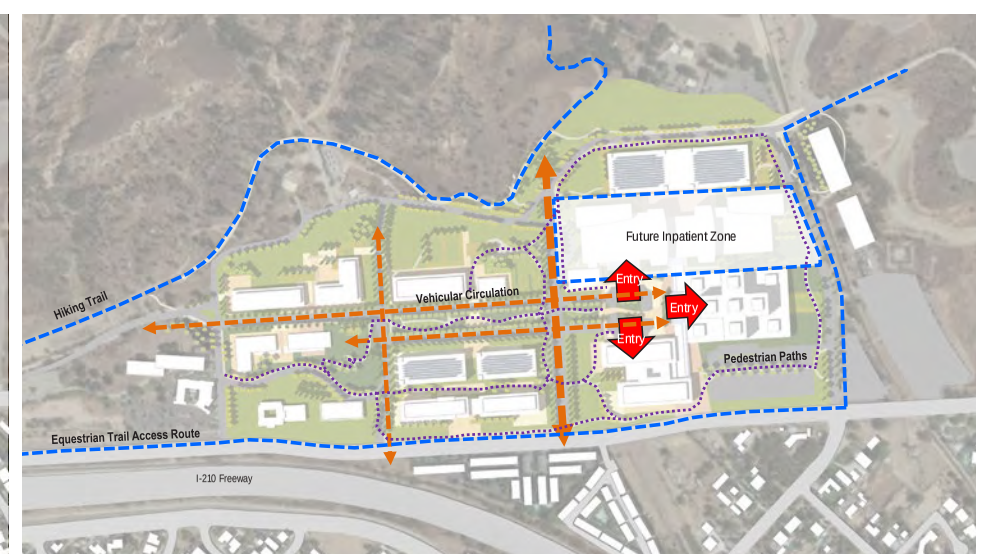
SITE PLANNING OPTIONS

BOULEVARD

Serving as the central organizing element, the Boulevard unites the campus as a whole providing a clear organizational strategy. The Boulevard concept focuses development of the medical center around the existing Hospital Tower providing a direct link between the existing and future services. All of the building uses are located around this central spine with similar building functions being further defined within zones or blocks. At each zone, there is a dedicated entry plaza for patients and visitors to be directed to their destination. The main street includes a winding path where visitors and staff can walk through the various gardens and open spaces. Because the placement of buildings creates a more urbanized environment, there is an opportunity to use the land to the west and east of the campus for other development uses.

5.01 Boulevard - Site Plan

5.02 Boulevard - Buildings and Open Space Diagram



5.03 Boulevard - Circulation Diagram

NATURE'S EDGE

Nature's Edge uses the natural terrain and landscape to dictate the placement of buildings and provide opportunities for open space. A green belt is introduced along the front edge of the site where community and retail functions can be located. By introducing this green edge with opportunities for community-oriented development, Nature's Edge re-establishes the link to the site's natural enviornment as well as fosters a better relationship with the community. The layout of Nature's Edge is much less concentrated as compared to the Boulevard concept. The Future Hospital is located across the Edison Easement. The new Ambulatory Care Center is located adjacent to the existing Hospital and also provides a close connection to the Replacement Hospital.

5.04 Nature's Edge - Site Plan

5.05 Nature's Edge - Buildings and Open Space Diagram

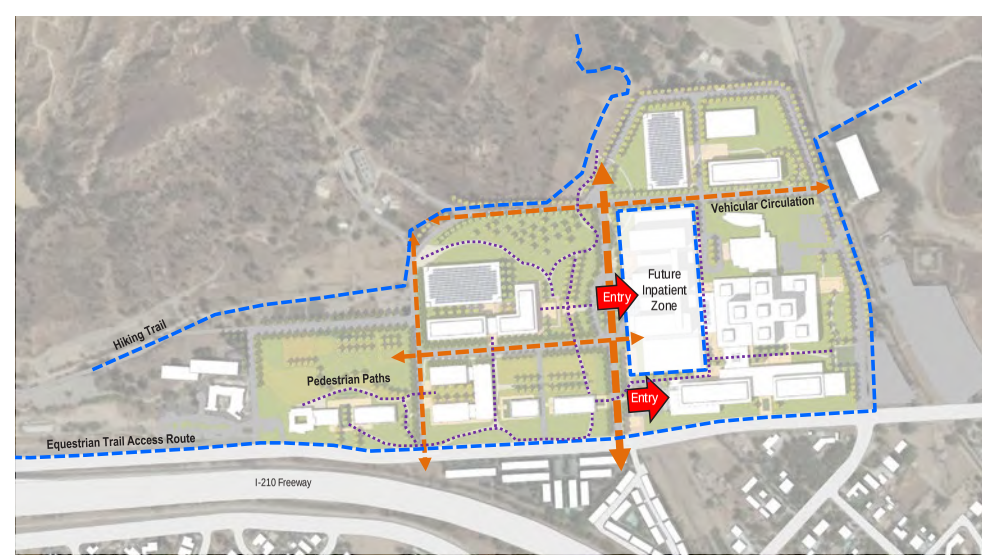
5.06 Nature's Edge - Circulation Diagram

COMPACT

The Compact concept is the most dense and urban approach. Both the outpatient and inpatient services are focused around the existing Hospital Tower. Because this concept is very dense, there is an opportunity to use the remaining land for other development opportunities. By concentrating the buildings in close proximity to one another, the height of the building becomes an issue creating tall structures in an otherwise suburban context.

5.07 Compact - Site Plan

5.08 Compact - Buildings and Open Space Diagram



5.09 Compact - Circulation Diagram

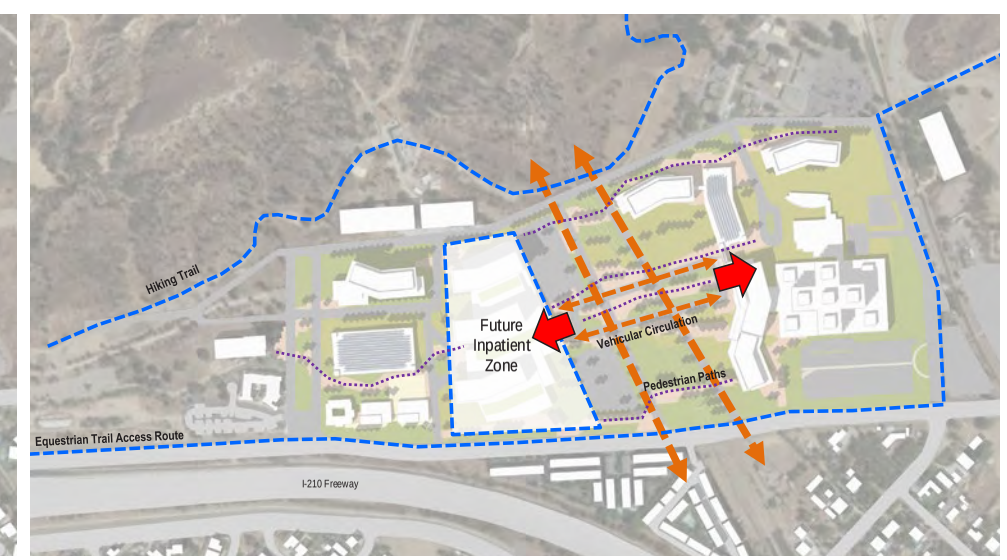
TERRACE

Similar to Nature's Edge, the Terrace concept utilizes the natural slope of the site to create a playful arrangement of landscape areas.

The landscape becomes one with the building, blurring the distinction between the ground plane and the building base. The new Ambulatory Care Center is placed directly in front of the west facade of the existing Hospital to give it prominence as well as provide a new front door and entry point for the campus.

5.10 Terrace - Site Plan

5.11 Terrace - Buildings and Open Space Diagram

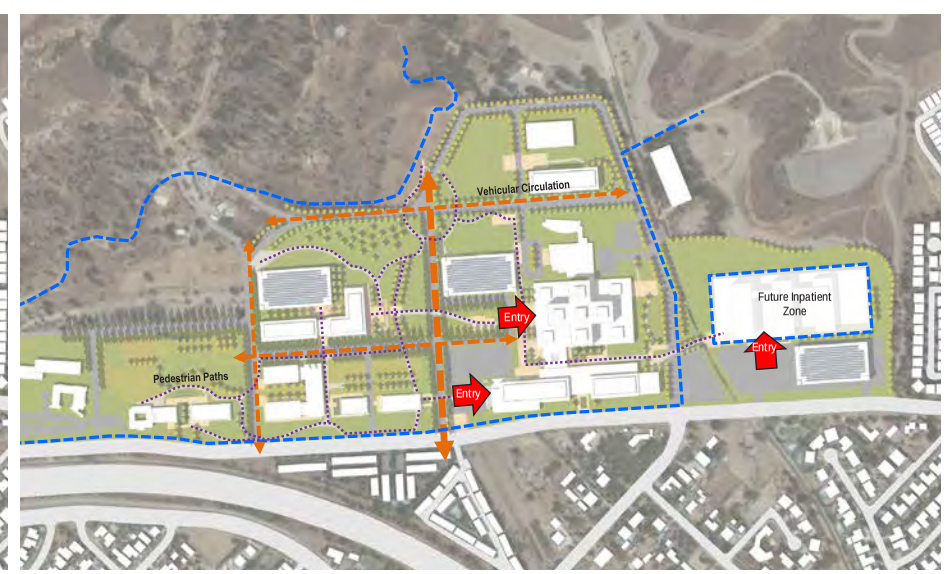


5.12 Terrace - Circulation Diagram

SMITHGROUP JJR

5.13 Wilson Canyon - Site Plan

5.14 Wilson Canyon - Buildings and Open Space Diagram



5.15 Wilson Canyon - Circulation Diagram

WILSON CANYON

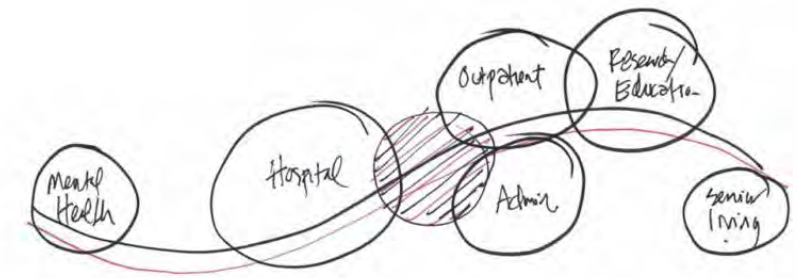
The Wilson Canyon scheme locates the Future Hospital Zone to the east of the existing facility. The advantage to this scheme is that the future hospital zone is located outside of the Alquist-Priolo earthquake fault zones. The Ambulatory Care Center is located along Olive View Drive and directly connected to the existing Hospital. The other campus uses such as UCLA Medical Office Buildings, Mental Health, and Long Term Care are located to the west end of the campus.

06 CAMPUS MASTER PLAN

PREFERRED MASTER PLAN CONCEPT

NATURE'S EDGE

Nature's Edge is about reclaiming nature and reviving the spirit of Olive View -UCLA Medical Center from when it was first developed in the 1920s. With the backdrop of the San Gabriel Mountains to the north, the natural topography of the site is used to help elicit a site response that creates a strong connection between each of the different program components as well as re-establishing the connection to nature. Different gardens can be discovered along the various walking paths and linkages are provided throughout the campus to help one rediscover this connection. Each garden celebrates a different type of native landscape found in California from woodlands to grasslands and wildflowers.



6.01 Nature's Edge Concept Diagram

6.02 Examples of green spaces, connection between indoors and outdoors, informal gathering spaces, community activities and engagement

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

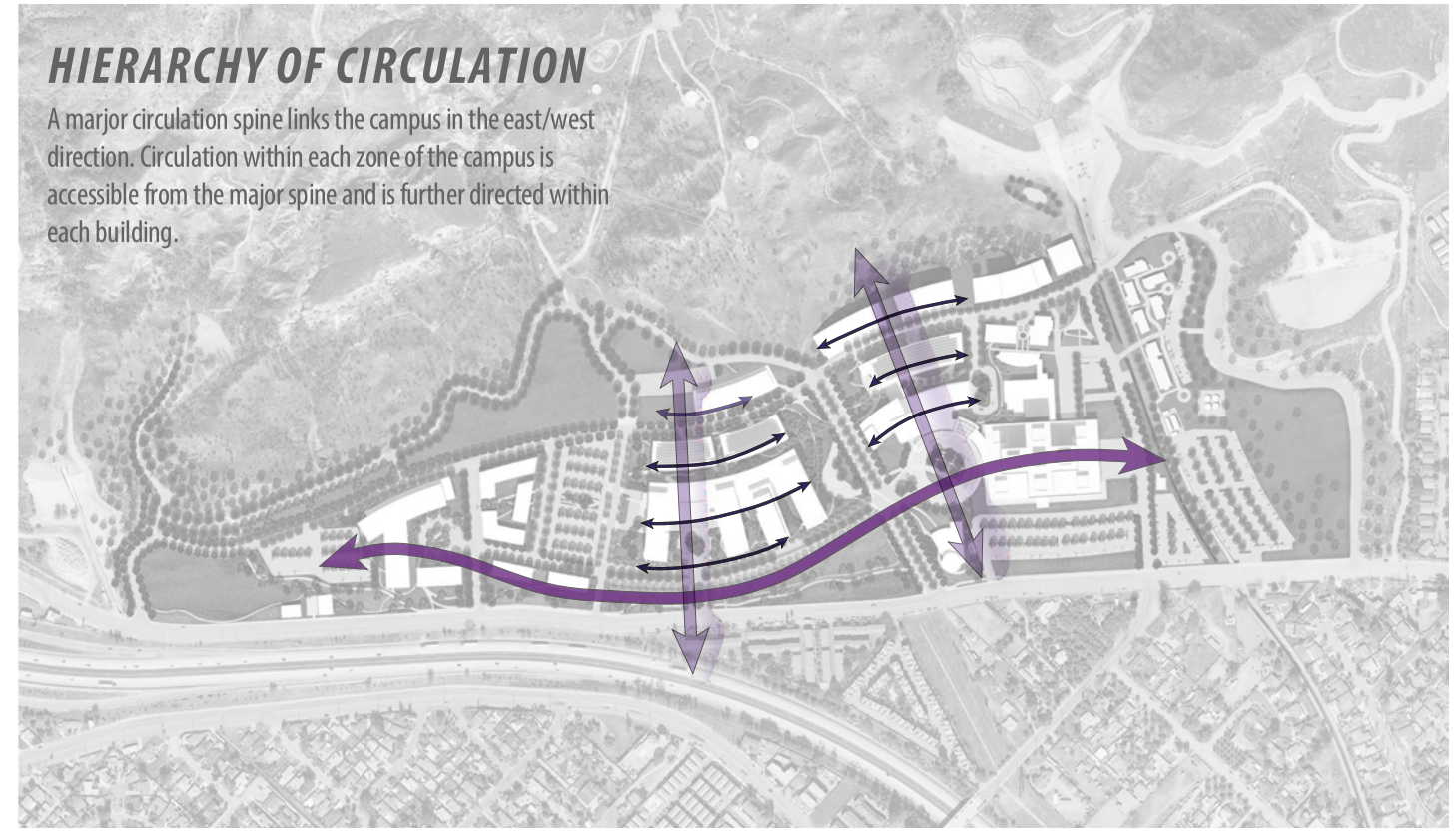
6.03 New Ambulatory Care Center and Existing Hospital Drop-off

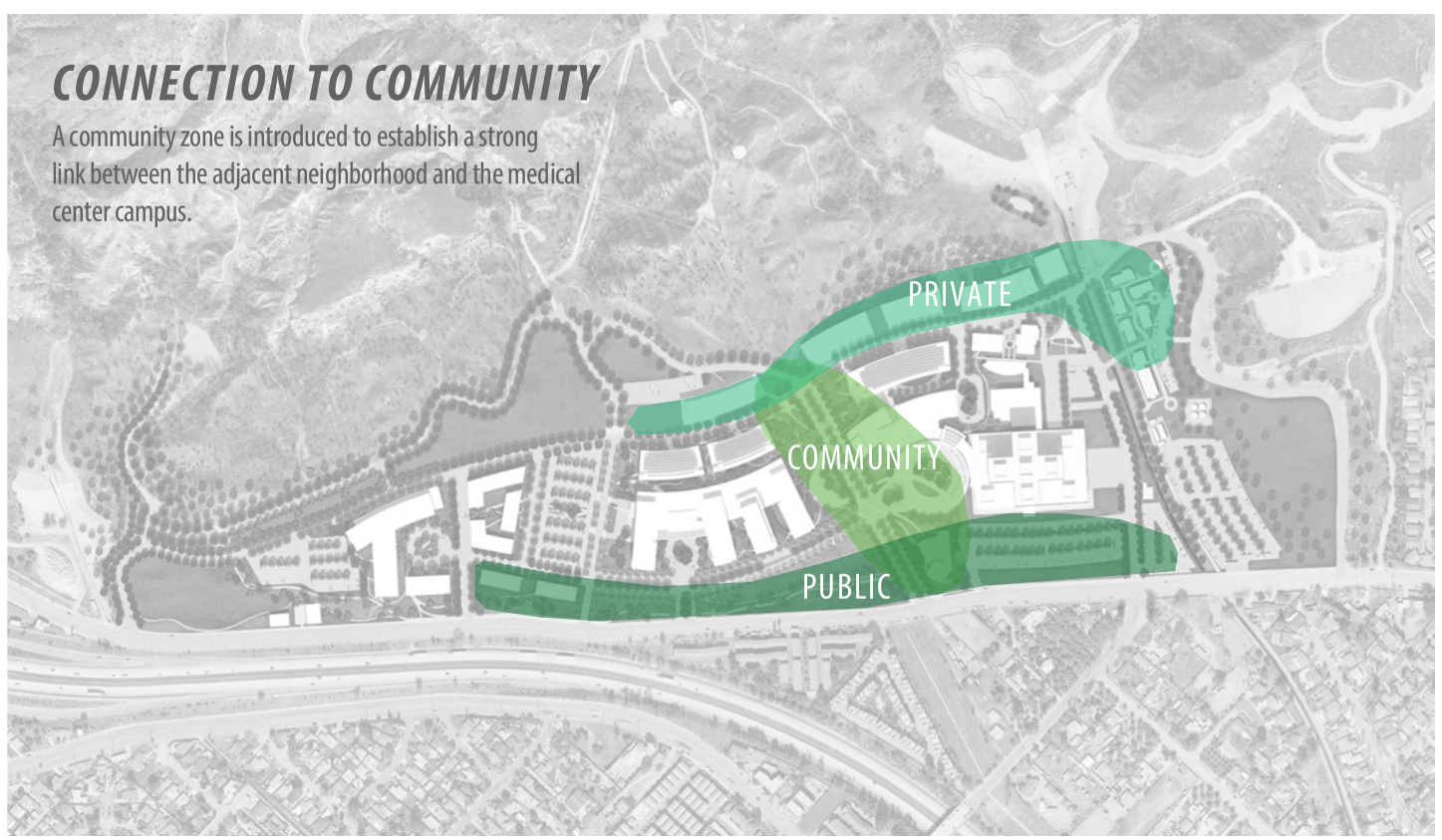
6.04 Future Hospital Entry Plaza and Drop-off

6.05 New Ambulatory Care Center Entry Plaza

6.06 UCLA Research and Education Building

DESIGN PRINCIPLES



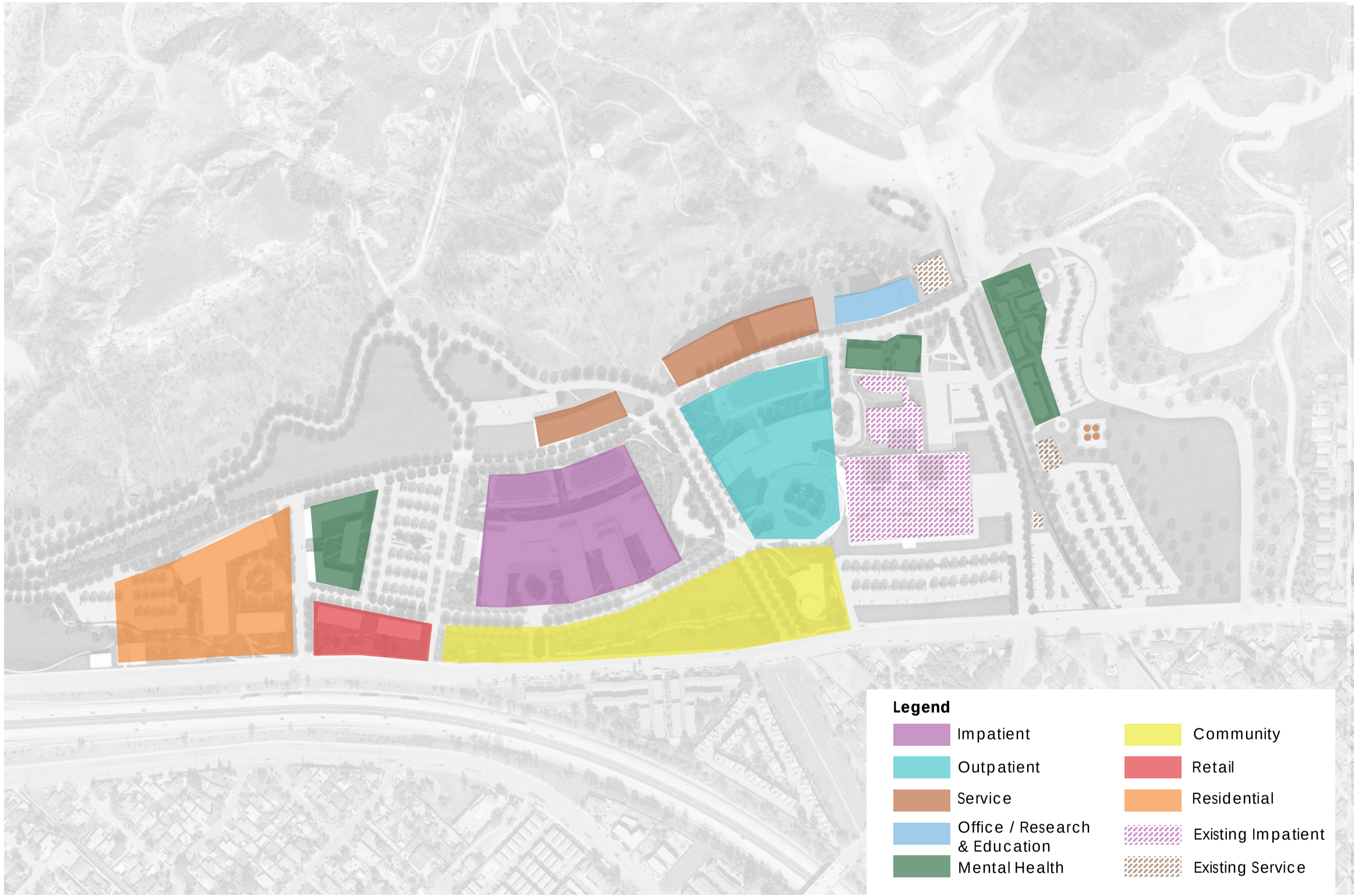


6.07 Design Principles Diagrams

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

CAMPUS ZONING

The center of the site is reserved for the Olive View Medical Center services as this is the major component to the master plan. In this zone, the inpatient, outpatient, and UCLA uses are placed. The east end of the medical center zone is reserved for the future Inpatient Hospital and associated service buildings. Outside of this zone, the various other uses are located including administration services and campus support. At the east end of the campus, the Mental Health and Assisted Living uses are located. The front of the campus along Olive View Drive is intended for community and retail uses to help link the campus to the surrounding neighborhood.



6.08 Campus Zoning Diagram

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

BUILDING USE AND PROGRAM SUMMARY

SITE PROGRAM SUMMARY

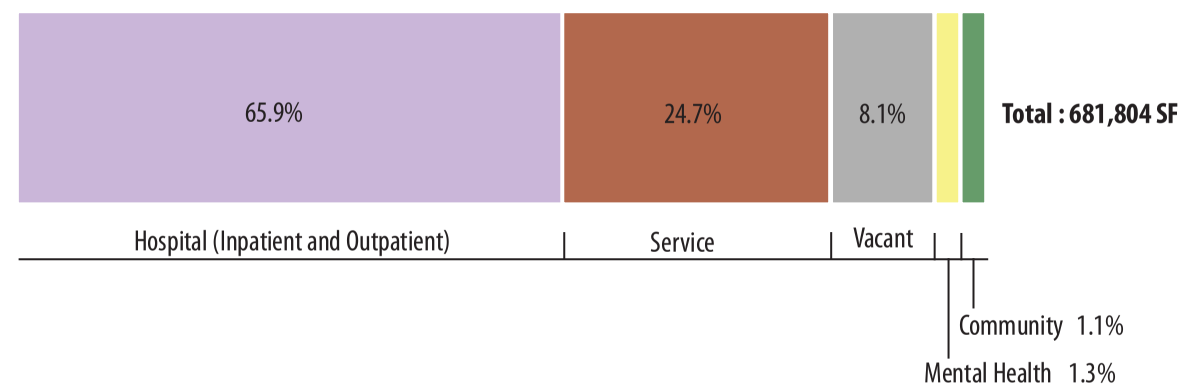
CRITERIA	EXISTING CONDITIONS	MASTER PLAN	
Site Area	230 Acres		
Site Area (Buildable) in Acres	5,603,700 SF		
	130 Acres		
Building Area	804,200 SF	1,382,000 SF	
Floor Area Ratio (FAR)	0.144	0.247	
Maximum Building Height/Number of Stories	100 FT/6 Stories	100 FT/6 Stories	
Parking			
Stalls in surface parking	2,672 *Count	1,200	
Stalls in structure	0	2,000	
BUILDING PROGRAM	**EXISTING CONDITIONS**	**MASTER PLAN**	
Hospital	530,000 SF	530,000 SF	***
Ambulatory Care Center		276,000 SF	
UCLA MOB		120,000 SF	
Community	9,300 SF	20,000 SF	
Administration	99,400 SF	96,000 SF	
Retail		40,000 SF	
Mental Health	11,000 SF	20,000 SF	**
Long Term Care Residential		135,000 SF	
Support Services Buildings	35,200 SF	68,000 SF	
Central Utility Plant / Facilities / Shops	64,700 SF	77,000 SF	
Vacant	65,600 SF		
SUBTOTAL	**804,200 SF**	**1,382,000 SF**	

Notes: ** Current demand: 2,251*
*** Anywhere from 15,000 to 40,000 SF*
**** This area is for total renovation. If the building is replaced, the area should be closer to 600,000 SF.*

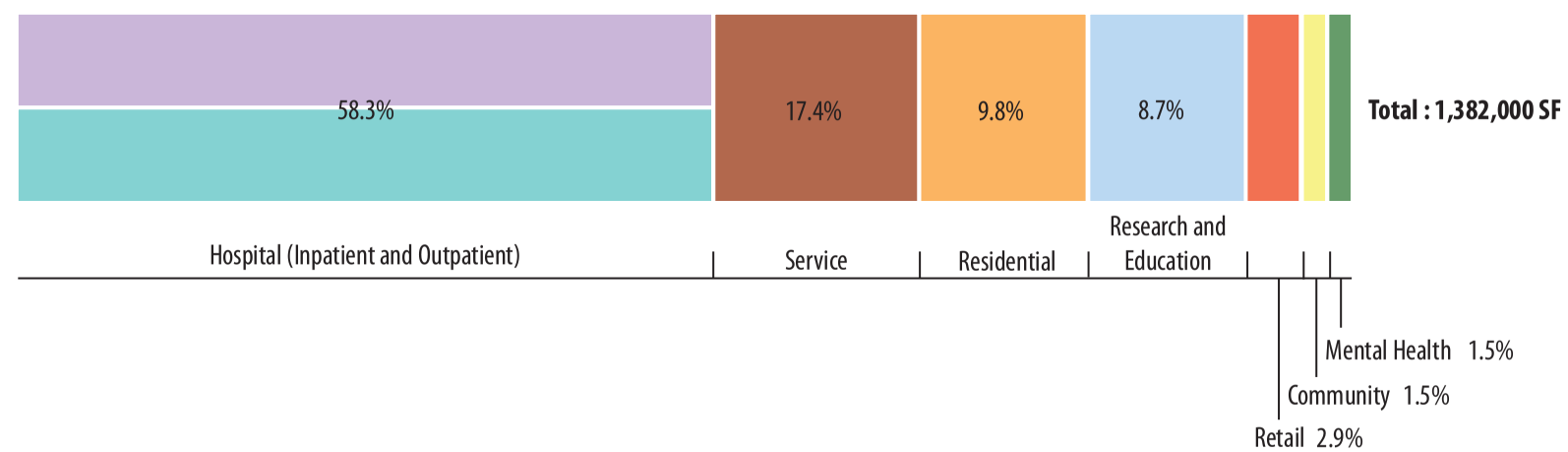
6.09 Site Program Summary

BUILDING USE

Existing Conditions



Olive View - UCLA Medical Center Master Plan

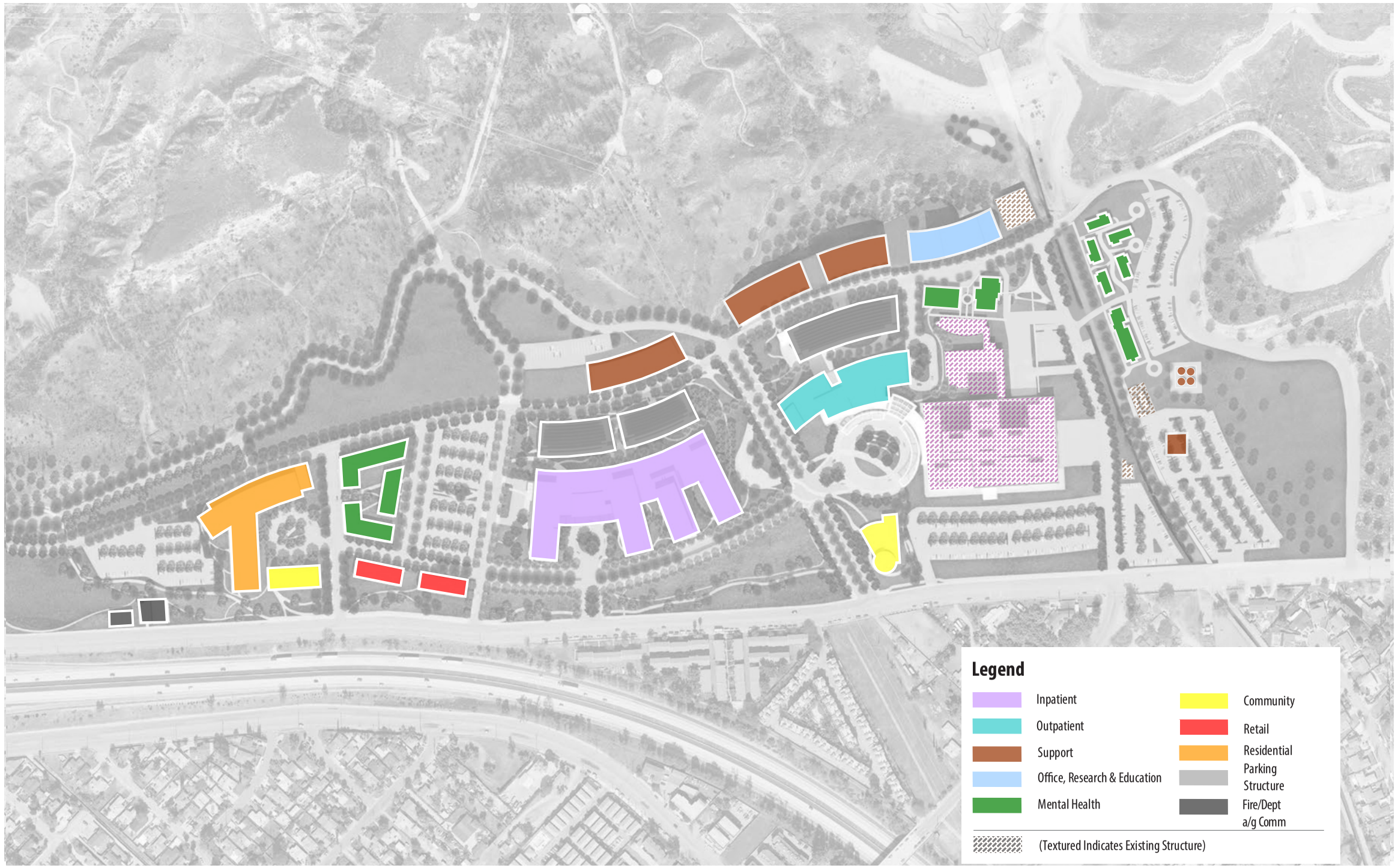


6.10 Building Use Chart

SMITHGROUP JJR

BUILDING USE

The building use plan shows a more detailed arrangement of the different uses on the campus as they correspond to each of the buildings. Immediately adjacent to the existing Hospital, the Ambulatory Care Center will house clinics as well as diagnostics and treatment services. Once the need arises for a new Inpatient Hospital, the zone directly east of the Ambulatory Care Center can be used for this new facility. The Mental Health and Long Term Care / Recuperative Care building are located at the east end of the campus. A Community Center is located immediately in front of the main entry from Olive View Drive.



6.11 Building Use Diagram

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

SITE CIRCULATION

VEHICULAR CIRCULATION

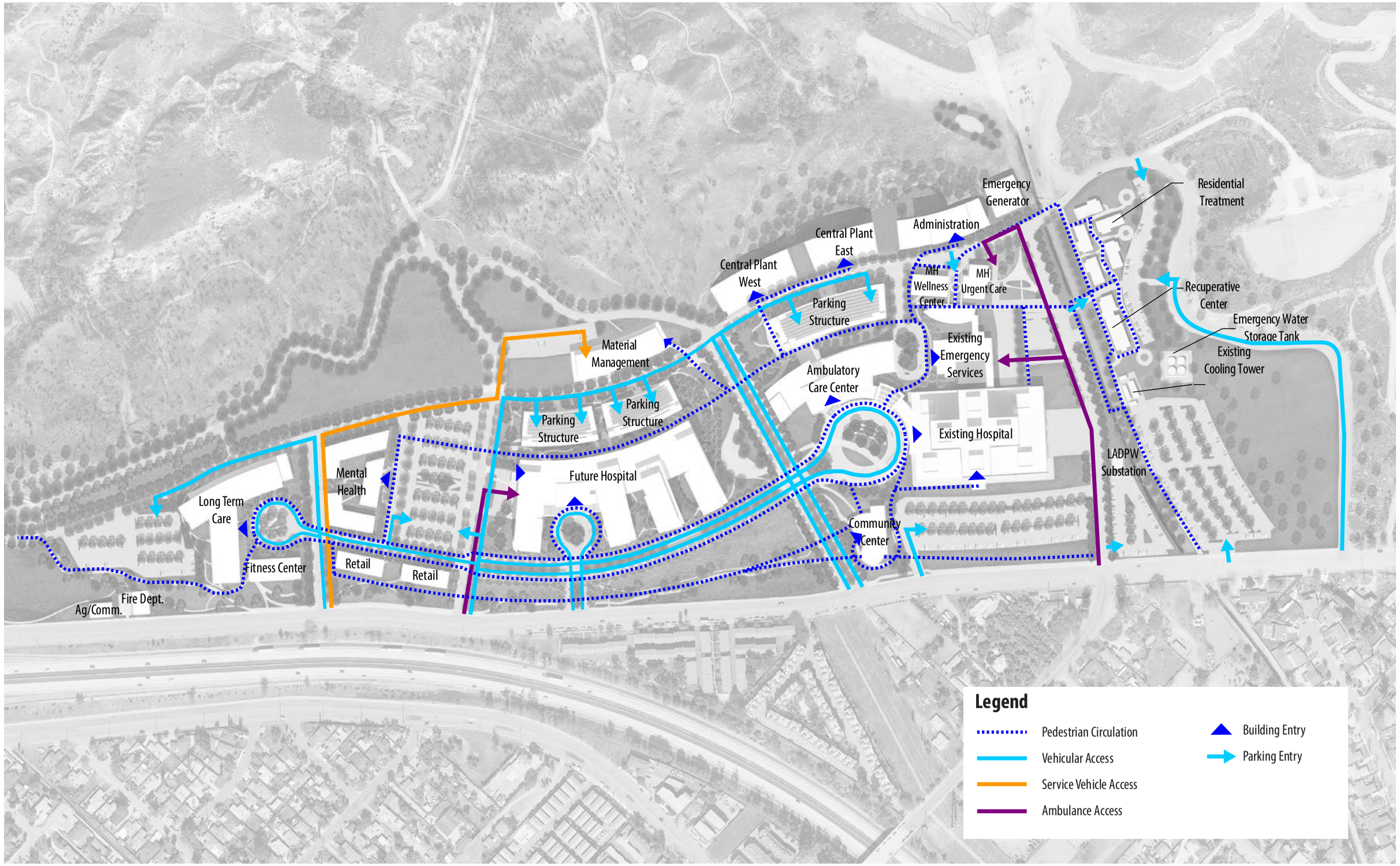
Because the medical center is only accessible from Olive View Drive to the south, it is important for the master plan to provide a clear system of roadways for each of the different users of the campus. Intermingling of different users is expected, but the goal is to provide clear and direct entries to points of destination.

Each zone of the campus has a dedicated entry point from Olive View Drive which will be supplemented by directional signage and landmarks. In addition, drop-off areas are located at each of the major buildings on the campus with the intent of being immediately visible upon entering the campus. Parking structures and surface lots are placed at various locations adjacent to the buildings.

Access for service vehicles is dedicated to minimize traffic for visitors and patients. Similarly, emergency vehicles are provided a direct route to the emergency department.

PEDESTRIAN CIRCULATION

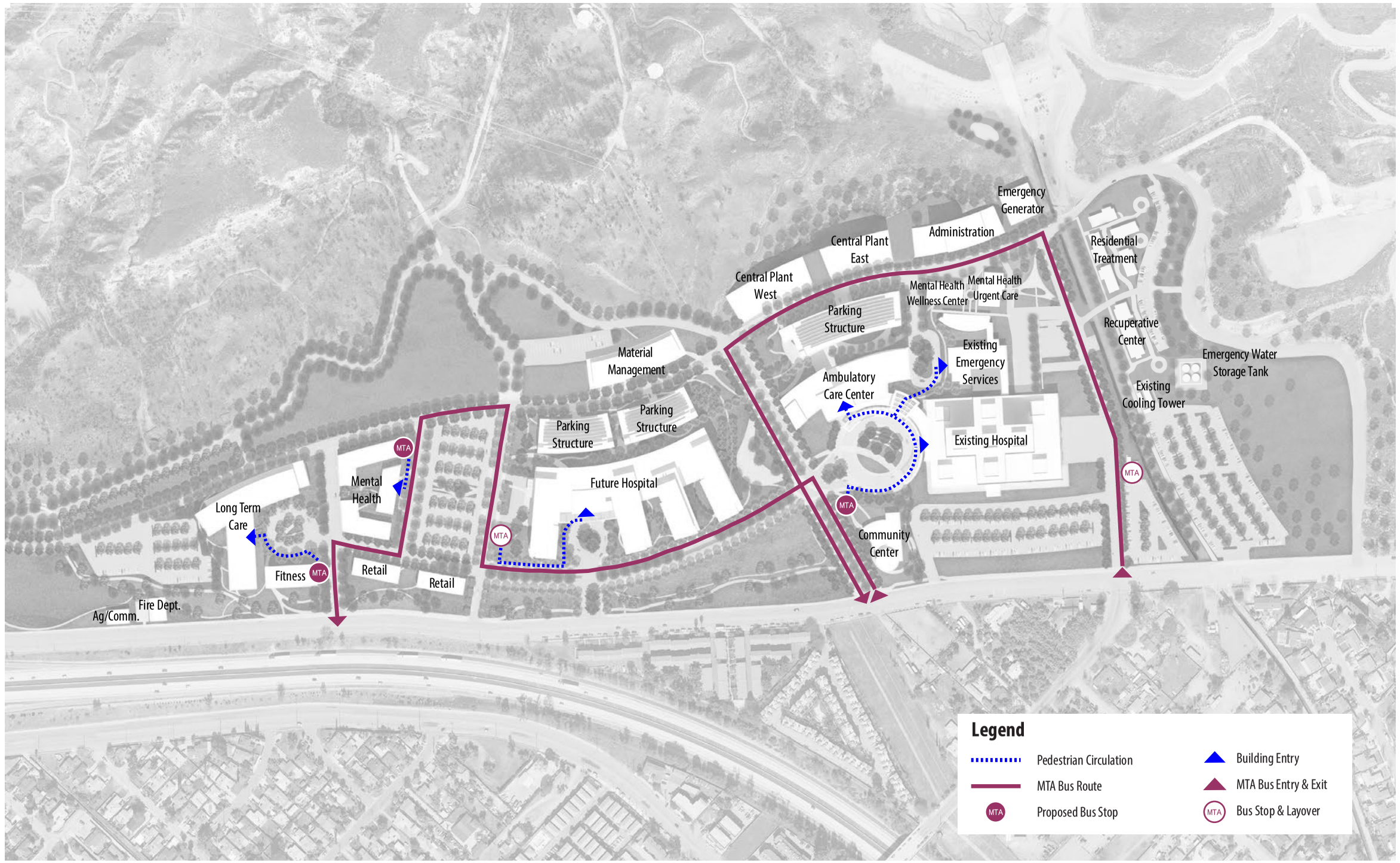
There are various walking, biking, and equestrian paths that are introduced into the new master plan to make the campus more inviting to the various users of the campus and members of the community. These paths provide access to the different building uses on the campus as well as connections to the various gardens and open spaces. In addition to providing a better experience for the users, the campus circulation also minimizes travel distances between buildings and to parking.



6.12 Site Circulation Diagram

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

PUBLIC TRANSIT



6.13 Public Transit Diagram

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

WELLNESS TRAILS

Olive View visitors and members of the adjacent community are connected to open space, both existing and new, through a woven system of bike, equestrian, and pedestrian trails.

The extensive Wellness Trails promote activity and bring the user closer to nature, while providing transitions between vehicular traffic and hospital facilities, making it safe and convenient to move throughout the campus.

Access to existing trails in the mountains and canyons that encompass the north side of the site is increased, by drawing these trails down into the campus, extending the experience for bikers, pedestrians and the prevalent equestrian community.

Throughout the campus, the Wellness Trails serve as the link between buildings, the community, and the string of gardens that make Olive View a place that heals both people and the natural land.

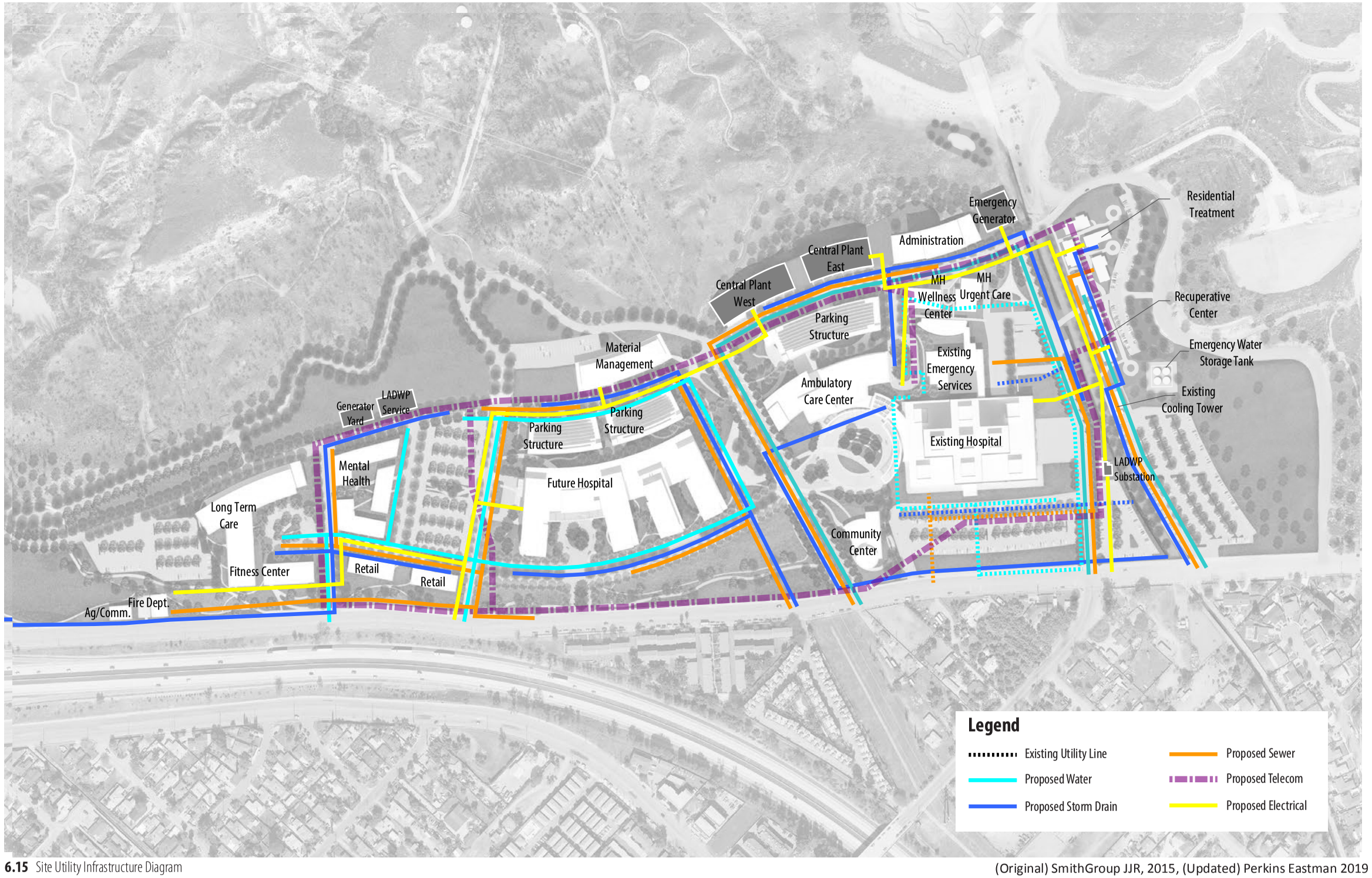
Community Events
Gathering Area
Camp Site
Gardens
Nature Discovery
Quiet Space
Bike
Sensory/Habitat
Wild Flowers
Dog Friendly
Family
Healing Garden
Picnic / Seating
View Deck
Riparian
Active / Fitness
Trailhead
Retail
Visitor Center

6.14 Wellness Trails Diagram

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

SMITHGROUP JJR

UTILITY INFRASTRUCTURE



6.15 Site Utility Infrastructure Diagram

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

PARKING

There are various parking structures and surface lots provided in the master plan to serve the various users on the campus. The majority of patient and visitor parking is provided in the parking structures which are located immediately adjacent to the buildings they serve for ease and proximity of access. These parking structures are supplemented by surface lots. In addition, drop-offs are provided at each of the major building entries to help reduce walking distances.

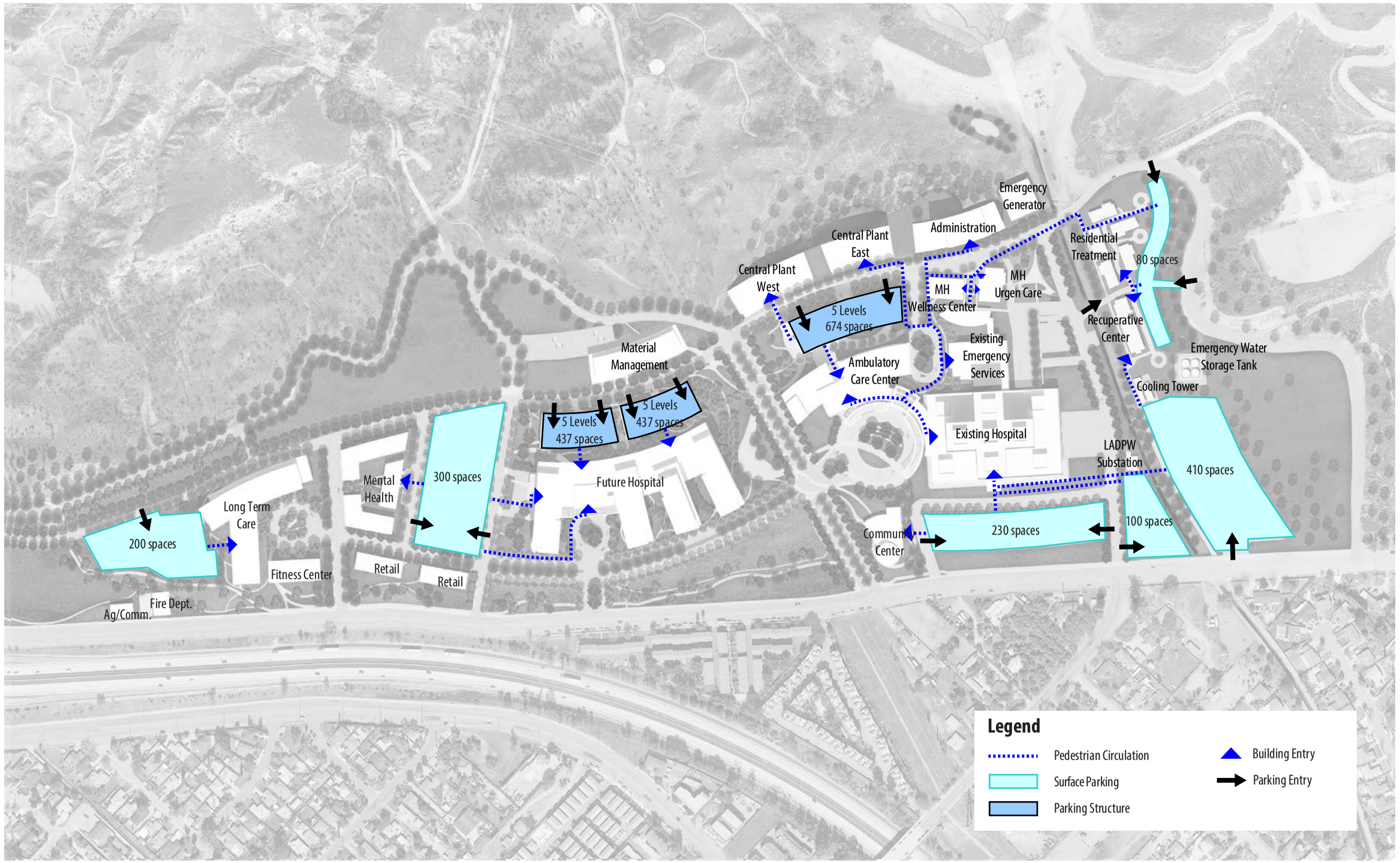
Parking for staff and physicians is provided in the surface lots as priority is given to visitors and patients. Because the parking structures are located behind the buildings in which they serve, it is important that signage and wayfinding provide clear directions for visitors and patients.

At the time of this master plan, detailed forecasts of employee, patient, and physician growth was not available. Instead, growth rates implied from the key programming drivers has been used to project future demand. A further study of parking needs and capacity should be done to confirm compliance to code as the various buildings are designed and carried out in the master plan.

Building	Use	Area (S.F.)	Beds	LA County Zoning Code	
				Parking Rate	Parking Required
Existing Hospital	Inpatient	530,000	270	2 spaces per 1 bed	540
Replacement Inpatient Hospital	Inpatient	605,000	251	2 spaces per 1 bed	502
Ambulatory Care Center	Outpatient	276,000		1 space for 250 S.F.	1,104
UCLA MOB	Outpatient	120,000		1 space for 250 S.F.	480
Administration	Office	96,000		1 space for 400 S.F.	240
Support Services	Storage	68,000		1 space for 1,000 S.F.	68
Central Utility Plant	Utility	77,000		1 space for 1,000 S.F.	77
Recuperative/ Long Term Care	Housing	135,000		1 space for 1,000 S.F.	135
Community Center	Assembly	20,000		1 space for 250 S.F.	80
Retail	Commercial	40,000		1 space for 400 S.F.	100
Mental Heath	Outpatient	20,000		1 space for 250 S.F.	80
Total for Renovation Option		**1,382,000**			**2,904**
Total for Replacement Option		**1,457,000**			**2,866**

6.16 Minimum Parking Required per LA County Zoning Code

PARKING



6.17 Parking Diagram

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

LOGISTICS

RENOVATION OPTION

As already mentioned in the Site Facilities Planning section of this report, there are two options for how the material and waste management for the future campus can be organized. If the decision is made to renovate the existing Hospital, the existing loading dock can remain in operation. A new Materials Management building will need to be built as the current facility will be displaced by the new Ambulatory Care Center. It is suggested that this new Materials Management building be located in close proximity to the new Central Plant so that loading dock facilities can be shared.

This configuration clearly separates service vehicles from patients and visitors, and it maintains Reagan Road as the main service entry point into the campus. In addition, this layout optimizes the delivery method of periodic deliveries to and from the Materials Management building to the existing loading dock.

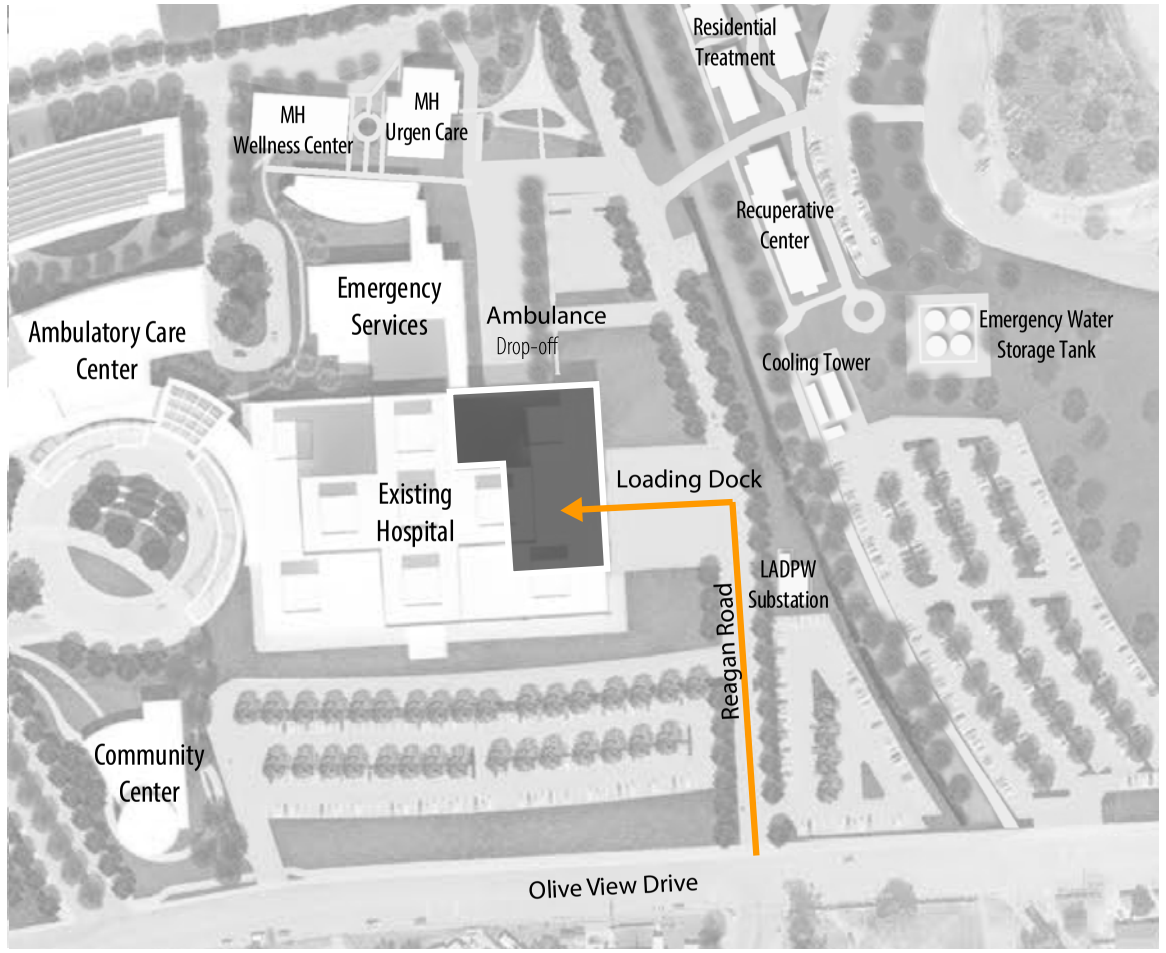
REPLACEMENT OPTION

Alternatively, if the decision is made to build a replacement Hospital, it is still suggested that the existing material and waste management system be used. Similarily to the renovation option, it is suggested that the new Central Plant and Materials Management buidling be co-located so that loading dock facilities can be shared. Large truck deliveries will be made to the new Materials Management building where storage will be provided. Small truck deliveries will be made from this building to the future Hospital.

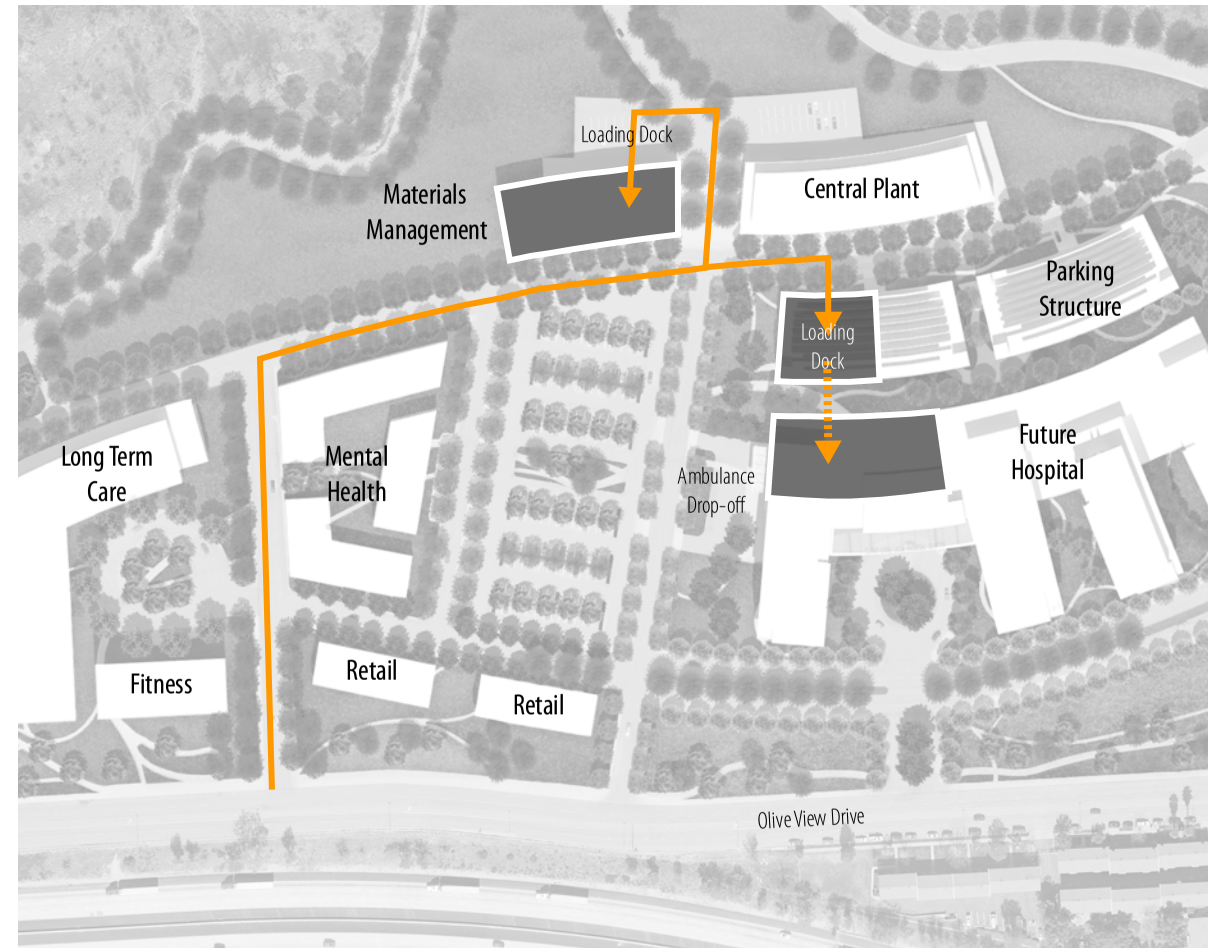
In addition to the satellite building, a loading dock will be required at the future Hospital for waste management and other needs such as food service. A dedicated path must be provided in the design of the Hospital to allow for a direct connection to this loading dock. This recommendation should be verified during the design of these facilities.

Legend

- Service Vehicle Access
- Service Vehicle Dock Entry
- Tunnel Connection
- Materials and Waste Management Program Area

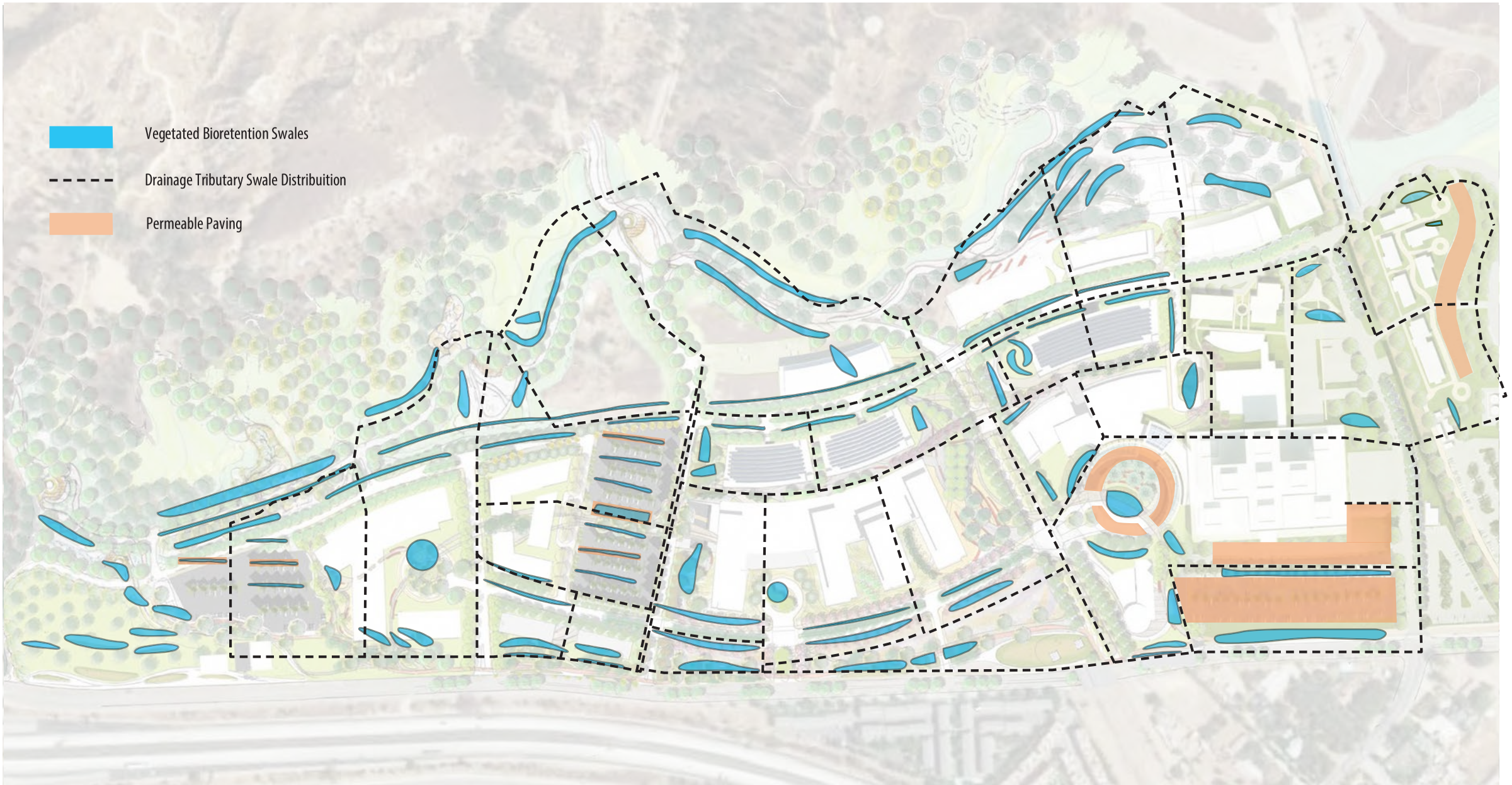


6.18 Enlarged Site Plan - Renovation Option Logistics Diagram (Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019



6.19 Enlarged Site Plan - Replacement Option Logistics Diagram

SMITHGROUP JJR



6.20 Low Impact Development - Bioretention Plan

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

LOW IMPACT DEVELOPMENT

Being at such a key point in the greater Los Angeles Basin watershed, the management of runoff is critical and should be slowed and treated at every opportunity. Using Low Impact Development (LID) strategies, wherever possible, the new design helps water flow from the adjacent mountains into vegetated bioswales, allowing water to return to the ground, filtered by plants and soil. Bioswales help mitigate runoff, improving groundwater quality, while taking advantage of the natural flow, using the shape of the land to direct water to the landscape and reducing the need for irrigation. The revegetated areas at the base of the mountains, allow water flow to slow and infiltrate the ground before it reaches the campus perimeter, also naturally stabilizing the slope, minimizing erosion.

Once geotechnical determinations are made and should the soil be found suitable for infiltration, the LID methodology should be further established and applied. Methods may include use of permeable paving in parking and hardscape areas.

Vegetated Bioretention Swales

Drainage Tributary Swale Distribution

Permeable Paving

LANDSCAPE DESIGN

The landscape for the master plan was developed in response to the campus' dramatic topography, where the foothills of the San Gabriel Mountains meet the flatlands of suburban Sylmar. Organized by the contours of the land, the landscape is a gradient from most garden-like and cultivated along the south, at the city edge, to most rugged and natural along the northern perimeter of the site. The long term goal is to preserve green open space along Olive View Drive, creating a transition between the facility and the neighborhood, offering the neighborhood needed shared park and recreational space.

A HEALING CAMPUS THAT HEALS THE LAND

6.21 Examples of California landscapes and open spaces for community and public use

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

6.22 Landscape Site Plan

SITE ECOLOGY

RIPARIAN WOODLAND

MOUNTAIN FOREST

PINYON JUNIPER WOODLAND

JOSHUA TREE WOODLAND

WILD FLOWER

CHAPARRAL

COASTAL SAGE SCRUB

VALLEY AND FOOTHILL WOODLAND

6.23 Photos of various California plants and ecologies

The new landscape should **expand and restore** native plant communities, helping to heal the local ecology, bolstering plant life and habitat that has been lost and degraded. Water-wise plants that naturally thrive in the area will blend the campus with the ecology of the surrounding mountains and canyons. The carefully selected plant palette will **complement both architecture and open space**, varying throughout the chain of gardens to create a unique feel and sensory experience between and within each space. Vegetation will transition appropriately, moving from a suburban context at the face of the site with swaths of bright, lively and inviting wildflowers to a more natural and native feel at the outermost edges of the campus.

6.24 Example of landscaped space used for informal gatherings

6.25 Example of view points and vistas to outdoor spaces

SITE SENSITIVE DESIGN

Taking advantage of such a unique and ecologically invaluable site, the master plan aims to emphasize the design of a selected thematic (whether naturalistic or informal, campus or park framework) typology and planning concept that will establish a character for the site's **sense of place**. The master plan demonstrates several planning typologies and defines landscape character of the future healthcare campus.

A way in which this can be achieved is to identify all outdoor areas as **distinct and relevant open spaces**, with no leftover or unusable outdoor space, through plantings and hardscape elements. In addition, maximizing the site's topography by creating **vistas and view points** as trail destinations and site amenities as well as showcasing the aesthetic value of the developed campus in relation to its hillside context is important.

INTEGRATED LANDSCAPE

6.26 Example of courtyards within interior of buildings

6.27 Example of bringing nature into interior spaces

By **bringing the landscape in** and providing **critical views** to the landscape, indoors and outdoors are connected and intertwined. This allows all patients and visitors to experience nature and benefit from the healing properties that it provides. The landscape along the trails and in the gardens continues into the common areas of the hospital and may be integrated by way of green walls and interior plants in public gathering areas within buildings. Windows frame the campus trees and the natural areas beyond, **connecting the viewer to the land** around the buildings.

RECREATION

Opportunity for recreation by way of **bike and equestrian trails** connects the community to the site. Acting as an extension of the existing trail along the Wilson Canyon Channel and the natural open space at north, the **Wellness Trails stitch the community to nature** through the parks that punctuate the campus. Linkage through the trailheads can also serve as an important connection to the existing Rim of the Valley Trail system, the Wilson Canyon Trails, and the Stetson Ranch Equestrian Trails.

6.28 Photo of equestrian trail

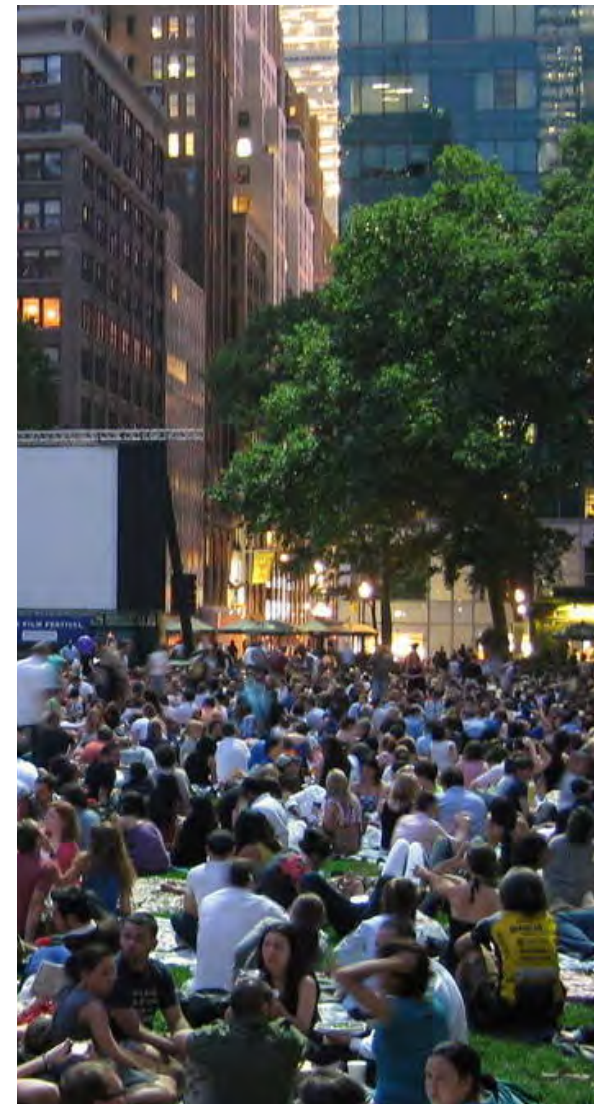
6.29 Photo of bicycle and pedestrian paths

HEALING

The master plan will create a healing landscape that also heals the land, providing opportunities for **re-vegetation**, returning **native California plants** including Oaks, Sycamores, Walnuts, Toyon, and improving degraded soil, increasing **soil recharge** capacity and improving site drainage and the site's ability to handle flooding. Provisions will be made for **habitat restoration** that will encourage presence of wildlife including the swallowtail butterflies, birds, and several animal species that were once more prevalent in the hillsides.

6.30 Example of healing and wellness gardens

COMMUNITY



6.31 Examples of community open spaces used for a variety of functions

To encourage a sense of community and place, the master plan aims to provide multiple and varied **opportunities for interaction** between the surrounding community and the community of Olive View. Educational, fitness and intergenerational components and amenities will serve a large and diverse audience. Create a **welcoming, active** and compelling space for gathering and interaction that will draw people in and will attract visitors and residents making the spaces **dynamic, useable and safe**.

CONNECTIVITY & ENGAGEMENT

A system of Garden & Wellness Trails as shown on the master planning concepts private outdoor areas specific to medical use immediately adjacent and with direct access to medical building entry. They are also viewed from patient rooms and bed towers.

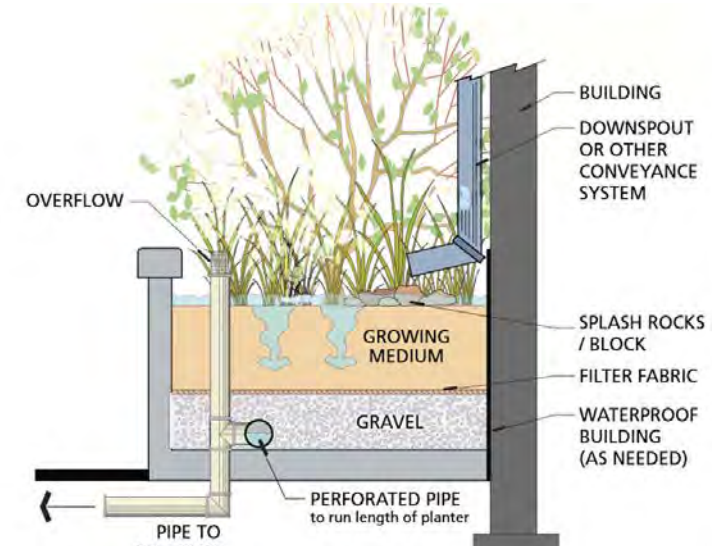
6.32 Example of trail through different gardens

Provide paths and walkways that have purpose, direction, destination, and varying experience when traversed as passage moves from building to building, from one outdoor space to another.

LANDSCAPE SUSTAINABILITY

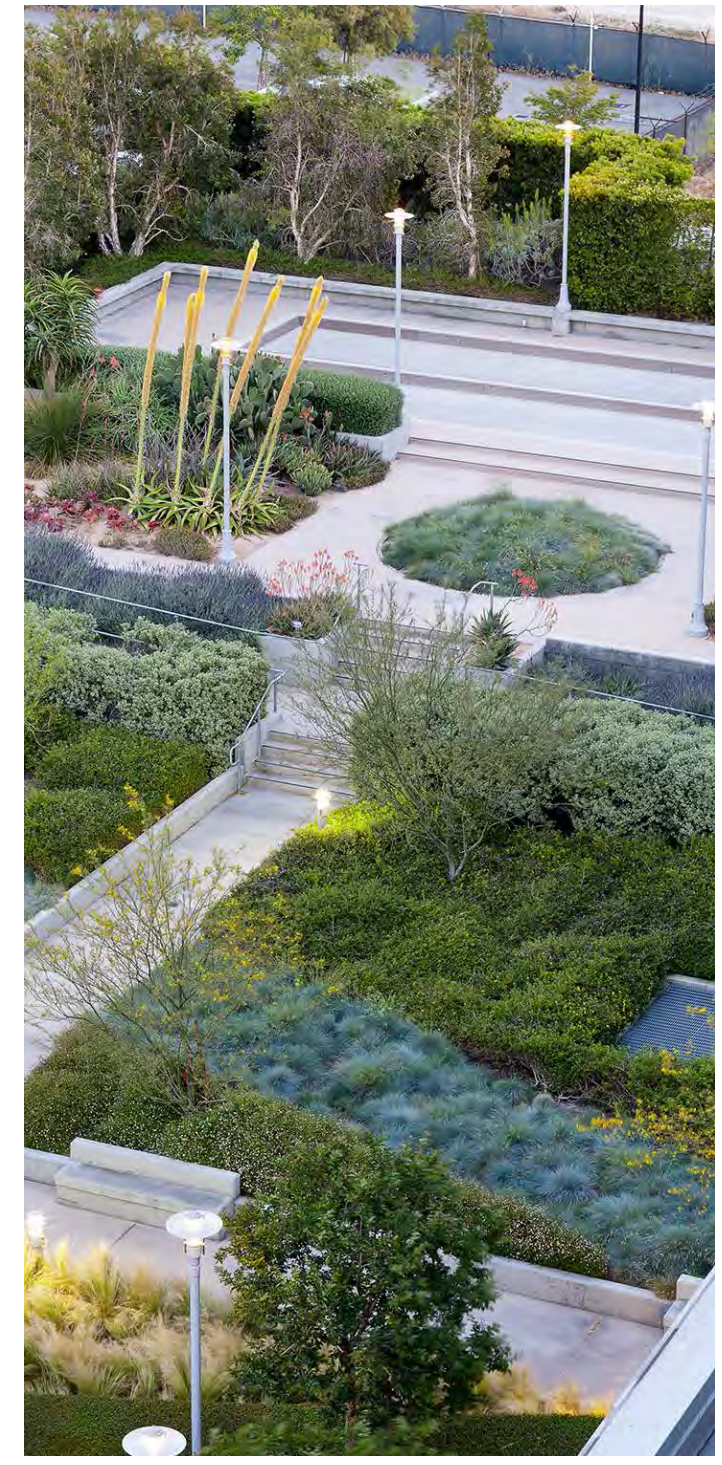
A number of different strategies can be incorporated into the landscape design for this master plan including:

- Integrate sustainable development strategies that prioritize water conservation, restoration of the natural vegetation, stormwater management, and promotion of the site's recreational outdoor element as part of the healing campus – healing people, healing the land.
- Water features should be integral part of building systems and stormwater management elements and should use re-circulated water from building and landscape.
- Stormwater management as part of the landscape planting strategy and design is a critical factor in organizing open spaces and planting selection. Bioretention area plantings can be used to clean and reduce run-off in vegetated swales, raised open-bottom planters, or similar low-impact development strategies.
- New site development and landscape design, installation, and maintenance should meet the highest possible sustainable design standards and measures including incorporating LEED design strategies and where applicable to specific site areas aim to meet minimum certification under the LEED rating systems for site development and landscape including Sustainable Sites, Water Efficiency, Energy and Atmosphere, and Material Resource criteria.
- A selection of bioswale planting is suggested in the plant Exhibit and should be appropriately planted for the type of bio retention planter, whether for open bottom, or infiltration type planters.
- Promote stormwater harvesting practices to reduce the demands on water systems for irrigation, capturing the water in surface basins or underground storage tanks and at the same time reducing runoff and increasing on-site infiltration. Identify the specific feasibility of the master plan proposed location areas for rainwater collection during the design process at each future development phases of the campus build-out.
- Hardscape permeability should be prioritized wherever possible at all paved areas including parking, streets, sidewalks, walkways, paved courtyards and other paving intense outdoor development areas
- Locate new deciduous trees on the north and south sides of buildings to reduce the heating and cooling demands of the buildings during the winter months.



6.33 Section showing treatment of stormwater from building

6.34 Example of roof gardens used for stormwater harvesting and treatment



6.35 Example of using native landscaping and bioswales to handle stormwater

SUSTAINABILITY

A sustainable system is reliant upon the healthy interaction between its parts to comprise a healthy and regenerating whole. At present, both locally and globally, rates of growing population, resource consumption and urbanization are out of balance with the capacity of our local ecosystems and our planet to regenerate. The Triple Bottom Line, summarizes this paradigm to mean, in response we must achieve a successful **balance between social, economic and environmental priorities**, where historically decisions have been dominated by only the economics. The United Nations follows the definition, "Meeting the needs of this generation **without compromising** the ability of future generations to meet their own needs". At the master plan scale it can be clarifying for all OVMC stakeholders involved to have these common frameworks upon which to set expectations for a envisioning a future medical campus that is socially just, ecologically restorative, and economically responsible.

GOALS FOR THE CAMPUS

At the beginning of the Master Planning effort, the Design Team met with Olive View leadership in order to determine the sustainability goals of the County and hospital. The overarching goal is to incorporate sustainable strategies that will meet the long term needs of the campus with an emphasis on Community, Transportation, Site, Water, Energy, and Occupant Wellness. The sustainability guidelines set forth in the Master Plan will address each of these overarching goals and provide a plan for future implementation. The guidelines are organized by metrics and the strategies in which to move those metrics forward.

Community

Development has the potential to create a connection and sense of community. OVMC leadership has stressed the importance of creating a sense of place and strengthening this connection with the community while ensuring security and safety for its patients and staff. By creating a medical campus with a diverse mix of uses at a scale that is appropriate for the site, OVMC has the potential to really engage with the surrounding community and host services that meet a multitude of community needs complimentary to a primarily healthcare use.

Transportation

As a county-run facility, OVMC is subject to complying with the Air Quality Management District (AQMD) and has taken measures to reduce single ridership among its staff. Currently carpooling is the main means of alternate transpiration with public transportation and bicycle commuting being underutilized. As a way to continue meeting the AQMD guidelines, OVMC has expressed a desire to increase transportation mode split and reduce single occupant vehicle commuter trips. The master plann focuses on public transportation infrastructure, bicycle amenities, and incentives.

Site

There are vital relationships between all buildings and their surrounding eco-systems but healthcare campuses offer unique opportunities to integrate the qualities of site with the architecture and infrastructure. The OVMC site is unique because of its size and integration with the surrounding Angeles National Forest. Open space provides a habitat for vegetation and wildlife, reduced heat island effect, and increased stormwater infiltration. Given the location oand the already existing connection to open space, it will be important for the master plan to celebrate and protect the natural characteristics of the site.

Water

Hospitals are among the top-10 water consumers in their water utility service areas. Therefore, reduction in water use can significantly affect the regional water supply, especially in water-scarce areas such as Southern California. OVMC leadership has expressed that water efficiency is a priority for the campus and that the master plan should account for water use and reduction. Additionally, water treatment and a resilience to municipal water disruption, either because of drought or catastrophe (fire, earthquake) would be a benefit to the hospital. The guidelines will focus on indoor plumbing fixture selection, optimizing cooling tower cycles, efficient water use for cooling equipment, metering, drought tolerant landscaping, and graywater reuse.

Energy

Healthcare facilities have the second-highest average energy usage intensities (EUI) of any building type due to their 24/7 operations and the high energy use associated with medical equipment, lighting, and ventilation. Energy efficiency demands of the state and local codes will continue to evolve. OVMC leadership agrees that the master planning effort should include EUI analysis of each building and that the solar potential of the site should be estimated in order to inform the design of the campus. The size and topography of the site offers a huge opportunity for solar generated renewable energy.

Occupant Wellness

Healthcare's fundamental mission is to protect and enhance individual and community health. By acknowledging the intrinsic relationship between the built environment and human health, we are able to create high performing healing environments. OVMC has expressed an interest in a healthy materials program for all new buildings on campus and the master plan focuses on how building design and operations can foster health and healing for both patients and staff.

SUSTAINABILITY FRAMEWORK

Green Building rating systems and frameworks offer a clear process by which sustainability goals can be implemented and measured. In addition to the California Green Building Code (CalGreen), several green building frameworks are available that provide a comprehensive set of guidelines for developing high-performing, sustainable healthcare facilities. Frameworks are tools that help the hospital take systematic action toward its goals and generate measurable results upon which stakeholders at many levels of the organization can maintain focus.

There are several rating systems that can guide the sustainability process on many different levels including planning, building, and operations. Leadership in Energy and Environmental Design (LEED) is the most widely recognized rating system, a green building certification program developed by the U.S. Green Building Council that offers third party validation of a project's green features.

The Planning Level

Healthcare campuses offer unique opportunities for expanding sustainable development at the campus or neighborhood scale. Several approaches and frameworks that address principles of smart growth, urbanism, and green building that may be appropriate for this project are:

LEED for Neighborhood Development (ND) places emphasis on site selection, design, and construction elements that bring buildings and infrastructure together into a neighborhood and relates the neighborhood to its landscape as well as its local and regional context. OVMC is not eligible to earn this certification but the LEED ND rating system offers a comprehensive set of considerations applicable to the long term success and sustainability of the OVMC campus. For the purpose of this Master Plan, the rating system has been referenced as a source for additional guidance on the implementation of specific design strategies including:

- Smart Location and Linkages
- Neighborhood Pattern & Design
- Green Infrastructure and Buildings

LEED Application Guide for Multiple Buildings and On-Campus Building Projects allows credits to be earned through a Master Site Review. All campus credit information is documented within a Master Site and projects on the campus that submit for LEED certification can utilize the credits pre-approved in the master site review.

The Building Level

In the United States, buildings consume more than 30% of the total energy and 60% of the electricity used. Healthcare facilities represent an energy, water, and personnel intensive building type and rank as the third most energy intensive building type and among the top 10 water consumers. Green building can substantially reduce the negative environmental impacts through high-performance. Rating systems designed to address the performance of buildings include:

LEED for New Construction (NC) is the primary framework developed by the USGBC and focuses on the design and construction of buildings. LEED NC addresses design and construction activities for both new buildings and major renovations of existing buildings and focuses on 5 main categories: Site, Water, Energy, Materials, and Indoor Environmental Quality.

LEED for Healthcare adapts the LEED NC rating system to meet the specific issues and needs of inpatient, outpatient, long-term care facilities and focuses primarily on design and construction.

The Green Guide for Healthcare (GGHC) is a best practices guide for healthy and sustainable building design, construction, and operations for the healthcare industry. The GGHC borrows the credit structure of LEED but is self-certifying.

The WELL Building Standard® is the first green building framework to focus on improving human wellness within the built environment. The WELL Building Standard® prescribes a series of technology enhancements and performance-based measures that are systemized across seven categories relevant to occupant health in the built environment – Air, Water, Nourishment, Light, Fitness, Comfort, and Mind.

The Operations Level

A sustainable building maximizes operational efficiency while minimizing environmental impacts. It is important to have sustainability guidelines for building operations to ensure that the building performs as originally intended throughout its life.

LEED for Existing Buildings is designed to certify the sustainability of ongoing operations of existing buildings. Specifically, the rating system addresses exterior building site maintenance programs, water and energy use, environmentally preferred products and practices for cleaning and alterations, sustainable purchasing, policies, waste stream management, and ongoing indoor environmental quality.

The Healthier Hospitals Initiative (HHI) is a collaborative effort among healthcare organizations to address health and environmental impacts of the healthcare industry. The HHI challenge consists of "self-reported" data that is collected and tracked towards achieving certain goals. The primary focus of the HHI is on operations.

THE LEED SCORECARD

New buildings and major renovations are mandated by the County of Los Angeles to be certified under the USGBC's LEED Rating System with a minimum certification of LEED Silver. In addition to meeting all prerequisites, a minimum of 60 points are required for projects seeking LEED Silver.

The LEED rating system will continue to evolve in an effort to push green building to the highest standard possible. Future projects built on the OVMC campus will be certified under the LEED version that is current at that time. As this report begins to frame sustainability goals for the campus, it is importatnt to note that these goals will also evolve over time.

COMMUNITY

Resilient communities are characterized by their ability to come together and overcome adversity when faced with catastrophe. A strong sense of community is signified by individuals who share pride and care toward a common identity. The Olive View Master Plan offers many opportunities to provide leadership and implement strategies which contribute to the resiliency and identity of the adjacent Sylmar homes and businesses. These strategies share a common concept of enhancing connectivity, through increasing opportunities for interactions between neighbors, encouraging commerce between local businesses, sharing or optimizing resources to improve the local environment. The following strategies will provide many important benefits to residents, employees, and visitors to Sylmar and the OVMC.

Location and Linkage - Commercial Space

Developing basic commercial services within walking distance (1/4 mile) helps to limit suburban sprawl and reduce traffic congestion caused by single occupant vehicle trips while improving air quality, reducing air pollution, and greenhouse gas emissions. Shaded pedestrian corridors and interesting places to walk (like shops and parks) can improve workers' health and productivity through exercise instead of driving.

Currently there are few basic services within a walkable ¼ mile radius serving the OVMC campus and the surrounding residential neighborhood. The development of mixed-use buildings that locate small business services close-to or on campus will provide walkable access to shops and basic services promoting greater human interaction and physical activity.

Location and Linkage - Local Food Production

Community-based food production provides environmental and economic benefits along with improved nutrition through better access to fresh produce.

Recommendations

- Dedicate permanent and viable growing space or related facilities within the project and provide fencing, watering systems, garden bed enhancements, secure storage space for tools, and pedestrian access for these spaces.
- Host a farmers market that will operate at least once weekly for at least five months annually.
- Include a produce market in the community/ retail space program.

Neighborhood Design - Compact Development

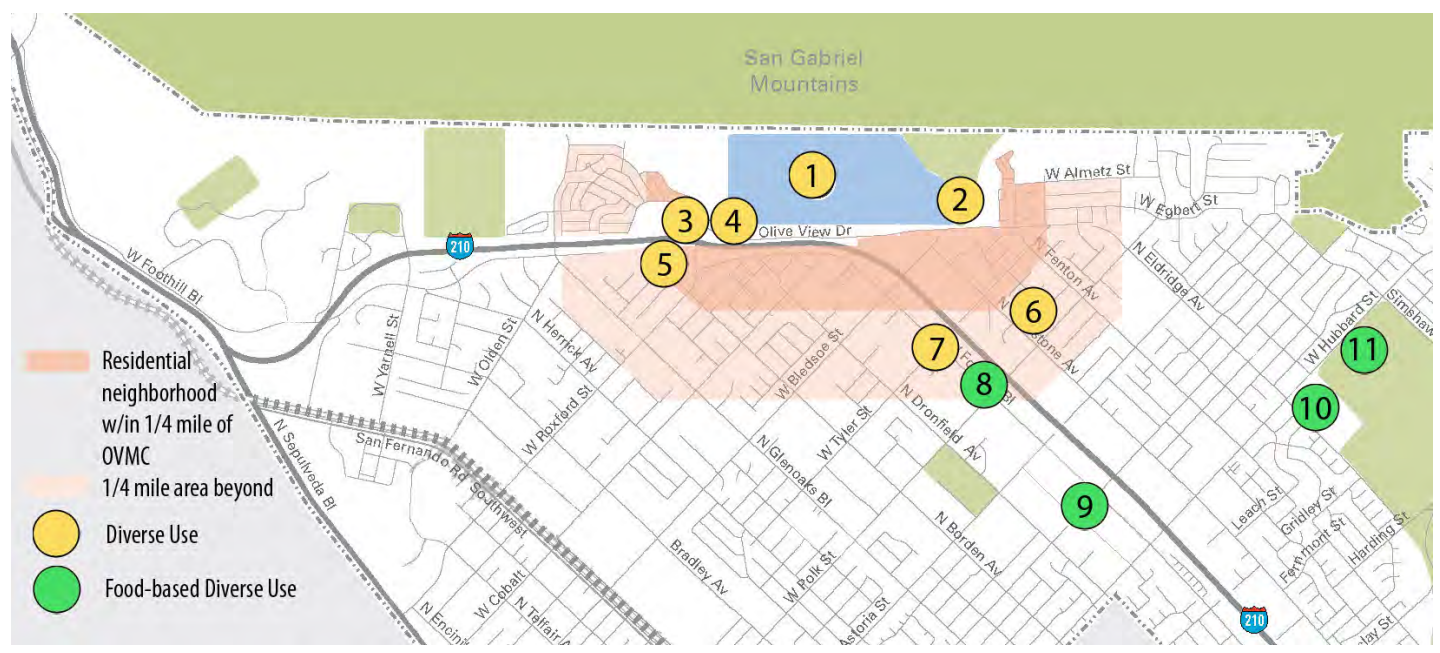
Compact development characterized by buildings clustered near one another, typically two stories or more in height preserves natural landscape, reduces the development footprint of the project and makes more efficient use of infrastructure such as water and gas pipelines. Currently, the buildings on the OVMC are spread out in a way that discourages walkability and requires upgrades or extensions to below-ground utility services. The Master Plan maintains a density of .247 which is measured in Floor-to-Area Ratio (FAR). FAR is calculated by dividing the building area by the site area. Rural agricultural zones are characterized by a FAR of >0.09. Village or campus zones have a FAR of 0.1 – 0.49. General urban zones have a FAR of 0.5 – 1.49.

Case Study: Kaiser Permanente Farmers Market

Kaiser Santa Clara opened its 52-acre Hospital and Medical Office campus in 2007. Kaiser's pro-active health-care philosophy includes a Farmers' Market and healthy eating alternatives in the Cafeteria.

Mark	Diverse Use Type	Diverse Use Name
1	Hospital	OVMC
2	Park	Wilson Canyon Park
3	Gas Station	AMPM
4	Auto Repair	Jiffy Lube
5	Hotel	Travelodge
6	Church	Sylmar Christian Fellowship
7	Pre School	Foothill Learning Center
8	Convenience Store	7-Eleven
9	Grocery Store	Vons
10	Farmers Market	Mission College
11	Community Garden	El Cariso Park

6.36 Existing Diverse Uses



6.37 Existing Diverse Uses Vicinity Map

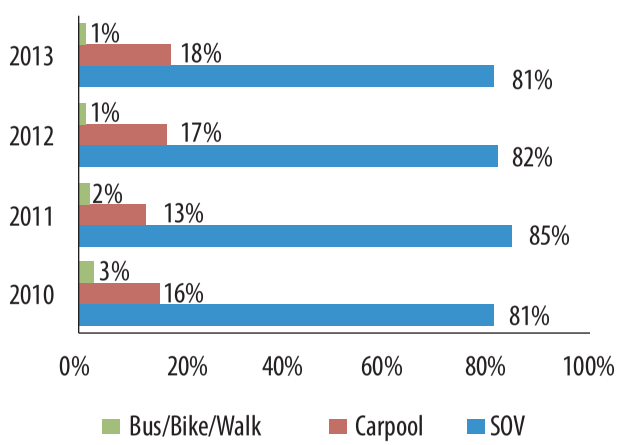
6.38 Case Study - Kaiser Permanente Santa Clara

TRANSPORTATION

While OVMC does not yet have a formal Transportation Demand Management (TDM) program, the campus is required to meet SCAQMD Rule 2202 which requires the campus to meet emission reduction targets by implementing a trip reduction program.

Increase Average Transportation Ridership (AVR)

Currently, only 1% of OVMC employees use public transportation or bike/ walk to work with 18% of employees commuting by carpool. This leaves about 81% of employees commuting to work via Single Occupant Vehicles (SOV). As part of a comprehensive master plan, OVMC will want to encourage an increase in alternate means of commuting other than by SOV.



6.39 OVMC Employee Commuter Data by Year

Transit Service

The Los Angeles Metro is the chief transit service provider to OVMC via bus. Two Metro bus transit lines pass within a 1/4-mile walking distance of the OVMC campus with bus stops located on Olive View Drive, Reagan Road, and Kennedy Road.

- 90 - This is a downtown route that serves Downtown LA, Chinatown, Lakeview Terrace, and Sylmar.
- 224 - This is a San Fernando Valley route that serves Sylmar, San Fernando, North Hollywood, and Studio City.

Total daily transit trips currently serving the project are:

- Weekdays: 70
- Weekends (avg.): 37

The county is encouraged to work with the Los Angeles METRO to inventory existing and new metro stops within the project boundary that will be warranted within two years of master plan completion. Bus stops should be located so that all new building entrances are within a 1/4 -mile walking distance. The project is encouraged to meet increasing transportation demands associated with growth by increasing the weekday and weekend trips for transit lines serving the campus. Recommended minimum daily transit trips are:

- Weekdays: 76
- Weekends (avg.): 50

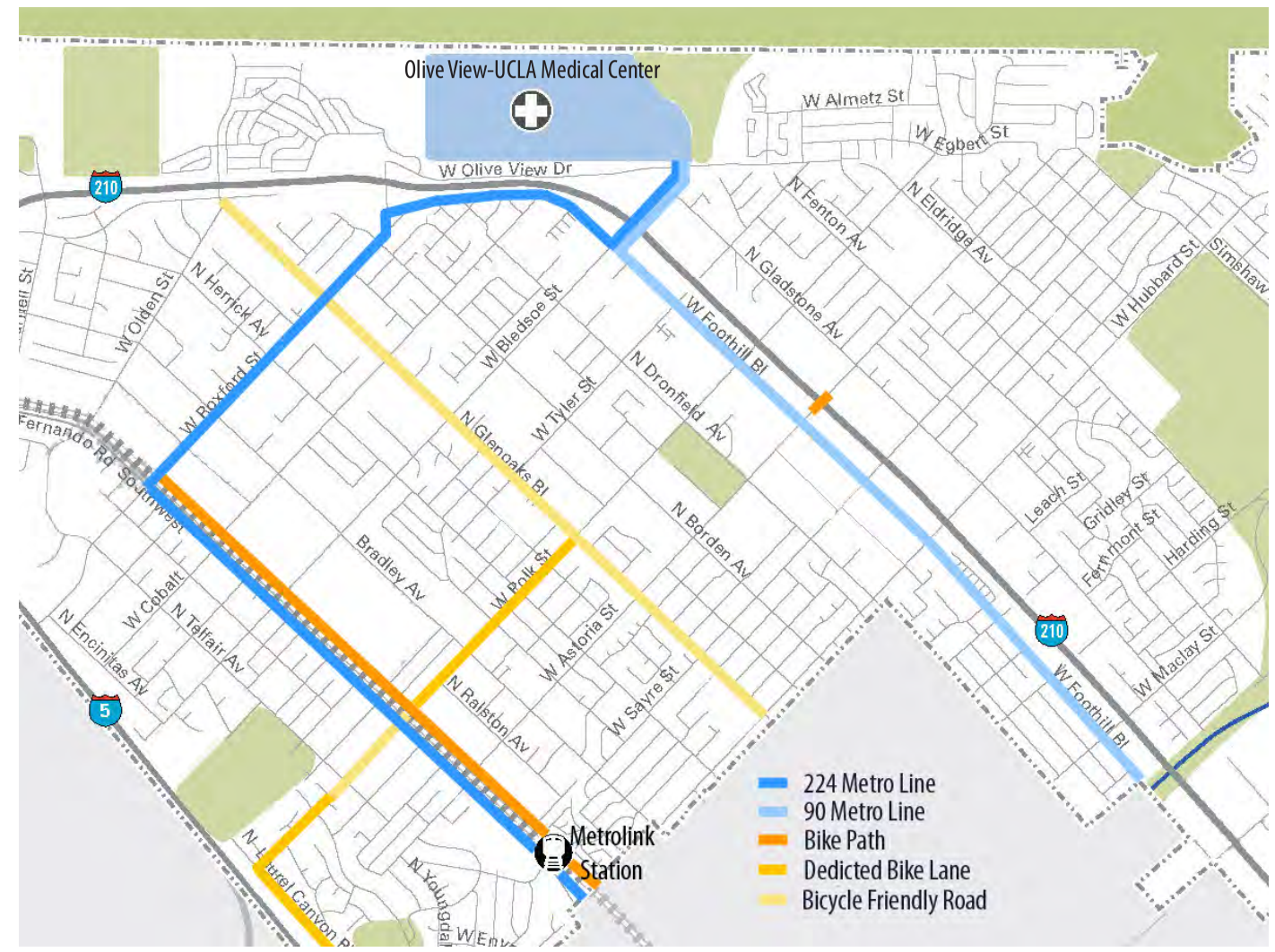
Bicycle Amenities

Currently, OVMC is approximately 1 mile from the nearest bicycle network which begins at the intersection of Polk St. and Glenoaks Blvd. Dedicated bike lanes exist on Polk St. and San Fernando Rd. which offer a bike friendly route to the Metrolink station located approximately 3 miles from OVMC. In order to connect the campus with the Sylmar/ San Fernando Metrolink station, it is recommended to extend the existing bicycle network directly to the campus. There are two possible scenarios for achieving this:

- Bledsoe St. - Integrate dedicated bicycle lanes or designate as a bicycle friendly street from Glenoaks Blvd. to OVMC.
- Tyler St. – Designate as a bicycle friendly street from Glenoaks Blvd. to Gladstone. Continue designation onto Bledsoe St. via Gladstone Ave to OVMC.

Existing Transit and Bicycle Network

OVMC is currently providing 24 bicycle racks located at the Main and ER entrances. In order to encourage biking to work by employees, OVMC should provide dedicated secure bicycle parking for 5% of its FTE. Secure parking includes bike cages, bike lockers, or indoor secure parking. In addition to parking, provide maintenance stations for filling up tires and making minor repairs.



6.40 Transit Map of Sylmar

OPEN SPACE

The master plan should provide a variety of open spaces to meet a variety of hospital and community needs from pocket parks, to gardens, to more civic spaces. At a minimum it should dedicate 30% of the total site to open space with 25% of that space vegetated.

Restoration of Habitat

Restoration of the land offers opportunities to enhance the natural state of the site and promote the survival of native animals and insect life while strengthening the campus' sense of place. Native plants require less maintenance and have a better long term survival rate which will be economically beneficial to the hospital. This strategy also creates an opportunity to provide an educational experience for staff, patients, and visitors with self-guided nature walks or tours that highlight the restored areas. The Master Plan should seek to restore as area equal to or greater than 10% of the development footprint using only native plants.

Pedestrian Oriented Hardscape

Pedestrian oriented hardscapes facilitate social networking, civic engagement, physical activity/ rehabilitation, and time spent outdoors. Although it is important to provide sidewalks at all streets, it is also important to provide walking paths and gathering spaces that are separate from the path of vehicular traffic. The Master Plan should consider creating a diverse network of hardscapes that enhance the pedestrian experience.

Access to Recreational Facilities

There are opportunities within a healthcare campus to provide outdoor recreational facilities that will promote physical activity and provide a connection with the surrounding community. Outdoor recreation facilities should be at least 1 acre in size and could consist of outdoor gyms, basketball courts, playgrounds, etc.

HEAT ISLAND REDUCTION

Dark non-reflective surfaces used for parking, roads, walkways, and other hardscapes absorb the sun's warmth and radiate heat, creating heat islands.

Dark non-reflective surfaces like asphalt used for parking, roads, walkways, and other hardscapes absorb the sun's warmth and radiate heat at night, creating heat islands which are zones of warmth that are of higher average temperature than surrounding areas. Heat island effect results in the increased need for cooling in buildings which can drive up costs from increased energy use. Reducing the heat island effect is a passive strategy for reducing ambient air temperatures which helps to reduce cooling costs, conserve water used for cooling and improve comfort with less energy.

Tree-lined and Shaded Streets

Tree-lined streets help to reduce heat island effect by increasing evapotranspiration but they also improve air quality, encourage walking, and discourage excessive motoring speeds. The Master Plan should include trees on both sides for at least 60% of streets intervals averaging no more than 40 feet or provide shade (trees or structures) for a minimum of 40% of the length of sidewalks on all streets.

Parking

Currently, the site is scattered with large asphalt surface parking lots which of all hardscapes contributes the most to urban heat island effect. In order to combat heat island and free up more open space, the Master Plan should strive to locate at least 75% of parking spaces under cover. For surface parking lots, consideration should be given to pervious pavers in parking stalls and light colored concrete elsewhere or providing canopy cover to surface parking areas which may also provide infrastructure for mounting photo-voltaics for renewable on-site energy production.

Case Study: Fitness Zone at Pan Pacific Park, Los Angeles

6.41 Case Study - Pan Pacific Park

Pan Pacific Park's Fitness Zone is one of 29 in Los Angeles County. Fitness Zones are easy-to-use outdoor gyms that bring a new set of healthy activities to the park experience.

INDOOR WATER USE

New construction and major renovations should demonstrate a reduction in indoor water usage by a minimum of 35% from a baseline.

Plumbing Fixtures

All newly installed toilets, urinals, private lavatory faucets, and showerheads that are eligible should be EPA WaterSense labeled. Recommended flush and flow rates are:

Water Closet	1.28 gpf
Urinal	0.35 gpm or waterless
Public lav faucet	0.5 gpm
Kitchen faucet	1.5 gpm
Showerhead	1.75 gpm
Prerinse Spray Valves	1.3 gpm

OVMC should consider low-flow and/or dual flush water closets for all buildings, ultra low-flow urinals for acute care and waterless urinals for MOB's. Lavatory faucets should be sensor type with automatic on/off capabilities and consideration should be given to solar or turbine powered options. It is also recommended to limit the number of unisex single occupancy toilet rooms as these are typically fitted with water closets only which drives up the water usage for men who would typically use urinals.

Medical Equipment Cooling

Select equipment that can be air cooled if possible. Any medical equipment that rejects heat and is required to be cooled by water should be on a closed-loop system in lieu of a once-through with the exception of emergency back-up.

Cooling Towers

The Co-gen Plant current system operates at full capacity at all times which requires a tremendous amount of water for cooling that equipment] Replacement of the co-gen facility would result in a tremendous amount of water savings for OVMC, however, because that system is not individually metered, the actual amount of water use for that system is not quantified. Cooling towers may also be cooled using recycled greywater which would reduce demand on municipal supplies while reducing operating costs.

Water Metering

Currently there are only a few water meters on campus but it is vital to be able to track water consumption and identify opportunities for additional savings. In addition to whole building water metering (for each individual building), it is recommended that the following subsystems be considered for metering as applicable:

- Irrigation
- Indoor plumbing fixtures and fittings
- Domestic hot water
- Boilers
- Process water
- Reclaimed water

OUTDOOR WATER USE

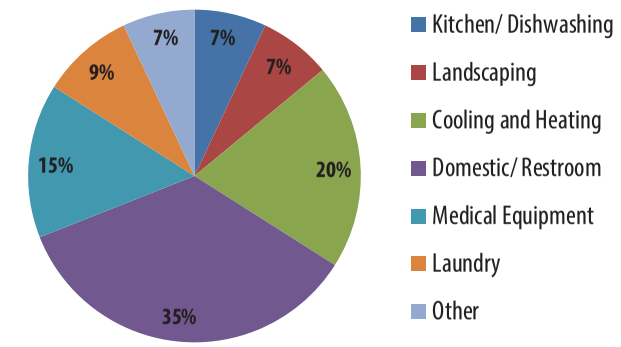
With an average rainfall of 13.75-inches per year, the OVMC site currently relies on potable water to meet its landscaping demands. Moving forward, the campus as a whole should demonstrate a reduction in outdoor water usage by 50% from a baseline and engage in strategies that eliminate the use of potable water for landscaping.

Landscaping

The master plan should identify plant types and coverages that balance water use efficiency with the area's intended function. Preference should be given to native and drought-tolerant plants that require little to no irrigation. Turf grass should only be used for play fields or specific activities that require turf. Additionally, irrigation should be drip type and should include rain sensors for optimal performance.

Water Reuse

Graywater systems involve on-site capture, treatment and reuse of water that would otherwise be discarded offsite for treatment. On-site water recycling systems are a highly effective way to replace potable municipal water for landscaping, cooling tower makeup, and toilet flushing where appropriate (non-OSHPD) with recycled water that is less energy-intensive and burdensome to municipal systems to use. Common graywater systems include filtration, ultra-violet light, and chlorine treatment. Membrane Bioreactors and Constructed Wetlands are used to treat black water which can offer additional supply of recycled water while reducing reliance on municipal conveyance and treatment systems that are aging or vulnerable to service disruption after an earthquake.



6.42 End Uses of Water in Hospitals

6.43 Case Study - Providence St. Peter Hospital

Case Study: Providence St. Peter Hospital

St. Peter Hospital in Providence WA has reduced their water usage by 50% while the campus has actually grown by 21% by implementing aggressive water saving measures .

ENERGY

Healthcare facilities have the second-highest average Energy Usage Intensities (EUI) of any building type due to their 24/7 operations and the high energy use associated with medical equipment, lighting, and ventilation.

This presents a major opportunity for Olive View to improve air quality, reduce green house gas emissions and save money on operations. Healthcare facilities, however, face barriers to improving energy performance. Energy codes are not applicable at hospitals and complicated procurement procedures for public agencies can obscure the motivational relationship between energy use (hospital facilities) and energy cost (county procurement). When those who use energy do not pay for energy, they may be less critically aware of the need for improvement or incentivized to make changes.

In the context of the Olive View Medical Campus Master Plan, performing long term energy analysis to forecast what energy use will look like for the medical campus at key intervals of the planning timeline provides critical insights to the ultimate goal of energy reduction. Energy use from today to 2020, 2030, 2050 and beyond have been forecasted using EUI targets for various medical building types. EUI targets are informed by professional estimates of the impact of California Title-24 and Calgreen future code trends, ongoing technology and design advancements in green building and energy efficiency. It is expected that increasing emphasis by California State agencies on high performance buildings, climate change impacts, and stricter energy standards will continue to drive down energy use in buildings. The OVMC should follow these trends and even use development opportunities to show leadership in energy conservation and renewable energy production to meet future needs in a sustainable manner.

The two categories of master plan phasing options (Renovation & Replacement) were analyzed for total impact and any comparative differences. Overall, the analysis shows that achieving aggressive energy savings to meet the 2030 Challenge targets is possible, but achieving carbon neutrality will be difficult without additional renewable energy installation beyond what is possible on building rooftops. In comparing the two schemes, the Replacement Scheme has significant advantages in seeking aggressive energy efficiency and greenhouse gas reductions. Full replacement provides greater opportunity to pursue energy efficiency and the cumulative impact translates to twice the impact in reductions by 2050 and an average campus energy intensity of less than half of the Renovation scheme (See Annual Energy Use and CO2 Impact Table).

The energy and greenhouse gas savings represented in the Replacement scheme are even greater when considered over the total years between now and 2050. Even though both schemes have very similar energy efficiency targets, the timing of the hospital replacement paired with a replacement being inherently more efficient than a renovation, the Replacement Scheme results in 35% fewer CO2 emissions by 2050, representing savings of approximately 4 million Btu and 500,000 metric tons of CO2 emissions (See Cumulative Energy and CO2 Impact Table).

The resulting campus in 2050 will be very different in many ways under the different schemes. (See Overall Campus Energy Efficiency by 2050 Table).

	Annual Energy Use (million Btu)	**Annual CO_2 Emissions** (metric tons)	**% Reduction** (Relative to Today)
Today	377,446	48,146	0%
2050 – Renovation	245,935	31,371	35%
2050 – Replacement	122,144	15,580	68%

6.44 Annual Energy Use and CO2 Impact

	Total Energy Use (million Btu)	**Total CO_2 Emissions** (metric tons)	**% Reduction** (Relative to Renovation)
2050 – Renovation	11,102,021	1,416,151	0%
2050 – Replacement	7,254,706	925,395	35%

6.45 Cumulative Energy and CO2 Impact (Today through 2050)

Campus Average Building Efficiency (EUI)	**Energy Use Index** (kBtu/squarefoot-year)	**% Reduction** (Relative to Today)
Today	445	0%
2050 – Renovation	111	75%
2050 – Replacement	45	90%

6.46 Overall Campus Energy Efficiency by 2050

ENERGY

OVMC Long Term Energy Analysis

There are great resources for benchmarking and forecasting energy use by building type available including the EPA Energy Star Portfolio Manager Energy Use Intensity by Property Type reports. This report is based on DOE Commercial Building Energy Consumption Survey (CBECS) which is a national survey of existing facilities that is completed, analyzed, and published in extensive detail. The Energy Information Administration (EIA) which maintains this data also released a report in 2007 focused on large hospitals. The analysis completed to-date should be considered an interim step on the process—additional refinement based on further discussion, selection of renovation or new construction for the main hospital, and further analysis will ultimate inform the final results.

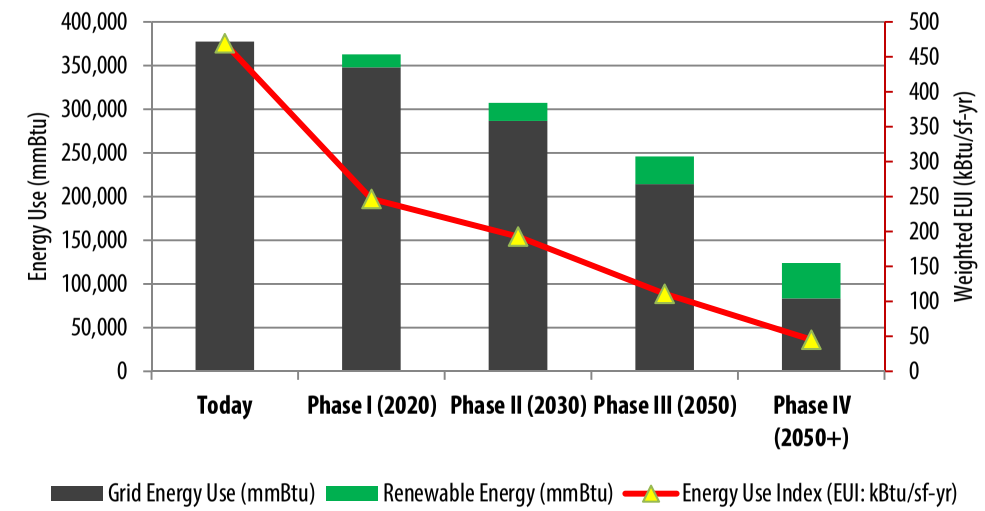
The resulting energy use intensity (EUI, kBtu/sf-year) targets we developed are shown in the table below. This is the input data for the Replacement Scheme. The major difference in the Renovation Scheme is that the hospital could not achieve as great or as fast energy efficiency improvements as are possible in earlier and full replacement.

Building Type	CBECS	Today	Phase I 2020	Phase II 2030	Phase III 2050	Phase IV 2050+
Hospital	196.9	651	600	150	150	150
Ambulatory Care	63	50	40	35	30	30
Medical Office Building	44.4	40	35	30	30	30
Long Term Care	125.7	80	60	50	45	45
Administrative Office	44.4	40	35	30	20	20
Outpatient	63	55	50	45	40	40
Public Assembly, Social	45.3	40	35	30	25	25
Fire Department	82	50	45	40	35	35
Fitness	39	35	30	25	20	15
Retail	47.1	45	40	35	30	30
Storage	28.5	25	20	15	15	15
Parking	15	13	12	11	10	10

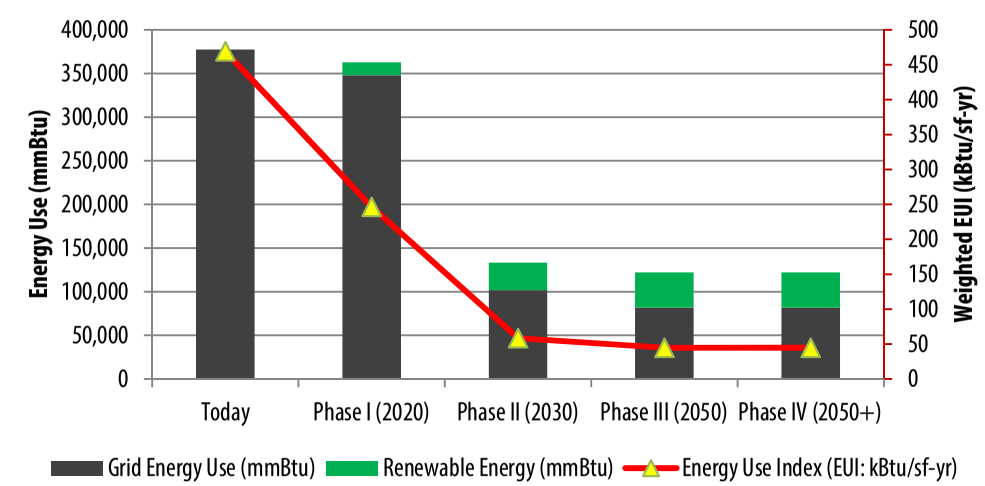
6.47 EUI Targets by Building Type and Phase

Renewable Energy

Included in the analysis is the expectation that renewable energy, in the form of solar photovoltaic panels, will be included in the long term plans for the construction of new facilities. This analysis assumes that 25% - 60% of the total rooftop of each building is available for solar energy installation. For larger, more complex, taller buildings, a lower portion of the roof will be available given competing demands for mechanical systems. For simpler, small, and shorter buildings, a much higher portion of the rooftop should be available for solar installation. To achieve even greater renewable energy production—and in order to achieve net zero energy—installation on areas not covered by buildings should also be considered, however this was not included in our analysis. The two adjacent figures show energy reductions over time as the campus master plan is implemented along with aggressive energy efficiency. Gray and green bars represent grid and renewable energy use, and the yellow dots represent overall campus energy intensity (EUI).



6.48 Renovation Scheme - Energy Use Intensity



6.49 Replacement Scheme - Energy Use Intensity

WELLNESS

Just as the Hippocratic Oath promises to "first, do no harm," health care systems have a responsibility to eliminate practices that harm people and the environment. OVMC has the opportunity to take this promise one step further by creating an environment that optimizes wellness using an integrative and holistic approach.

Air

Clean air is a critical component of our health. We often do not have control of the air that we breathe which is especially true of patients in healthcare facilities who are confined in a building. Genuine sustainability must take an integrated approach to healthy indoor air quality.

Safer Chemicals

Harmful chemicals used in some healthcare products are linked to a range of impacts including cancer, birth defects, asthma and other health problems. To create a healthier environment, OVMC should consider implementing the following strategies:

- Green Cleaning – purchase 90% Green Seal or EcoLogo certified cleaning products in these four categories: carpet, window, all purpose, and bathroom.
- DEHP/PVC Reduction – Eliminate DEHP/ PVC from at least one of the following product lines: breast pumps, enteral nutrition products, parenteral infusion devices, general urological, exam gloves, umbilical vessel catheters, vascular catheters.
- Healthy Interiors – ensure that 25% of the annual volume of furniture and medical furnishings eliminate the use of halogenated flame retardants, formaldehyde, perfluorinated compounds and PVC.
- Comply with the Living Building Challenge materials red lists for all major interior finishes and furnishings.

Natural Ventilation

In addition to reducing energy consumption, research shows that natural ventilation can improve patient outcomes by providing control over thermal comfort and ventilation. Where possible, operable windows should be included in designs of patient rooms, offices and any other appropriate occupied spaces.

Water

Many Americans have less than ideal water quality. Increasingly, water is contaminated with unsafe levels of pharmaceuticals, chlorine, fluoride and other chemicals. Healthcare facilities should strive to deliver the healthiest and cleanest possible water for consumption.

Impurity Reduction

Reducing impurities in drinking water results in healthier and better tasting water. For kitchen faucets and drinking fountains, filter water should meet the following:

- Aluminum less than 200 ug/L
- Arsenic less than 2 ug/L
- Chloride less than 250 mg/L
- Lead less than 2 ug/L
- Manganese less than 5 ug/L
- Sodium less than 270 mg/L
- Chlorine less than 0.5 mg/L
- Fluorine less than 1mg/L

Nature

Research shows that the physical and visual connections to the natural environment (access to outdoor space, views of nature, natural daylighting) provide social, psychological, and physical benefits. These connections also assist in patient recovery and healing, reduce stress, and improve the overall healthcare environment.

Daylight and Views

Design of new buildings should consider daylighting in the following areas:

Inpatient Units: A minimum of 90% of inpatient staff, patient, and public areas should be within 20 feet of the perimeter with perimeter areas having windows that provide at least an 11-degree angle of unobstructed view in the vertical and horizontal direction.

Places of Respite

Program of new buildings should include patient, visitor, and staff accessible indoor and outdoor places of respite with 90% of these spaces having direct views of nature. Indoor Places of respite may include:

- Family consultation or gathering spaces
- Lounges without negative distractions such as TV's
- Café
- Grieving room
- Meditation spaces or chapels
- Resource areas and libraries
- Designated staff break areas with positive sensory distractions
- Spa or exercise spaces for staff and/or visitors

Nourishment

Many Americans have a high-calorie diet that consists of unhealthy fats and sugars that gradually weaken immune function, leads to excessive weight gain, and causes long-term health problems. As part of a mission of healing, OVMC should consider implementing the following strategies:

- Balanced Menu – decrease amount of meat purchased by 20% within three years.
- Healthy Beverages – Increase the percentage of healthy beverages by 20% of total beverage purchases annually (include promotion of tap water over bottled water)
- Local Sustainable Food – Increase the percentage of local and/or sustainable food purchases by 20%.

6.50 Future Hospital Dusk View

6.51 New Ambulatory Care Center and Drop-off Dusk View

07 DESIGN GUIDELINES

MASTER PLAN DESIGN GUIDELINES

VISION AND GOALS

The Olive View – UCLA Medical Center has a rich history that can be traced back to a more natural setting and a scale that blended with a spectacular backdrop of the Angeles National Forest. Our vision for the Master Plan is to re-capture the spirit of the place.

A successful master plan needs to have a long view so the initial phases have a road map to the ultimate vision. The initial phases will begin the transformation and a key ingredient to include is the landscape strategy that sets the stage for reclaiming nature.

The goal for these guidelines is to provide a development framework to unify the campus fabric. However, the intent is not to mandate uniformity or replication of design. Unity of the campus fabric can be achieved through careful understanding of context, and sensitivity to the environment, both existing and future. A unified campus fabric includes nuanced variation that results from function, site, building technology advancements, and design expression.

Olive View - UCLA administrators and project managers must be fully engaged in the design process and will be the final arbiters of the preferred architectural approach pursued for each project.

PURPOSE

Design guidelines reflect the unique qualities found in each institution and their culture. These guidelines work to achieve coherence and unity across the campus. Design guidelines serve as a tool to further define the physical planning goals of the master plan and provide design direction for implementation. These campus-wide design guidelines describe the Olive View – UCLA Medical Center's expectations for facility improvements and future development. They provide a flexible framework that allows the vision of the master plan to develop incrementally through influences from various leaders, designers, and planners.

The Design Guidelines help to unify the campus under an approach and philosophy that connects buildings both with one another and with the landscape to form an integrated and architecturally rich campus setting. They are intended to guide staff as they design, construct, and maintain the campus, as well as clarify OVMC's expectations for design professionals that are commissioned by the medical center. When successfully applied, the campus-wide design guidelines will further enhance OVMC's overall appearance.

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

DESIGN FRAMEWORK

The following are overarching goals to achieve the Design Guidelines:

- Neighborhoods
- Community
- Environment
- Place Making

NEIGHBORHOODS

The master plan strives to create neighborhoods or campus zones upon which to organize development and relate to the surrounding context and community. The following are ways in which this can be achieved:

- Recognize the suburban character of the site's surrounding community and its regional landscape allowing for a development scale appropriate to the site's context including landscape character.
- Create streetscapes within the campus and along Olive View efficient for vehicle traffic, safe and pleasant for pedestrian passage.
- Anticipate future developments and identify possible mixed use zones to create a healthcare campus neighborhood that encourages community use and economic activity within the site, such as public parks, community facilities, childcare amenities, other medical offices, short and long term housing, senior living, hospitality developments with retail, commercial, and food service components.

COMMUNITY

The master plan encourages community involvement and interaction. This can be achieved by:

- Capitalize on the site's natural landscape and proximity to existing recreational open space for resource sharing, allowing for community participation in new and enhanced amenities. Amenities include community shared therapy, wellness gardens, and trails; campus and community shared recreational garden trails for passive and active recreation, encouraging walking, biking, hiking, and horseback riding through a system of interconnected outdoor garden and fitness trails, bike paths, and equestrian trails.
- Create outdoor places for campus and community use including day markets and farmer's market use, areas for active recreation such as sports courts, picnic areas, community gardens, and children and family parks.
- Connect the medical campus to neighboring city amenities through planning for linkages to public transport, bike, and equestrian access to and from the campus.

7.01 Photo of garden designed to appropriate scale and character

7.02 Example of community interaction and participation

ENVIRONMENT

The inherit characteristics of the site should be echoed in the master plan with emphasis on a connection back to nature and development at an appropriate scale. This can be achieved by:

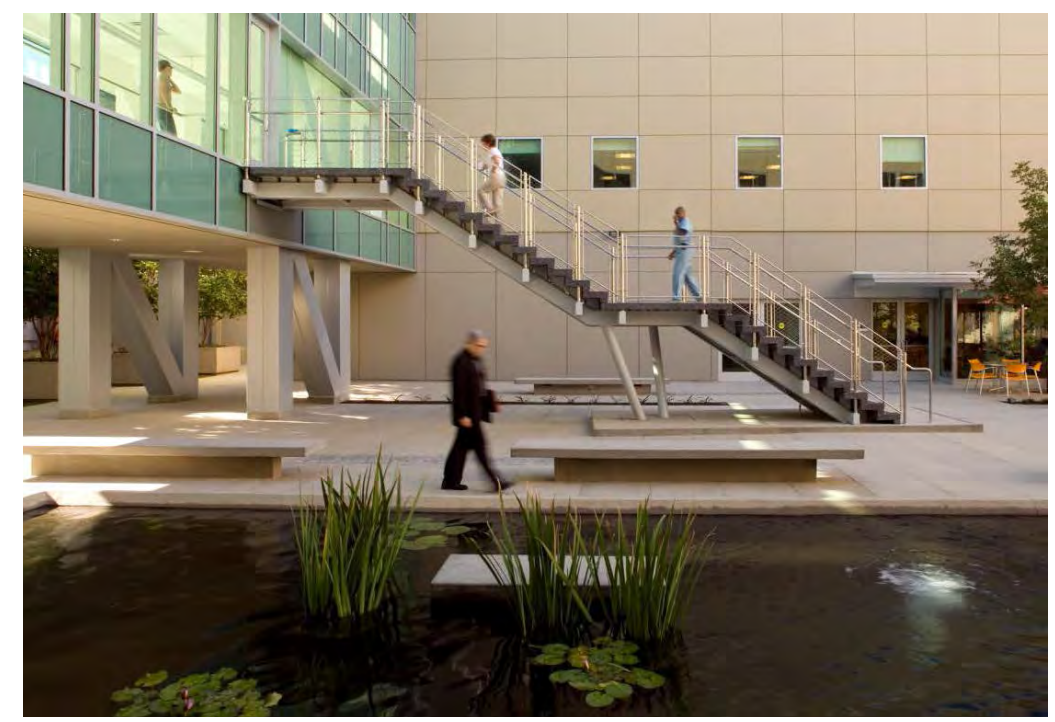
- Recognize the site's topography, existing land use, existing buildings and infrastructure, utility easements, and how they are affected and how they influence the development strategies for a new healthcare campus.
- Express the importance of the relationship of the site to future land use and its impact to the natural environment, including the site's proximity to dry river beds and the scarcity of water, proximity to two debris basins and site's exposure to natural hazards such as flooding, fire, and landslides.
- Celebrate the site's topography and the adjacent mountains expressed in the placement of buildings & utilities, site viewpoints, circulation and access routes, and outdoor use zones.
- Integrate sustainable elements with the building and landscape allowing for the best sustainable strategies and technologies, such as stormwater harvesting, stormwater management, waste recycling, gray water reuse, solid waste management, solar power harvesting, greenhouse gas reduction, and reduced carbon footprint.
- Integrate ecological restoration processes in the landscape design to restore or return wherever possible the natural vegetation and habitats of the surrounding landscape of the San Gabriel Mountains. Include demonstration gardens that exhibit California native flora, climate, and natural processes of water – soil – vegetation.
- Create an organized plant palette reflective of local climate and native vegetation, expressed as a confluence of site's geographical location and characterized by the site's microclimates and diverse ecological zones.
- Inform and educate the campus users and visitors about the site's 'biomes' or 'ecozone' and local hillside and valley climate through the design of landscape planting, hardscape elements, and sustainable strategies used including site vegetation management through zero or low water use and composting.
- Design for resiliency with strategic awareness of the site's physical challenges addressing the site's semi arid, long and dry, hot summers and recent regional climate changes that has increased the number of extremely hot days, volatile rainfall, exacerbating the potential for forest fires and likelihood of flooding.

PLACEMAKING

Placemaking for the future campus can be achieved through visual and physical connections between buildings and the landscape. Some of the ways to accomplish this include:

- Design the landscape to reinforce and establish the scale, rhythm, spatial configuration between building and landscape.
- Demonstrate clear wayfinding and linkages in circulation and movement throughout the campus.
- Convey visual continuity through materials and concept throughout the campus for coherent design and visual aesthetics.
- Create a unique campus landscape character using sustainable strategies in restoring the landscape ecology inherent in this hillside site.

7.03 Creating an environment to bring together, designed for different functions



7.04 Example of using gardens and courtyards to reinforce connections to different buildings

ARCHITECTURAL DESIGN GUIDELINES

The Design Guidelines are categorized into four elements of design:

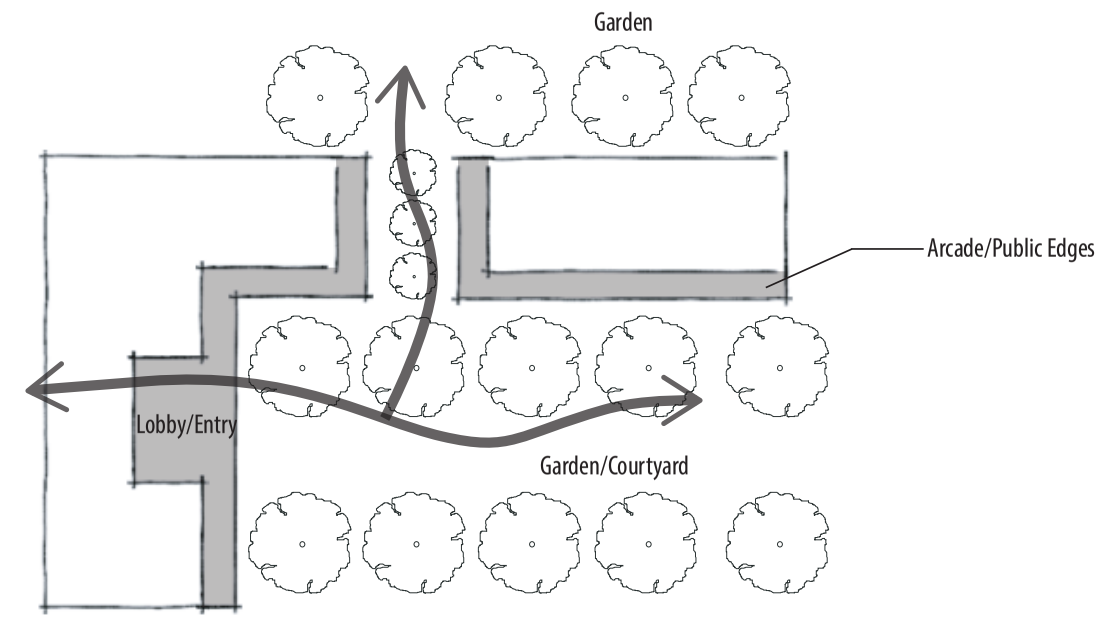
- Attributes
- Components
- Materials
- Sustainability

ATTRIBUTES

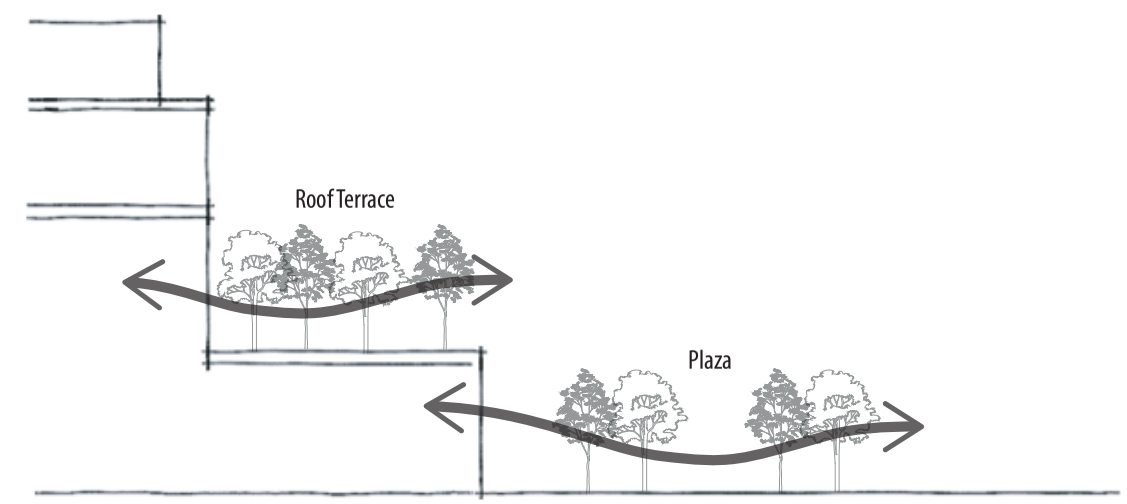
The architectural expression envisioned for Olive View – UCLA Medical Center is one that reclaims the natural setting and scale that once was the essence of this region. The campus had a historically greater relationship with the natural setting with greater emphasis on the landscape than on the buildings and parking. The brand and image proposed in the Master Plan strive to enhance the place to be inviting and complement the natural context through attention to detail and scale. The vision is to have a composition of buildings, gardens and outdoor rooms that transform OVMC into a 'healing' campus.

Plazas, courtyards, and connections to overall outdoor circulation patterns should be developed as part as each building's form. The architecture should also work in collaboration with the Landscape Design by emphasizing forms that shape outdoor space and enhance the pedestrian experience.

Although the existing hospital building remains a dominant architectural feature -based on the response to the needs at the time it was built - the long term development of the campus provides an opportunity to reshape the campus into a collegial typological response. This response must include massing that is in scale to the broader context, and hierarchy of scale where no building is greater than 4 stories, unless deemed appropriate for a single building (like a replacement hospital) but should never exceed the height of the existing hospital building.



SITE PLAN



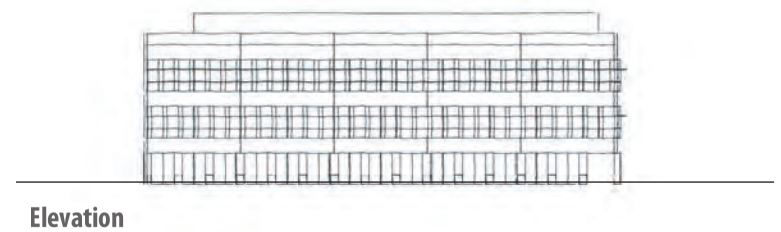
BUILDING SECTION

7.05 Connection of indoor and outdoor environments using roof gardens, courtyards, and arcades

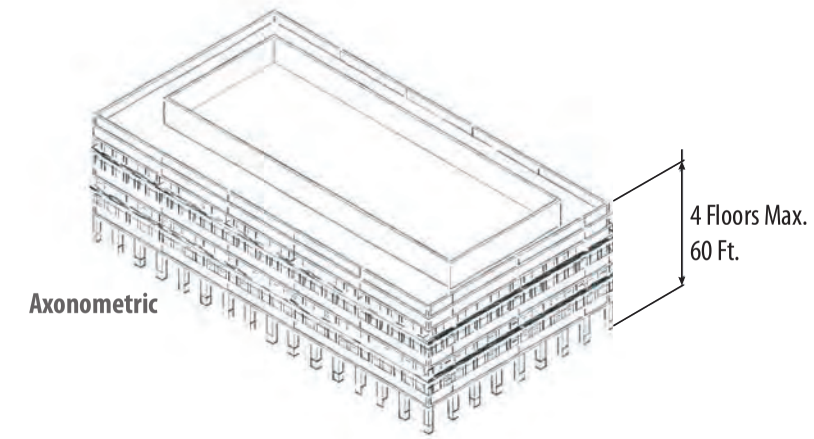
7.06 Example of connection between indoor and outdoor environments

7.07 Example of plazas and courtyards used to link overall campus

BUILDING HEIGHT DIAGRAM



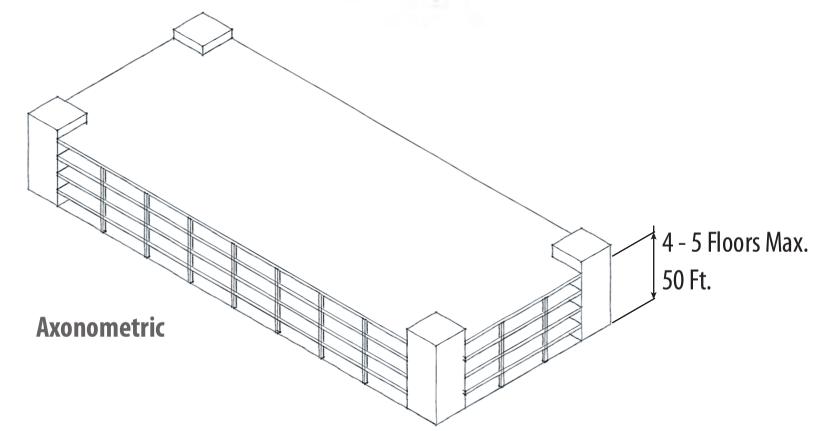
Elevation



Axonometric

PARKING STRUCTURE HEIGHT DIAGRAM

Elevation



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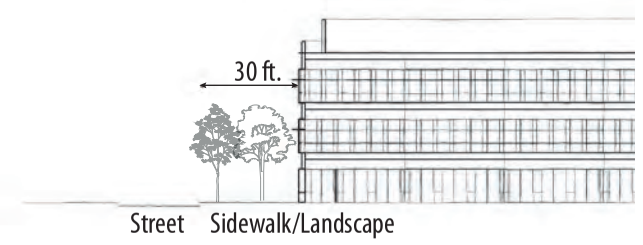
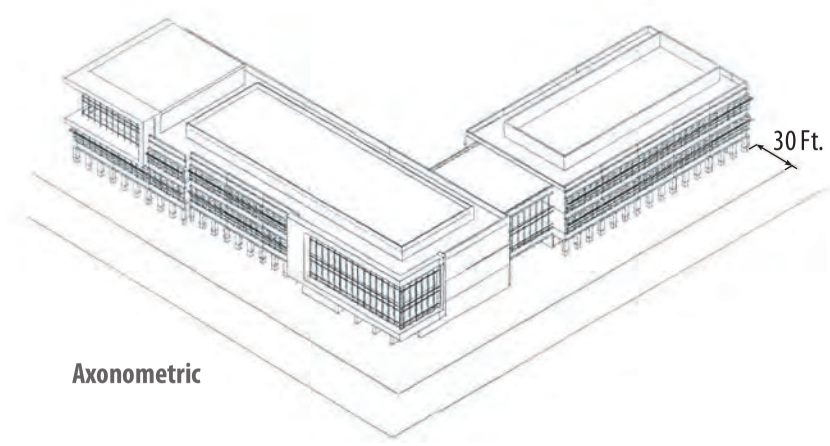
BUILDING SETBACK DIAGRAM



Section

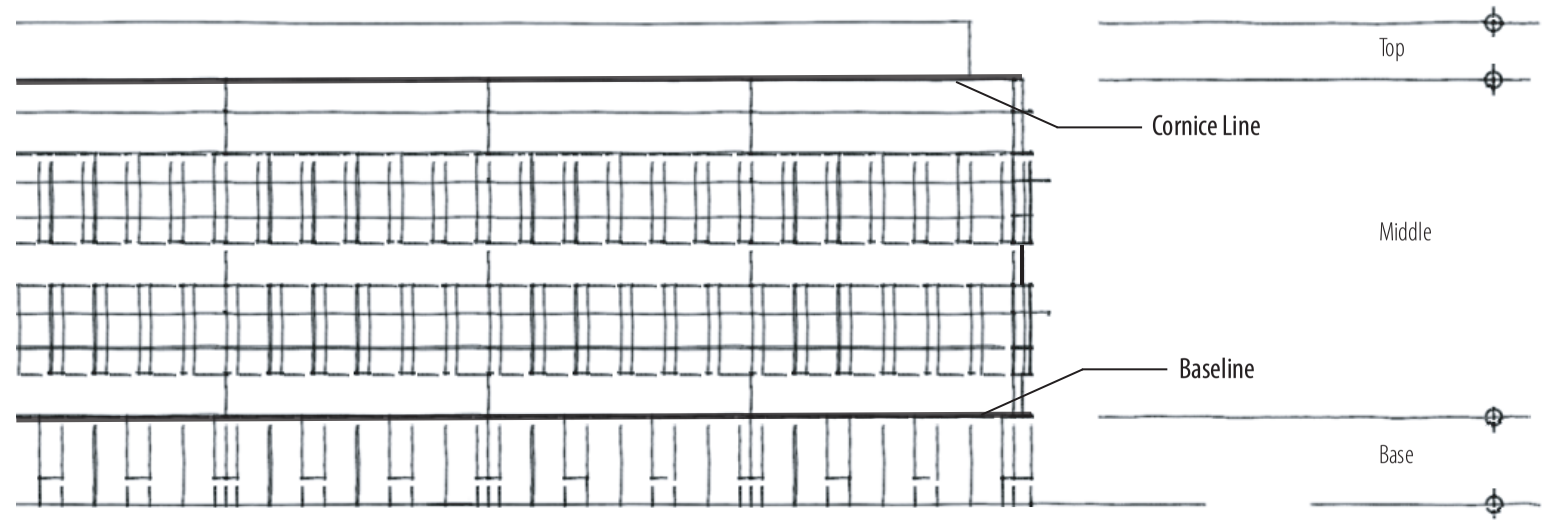


Axonometric

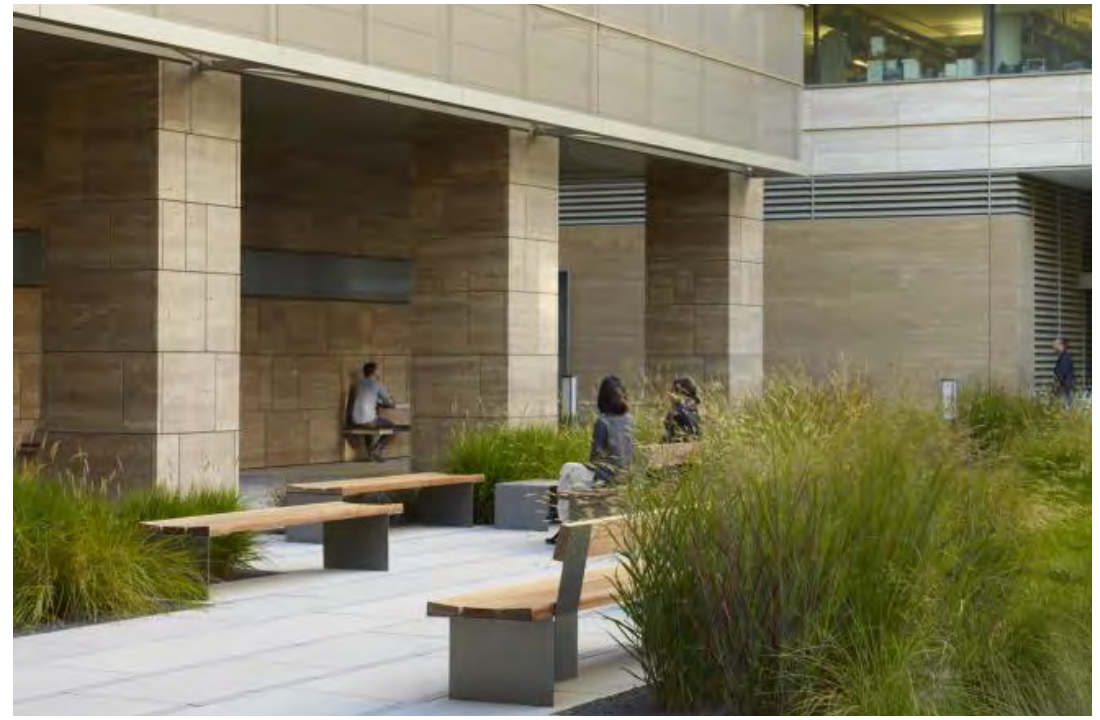
7.08 Building Height and Setback Diagrams

Another aspect of hierarchy deals with the exterior architectural expression where **the building expression is broken down into three major components; base, middle and top.** This approach gives order to the building façade as well provides a pedestrian scale that is more appealing and approachable. The base should be more articulated to further break down the scale. This can be achieved through the use of a building material that enhances modularity. The middle should be the prominent architectural expression and expansive uses of curtain wall should be avoided, however the use of large areas of glass can be used as a visual cue of entry. The top should be articulated with minimal exuberance and pitched roof forms should be avoided.

Building heights of three to four floors with the exception of mechanical penthouses best achieves this objective. However, programmatic needs may require the actual building heights to exceed four floors. For building four floors or taller, the perceived and experienced building height should be established by reinforcing a datum at the third or fourth story. Architectural elements such as a cornice or a plan setback can mark this datum and help to reduce the overall perceived and experienced building height.



7.09 Building Scale Diagram



7.10 Photos of articulated building base with arcades and courtyards

COMPONENTS

Main entrances into new developments should be clearly defined to enhance wayfinding. The location of building entries and arcades animate the campus experience. Building entrances should be clearly visible and welcoming. To further enhance the entry experience, landscaping and plazas should be appropriately scaled. These entries should provide a sense of transparency and be inviting to pedestrians. Canopies can also be used as a visual cue as well as provide shade and inclement weather protection for vehicular drop-offs.

The pedestrian experience is an important aspect of the campus environment. **Building designs should emphasize forms that shape outdoor space and promote a pleasant and visually accessible pedestrian experience.** Buildings should provide non-programmed interior and exterior spaces to provide social interaction and opportunities for knowledge sharing and discovery. Common spaces for circulation including corridors, lobbies, galleries and arcades should be designed to promote interaction and informal learning. The use of arcades that connect campus buildings and exterior pedestrian movement is encouraged. This will also aid in the scale reduction of the building and provide a more porous exterior base to the architecture.

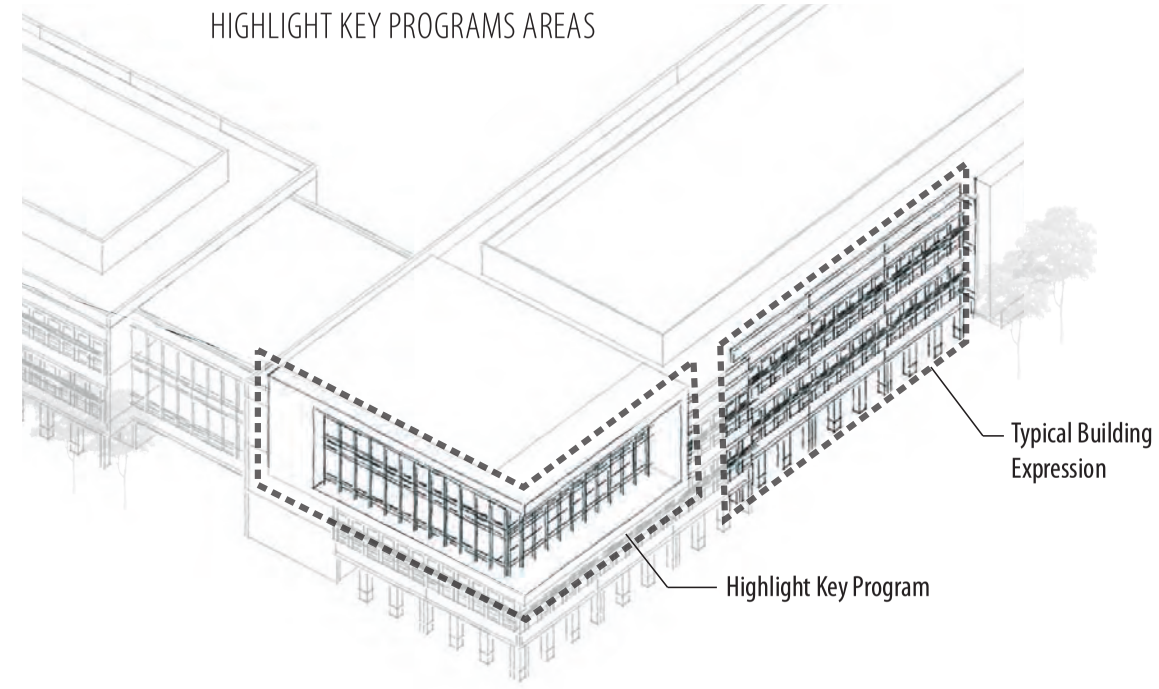
Exterior fenestrations should generally be vertical in proportion. The overall façade should be uniform with special expressions reserved for unique program elements. Horizontal ribbon windows and curtain wall facades should be avoided.

Service areas for buildings including loading docks should be integrated with the overall building design and materials. The service area should be located in alignment with the overall Campus Master Plan, minimizing vehicle and pedestrian conflicts. These areas should also incorporate screening devices to minimize the visual impact.

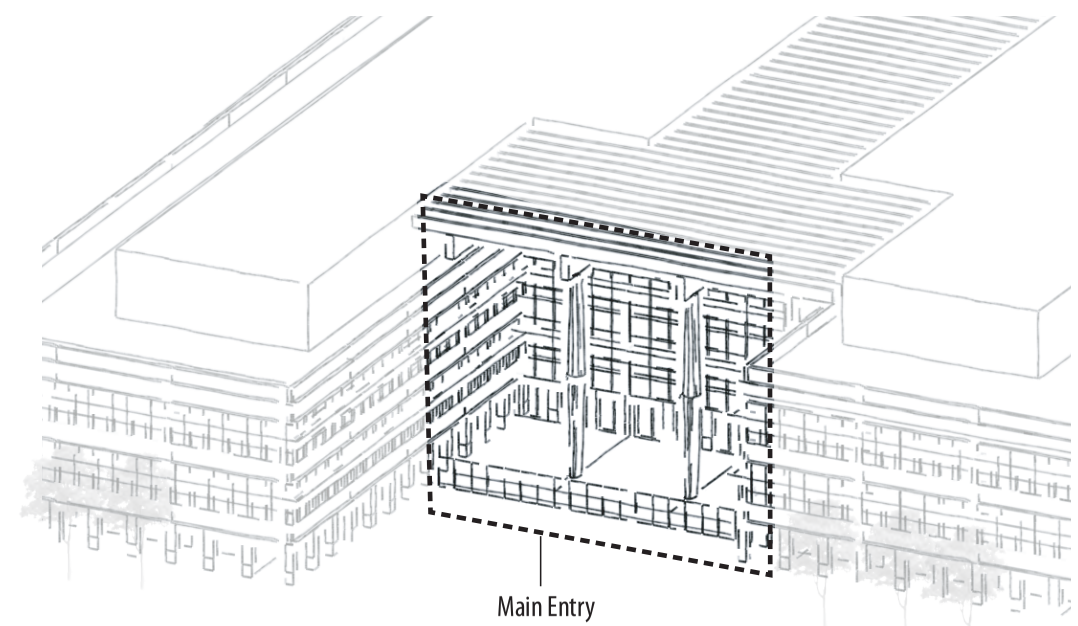
Vehicles are an integral aspect of campus development. Surface parking on the campus has historically satisfied all functional as well as economic needs. However, as campus growth and development continues, surface parking, existing and new, will consume valuable physical and visual real estate. For new development on campus, structured parking should be evaluated, and if determined viable, be provided.

Although no precedent exists on the campus currently, structured parking developments should be complementary to the context and follow the general building design principles outlined in these guidelines.

HIGHLIGHT KEY PROGRAMS AREAS



HIGHLIGHT MAJOR BUILDING ENTRANCES



7.11 Example of highlighting building entrances and public spaces

7.12 Photo of parking structure facade

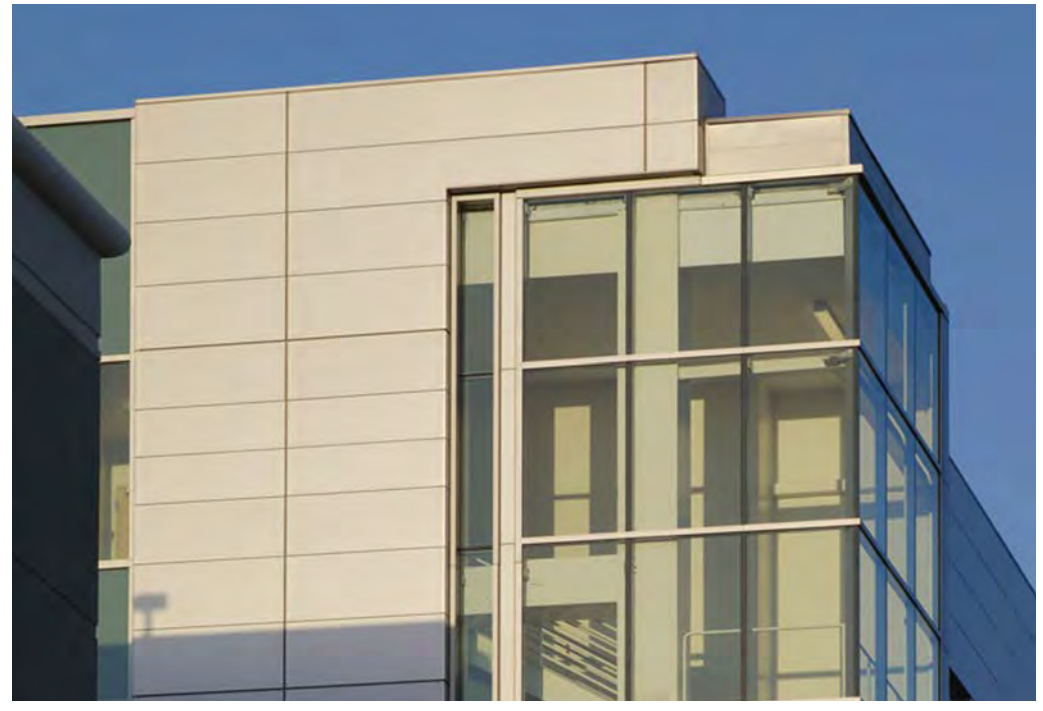
7.13 Diagram of buildings with key programmatic spaces highlighted on exterior

MATERIALS

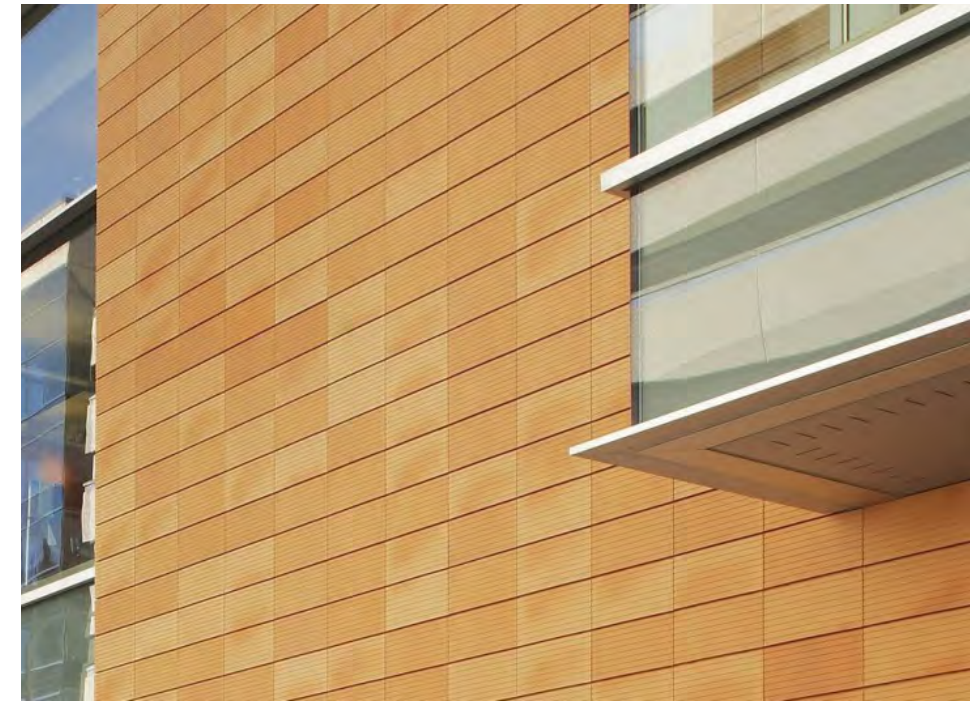
Consistent exterior cladding throughout the campus will create a sense of unity and continuity. The current campus predominantly uses concrete and curtain wall with smaller scale buildings utilizing stucco and brick. In an effort to provide a palette of continuity there should be a common building material that would consistently ground the buildings in the landscape. The architecture should be consistent with a vocabulary that compliments the natural surroundings.

Acceptable building materials should exhibit lasting, durable characteristics and ease of maintenance. They include terra cotta rain screens, architectural precast, stone (mostly as an accent or base material), aluminum mullion and panel systems, and curtain wall glazing systems. Glazing systems should be of high performance energy saving assemblies without the use of highly reflective or mirrored glass. In general, the glass should have a high visible transmittance while maximizing energy savings and should be low in color. Wood or wood veneer products should be used where feasible such as the underside of drop-off canopies to add warmth to the entry experience.

Color also plays an important part in threading a campus together. There should be a natural palette to reinforce the context. Buff, beige, and tan would be a consistent color range that would reinforce the connection to nature. Metal panel is also a good choice for accents whether it is used to highlight entrance, special features, or roof lines.



7.14 Example of Metal Panel System



7.15 Example of Terra Cotta Panel

7.16 Example of Architectural Precast Concrete

SUSTAINABILITY

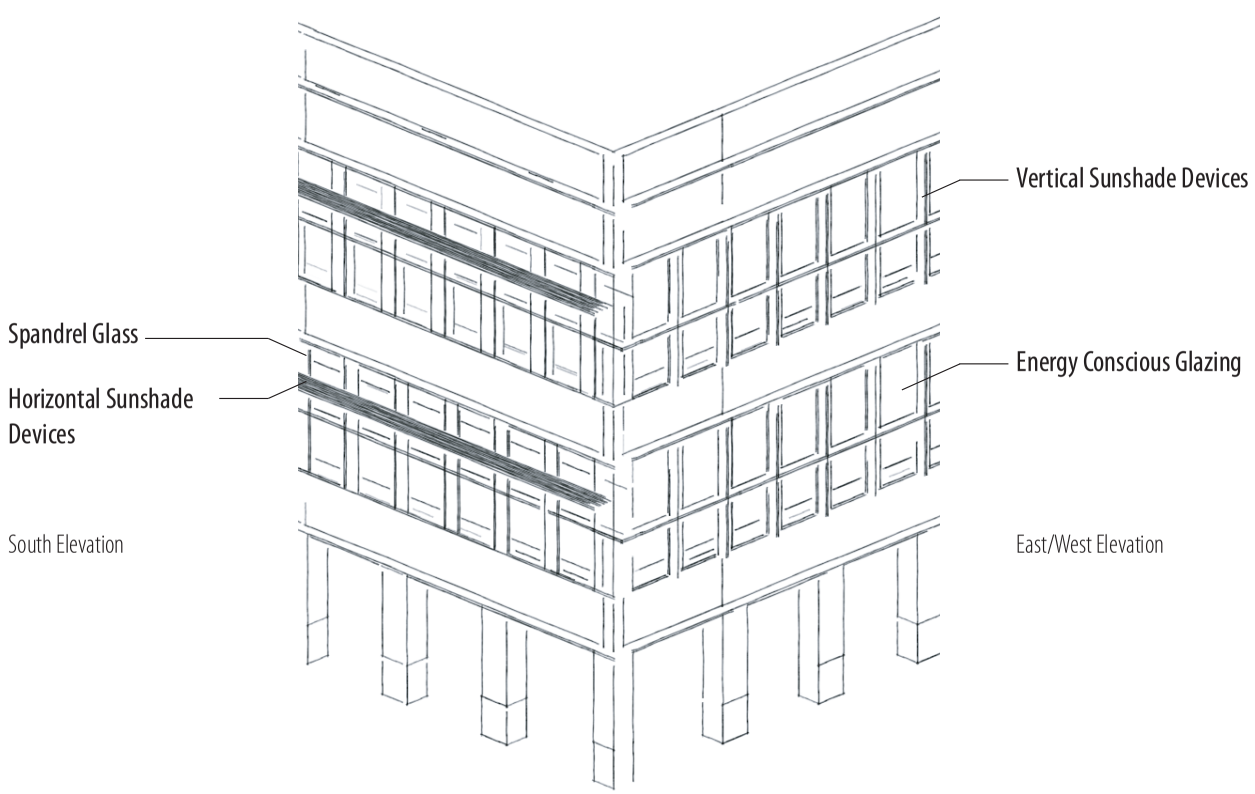
The existing hospital tower utilized concrete and highly reflective glass to address building orientation. The best energy efficient buildings utilize building orientation as the best passive means of controlling energy usage. All new buildings should orient their long faces to the south and north, however when site conditions preclude this every effort should be made to minimize the east and west exposures.

Façade openings should be shaded from direct solar exposure when appropriate. The exterior envelope of all new buildings should use horizontal sun shading devices to control the south exposures. The east and west benefit from vertical sun shading devices, however solar studies should be done to confirm the best strategies for solar control. Alternatively, deeply recessed fenestration systems could be successfully used and may also be considered. Either approach can be developed and leveraged to convey a unique architectural design expression.

The existing hospital tower could benefit from an architectural re-cladding system to greatly improve the energy efficiency of the building. A successful approach that has been used on similar projects is to develop a unitized curtain wall that could integrate sun shading systems into the fabrication that appropriately address the orientation. This approach can incorporate glazing or metal panels that would be compatible to the existing structural building system.

As outdoor rooms next to new buildings are added to the campus, an armature of canopies should be added to provide shade and protection from rain between various building programs. These should consist of a colonnade / support structure for a combination of metal and glass roofs. Where glass is used special attention should be made to provide a frit pattern that blocks 60% of the sun rays.

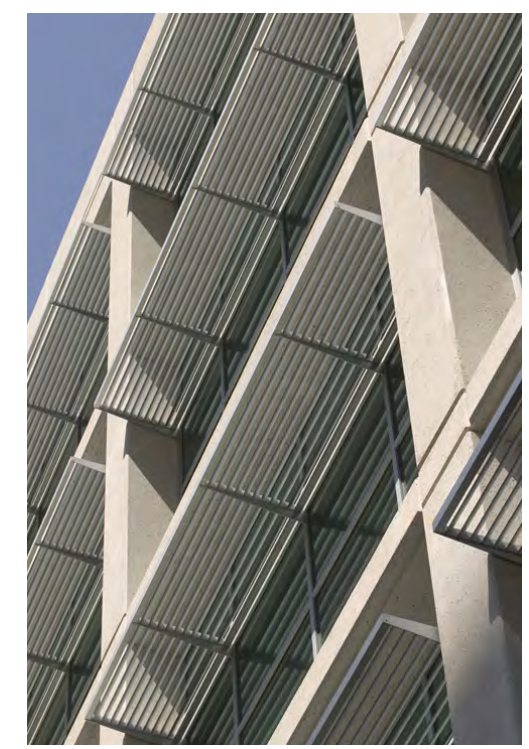
BUILDING EXTERIOR



7.17 Sustainable Design Strategies

SUNSHADE DEVICES WITH SPANDREL GLASS

7.18 Example of Horizontal Sunshade System



7.19 Examples of Exterior Sunshade Devices

LANDSCAPE DESIGN GUIDELINES

DESIGN PRINCIPLES

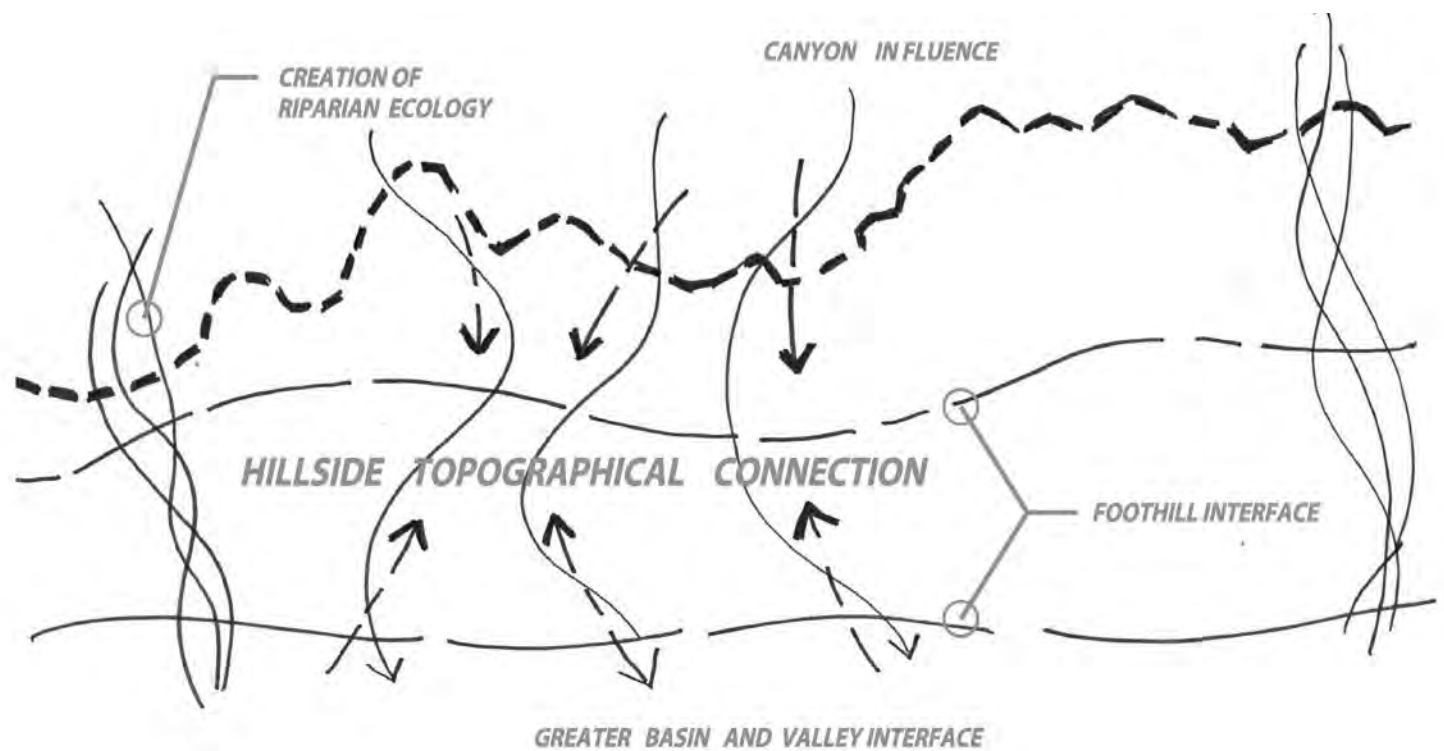
General
With healthful living as one of Olive View Medical Center's goals, the landscape must be inviting, comfortable, and accessible. The open space should have a hierarchy, ranging from a large scale park for recreation, most likely set under the Edison Easement, to more intimately scaled gardens and trails for use by the campus community. Designed to accommodate both individuals and groups, the gardens can take many forms: wellness gardens with varying themes, recreation and parcourse paths for exercise, rehabitation gardens for use by therapy departments, and outdoor spaces for gathering and dining. The character of the gardens should be linked to the selected site strategy, reinforcing institutional identity, wayfinding, and promoting engagement with the outdoors.

Sustainability
Sustainability will be addressed throughout the site, using Best Practices to manage stormwater, reduce the heat island effect, provide climate control, and minimize potable water use in the landscape. To this end, the landscape design should focus on using canopy trees along vehicle circulation routes, permeable paving for landscape terraces and paths, emphasizing deciduous trees along southern and western building façades, and limiting the plant palette to drought tolerant, fire resistant planting. In a warming climate, the use of trees or trellises to provide shade is paramount.

Resiliency
Because of its unique site, at the edge of the San Gabriel Mountains, the Olive View campus is threatened by both fire and flood. Fire resistant plants should be used to help create a buffer between the mountains and the facility, and care should be taken to maintain appropriate distances between canopy trees and building façades. Flooding and debris flows, typical of the Southern California chaparral ecology, must also be addressed through grading and infrastructure.

Viability
The site poses many challenges including inadequate organic matter and topsoil, excessive compaction, lack of permeability, and high heat, among others. In order to be a sustainably viable landscape, specific techniques should be implemented as part of site development: structural soil should be used when trees are set in paved zones, subsurface drainage provided to all tree wells, engineered soil used to create topsoil, bioswales and constructed wetlands strategically located to channel water.

A Healing Campus that Heals the Land
The confluence of the site's intrinsic physical attributes create a natural setting for a healing campus that brings together sustainable strategies for development and delivers wellness to the community and its patrons. These sustainable strategies are elements integral to the landscape design supporting the Olive View campus through the Nature's Edge planning concept.



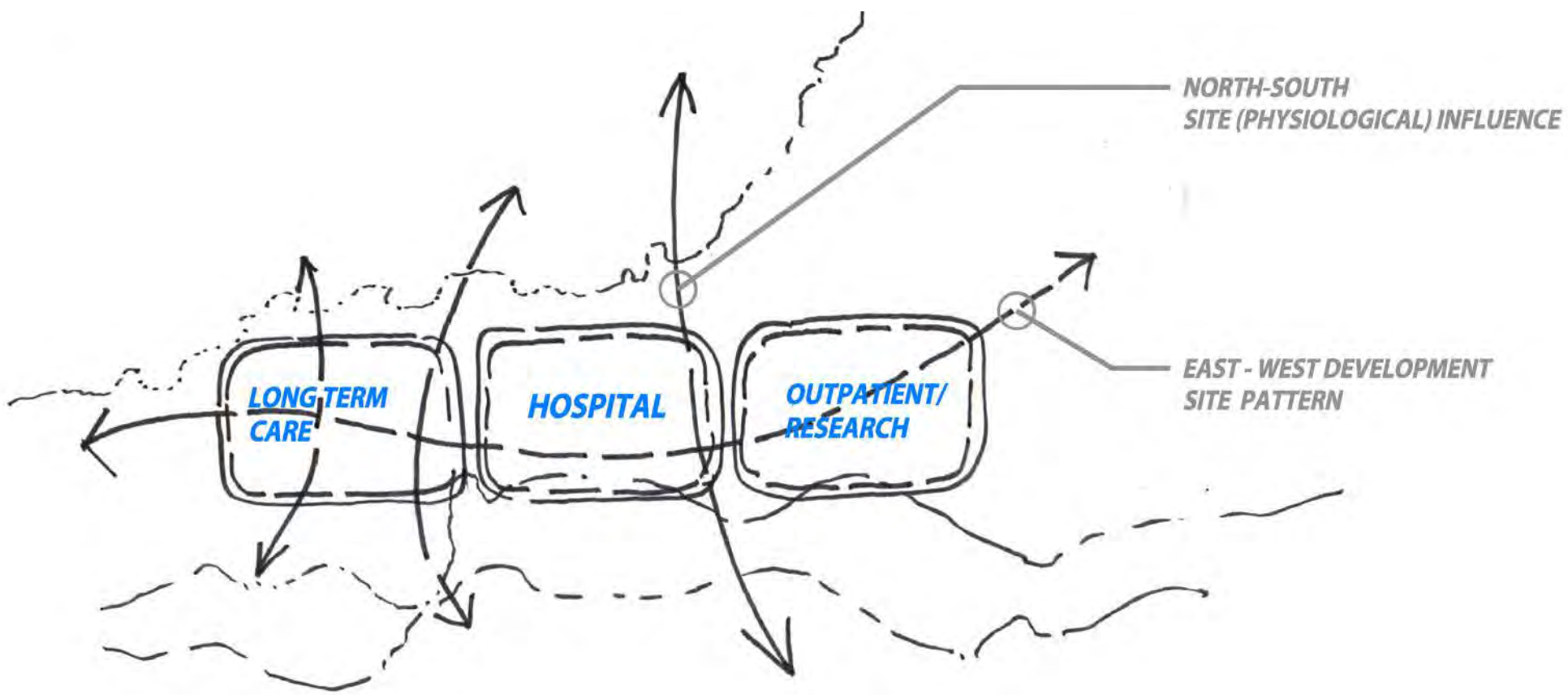
7.20 Landscape Concept Design

FRAMEWORK

The landscape planning goal for the OVMC campus is to create a conceptual framework and establish design guides intended to create opportunities in site planning and landscape design that will best provide visual and experiential coherence in the future developed site. These guidelines follow sensibilities considering the site's hillside context and natural landscape patterns. The following landscape design guidelines provide parameters in how building and outdoor spaces may be organized through a system of garden trails, how useful outdoor spaces for recreation and circulation can be identified, with clear wayfinding and linkages, and programmed site amenities that create a healthcare neighborhood that can be shared by campus patients and staff, visitors, and the neighboring community.

The landscape design guidelines focus on the ideals of site sensitive landscape that will sustain the land and its future development.

- Larger scale plantings should be used along street setbacks and vehicular entrances.
- Planting should help easily identify building entrances and assist in wayfinding at open green areas.
- Important street intersections and vehicle drop-off zones should have larger scale planting including gateway trees and specific planting entry palette for wayfinding and orientation.
- Larger canopy or gateway trees should be used to accent and provide prominence for major access points for building entrances and transition to outdoor spaces and to create hierarchy and differentiate between adjacent outdoor spaces.

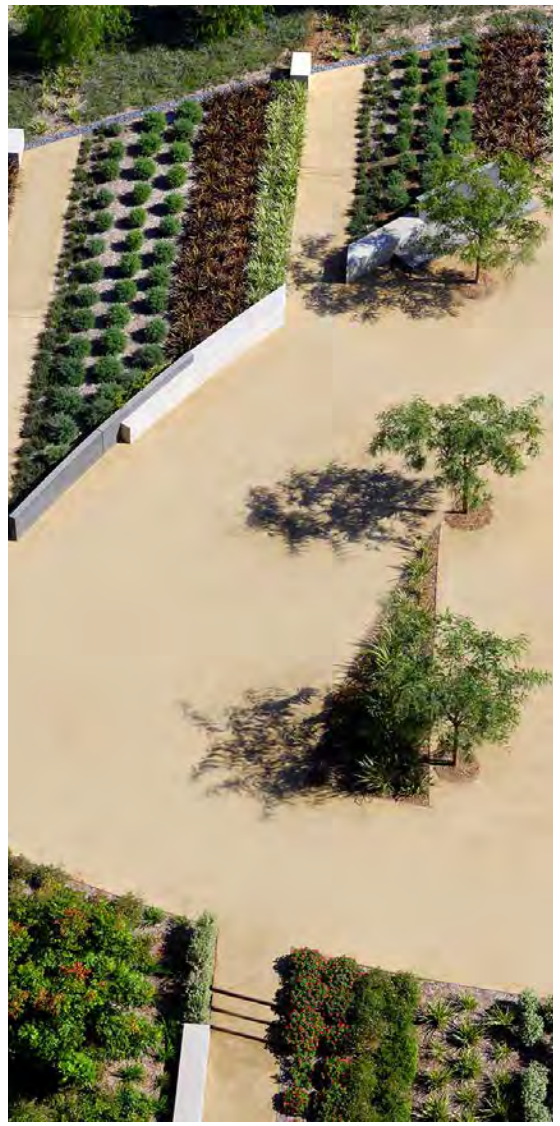


7.21 Landscape Development Framework Diagram

LANDSCAPE SITE PLAN

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

7.22 Landscape Site Plan



7.23 Examples of gardens

COURTYARD GARDENS

The design will include outdoor healing gardens for hospital use, at the same time providing some garden areas that will be connected to a system of garden trails and will be accessible for community use.

Therapeutic gardens should include herbs and sensory plants for both the young and for adults. Memory gardens that contain intimate seating spaces and that invite reflection and meditation will also create new habitats and will celebrate the return and the renewal of local flora and fauna.

Gathering spaces, both private and open, will tie the landscape together and connect the outdoors to the buildings and the community to nature.

COURTYARD GARDENS

Special paving is encouraged to provide visual interest and define entrance zones at driveways and access drives.

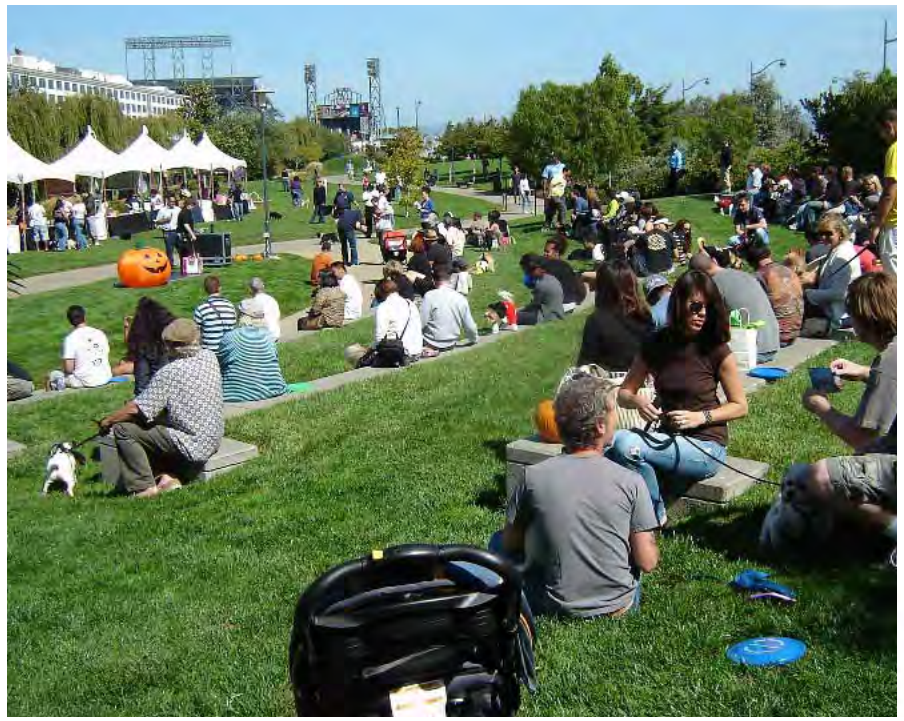
Incorporate landscape art or playful design elements using large scale games, bocce courts, and functional art pieces as part of the Campus Art program.

Courtyards and gathering places should exhibit an interplay of architecture and landscape, emphasize indoor-outdoor relationships, views, and frame the landscape.

7.24 Examples of courtyards

PUBLIC SPACES

Outdoor public and campus landscape create opportunities for multi use space, community engagement and recreation.



7.25 Examples of public spaces

ENTRY AND PARKING

Landscaping should be used to create screens and buffers for parking areas, storage areas, trash/recyclable collection enclosures and provide separations between uses or activities.

Landscaping may also be used to soften the appearance of buildings and screen undesirable views from the public and surrounding uses. Visual screens, buffers from polluted air, such as from loading areas, service and parking yards, should be used with planting of vines on structures and naturally vertically or tall growing hedge plants.

Pedestrian friendly lanscaping should be integrated into parking areas.

All parking areas should have sufficient shade through landscape trees. Trees shall be planted and maintained in all parking lots at a ratio of 1 tree for every 4 parking spaces (clustered or grouped). The trees shall be placed throughout the parking lot in a manner that will ensure that all portions of the lot receive tree shade. Trees shall be of varieties that provide a broad canopy from the approved local and indigenous palette.

Landscape screening should be provided between parking lot and street right-of-way. Landscaping shall be designed and maintained for partial screening of vehicles to a minimum height of 3 feet, measured from the finished grade of the parking lot. Screening materials may include any combination of plant materials, earthen berms, solid masonry walls, raised planters, or other screening devices that complement the overall site landscape.

Sufficient landscape coverage for parking lots should be a minimum of 5 percent of the parking lot area covered with landscape when there are more than 20 parking spaces.

Parking lot design should include water quality stormwater facilities as part of the landscape design.

Large surface parking areas should be divided through the use of canopy trees and landscape improvements to reduce heat gain and provide landscape design opportunities as part of parking lot design.

Parking directly off building entrance drives and internal roads shall be kept to a minimum and restricted to emergency, accessible, and short-term parking only.

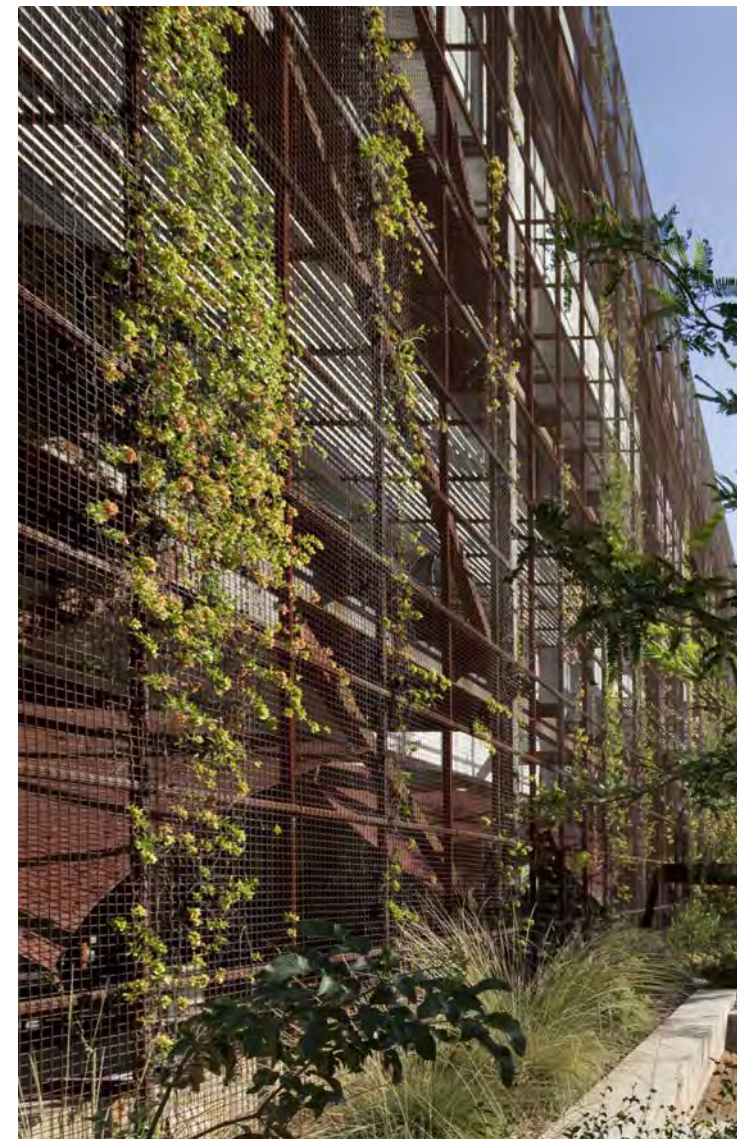
Fencing, gates, and similar outdoor structures and site furnishings should be designed to complement the architectural character of the surrounding buildings.

Entrance drives and roadways, where pavement exceeds two lanes, should have a minimum 10-foot wide landscape median.

All driveways and access drives shall adhere to sight visibility requirements.

Sidewalks and exterior walkways near buildings should be wide enough to allow two wheelchairs to pass easily.

Parking structures shall have a minimum landscape setback of 15 feet along all street frontages and next to adjacent structures.



7.26 Examples of parking structure landscape design

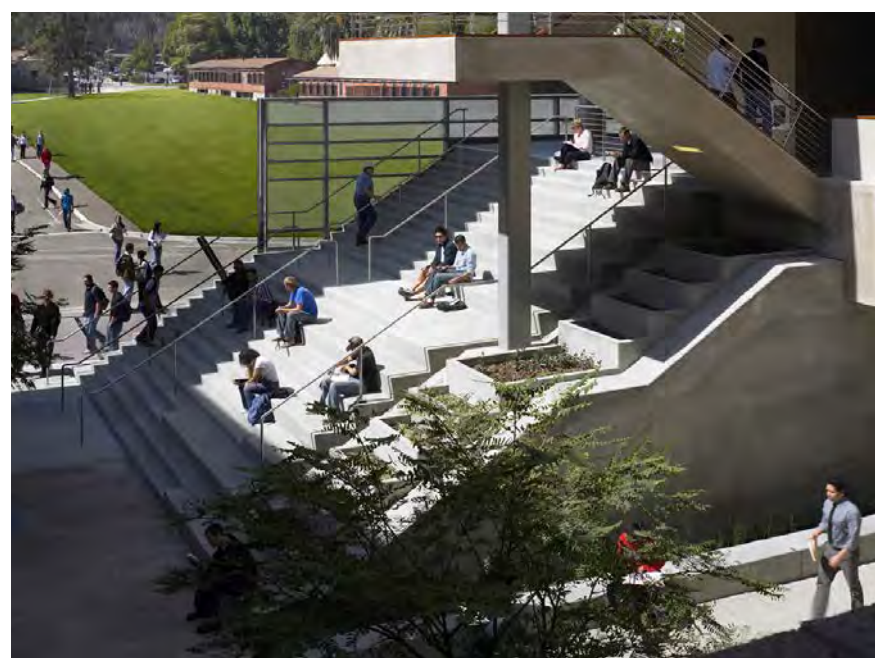
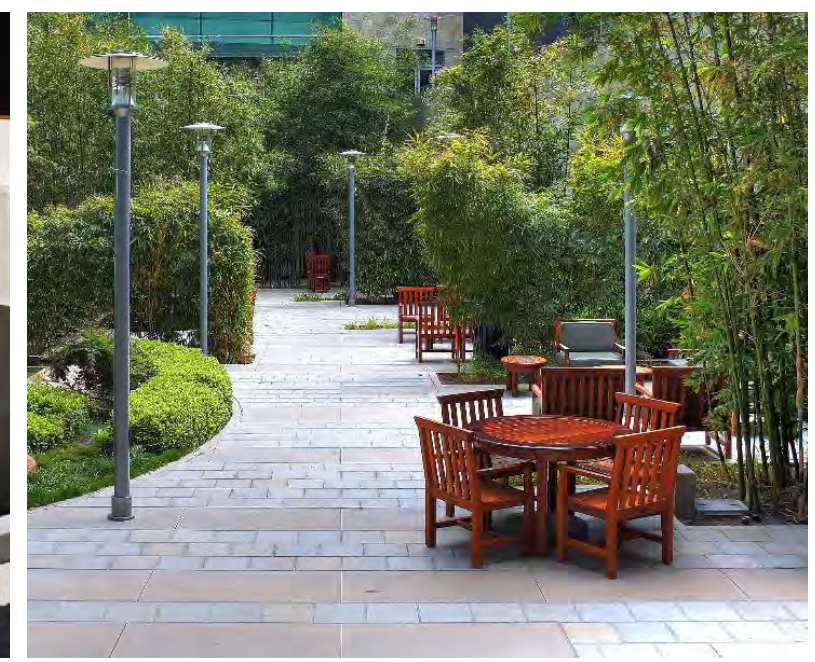
SPECIAL PLACES

In order to serve a diverse set of needs and to create unique and dynamic spaces, the Master Plan will:

Identify courtyard opportunities around or near where existing mature trees exhibit significant health to encourage existing tree protection and preservation.

Design spaces for children and adults for therapeutic significance that stimulates the senses, provide for play or relaxation, rest and respite, conversation, or simply a place to sit.

Courtyards should be provided that are specific, welcoming and accommodating to children, families, the elderly and individuals with mobility and medical needs.

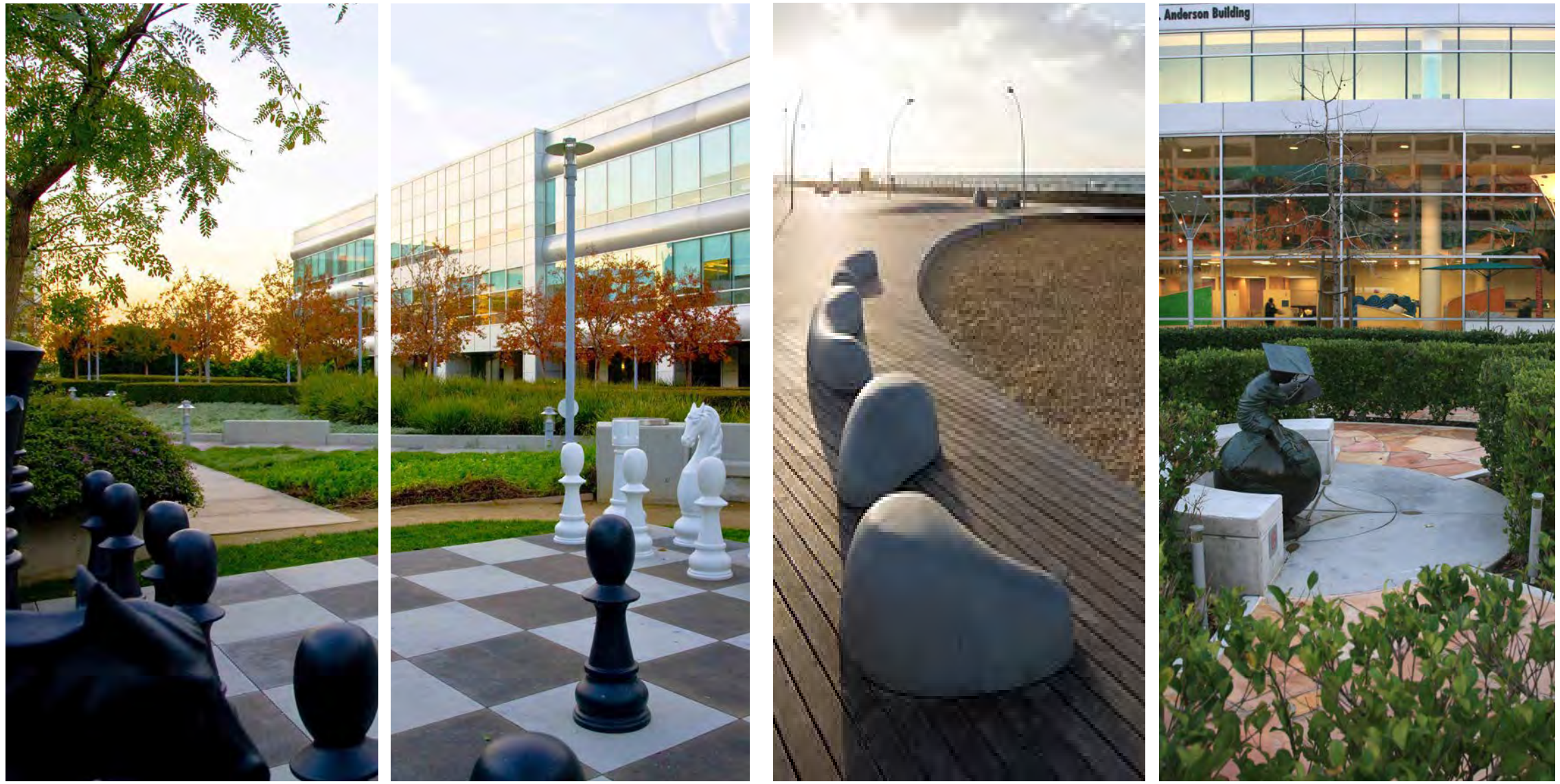
7.27 Examples of special outdoor spaces

COMMUNITY ART

The Campus Art Program will:

Incorporate art or playful design elements using large-scale games, bocce courts, and functional art pieces that will be integrated into the landscape.

Display permanent art pieces within the Sculpture Gardens, to be enjoyed by visitors and hospital residents and will also provide opportunities for new and rotating art pieces and displays, keeping a changing perspective and a fresh vision for campus art. This will engage community members and provide a possibility for public art involvement through fairs, markets, and temporary or rotating campus art exhibits.



7.28 Examples of integrating artwork with landscape

7.29 Example of open space

SUSTAINABLE PLANTING

The planting guidelines in this document include plant palettes of California native species that are significant elements of the restoration process and are key design features of all the open space, streetscape, and campus courtyards. The plant palette lists are representative of but not exhaustive listings of planting species that may be used as a basis or beginning point for planting design. Plants shown are appropriate in most cases but should not be used as substitute for a site or area specific planting design based on actual weather conditions, sun exposure and shading, use and aesthetics of the final landscape. All selected planting should be confirmed appropriate to the micro climate and function of the space. All plants should be checked for updates on California Invasive Plant Council's (CAL-IPC) list of invasive species.

Use tree canopies to create different outdoor characters for special places including species color, mature growth characteristics for appropriate location, and spacing to enhance the varying quality and experience of the outdoor environment.

Planting selection that help minimize excessive maintenance and reduce hardscape repair costs should include selection of non-invasive root systems at paved areas, especially trees which will not lift the hardscape (pavement), and plantings with little leaf, flower, or fruit drop adjacent to paved surfaces.

Use plant species that require little pruning to achieve the desired landscape effect; shrubbery should not be pruned in a manner that will create a "box-like" appearance. Other attributes include those that are pest and disease resistant to the greatest extent possible, do not require hand watering (can be irrigated through automated systems), suitable to soil conditions without extensive amendment or feeding, long-lived and hardy, limiting the need for frequent replacement.

Shrubs should be conceptually massed in large drifts to create enclosure and unity. A limited variety of shrub species should be used to reduce the disorganizing effect that results from using many colorful, but visually confusing combinations of varieties.

Constraint must be exercised in utilizing shrubs for building foundation planting to allow for access, maintenance, and window clearance.

Pedestrian scale plantings should prevail in courtyards and walkways.

Mass plantings and larger tree canopies should be provided and maximized around utility facilities such as Materials Management and the Central Plant. Mass plantings around these facilities will help to minimize air pollution from mechanical systems and mitigate poor air quality.

Avoid noxious weeds and those that are identified to be invasive species in California. Select non-poisonous plant species where accessible to children.

In areas requiring maintenance of sight lines or for security along paths, select plantings that are low growing or with a slow growth rate, open growth habit, or use trees with high tree canopy and clear trunk height. Provide sufficient openness in landscape planting at building perimeters and site areas with low pedestrian traffic to eliminate hiding places and enhance perceived security.

SUSTAINABLE PLANTING

Water conservation is an important factor in plant selection. Strategies include use of drought tolerant planting, use of native or naturalized plantings at interfaces with natural space, grouping plantings which require more water in the high use/high visibility areas, and use of plantings with lower water requirements in other less visible locations, limiting use of turf to reduce excessive water consumption.

Identify and create a landscape mitigation plan that includes re-vegetation areas, identification of protected open spaces, while also providing educational and recreational opportunities within the mitigation zones.

Maximize the planting of native species that are adapted to the healthcare campus landscape due to their general ability to survive long periods of drought and significant rainfall versus non-native species. Native plant species help keep the local ecosystem in balance through their support of indigenous, co-evolved insect populations which support local bird populations and help to keep foreign insect infestations at bay.

Tree plantings should be selected and organized in conjunction with building canopies and outdoor overhead structures and around walkways to maximize shading particularly at open plazas and circulation paths between buildings and throughout the site.

Facilitation of maintenance operations should include provision of access to plantings and irrigation systems through hardscape areas for maintenance and repair, facilitate easy moving by driven machines, including easy access, layout of hardscape areas to facilitate regular maintenance activities such as machine sweeping and cleaning, and service cart access for trash collection.

Maintenance requirements should be weighed against other factors, such as desired summer shade, winter sun (leaf drop) or vine-covered walls, as a campus design treatment in specific outdoor areas and planting types suitable for defined level and availability of regular maintenance.

7.30 Example of sustainable planting

Acacia greggii

Aesculus californica

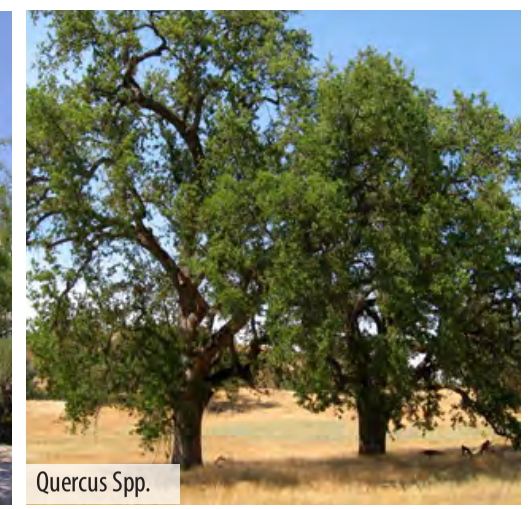
Arbutus menziesii

Juniperus californica

Pinus edulis

Platanus racemosa

Prosopis glandulosa


Quercus Spp.

Sambucus nigra

Salix lasiolepis

Cercis occidentalis

Acer macrophyllum

7.31 Plant Palette - Trees

PLANT PALETTE

TREES

Acacia greggii	Catclaw Acacia
Acer macrophyllum	Bigleaf Maple
Aesculus californica	California Buckeye
Alnus rhombifolia	White Alder
Fraxinus dipetala	California Ash
Juglans californica	California Walnut
Juniperus californica	California Juniper
Lyonothamnus floribundus	Santa Cruz Islant Ironwood
Olea europaea	Olive Tree
Pinus edulis	Pinyon Pine
Populus fremontii	Fremont's Cottonwood
Prosopis glandulosa	Honey Mesquite
Prunus Spp.	Prunus
Quercus Spp.	Oak
Salix lasiolepis	Arroyo Willow
Sambucus Mexicana	Mexican Elderberry
Sequoia sempervirens	Coast Redwood
Torreya californica	California Nutmeg
Umbellularia californica	California Laurel

Firewise Trees

Arbutus menziesii	Pacific Madrone
Cercis occidentalis	Western Redbud
Quercus agrifolia	Coast Live Oak

Bioswale Trees

Platanus racemosa	California Sycamore
Chilopsis linearis	Desert Willow

SHRUBS

Abutilon palmeri	Palmer's abutilon
Adenostoma fasiculatum	Chamise
Agrostis pallens	San Diego Bentgrass
Amelanchier utahensis	Utah Service Berry
Aquilegia formosa	Crimson Columbine
Arctostaphylos Spp.	Manzanita
Caesalpinia gilliesii	Bird of Paradise Shrub
Calliandra eriophylla	Fairy Duster
Calycanthus occidentalis	Spice Bush
Carpenteria californica	Bush Anemone
Comarostaphylis diversifolia	Summer Holly
Ephedra californica	Mormon Tea
Ericameria nauseosa	Chamisa
Festica Spp.	Fescue
Forestiera pubescens	Stretchberry
Galvezia speciosa	Firecracker
Krascheninnikovia lanata	Winterfat
Larrea tridentata	Creosote Bush
Lepechinia calycina	Pitcher Sage
Lycium fremontii	Fremont's Desert Thorn
Rhamnus Spp.	Rhamnus
Rhus ovata	Sugar Bush
Ribes aureum	Golden Currant
Solidago californica	California Goldenrod
Woodwardia fimbriata	Giant Chainfern

Carpenteria californica

Adenostoma fasiculatum

Woodwardia fimbri

Amelanchier utahensis

Aquilegia Formosa

Ephedra californica

Galvezia speciosa

Caesalpinia gilliesii

Calliandra eriophylla

Calycanthus occidentalis

Solidago californica

Lycium fremontii

7.32 Plant Palette - Shrubs

Abronia villosa

Baileya multiradiata

Achillea millefolium

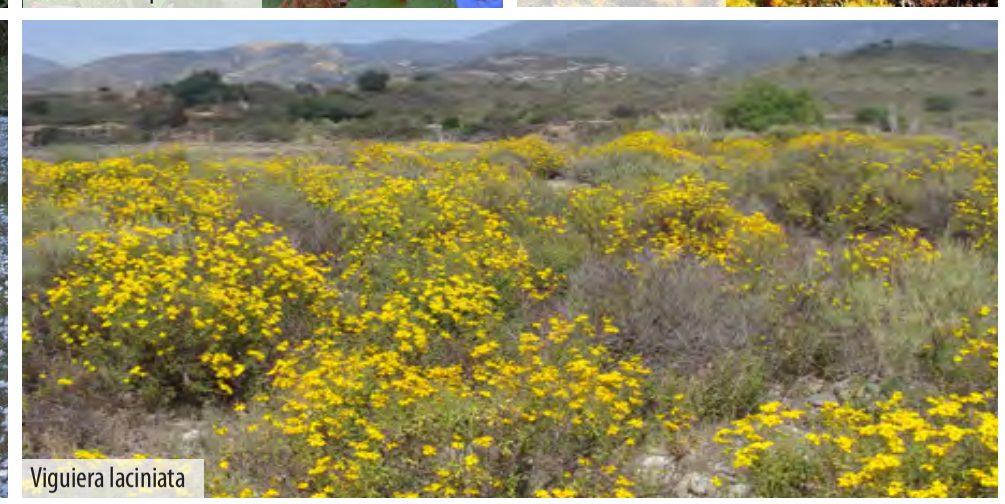
Lobelia cardinalis

Romneya coulteri

Phacelia campanularia

Ericameria laricifolia

Nemophila menziesii


Viguiera laciniata

7.33 Plant Palette - Wildflowers

WILDFLOWERS

Abronia villosa	Desert Sand Verbena
Achillea millefolium	Yarrow
Asclepias eriocarpa	Monarch Milkweed
Baileya multiradiata	Deserr Marigold
Coreopsis Spp.	Coreopsis
Calochortus clavatus	Clubhair Mariposa Lily
Datura wrightii	Sacred Datura
Delphinium cardinale	Scarlet larkspur
Dodecatheon clevelandii	Padre's Schooting Star
Ericameria laricifolia	Turpentine Bush
Eustoma exaltatum	Catchfly Prairie Gentian
Layia platyglossa	Tidy Tips
Linum lewisii	Blue Flax
Lobelia cardinalis	Cardinal Flower
Mirabilis multiflora	Colorado Four O'clock
Nama hispidum	Bristly Nama
Nemophila menziesii	Baby Blue Eyes
Oenothera caespitosa	Fragrant Evening Primrose
Phacelia campanularia	Desert Bells
Romneya coulteri	Matilija Poppy
Sisyrinchium bellum	Blue-Eyed Grass
Stanleya pinnata	Desert Princesplume
Viguiera laciniata	San Diego Sunflower

BIORENTENTION & GROUNDCOVER

Most planting not listed under the bioretention category may be used as regular landscape planting and around bioretention areas. Suitability of selected bioretention plants should be checked for use on the slope side or the bottom section. The bottom section plants would require that plants are suitable for occasional flooding much more than those on the sloped sections. A close coordination of design and location of bioretention areas with site civil engineering is needed to establish a final Low Impact Development strategy through planted swales. All bioretention planting may be used in regular landscape areas but careful consideration of their excessive water requirements should be reviewed.

Bioswale

Aristida purpurea	Purple Threeawm
Artemisia 'Powis Castle'	Wormwood Artemisia
Carex Spp.	Sedge
Deschampsia cespitosa	Tufted Hairgrass
Eleocharis Spp.	Common Spikerush
Epilobium densiflorum	Denseflower Willowherb
Heuchera Spp.	Alum Root
Hypericum anagalloides	Tinker's Penny
Juncus patens	California Gray Rush
Leymus condensatus	Canyon Prince Wild Rye
Mimulus Spp.	Scarlet Monkey Flower
Muhlenbergia rigens	Deer Grass
Myrica californica	Pacific Wax Myrtle
Venegasia carpesioides	Canyon Sunflower

Groundcover

Adiantum capillus-veneris	Southern Maidenhair Fern
Cotoneaster Spp.	Cotoneaster
Dudleya caespitosa	Coast Sudleya
Fragaria chiloensis	Sand Strawberry
Nassella pulchra	Purple Needlegrass
Phyla nodiflora	Lippia
Polystichum munitum	Western Sword Fern

7.34 Plant Palette - Bioretention and Groundcover

Anemopsis californica

Fremontodendron californicum

Epilobium canum

Encelia californica

Eschscholzia californica

Heteromeles arbutifolia

Heuchera Spp.

Lupinus Spp.

Symphoricarpos albus

Rosa californica

Opuntia x vaseyi

Mahonia aquifolium

7.35 Plant Palette - Firewise

FIREWISE

Anemopsis californica	Yerba Manza
Baccharis pilularis	Coyote Brush
Ceanothus sp.	California Lilac
Cercocarpus betuloides	Mountain Mahogany
Encelia californica	Coast Sunflower
Epilobium canum	California Fuchsia
Eschscholzia californica	California Poppy
Fremontodendron californicum	Flannel Bush
Heteromeles arbutifolia	Toyon
Heuchera Spp.	Coral Bells
Justicia californica	Chuparosa
Lupinus Spp.	Lupine
Mahonia aquifolium	Oregon Grape
Mimulus Spp.	Monkey-flower
Opuntia x vaseyi	Vasey's Prickly Pear
Rosa californica	California Wild Rose
Salvia Spp.	Sage
Symphoricarpos albus	Snowberry
Trichostema lanatum	Woolly Blue Curls

PLANTING ZONES

FRAMEWORK PLAN

The planting of natives that differentiate and define spaces is evident in the landscape plan. This focus on California natives is significant both aesthetically and sustainably, creating educational opportunities throughout the site and returning habitat to an ecologically valuable piece of land.

Protection from fire will be implemented through firewise planting methods, deterring or mitigating the effects of wildfire with the careful design and selection of plants. Bioswales and riparian vegetatio will promote the capture and filtration of water as it flows through the tributaries of the surrounding mountains and into the site, returning precious wat to the ground.

The use of an almost entirely native plant palette is bold in its cultural significance, making a visual statement that places the campus development of high importance on sustainability, and at the same time, advocating its subtle but crucial contribution t the healing and the reparation of the land.

SOUTHWEST TO NORTHWEST AND NORTHEAST TO SOUTHEAST OAK WOODLAND and mixed Chaparral Sagescrub recreate the Valley and Foothill Woodland ecology, establish a naturalistic character at the eastern and western site edges, and serve as a wind and fire break.

STRANDS OF RIPARIAN TREES ARE USED AT CANYONS WITHIN 30' - 300' OF THE CLEARANCE ZONE for fire modification beyond the northern most street trees with A foregound of groundcover and coastal sage scrub planting.

GROVES OF RIPARIAN TREES (FOR BIORETENTION) AND MEADOWS OF CALIFORNIA NATIVE WILDFLOWERS create a natural campus edge at Olive View Drive.

HIERARCHY OF TREE GROUPINGS BY COLOR, CANOPY, AND FORM create the strrecape identity, order, and general wayfinding throught vegetation.

7.36 Landscape Design Framework Plan

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

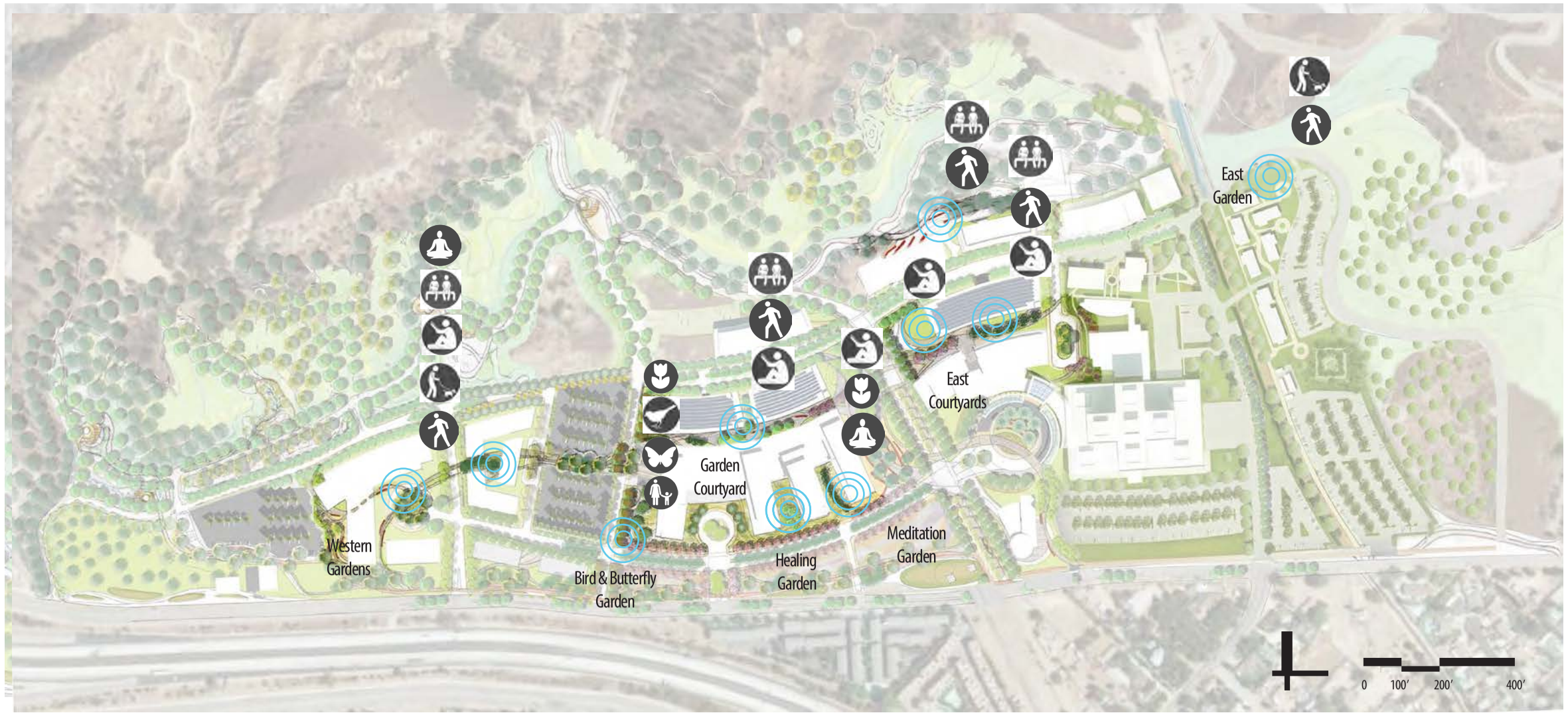
OPEN SPACE

PROGRAM/PLANTING ZONES

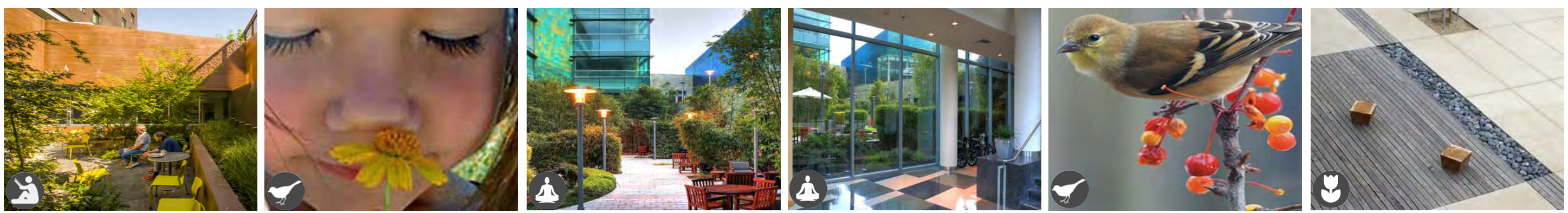
Healing Gardens

Courtyards and the connecting landscapes that tie them together are each unique telling their own story and creating a sense of place and atmosphere for the visitor.

People may gravitate to their favorite courtyard or discover new and compelling spaces as they return to explore the campus and it's collection of gardens, outdoor seating rooms, and community gathering spaces.



(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019



7.37 Open Space Program - Healing Gardens

PROGRAM/PLANTING ZONES

Community Open Spaces

The landscape façade of the campus is welcoming with vivid swaths of wildflowers that invite the community and visitors to the campus with their spectacular play of seasonal colors. Just as poppies, lavender, and sage invite birds and butterflies, they will also engage people as they enter the site, encouraging health, play, and recreation.

This zone contains a large section of bike, equestrian, and walking trails for community engagement.

Within healthcare amenities are opportunities for outdoor fitness, retail, and courtyard.

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

7.38 Open Space Program - Community Open Space

SMITHGROUP JJR

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

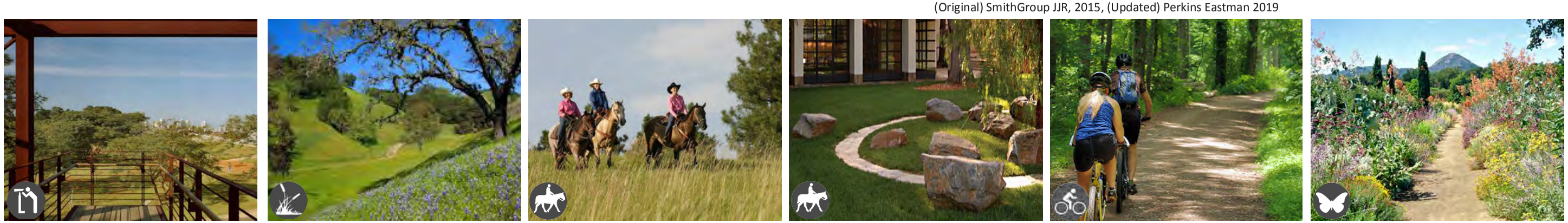
PROGRAM/PLANTING ZONES

Recreation and Restoration

Strong connections to the existing open space along with restored and revegetated native areas will heal the land and will also provide the community with access to a wilderness experience in their own neighborhood.

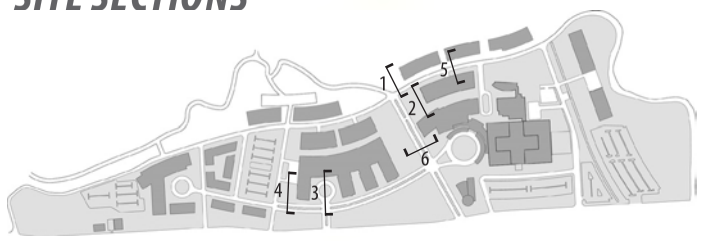
Ecological communities will return and natural habitats will flourish creating educational, recreational, and environmental value and integrity.

This zone addresses this connection by integrating firewise planting in the restoration of naturalized areas that surround the development.



7.39 Open Space Program - Recreation and Restoration

SITE SECTIONS



7.40 Key Plan

7.41 Site Section 1 - UCLA Research Courtyard

7.42 Site Section 2 - Ambulatory Western Gardens

SITE SECTIONS

7.43 Site Section 3 - Hospital Promenade and Drop-off

7.44 Site Section 4 - Bird and Butterfly Garden - West Emergency/Hospital

STREETSCAPE

7.45 Example of shared pathways

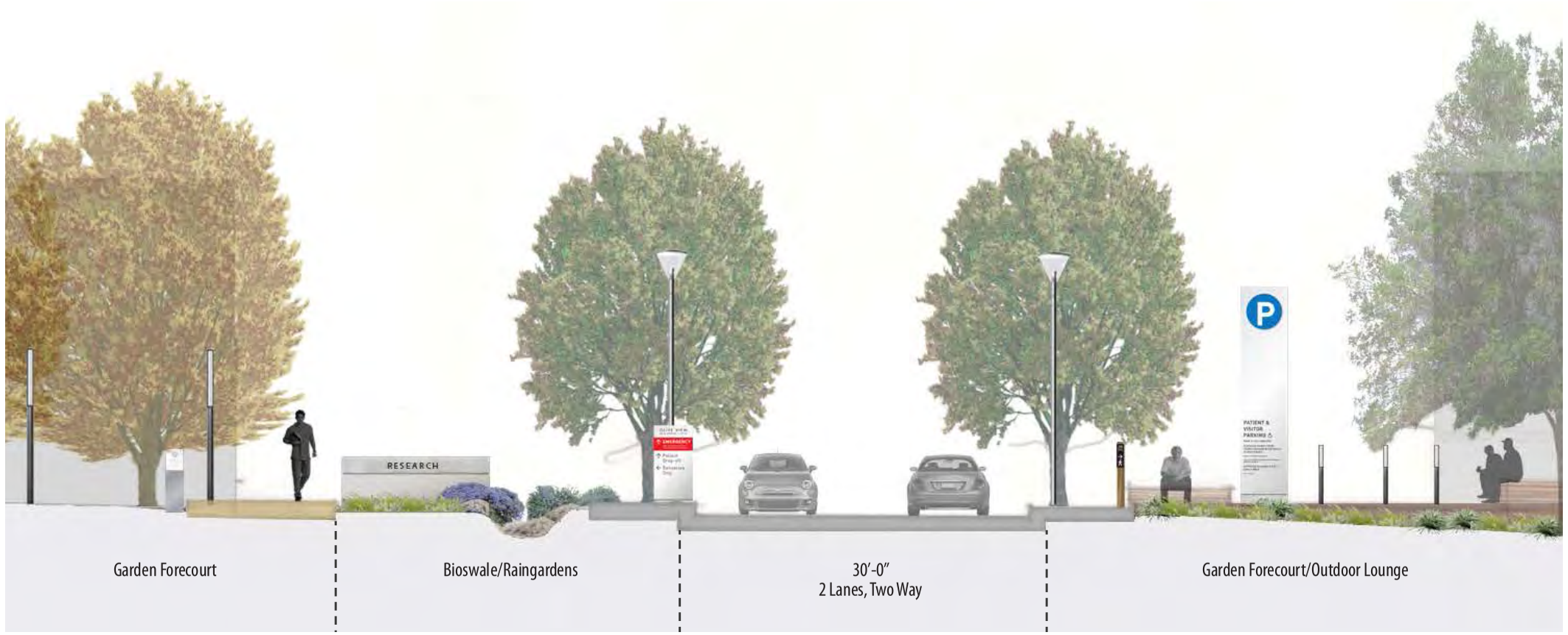
Important street intersections, vehicle drop-off zones should have larger scale planting including gateway trees and specific planting entry palettes for wayfinding and orientation.

Streetscape and pedestrian walkway planting should help define orientation to help pedestrian and vehicular recognition of a particular street, campus district, or public zones and community greens.

Streetscapes should demonstrate accommodation for various transit modes including bike access, pedestrian traffic while maintaining efficient vehicular traffic.

Design the streets with opportunities for leisurely walks and places for social encounter, casual conversations, or simple seating accommodations as pedestrians navigate the site.

Design streets for bike access with shared bike and vehicular travel lanes. Provide opportunities for dedicated bike trails for recreation and campus travel amenities.



7.46 Site Section 5 - Streetscape at UCLA Education and Research Zone

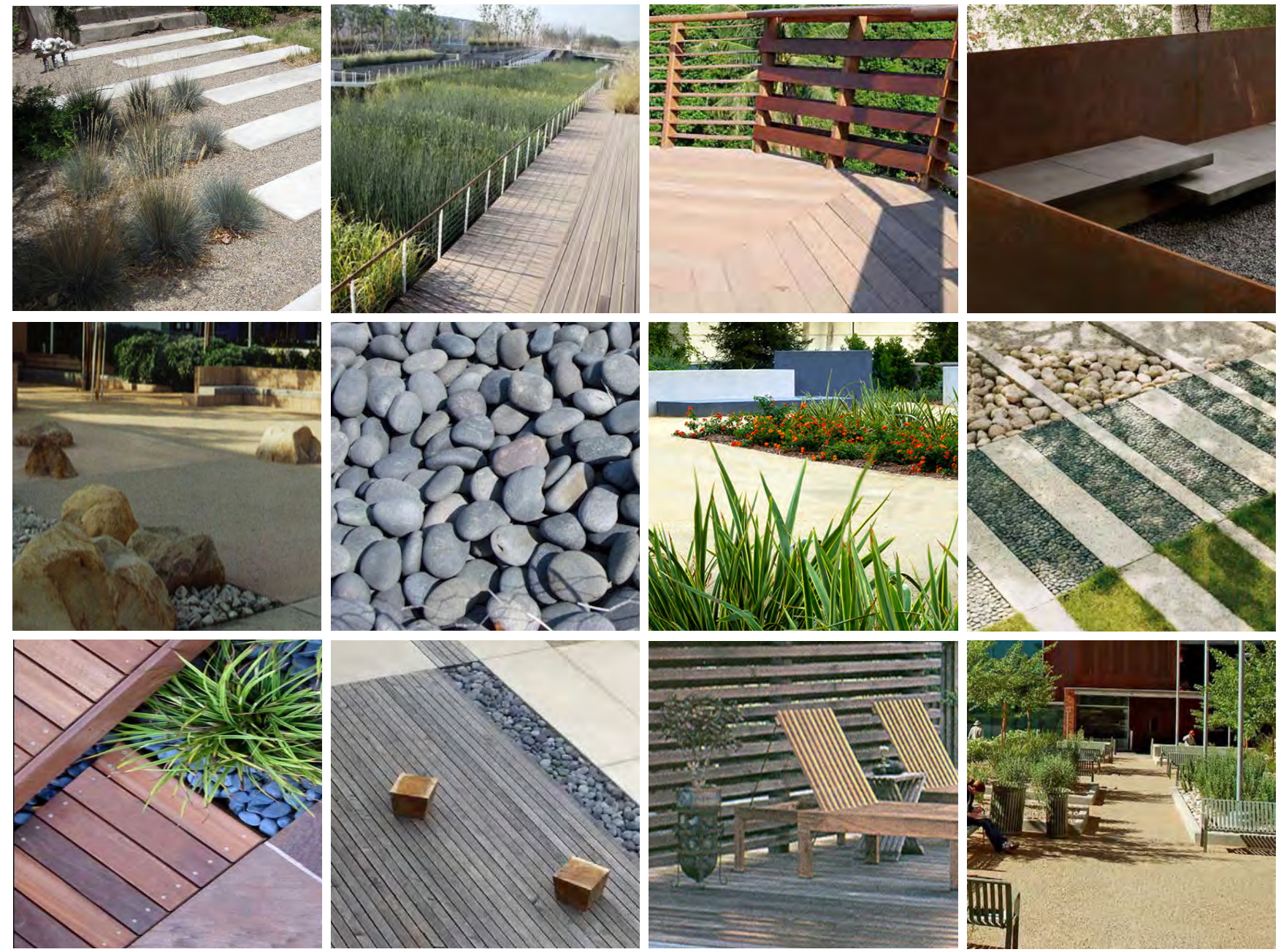
7.47 Site Section 6 - Streetscape at Campus Entry Drive

ACCEPTABLE HARDSCAPE MATERIALS

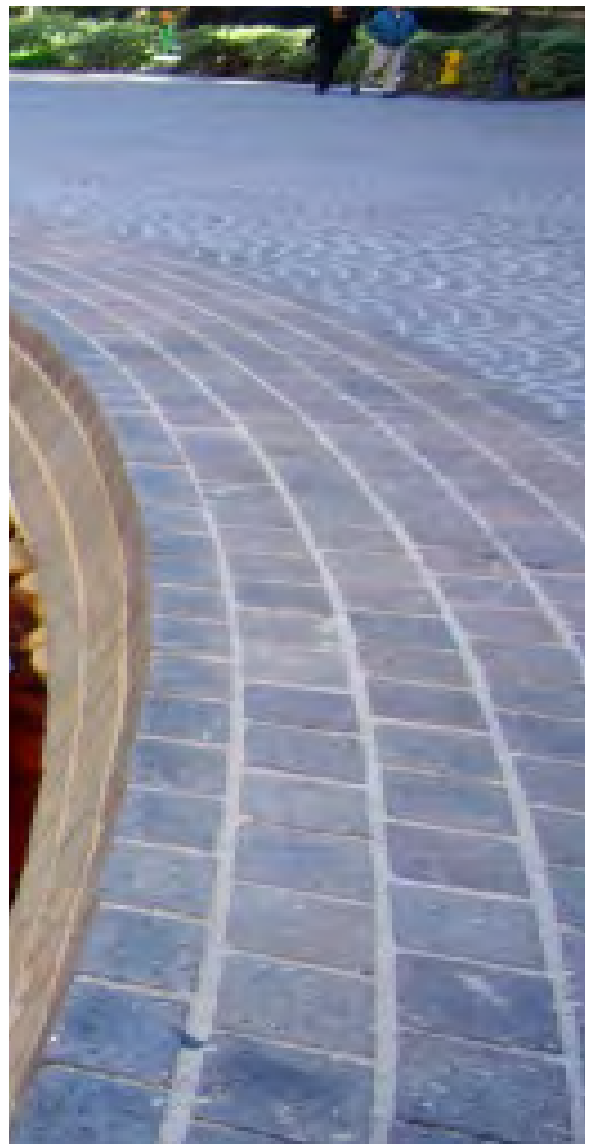
A palette of construction materials should be used which provide continuity and recognizable order in the landscape and which define a range of details in material refinement, texture and character relative to their aesthetic and functional intent, and adjacent to buildings or specific outdoor use zones.

Paved areas can draw from a broad range of materials, designs, and finishes that are complementary to the building architecture in terms of color, texture, and pattern.

Landscape forms including planting strips, hedge walls, fencing, green screens, raised planters, bermed planting, and retaining walls and sloped planting may also be used at elevation changes and for landscape buffers.



7.48 Hardscape Palette



7.49 Examples of Hardscape Materials

Allow for materials with higher reflectance index for open paved areas with limited tree shading.

Special paving is encouraged to provide visual interest and define entrance zones at driveways and access drives.

Decorative hardscape is highly encouraged to delineate pedestrian paths of travel and enhance gathering areas.

Existing site elements such as rocks and boulders may be used and organized within the landscape paving and composition of the outdoor space.

Allow sufficient permeable hardscape areas throughout the site that may be designed around paved areas.

Select durable hardscape materials, furnishings, signage and other features which withstand wear, abuse, climate, and vandalism.

LIGHTING GUIDELINES

INTRODUCTION

The overall goal of exterior site lighting guidelines for the Olive View - UCLA Medical Center is to create a unified experience as one travels through the campus, establishing organized zones of lighting language and treatments to assist with the campus identity as wells as wayfinding. This section covers the exterior lighting for the entire project site.

This document specifies illuminance levels and uniformity criteria and provides guidance on acceptable luminaire and lamp selections. Also included are general guidelines for creating a cohesive exterior lighting design. Refer to the electrical and landscaping sections for further information.

SITE LIGHTING GOALS AND GUIDELINES

Light will be utilized to create areas of visual hierarchy and interest. Unique lighting zones will be created with varying lighting approaches. In doing so, the site will become easier to navigate during nighttime hours.

Safety and Comfort

- Improve campus safety by utilizing high color rendering lamp sources for better visibility. Lighting sources should have a Color Rendering Index (CRI) of 80 or better.
- Add visual interest to the site including accentuating key landscape and architectural features.
- Improve consistency of lighting appearance by utilizing organized fixture families.
- Assist wayfinding by creating a visual hierarchy between different campus zones.
- Support staff and patron gathering with a welcoming environment in plazas and courtyards.
- Encourage unique lighting expressions in plaza and courtyard areas to create intimate spaces within the site.
- Differentiate primary pathways from outlying pathways to organize pedestrian traffic patterns on campus.

Sustainability

- Lighting systems shall be designed to comply with all applicable energy code requirements as well as the Green Guide for Heathcare and project energy goals. Additional lighting energy reduction should be pursued where practical.
- Utilize energy efficient lamp sources based on technology available at the time of specification.
- Minimize light tresspass, glare, and uplight as required; comply with Title 24 CalGreen BUG (Backlight Uplight Glare) ratings.
- Meet any additional energy efficiency and light pollution requirements based on applicable codes and standards including but not limited to Title 24, CalGreen, OSHPD, and LEED.
- Encourage use of fixtures powered by alternative energy sources as these technologies advance in terms of performance and affordability. For example, the use of solar powered light poles in remote areas (such as parking lots, roadways, and paths) would eliminate the need for trenching and wiring as well as power supplied by CONGEN. Such installations not only reduce long term energy costs, but provide immediate savings in terms of installation material and labor costs which should be considered when conducting Life Cycle Cost analyses.

Lamp / Luminaire

- LED technology shall be utilized as the primary lighting source. Energy efficient sources such as Linear Fluorescent, Induction, and Ceramic Metal Halide lamps are acceptable for specific applications when LED sources are not adequate in terms of performance, but as LED technology improves over time, more LED sources are to be utilized. Sources such as Incandescent, Halogen, Compact Fluorescent, and Low and High Pressure Sodium are not to be specified. As lighting technology evolves, other light sources with greater efficiency and lumen output may become available and should be considered.
- Where LED site lighting fixtures are used, those with field-replaceable modules should be used to reduce the cost of future replacements/maintenance.
- Provide a consistent and pleasant lighting appearance by utilizing sources with color temperatures (CCT) of 3000K to 3500K.
- Luminaires should coordinate with the aesthetics of the adjacent architectural and landscape elements.

Illuminance Guidelines

- Meet or exceed the lighting level and uniformity recommendations outlined in the following sections based on the Illuminating Engineering Society (IES) Handbook and all relevant IES Recommended Practice Guidelines.

Maintenance

- Minimize luminaire and lamp types to reduce spare stock requirements for maintenance.
- Reduce maintenance costs by utilizing long-life lamp sources. Minimum lamp life for the majority of luminaires should be 36,000 hours, with 50,000 minimum for LED's and 36,000 hour for linear fluorescent. Shorter life sources such as Ceramic Metal Halide should only be utilized if LED fixture cannot produce comparable lumen output.

Lighting Controls

- Exterior lighting control systems shall be comprised of photocells and programmable lighting controls either via local controls on fixtures or main lighting control system to provide time control of lighting as required based on program requirements and state and local energy code requirements.
- Occupancy sensors to be provided as required and for areas where reduced levels may be desirable, as long as there is no compromise to safety.

Product Requirements

- Light fixtures shall be commercial specification grade to ensure quality and performance and shall be assembled with components of new, good quality.
- Lamps shall be "high performance", and all linear fluorescent lamps shall be low mercury content. LED sources and attendant components such as heat sinks shall be mercury and lead free.
- LED luminaire manufacturera shall have a minimum of five (5) years experience in the manufacture and design of LED products and systems and no less than one hundred (100) North American installations. All peripheral devices and control software are to be provided by and shall be the responsibility of a single entity. All components shall perform successfully as a complete system. All parts of the system shall be replaceable in the field with a preference for third-party supported LED modules and systems.
- LED Luminaire assemblies shall include a method of dissipating heat so as to not degrade life of source, electronic equipment, or lenses. LED luminaire housing shall be designed to transfer heat from the LED board to the outside environment. Luminaire housing shall have no negative impact on life of components.
- LED manufacturers shall have performed photometric testing and provide upon request the Luminaire Efficacy (lm/W), total luminous flux (lumens), luminous intensity (candelas) chromaticity coordinates, CCT and CRI. optical performance, polar diagrams, and relevant luminance and illuminance photometric data.
- Painted finishes of fixtures and accessories shall be weatherproof enamel using proper primers or hot dipped galvanized and bonderized epoxy, in accordance with manufacturer's requirements. Unless otherwise specified, all painted surfaces shall have a life expectancy of not less than twenty years.
- Fixtures shall have a minimum IP rating depending on installation conditions as noted:
  - Fixtures installed under a canopy (fixture distance greater than 12" from edge of canopy): IP55
  - Fixtures directly exposed to exterior or closer than 12" from edge of canopy: IP65
  - Submersible/Underwater Fixtures: IP68
- All uplight fixtures (surface or in-grade) or fixtures that directly illuminate pedestrian or vehicle areas shall include glare control options such as glare shields, louvers, and lenses.
- All external openings in fixture assemblies and fixture lenses shall be gasketed to prevent moisture and dust intrusion.
- Remote components such as drivers, power supplies, and/or transformers shall be installed in NEMA 4X enclosures. NEMA enclosures may be surface mounted if installed out of public view, or flush grade within view. Ventilation/Airflow within NEMA enclosure must be provided per manufacturer specifications to ensure proper functioning of system.
- Fixtures and component enclosures shall have wire mesh corrosion resistant screens over any vent holes. Mesh to be properly sized to prevent incursion of insects, small animals, and/or debris such as leaves or lawn clippings.
- Stainless steel hardware is preferred. Ferrous/ aluminum mounting hardware and accessories shall be finished appropriately to prevent corrosion and discoloration of adjacent materials.
- Glass lenses shall be heat tempered glass to mitigate breakage and thermal shock
- Acrylic/ Polycarbonate lenses shall be UV stabilized and of the appropriate thickness to prevent damage from vandalism.
- Color changing LED luminaires shall utilize an equal combination of individually colored or tri or quad chip technology and shall be capable of at least 8-bit control.
- All fixtures shall comply with campus wind load criteria and overhead safety requirements. Fixtures and proposed mounting to be reviewed and approved by a licensed structural engineer prior to installation.
- Footings are required for all fixtures mounted to grade. In the case of poles, footing details are to be developed by licensed structural engineer; footings/ pads for bollards and surface mounted accent fixtures may be developed by the architect or structural engineer.

SPECIFIC FIXTURE FAMILIES

Light Poles

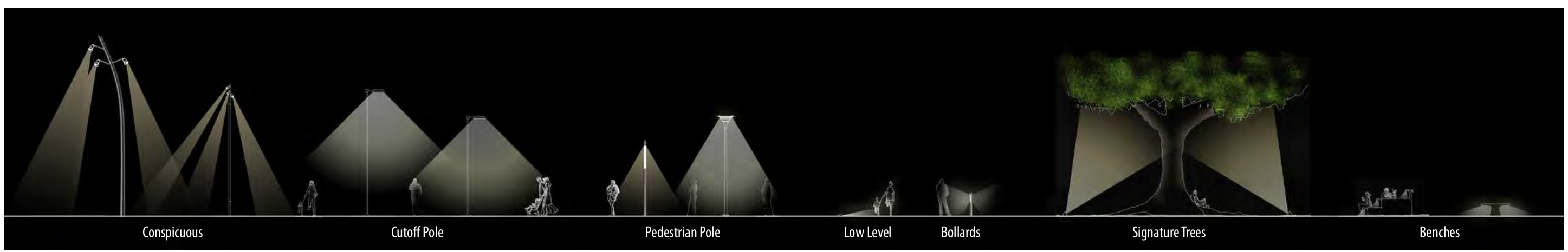
- Light poles shall provide illumination not only on grade surface, but also illuminate approaching pedestrians and/or vehicles to enhance safety, visual acuity, and wayfinding.
- Poles shall be aluminum rather than steel or iron.
- Poles shall be provided with tilting bases when less than 18 feet tall for ease of maintenance.
- Pull boxes shall be installed adjacent to poles and mounted towards the back side of pole out of public view whenever possible.
- Wind load calculations for pole with light fixtures and all other attendant elements (such as security cameras and banners) to be performed by the pole manufacturer/ structural engineering to ensure that pole assembly meets campus wind load criteria.
- Concrete footing to be provided to ensure that fixture remains level and secure. In landscape areas, footing is to elevate the fixture base slightly above grade to prevent damage from landscape maintenance and corrosion.
- Minimum 3-foot tall concrete plinths shall be utilized in open parking lots and roof decks; plinth detail to be reviewed and approved by licensed structural engineer based on wind load calculations of pole with fixtures and all other components fixed to pole included.
- Adjustable fixtures mounted to poles shall include positive aiming and locking devices to secure fixture focus. Final aiming angle of fixture shall be indicated with small tick marks or similar marking to allow fixture focus to be restored by campus staff after Maintenance or lamp replacement.
- Label with installed fixture information (such as type number, lamping, circuit number) shall be prominent on top of remote devices' NEMA box lids.
- House side shields are to be utilized for all fixtures adjacent to reserve or residential community areas.

Bollards

- Bollards shall provide illumination not only on grade surface, but also illuminate approaching pedestrians and/or vehicles to enhance safety, visual acuity, and wayfinding.
- Light source to be regressed or shielded from direct view by glare control options such as lens, louvers, and glare shields.
- Concrete footing to be provided to ensure that fixture remains level and secure and to prevent removal or settling of fixture in softscape.
- In instances where vehicle-impact rated bollards are required, bollards shall be a minimum K4 rating, and bollards footing shall be detailed, furnished, and installed by project based on manufacturers recommendations. Footing detail to be reviewed and approved by licensed structural engineer.
- Pull boxes shall be installed adjacent to bollards and mounted towards the back side of pole out of public view whenever possible.

In-grade Accent, Wall Wash, and Marker Lights

- In-grade fixtures are to be used only judiciously and sparingly, and only in paved/ hardscape or lawn areas. Installations must be executed in accordance with manufacturer's installation requirements.
- Project shall provide drainage (such as pea gravel or physical drains) in accordance with manufacturer's installation requirements and be coordinated with the landscape design.
- Internal glare control and/or frosted lenses shall be provided in all fixtures when direct view into fixtures is possible.
- Fixtures shall include anti-slip and heat reduction lenses in pedestrian areas.
- Rock guards to be provided for fixtures in non-pedestrian areas.
- Fixtures shall be drive-over rated vehicular traffic areas, including areas where maintenance lifts might be utilized.
- If fixture is integrated in a tree grate, fixture trim shall be secured to grate and flush with the top of grate.



7.50 Examples of different types of lighting fixtures

Surface-grade Accent Lights

- Surface fixtures may be installed in non-pedestrian, non-vehicular areas only.
- Fixtures shall be mounted on concrete base/pad to ensure that fixture remains level and secure and to prevent removal or settling of fixture in softscape. Pad is to elevate the fixture base slightly above grade to prevent damage from landscape maintenance and corrosion.
- Fixtures shall be specified with glare control options such as lens, louvers, and glare shields.
- Surface fixtures within reach must be LED and cool to the touch.
- Pull boxes shall be installed proximal to fixtures and mounted out of public view whenever possible.

Underwater/Submersible Fixtures

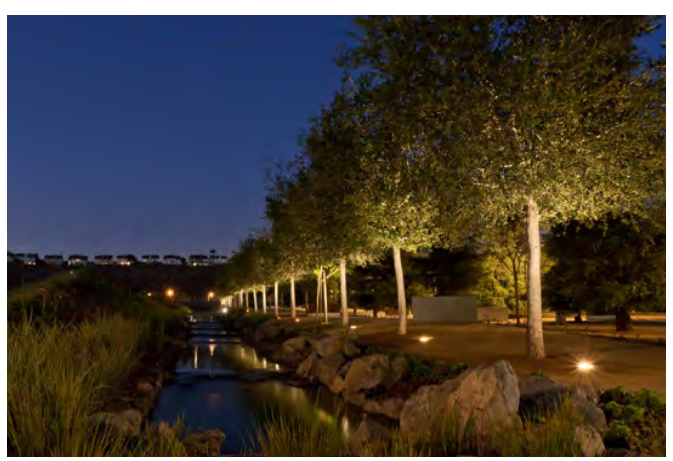
- Fixture cables shall be of sufficient length to allow fixtures to be removed from water for maintenance.
- Fixtures shall be low voltage and have temperature sensing low water cut-off standard for safety.
- Fixtures shall be made of non-corroding materials, such as cast bronze, nickel plated brass, nickel plated copper, stainless steel, or polycarbonate.
- Fixture lens shall be heat-resistant tempered glass lens and gasketed to prevent water intrusion.
- Adjustable fixtures to include lockable mounting hardware to secure fixture aiming.
- All junction boxes used in water are to be submersible grade and potted as required to prevent water intrusion.
- All cabling used in water to be submersible grade.
- All underwater fixture circuits to be protected by GFIs.
- Remote drivers/transformers shall be installed in in-grade NEMA boxes in landscape areas or surface mounted out of public view.

Tree Mounted Fixtures

- Rigid conduit shall stub up at base of tree and continue circuiting up the tree with neutral color liquid-tight flexible conduit supported to tree by non-invasive methods such as straps or cable ties. Openings in rigid conduit to be sealed/ gasketed to prevent water intrusion.
- Fixtures shall be mounted to tree with soft, preferably self-expanding straps, or with adjustable tree rings. In no circumstances shall fixtures be bolted or clamped to trees. Campus to review and approve mounting methods and devices prior to installation.
- Pendant mounted fixtures to be suspended from tree limbs by aircraft cable. Cable to be run through neoprene sleeves where cable makes contact with tree limb. Suspension loop around limb to be of sufficient diameter to allow for tree growth.
- Tree mounted fixtures shall be provided with 6 feet of excess cable to allow for fixture adjustment as tree grows.
- Pull boxes shall be installed proximal to fixtures and mounted out of public view whenever possible.

Steplights

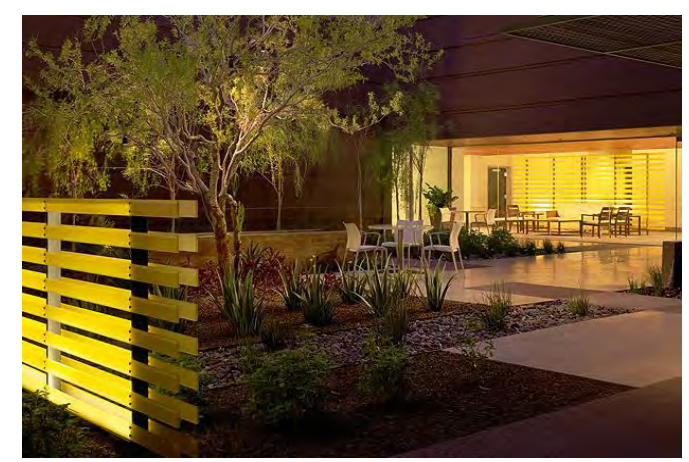
- Blocking shall be provided as required to adequately support fixture. Housings shall be secured in structure to prevent sagging or displacement.
- Fixture faceplate shall be made of non-corroding materials, such as powder coated aluminum or steel, bronze, brass, stainless steel, or polycarbonate to prevent rust streaking/ staining on vertical wall surfaces.
- Lenses to be impact resistant and fixture trims and frames to include vandal-proof hardware.
- In the case of surface mounted steplights, concrete pad or footing to be provided to ensure that fixture remains level and secure and to prevent removal or settling of fixture in softscape.



7.51 Example of tree uplights

7.52 Example of light poles

7.53 Example of using interior and exterior lighting



7.54 Example of lighting at garden spaces

SPECIFIC FIXTURE FAMILIES

Surface Wall Mounted Fixtures

- Fixture shall be provided with glare control accessories to mitigate glare in the case of direct view into fixture.
- Blocking to be provided as required to adequately support fixture and fixtures are be mounted with a minimum of (2) points of connection to ensure that fixtures remain level. Fixtures in excess of 5 lbs. are not to be mounted directly to junction boxes for support.
- Larger fixtures or fixtures that project beyond 12" from face of wall are to include cantilevered mounting brackets and/or safety cable mounted to independent support. Safety cable to be installed within fixture arms or mounting brackets out of public view. Mounting and installation of all such fixtures to be reviewed and approved by licensed structural engineer.

Pendants/ Ceiling Mounted Fixtures

- All pendants shall be mounted per applicable seismic codes and campus overhead safety requirements.
- Fixture shall include aircraft-grade safety cable; cable to be mounted within fixture stem out of view whenever possible. Safety cable specification and cable mounting details to be determined/ approved by structural engineering.
- To mitigate fixture maintenance issues in high ceiling or difficult to access areas, lowering system approved by structural/electrical engineer may be considered. Campus to review and approve any lowering systems prior to installation.
- Globes or shrouds shall be provided with safety cables if they must be removed in order to maintain or relamp fixture.
- In the case of festoon fixtures, fixtures are to be suspended/ supported from aircraft grade catenary cable rather than electrical cable. Catenary cable specification and cable mounting details to be reviewed and approved by licensed structural engineer.

Linear Accent/ Cove Fixtures

- All fixtures must be safely accessible either from façade, roof, or lift/ ladder.
- If coves are exposed, weep holes and/or other water evacuation devices to be provided so fixtures do not become submersed in cove.
- Fixtures to be secured against normal vibrations and maintenance handling.

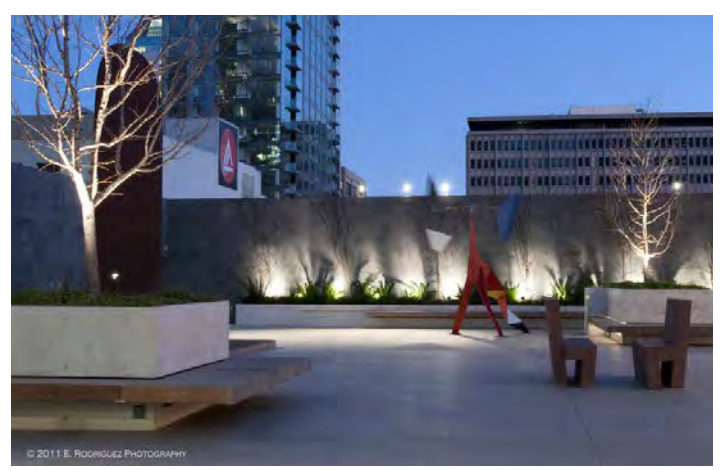
Internally Illuminated Light Boxes

- Light boxes shall be fully gasketed to prevent water, moisture, and dust intrusion.
- Translucent lenses shall be UV stabilized and the appropriate thickness to prevent damage from vandalism when the light box is within reach.
- Light box shall be accessible for proper maintenance.
- Ventilation to be provided as required to ensure proper fixture performance and lamp life.

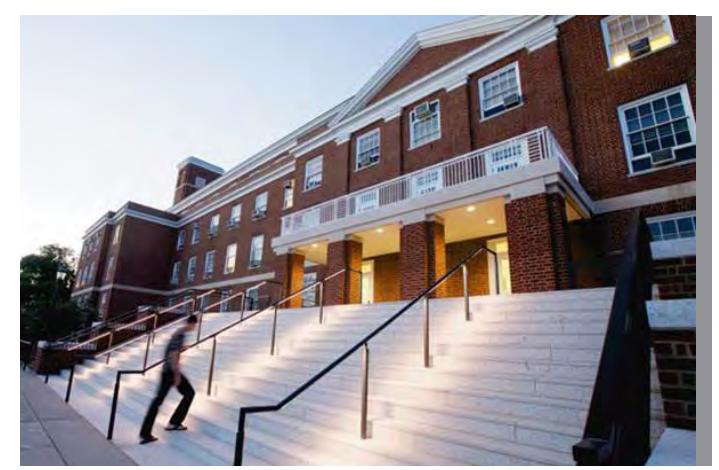
Fiber Optic Lighting

- Fiber Optic Illuminators shall be mounted in an accessible location.
- If illuminators are installed in NEMA 4X enclosures, proper ventilation/airflow must be provided as per manufacturer's specifications to ensure proper functioning of system.
- Fiber to be installed in such a way as to prevent damage to cables under normal conditions over time.
- Fiber fixtures to be sealed against water intrusion.

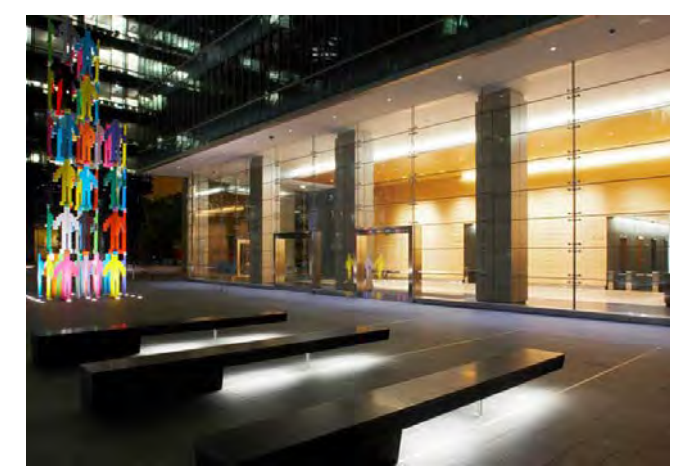
7.55 Example of lighting at parks



7.56 Example of art lighting and bench lighting



7.57 Example of building entrance lighting

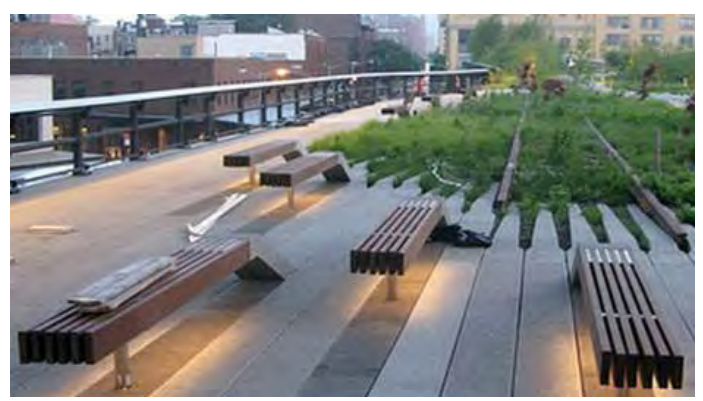


7.58 Example of exterior and interior illumination

Bollards

7.59 Examples of bollard lights

Underbench Lighting



7.60 Examples of bench lights

Step Lights

7.61 Examples of step lights

Handrail Lighting

7.62 Examples of handrail lights

Direct Light

7.63 Examples of direct lights

Light Columns

7.64 Examples of light columns

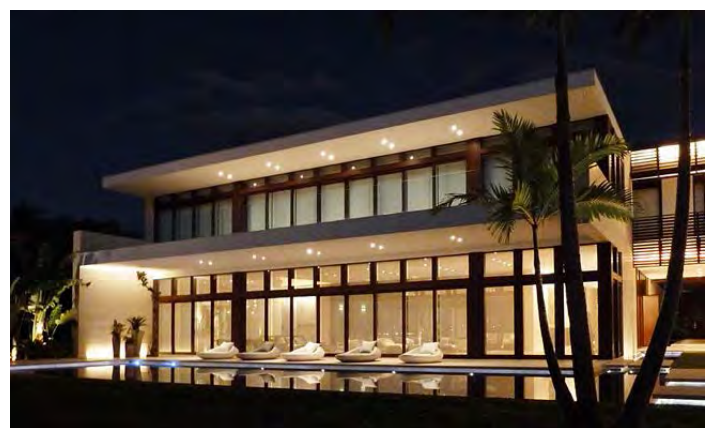
Indirect Light

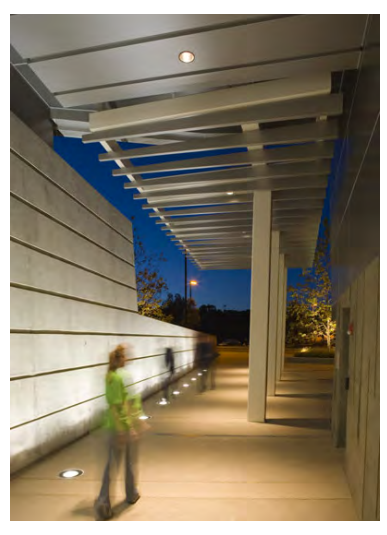
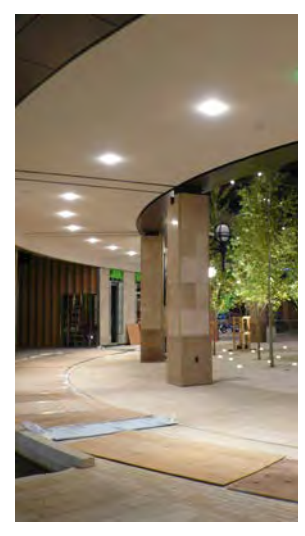
7.65 Examples of indirect lights

Iconic Light Pole

7.66 Example of iconic lights

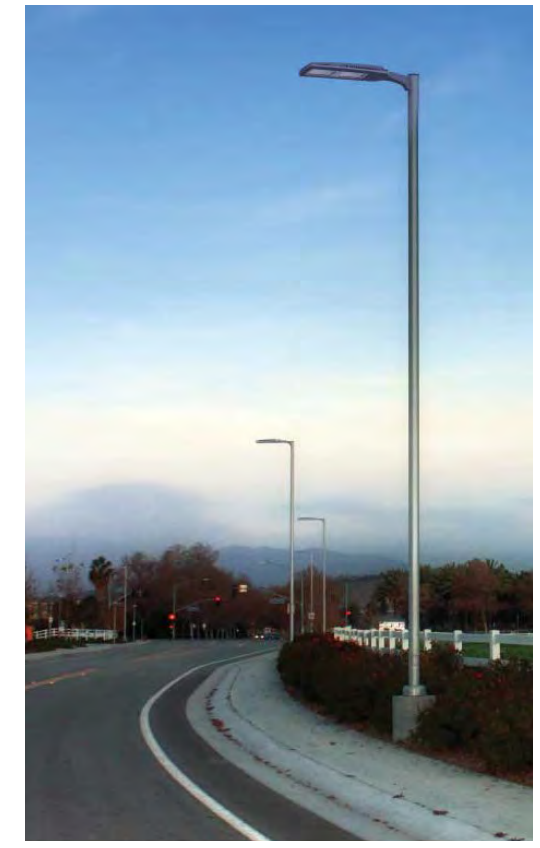
Building Entry Lighting

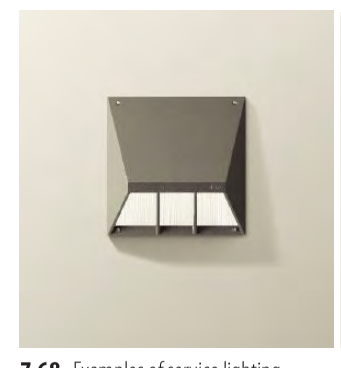


7.67 Examples of building entry lighting

Loading Dock and Service Facility Lighting



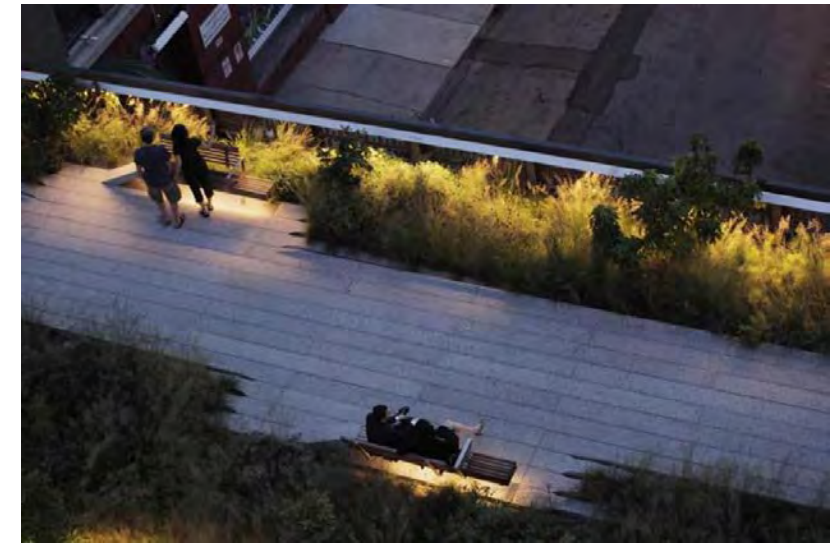


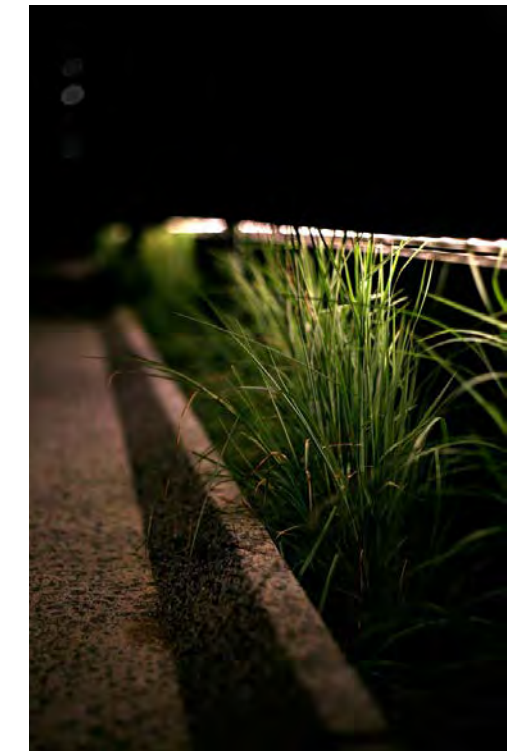
7.68 Examples of service lighting

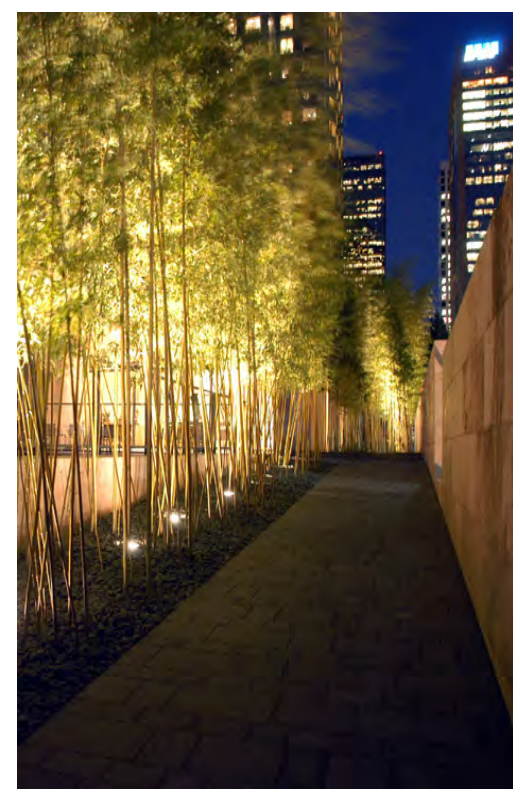
Tree Lighting

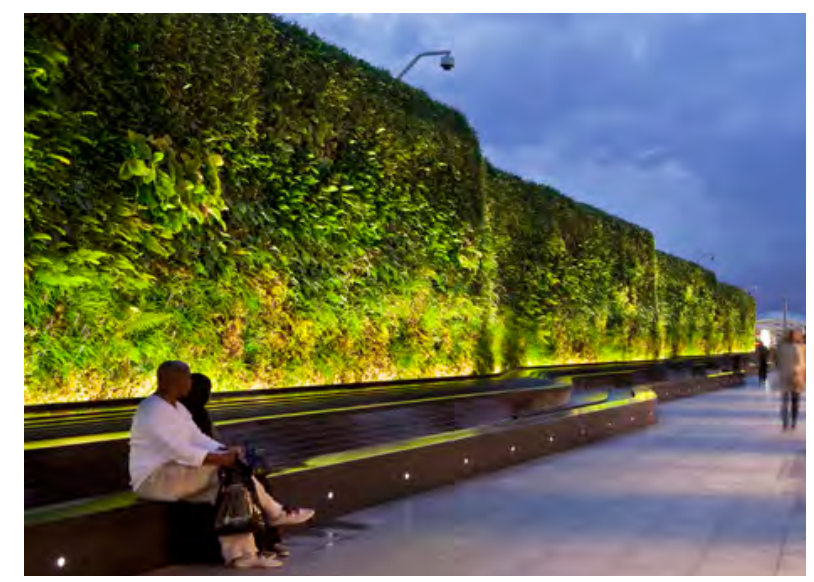
7.69 Examples of tree lighting

Garden Lighting









7.70 Examples of garden lighting

Gateway Signage Lighting

7.71 Examples of gateway signage lighting

Field Lighting

7.72 Examples of field lighting

Pathway Lights

7.73 Examples of pathway lights

Sculpture/Art Lighting

7.74 Examples of art lighting

SIGNAGE GUIDELINES

INTRODUCTION

Guidelines have been developed for the exterior signage at the Olive View - UCLA Medical Center. The intent of this sign program is to identify the site, buildings, and parking facilities, and to provide directional information to patients, visitors, and staff.

These guidelines describe the family of sign types and outline the intent of each sign. Suggested messages have been provided as well as recommended materials and sizes. The goal is to have a sign program that integrates with the project master plan, works with the landscape and hardscape elements, and relates to the architectural vocabulary to create a seamless and intuitive experience for the visitor.

GRAPHIC STANDARDS

Typography

FONT: DIN BOLD

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

FONT: DIN MEDIUM

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

FONT: DIN REGULAR

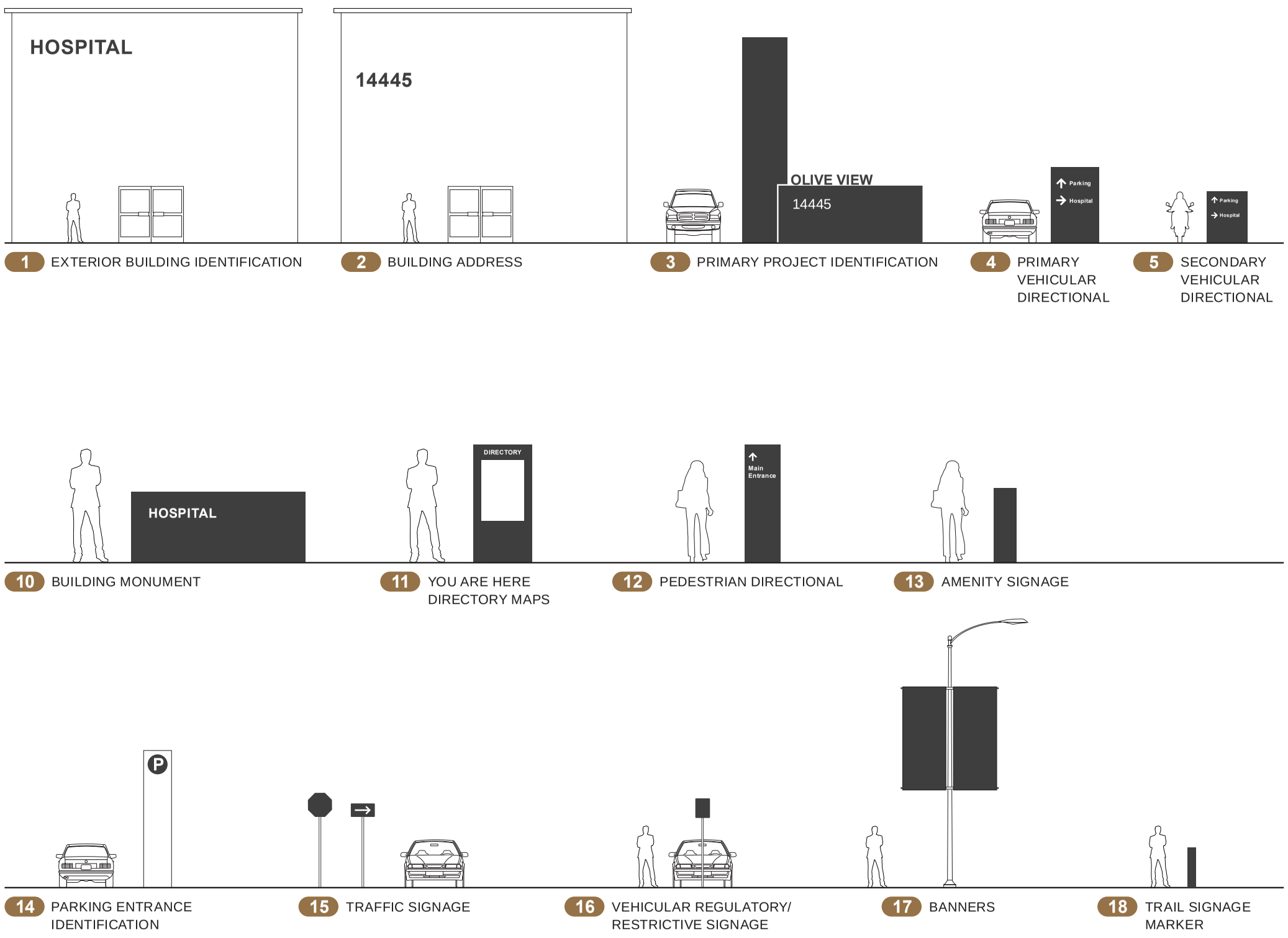
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789

7.75 Graphic Standards

Logo

OLIVE VIEW
UCLA MEDICAL CENTER

EXTERIOR SIGN TYPES



7.76 Exterior Sign Types

SIGNAGE LOCATION PLAN

7.77 Signage Location Site Plan

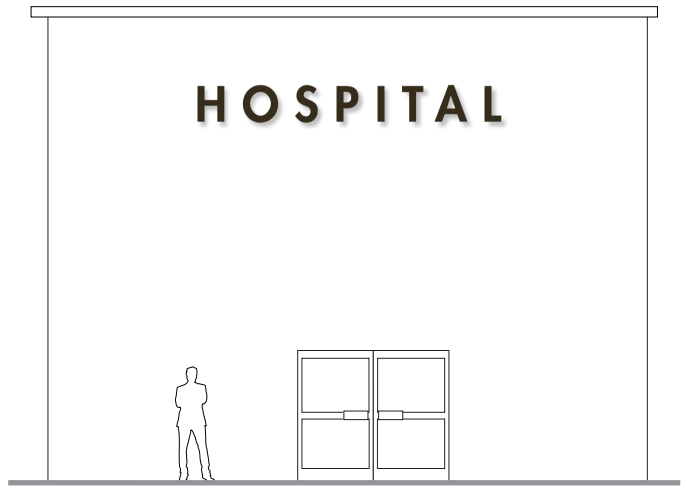
(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

EXTERIOR BUILDING IDENTIFICATION

The project name and branding identification will be displayed on the exterior of the building as dictated by the local codes and architectural conditions. These signs will be located so as to maximize visibility to local traffic and will be Illuminated as required by local codes.

Sign color should contrast with building background condition.

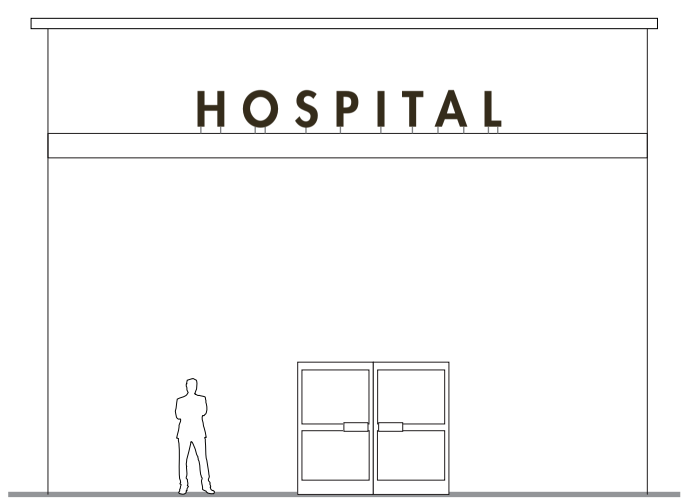
Sign shall be fabricated aluminum with either external, or halo-illuminated.



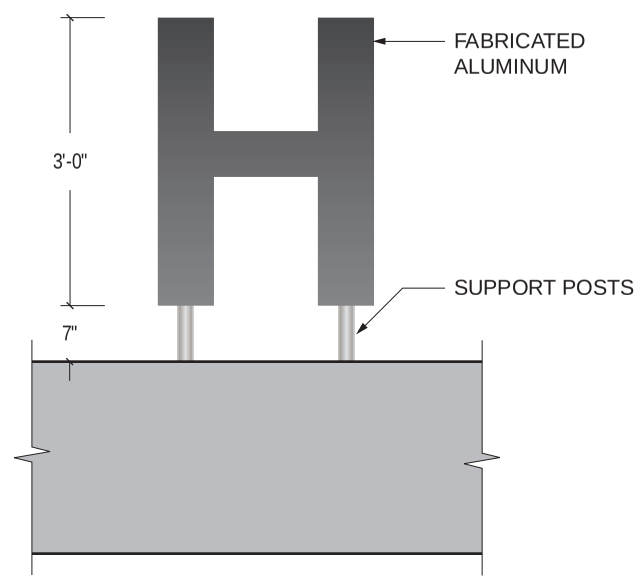
5 CONTEXT ELEVATION
SCALE: NTS

7.78 Example of Exterior Building Signage

7.79 Example of Exterior Building Signage

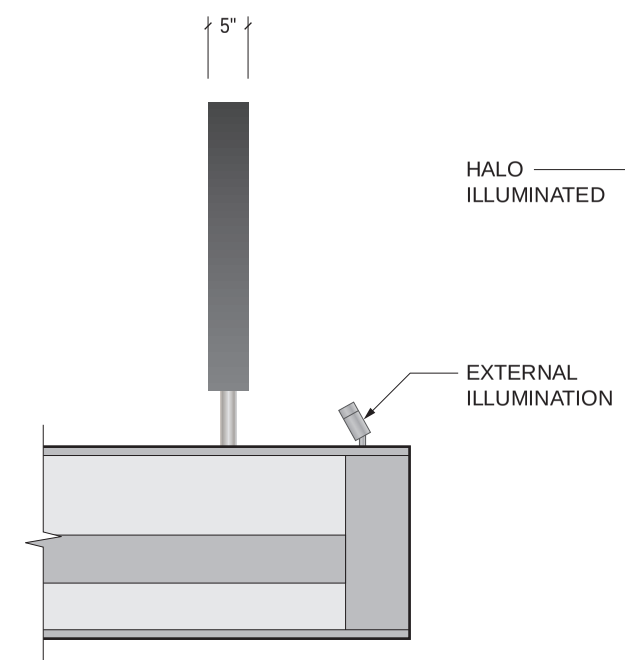


4 CONTEXT ELEVATION
SCALE: NTS

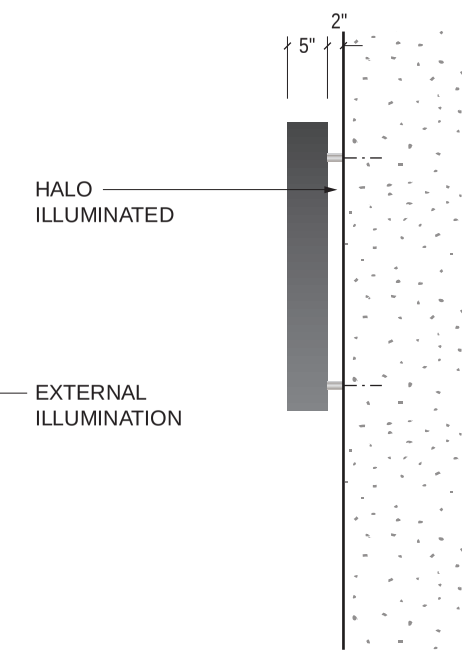


CANOPY MOUNT - FREESTANDING

1 EXTERIOR BUILDING IDENTIFICATION
SCALE: 1/2"=1'-0"



2 SIDE VIEW - FREESTANDING
SCALE: 1/2"=1'-0"



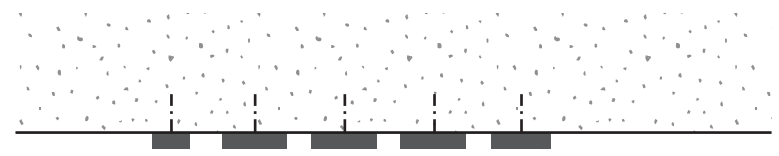
3 SIDE VIEW - WALL MOUNT
SCALE: 1/2"=1'-0"

7.80 Exterior Building Identification Sign Types

BUILDING ADDRESS

The project building address will be displayed on the exterior of the building as dictated by local codes with respect to location, size, and illumination methods.

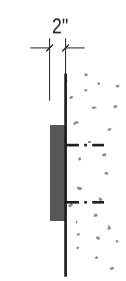
- Sign shall be located with sensitivity to architectural features and details.
- Sign shall be fabricated aluminum with a painted finish or made from stainless steel.
- Halo illumination or exterior illumination is preferred.



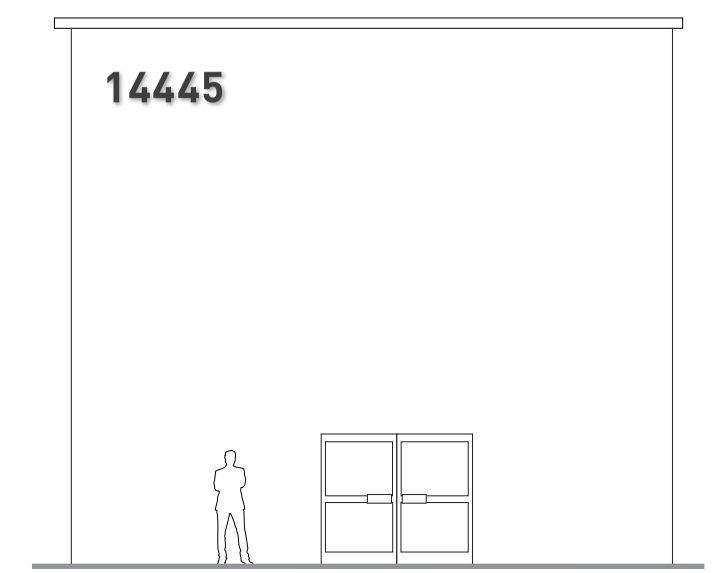
3 TOP VIEW

2 BUILDING ADDRESS

SCALE: 1/2"=1'-0"



2 SIDE VIEW



4 CONTEXT ELEVATION

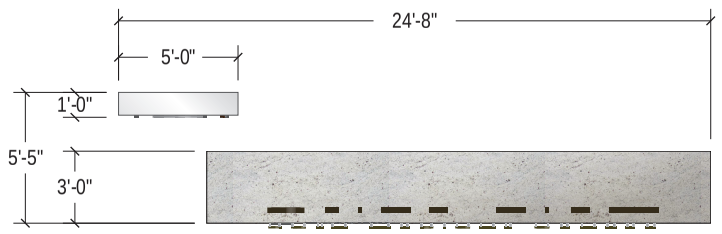
7.81 Exterior Building Address Sign

PRIMARY PROJECT IDENTIFICATION

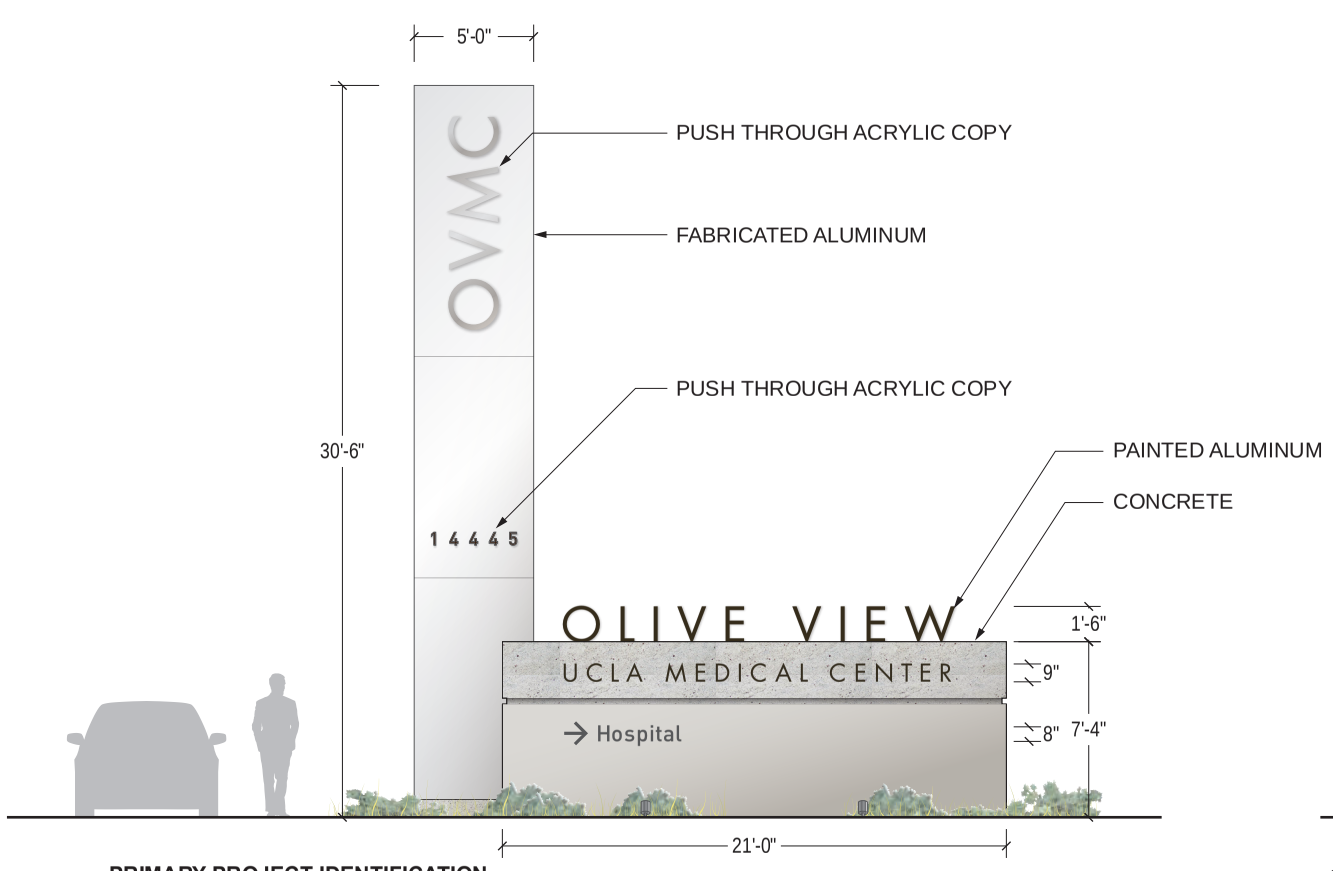
A monument sign will be located at the entrance to the site. It will contain the project name, any applicable branding identification elements, the project address, and key directional information. The sign will be illuminated, either internally or with an external light source.

Sign will incorporate elements and materials related to the projects architectural standards. A variety of materials are suggested: concrete, stainless steel, fabricated aluminum.

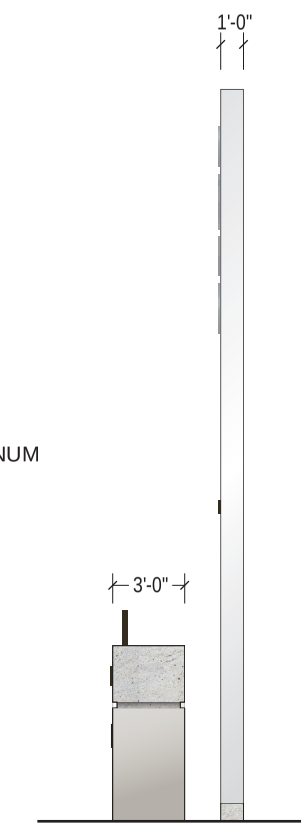
Sign shall be incorporated into the landscape / hardscape design.



3 TOP VIEW
SCALE: 1/8"=1'-0"



3 PRIMARY PROJECT IDENTIFICATION
SCALE: 1/8"=1'-0"



2 SIDE VIEW
SCALE: 1/8"=1'-0"

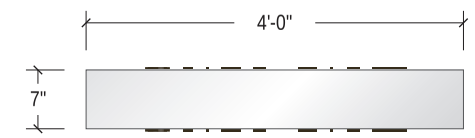
7.82 Monument Sign

PRIMARY VEHICULAR DIRECTIONAL

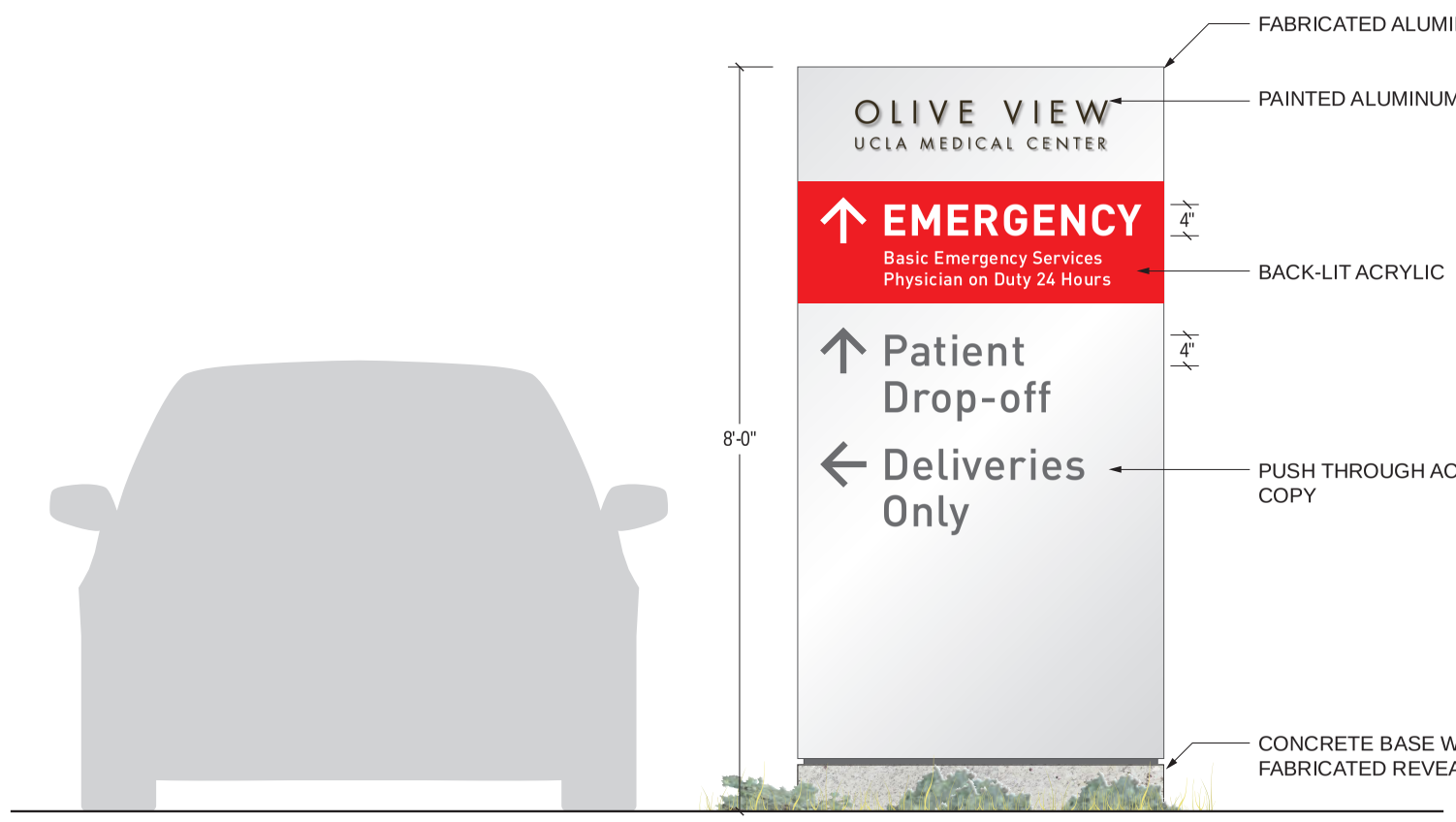
Signs will be located within the site to provide directional information for vehicular traffic. These will be large monument signs and display a list of key destinations with directional arrows. Branding elements, graphic devices, and project colors will be incorporated into this sign type.

Sign shall be fabricated aluminum and internally illuminated with routed and push through copy. Sign shall set upon a concrete base.

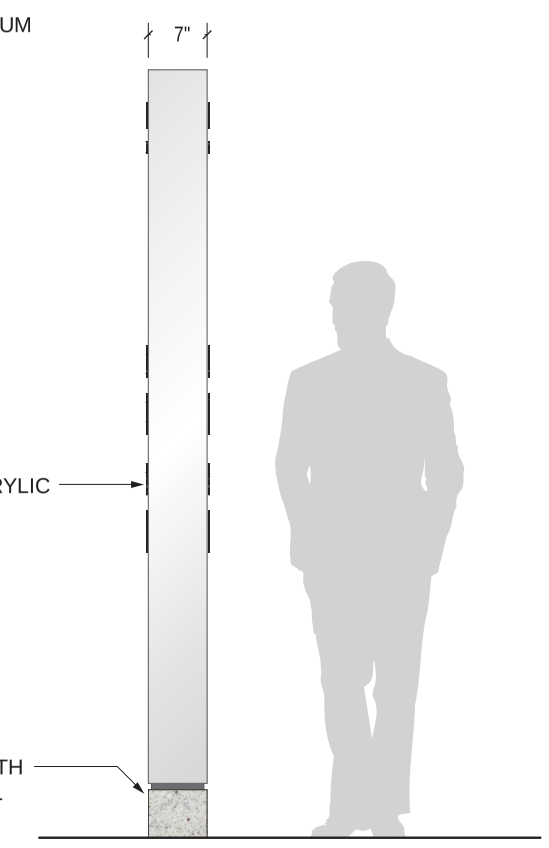
NIGHT VIEW



3 **TOP VIEW**
SCALE: 1/2"=1'-0"



4 **PRIMARY VEHICULAR DIRECTIONAL**
SCALE: 1/2"=1'-0"



2 **SIDE VIEW**
SCALE: 1/2"=1'-0"

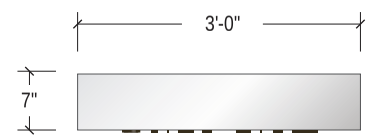
7.83 Primary Vehicle Sign

SMITHGROUP JJR

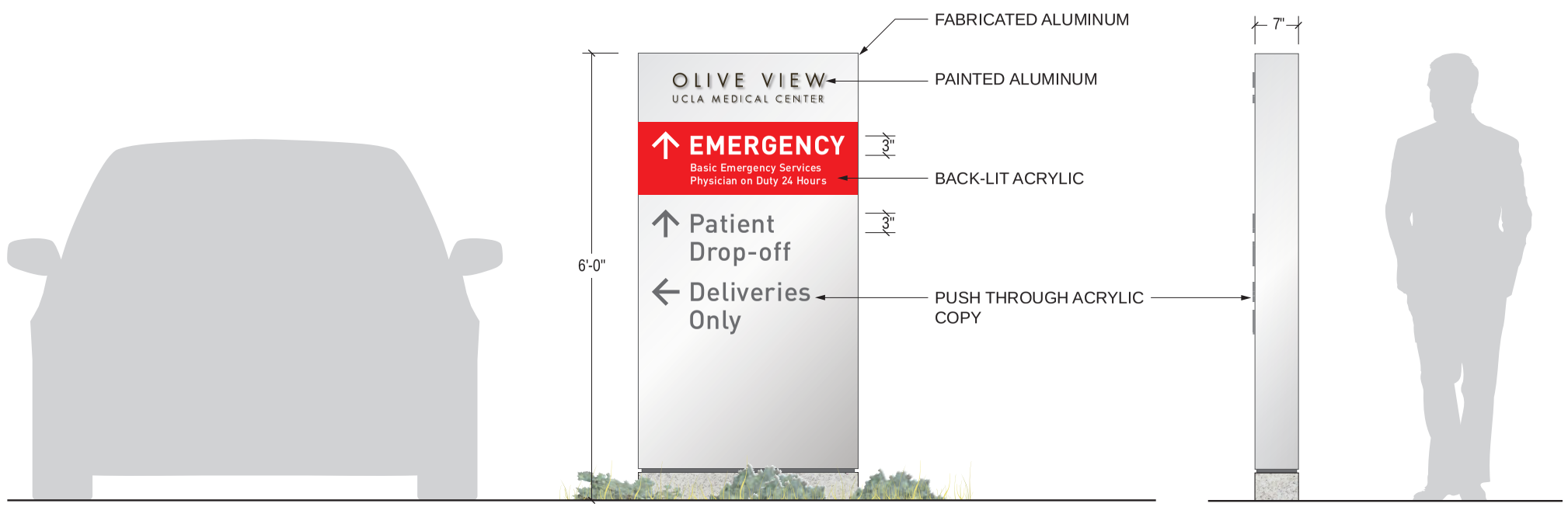
SECONDARY VEHICULAR DIRECTIONAL

Signs will be located within the site to provide directional information for vehicular traffic. These will be medium monument signs and display a list of key destinations with directional arrows. Branding elements, graphic devices, and project colors will be incorporated into this sign type.

Sign shall be fabricated aluminum and internally illuminated with routed and push through copy. Sign shall set upon a concrete base.



3 **TOP VIEW**
SCALE: 1/2"=1'-0"



5 **SECONDARY VEHICULAR DIRECTIONAL**
SCALE: 1/2"=1'-0"

2 **SIDE VIEW**
SCALE: 1/2"=1'-0"

7.84 Secondary Vehicle Sign

BUILDING MONUMENT

These signs will identify buildings within the site. They will be horizontal in format and contain the building name. These signs will be illuminated either internally or externally. They will be either fabricated aluminum cabinets, or concrete monuments with applied dimensional copy.

Signs will be located near the building entrance and be incorporated into landscape or hardscape conditions.

10 BUILDING MONUMENT
SCALE: 3/8"=1'-0"

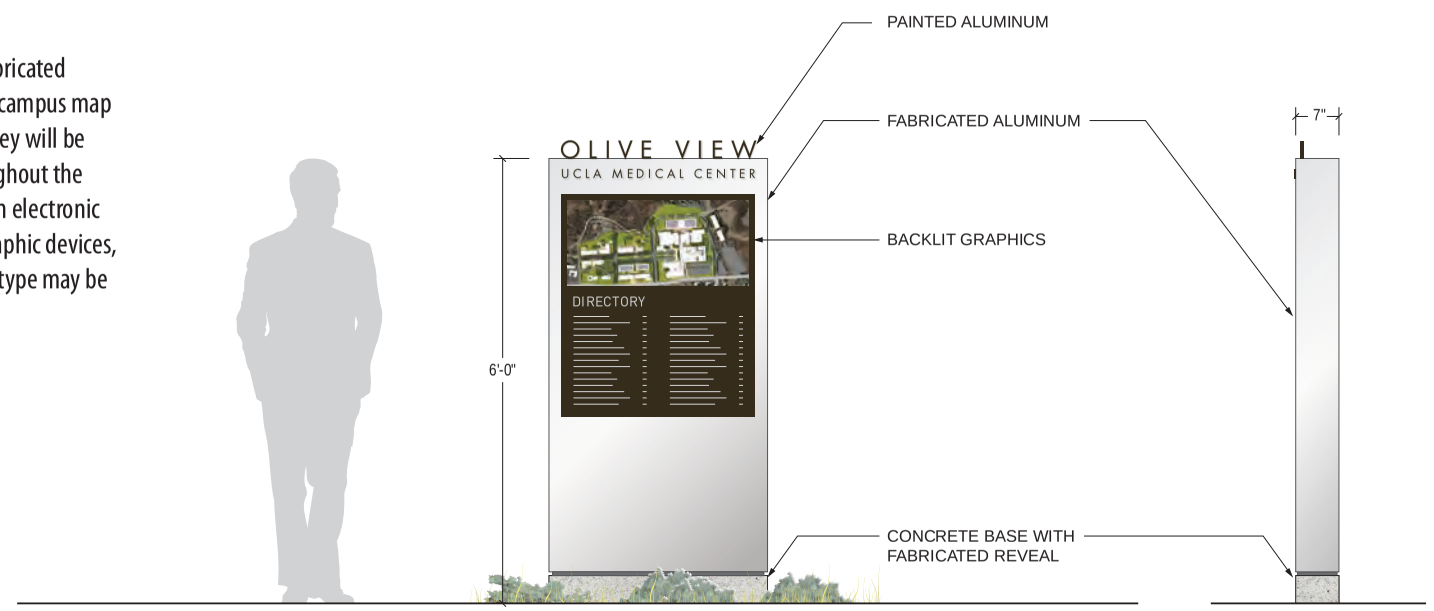
2 SIDE VIEW
SCALE: 3/8"=1'-0"

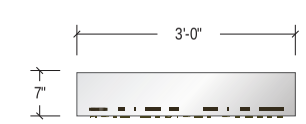
7.85 Building Monument Sign

3 TOP VIEW
SCALE: 3/8"=1'-0"

YOU-ARE-HERE DIRECTORY MAPS

Pedestrian information kiosks will consist of a fabricated aluminum cabinet containing a digitally printed campus map and a directory of buildings and departments. They will be located at key decision/information points throughout the campus and at campus entrances. (A touch screen electronic map may be considered.) Branding elements, graphic devices, and project colors will be incorporated. This sign type may be internally illuminated.





11 YOU ARE HERE DIRECTORY MAPS
SCALE: 1/2"=1'-0"

2 SIDE VIEW
SCALE: 1/2"=1'-0"

3 TOP VIEW
SCALE: 1/2"=1'-0"

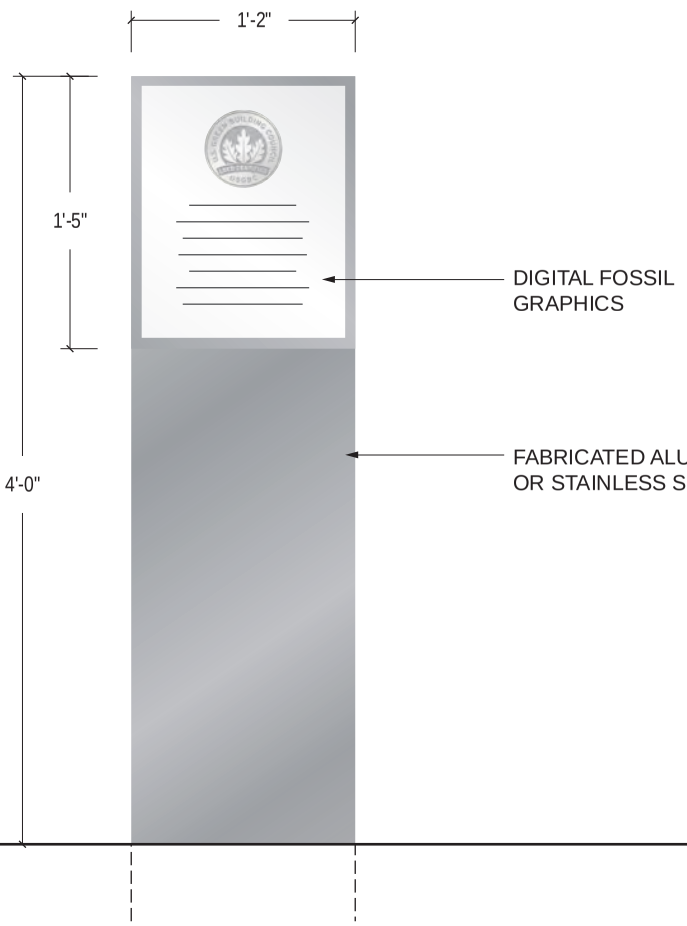
7.86 Directory Map

SMITHGROUP JJR

AMENITY SIGNAGE

Small pylons will be located throughout the campus to identify and describe various LEED features of the campus and applicable buildings. They will consist of fabricated aluminum panels with screened or digitally printed copy and graphics. These signs with be non-illuminated.

3 TOP VIEW

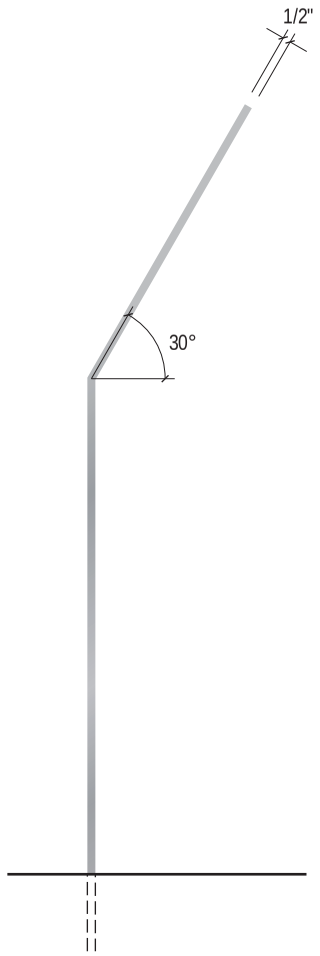


13 AMENITY SIGNAGE

SCALE: 1/2"=1'-0"

4 CONTEXT ELEVATION

SCALE: 3/8"=1'-0"



2 SIDE VIEW

SCALE: 1/2"=1'-0"

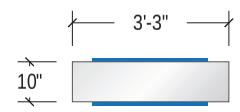
7.87 Amenity Signs

PARKING ENTRANCE IDENTIFICATION

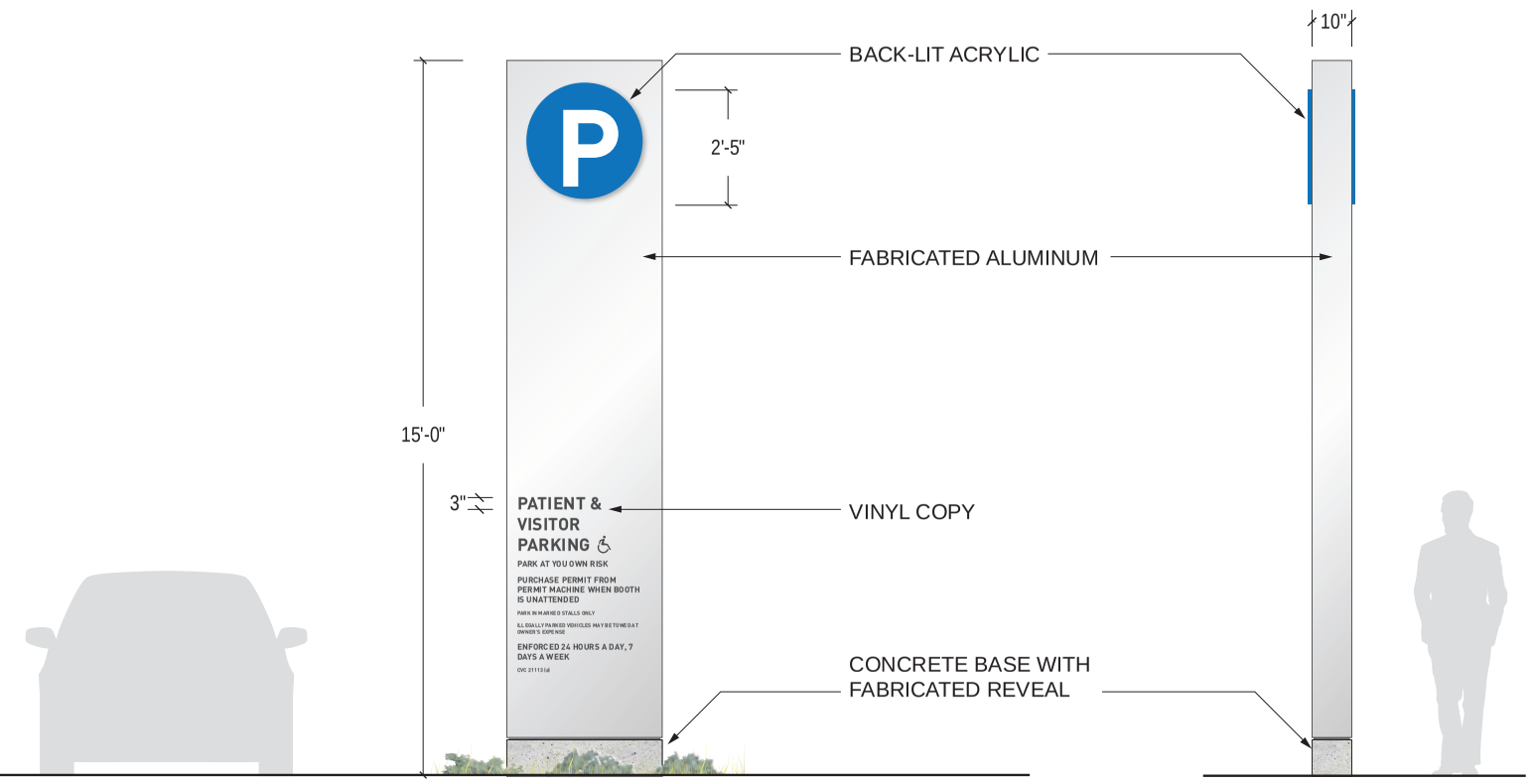
Parking lot entrances will be identified by pylon signs containing the parking lot identification number (or letter as required), and any restrictive parking information as required by code. Branding elements, graphic devices, and project colors will be incorporated into this sign type. Illumination (if any) will be determined during the design phase.

Signs shall be fabricated aluminum with dimensional and vinyl copy, set upon a concrete base.

Sign shall be located at the parking entrance, perpendicular to the flow of traffic, and incorporated into landscape and hardscape elements.



3 TOP VIEW
SCALE: 1/4"=1'-0"



14 PARKING ENTRANCE IDENTIFICATION
SCALE: 1/4"=1'-0"

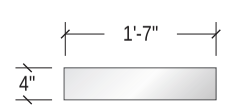
2 SIDE VIEW
SCALE: 1/4"=1'-0"

7.88 Parking Entrance Signs

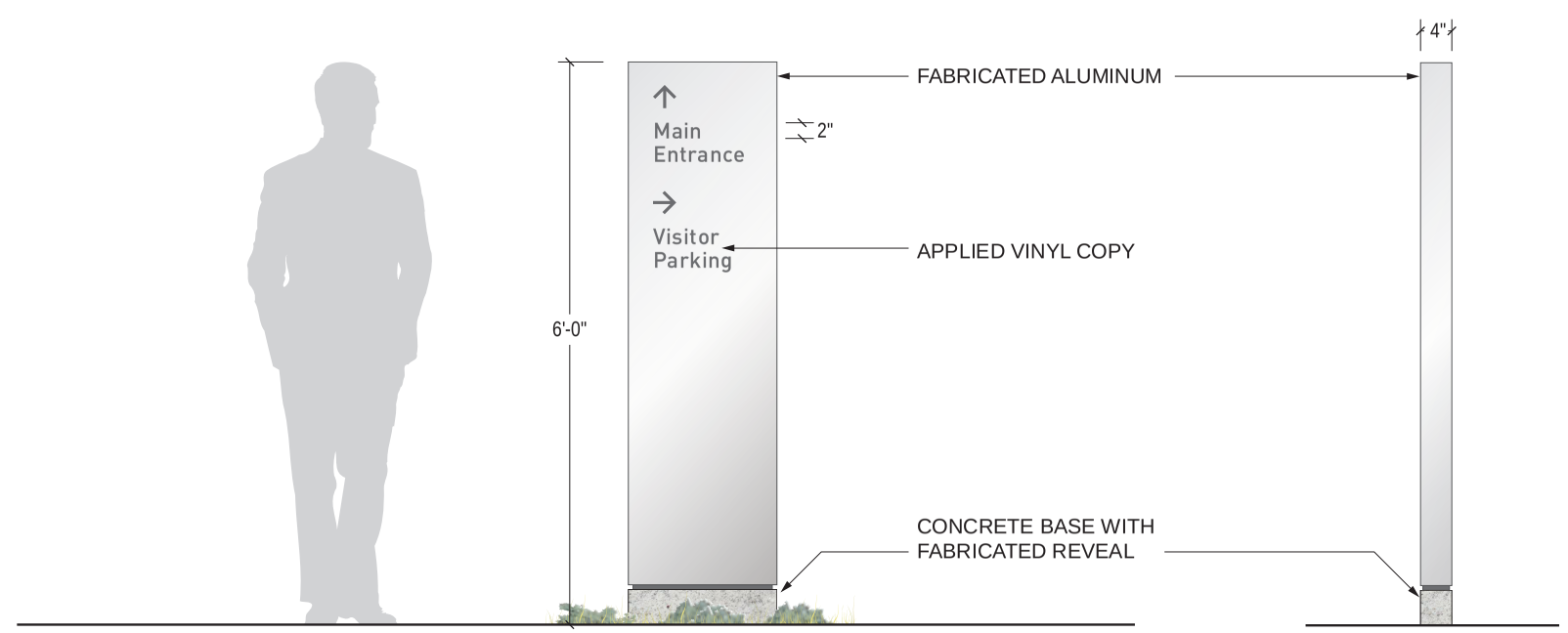
PEDESTRIAN DIRECTIONAL SIGNAGE

Small directional signs will be located throughout the site to guide pedestrians to the appropriate destinations. They will consist of fabricated aluminum pylons and contain key destinations and directional arrows. Branding elements, graphic devices, and project colors will be incorporated into this sign type.

Signs shall be non-illuminated. Signs shall sit upon a concrete base.



3 TOP VIEW
SCALE: 1/2"=1'-0"



12 PEDESTRIAN DIRECTIONAL
SCALE: 1/2"=1'-0"

2 SIDE VIEW
SCALE: 1/2"=1'-0"

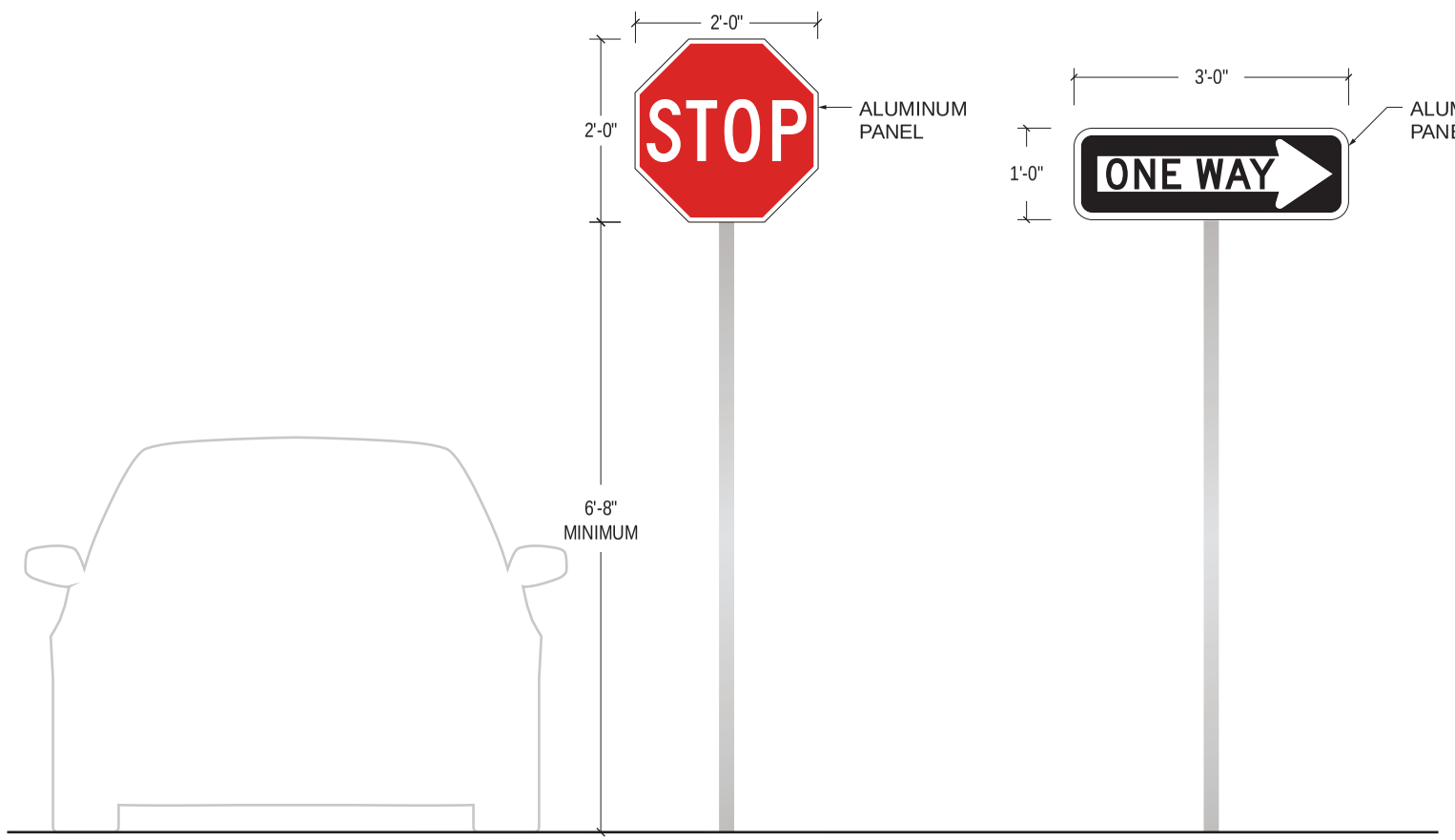
7.89 Pedestrian Directional Signs

SMITHGROUP JJR

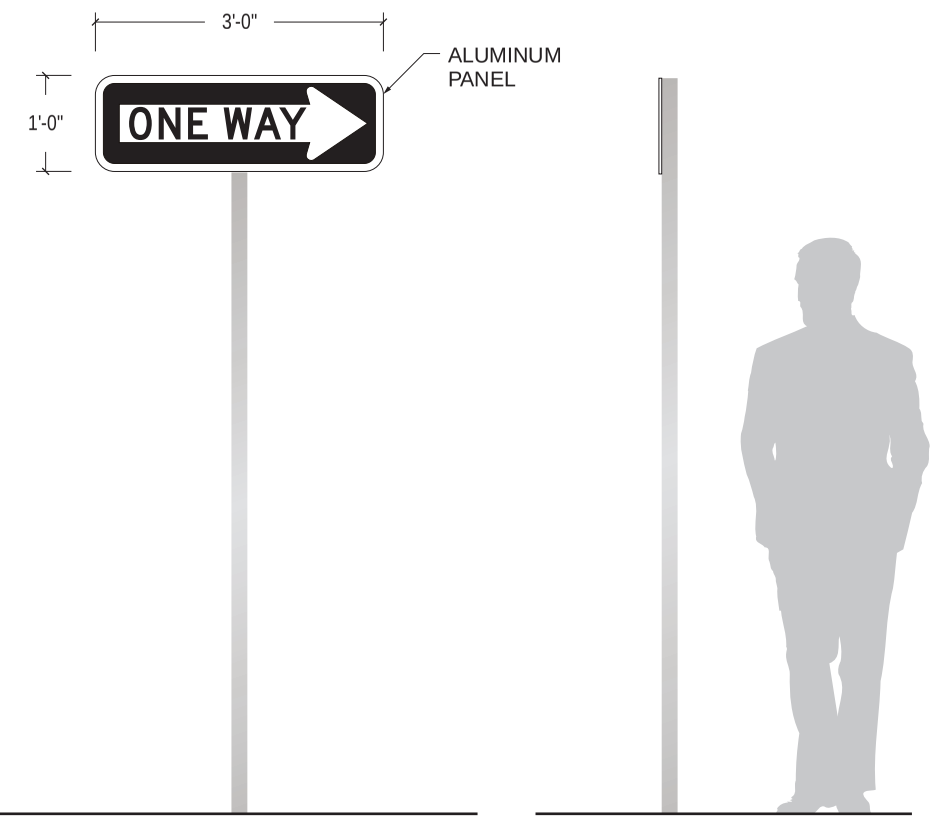
TRAFFIC SIGNAGE

Traffic signage will consist of standard traffic signs mounted to painted steel or aluminum poles. Sizes, locations, and quantities will be determined by the campus traffic engineer.

3 **TOP VIEW**
SCALE: 1/2"=1'-0"



15 **TRAFFIC SIGNAGE**
SCALE: 1/2"=1'-0"

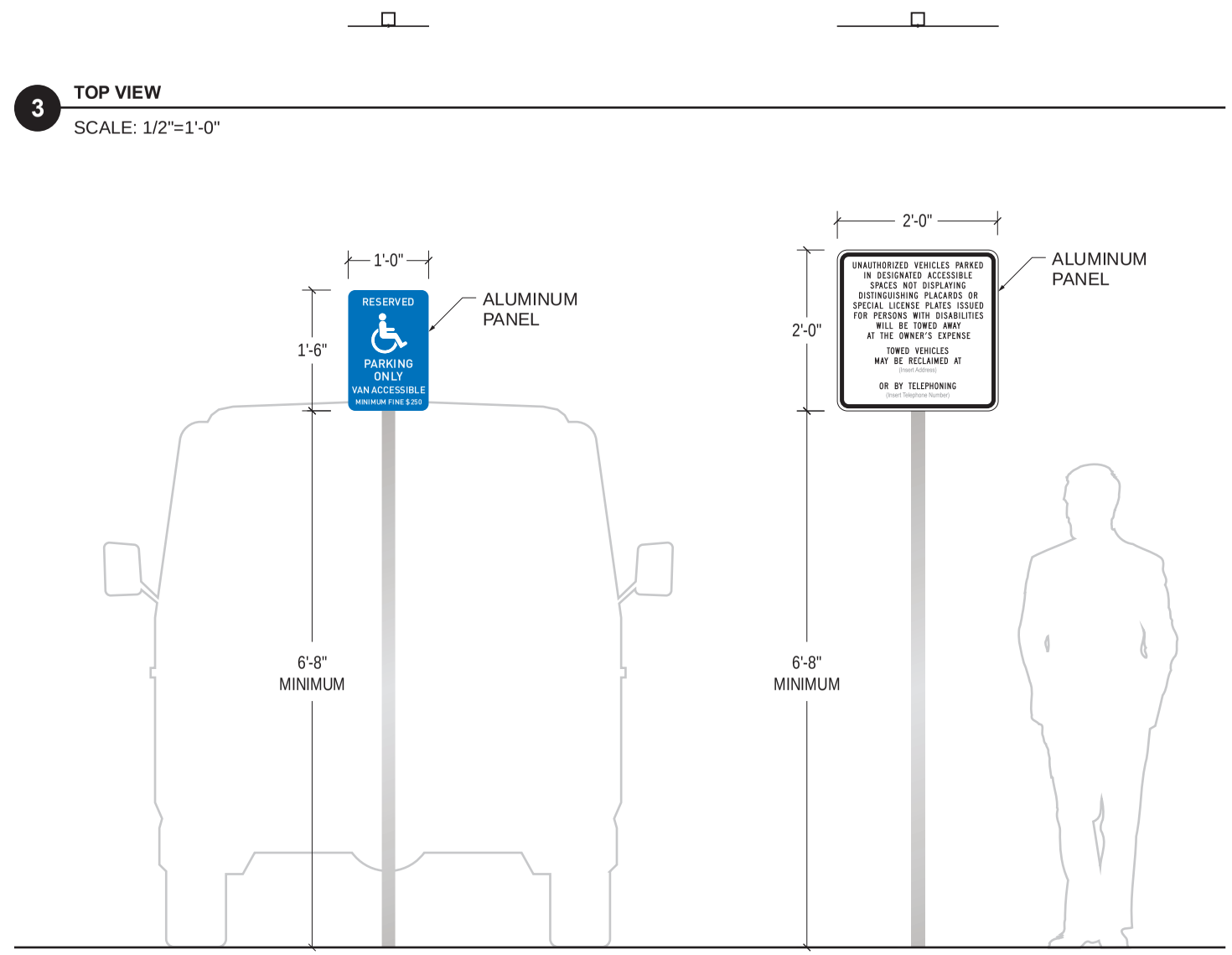


2 **SIDE VIEW**
SCALE: 1/2"=1'-0"

7.90 Traffic Signs

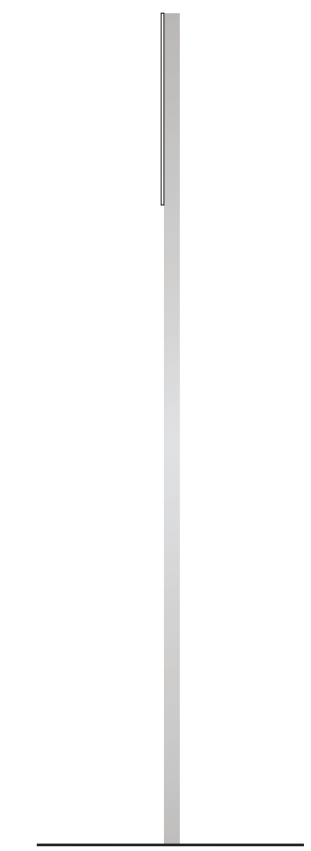
VEHICULAR REGULATORY/ RESTRICTIVE SIGNAGE

California Title 24 signage (accessible parking) will be located at all vehicular entrances and accessible parking stalls. Additional special parking stall identification and restrictive signage will be located as needed within the project boundaries. These signs will consist of painted aluminum panels mounted to painted steel or aluminum posts.



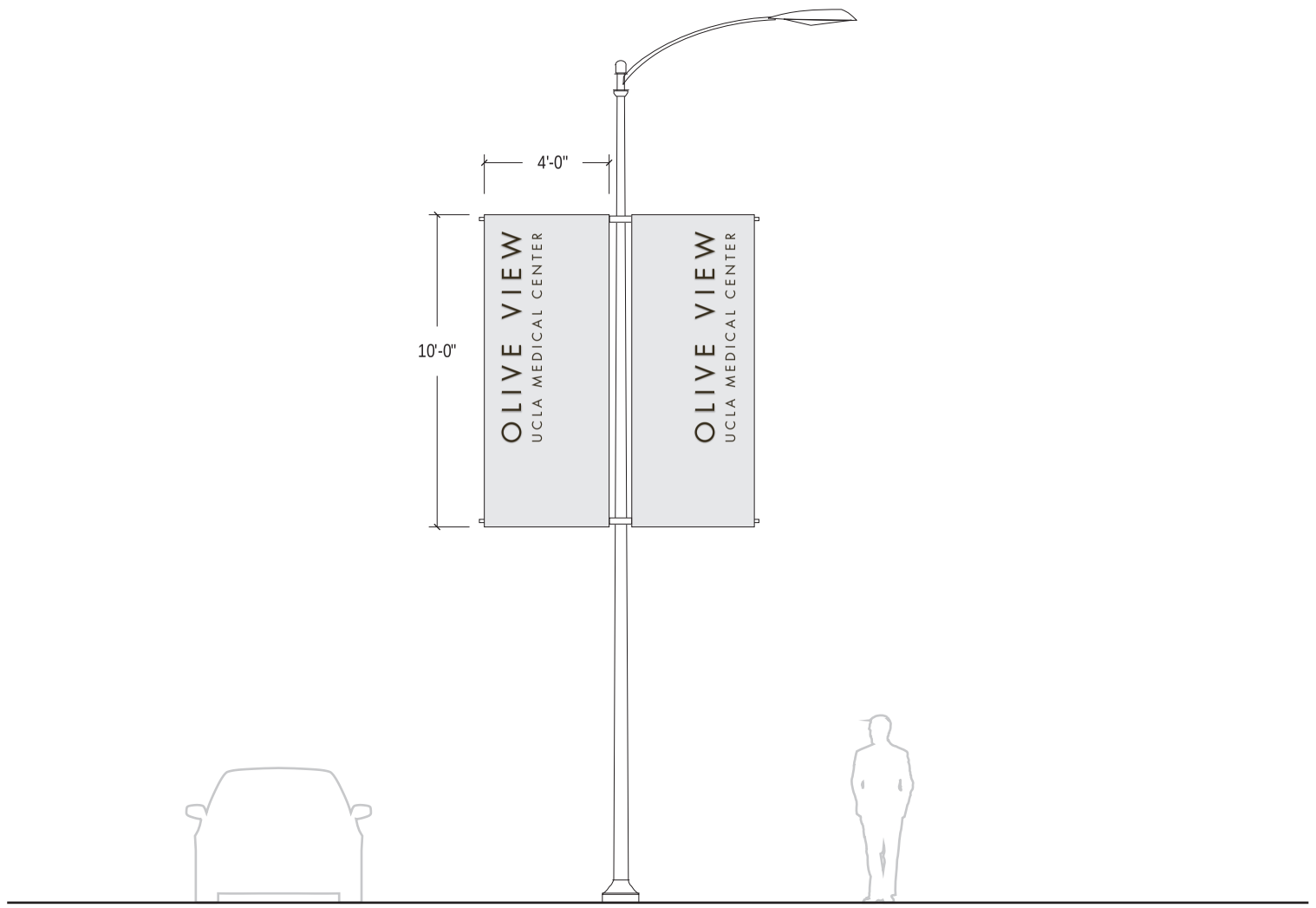
3 **TOP VIEW**
SCALE: 1/2"=1'-0"

16 **VEHICULAR REGULATORY/RESTRICTIVE SIGNAGE**
SCALE: 1/2"=1'-0"



2 **SIDE VIEW**
SCALE: 1/2"=1'-0"

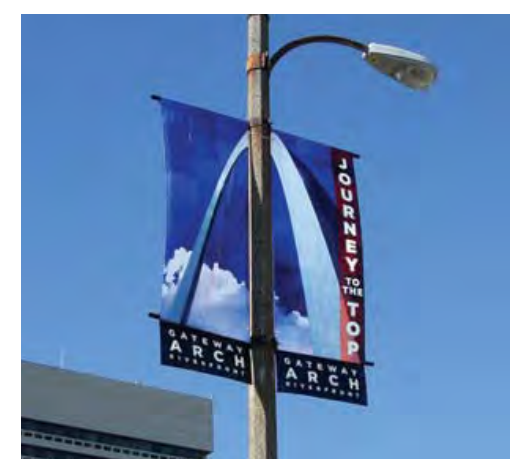
7.91 Vehicular Regulatory Signs



17 BANNERS

SCALE: 3/16"=1'-0"

7.92 Banners



7.93 Examples of banners

BANNERS

A banner program shall be developed for use along the main vehicular routes within and bordering the site.

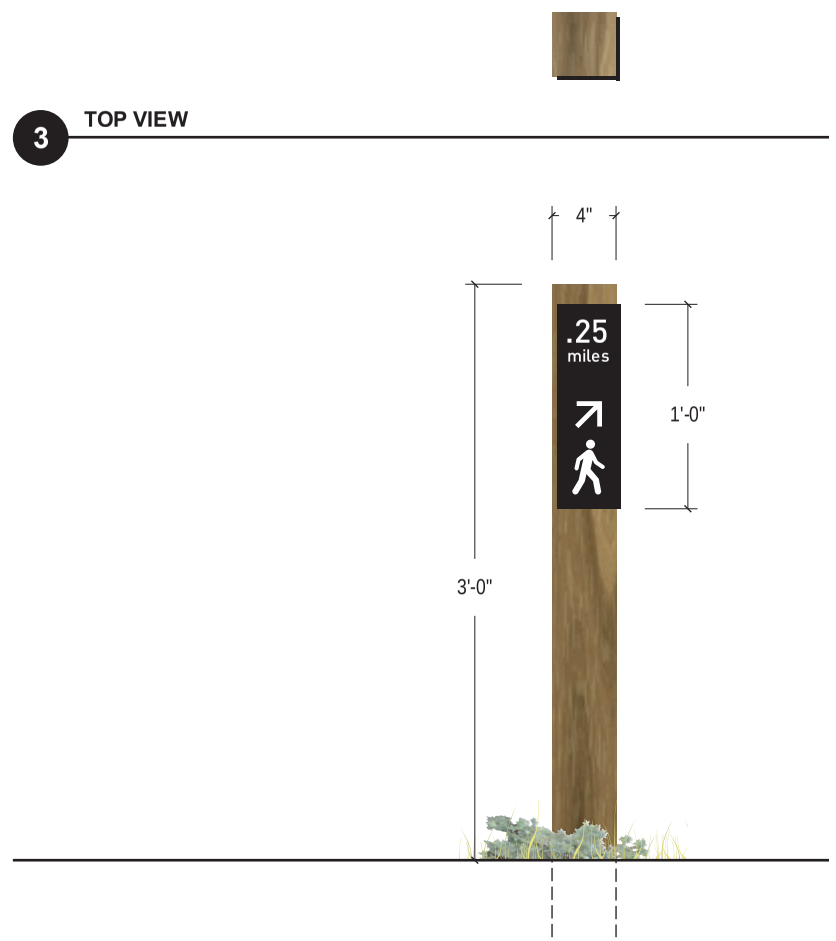
It is recommended that a series of banner designs be used and changed out on a regular basis. Banners shall contain branding identification and display upcoming events, seasonal greetings, and temporary information.

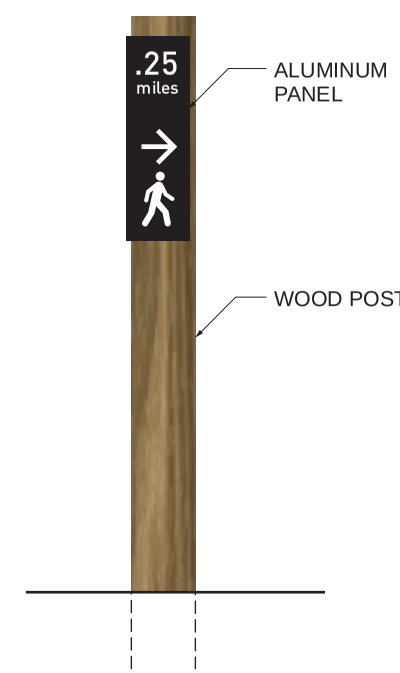
Banners shall be digitally printed on exterior grade fabric and be attached to existing light standards with a painted metal bracket.

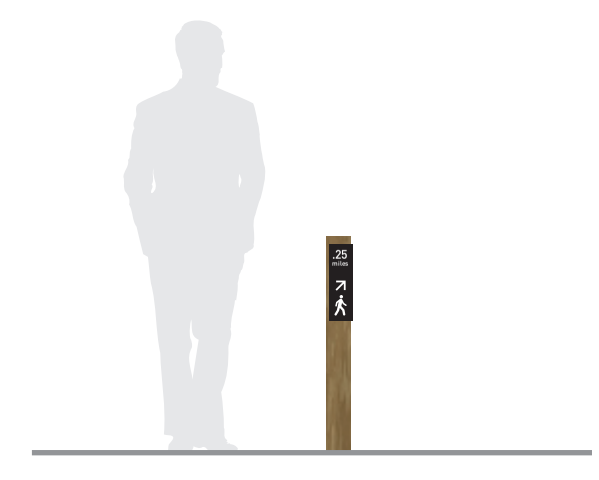
TRAIL SIGNAGE

Small trail signs shall used to identify and direct pedestrians along the surrounding network of trails and health walks. They shall be located at regular intervals along the walk and display mile/distance marker information. They will also be located at decision points to identify routes and destinations. Signs shall be painted aluminum panels on wood or aluminum supports.

7.94 Examples of trail signs







7.95 Trail Signs

08 IMPLEMENTATION

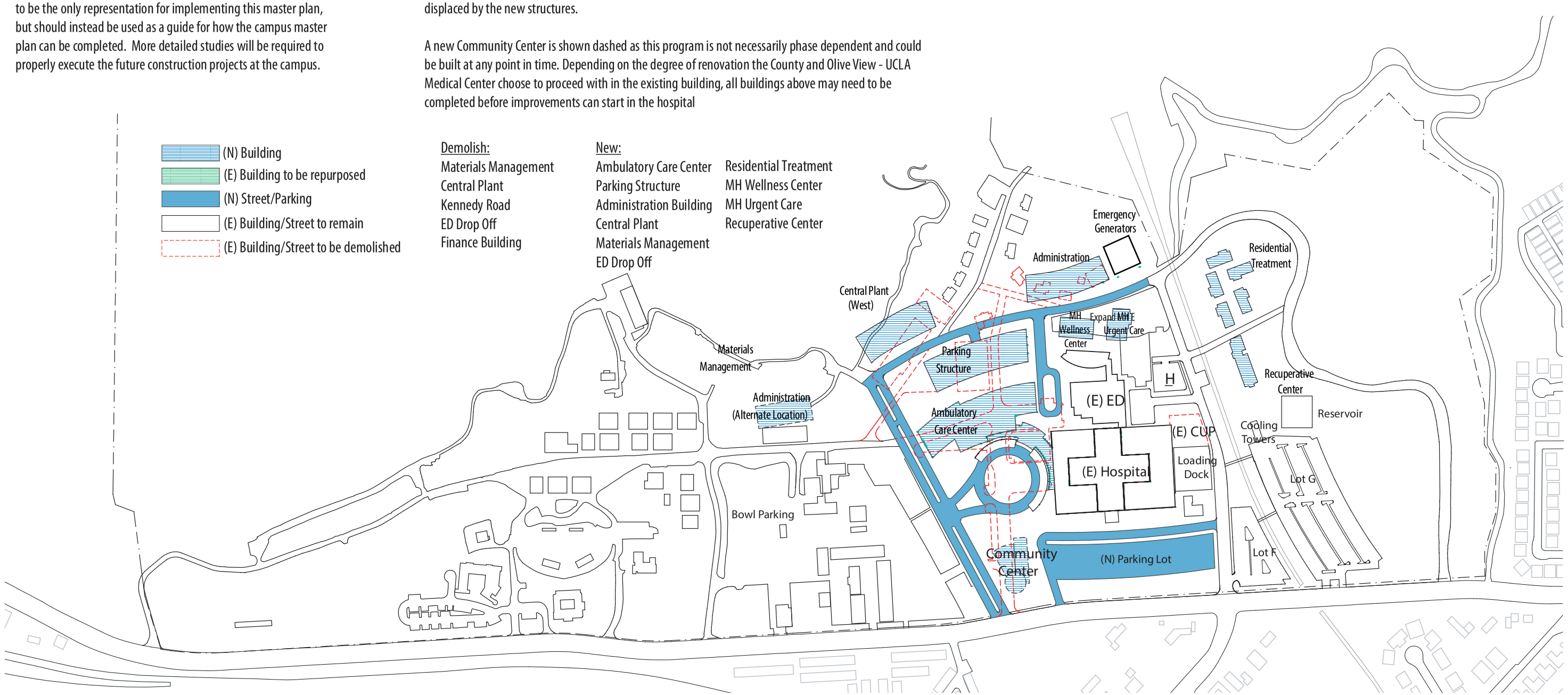
PHASING

The phased implementation of the Olive View - UCLA Medical Center Master Plan is represented in the following diagrams. They illustrate the many complexities and paths the master plan can take depending on the decisions made by the medical center and County of Los Angeles. These phasing diagrams are not intended to be the only representation for implementing this master plan, but should instead be used as a guide for how the campus master plan can be completed. More detailed studies will be required to properly execute the future construction projects at the campus.

RENOVATION PHASE 1

The first priority for the campus is a new Ambulatory Care Center and new Central Plant. Because of the parking demand required for this new building, a new parking structure is shown immediately to its north. A new Materials Management Building must be provided as shown, because the existing facility is displaced by the new parking structure. Similarly a new Administration Building must also be built, in order to consolidate and replace the programs currently housed in miscellaneous cottages and buildings displaced by the new structures.

A new Community Center is shown dashed as this program is not necessarily phase dependent and could be built at any point in time. Depending on the degree of renovation the County and Olive View - UCLA Medical Center choose to proceed with in the existing building, all buildings above may need to be completed before improvements can start in the hospital

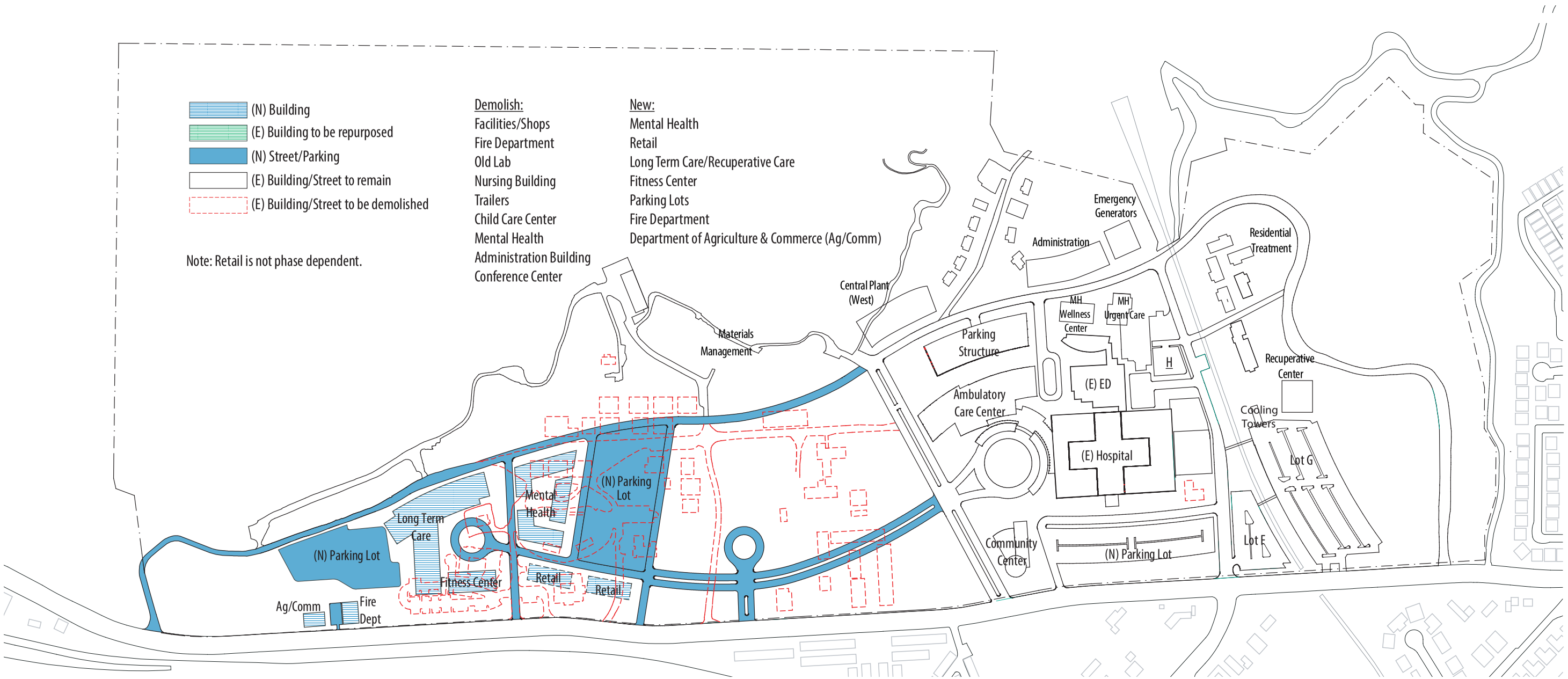


8.01 Phasing Diagram - Renovation Phase 1

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

RENOVATION PHASE 2

A potential second phase is to develop the far west end of the campus. Included in this development is a new Supportive Care/Recuperative Care Building Complex, a new Fitness Center, and a new Mental Health Building. Is it also suggested that the existing facilities and maintenance shops can be relocated to the new Central Plant. A new Fire Department and Department of Agriculture and Commerce is shown to the far west end.



8.02 Phasing Diagram - Renovation Phase 2

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

RENOVATION PHASE 3

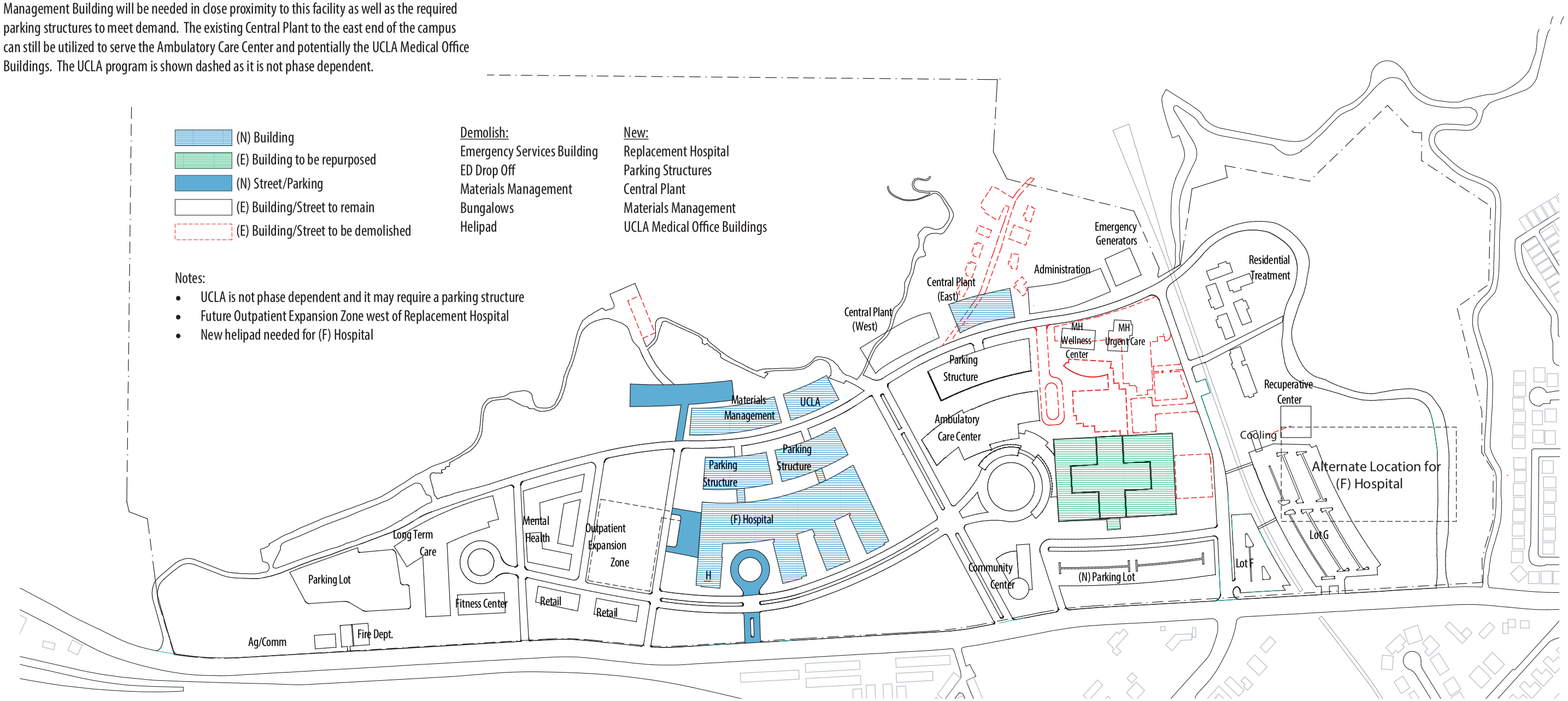
The third phase for Renovation reaches beyond the planning horizon described in the master plan report. If the medical center choses to renovate the existing Hospital, that facility can remain in operation beyond the requirements of OSHPD's 2030 deadline for seismic upgrades. When the time comes to replace this existing facility, it is still important to identify a zone on the campus where a new Hospital can be developed. A new dedicated Central Plant and Materials Management Building will be needed in close proximity to this facility as well as the required parking structures to meet demand. The existing Central Plant to the east end of the campus can still be utilized to serve the Ambulatory Care Center and potentially the UCLA Medical Office Buildings. The UCLA program is shown dashed as it is not phase dependent.

(N) Building
(E) Building to be repurposed
(N) Street/Parking
(E) Building/Street to remain
(E) Building/Street to be demolished

Demolish:
Emergency Services Building
ED Drop Off
Materials Management
Bungalows
Helipad

New:
Replacement Hospital
Parking Structures
Central Plant
Materials Management
UCLA Medical Office Buildings

Notes:
- UCLA is not phase dependent and it may require a parking structure
- Future Outpatient Expansion Zone west of Replacement Hospital
- New helipad needed for (F) Hospital

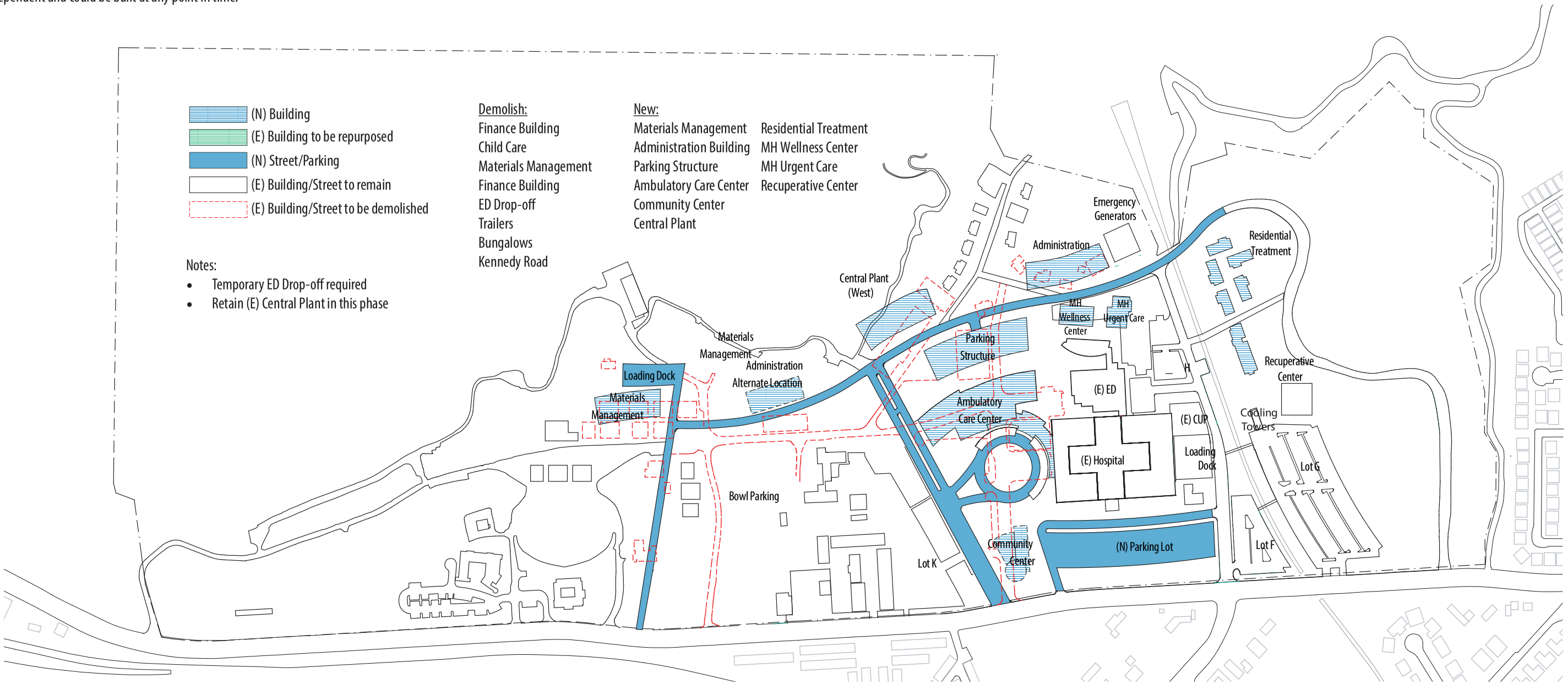


8.03 Phasing Diagram - Renovation Phase 3

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

REPLACEMENT PHASE 1

Similar to the Renovation scheme, the first priority for the campus is a new Ambulatory Care Center and new Central Plant. A new parking structure to serve the Ambulatory Care Center is shown immediately to the north. Similarly, a new Materials Management Building is shown as the existing facility is displaced by the new parking structure. It is again suggested that a new Administration Building be provided to account for some of the impacts to the existing outlying cottages which currently house those services. A new Community Center is not necessarily phase dependent and could be built at any point in time.

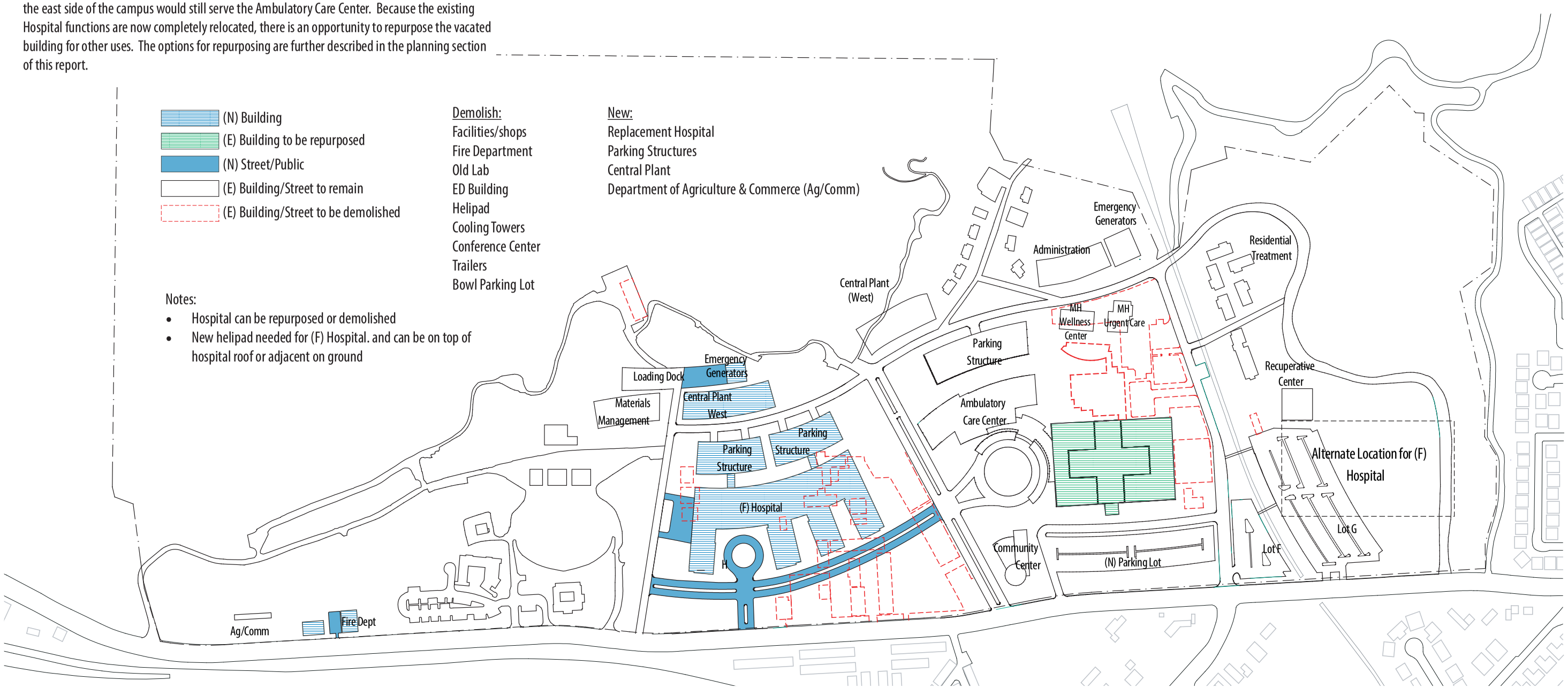


8.04 Phasing Diagram - Replacement Phase 1

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

REPLACEMENT PHASE 2

In contrast to the Renovation scheme which upgrades the existing Hospital to comply with the OSHPD seismic requirements and reserves an area for the future Hospital, the Replacement scheme is focused on developing a new facility within the planning horizon of 2035. Along with this new Hospital, parking structures are required to meet the demand. In addition, a new Central Plant is shown immediately to the north which would only serve this new Hospital. The central plant to the east side of the campus would still serve the Ambulatory Care Center. Because the existing Hospital functions are now completely relocated, there is an opportunity to repurpose the vacated building for other uses. The options for repurposing are further described in the planning section of this report.



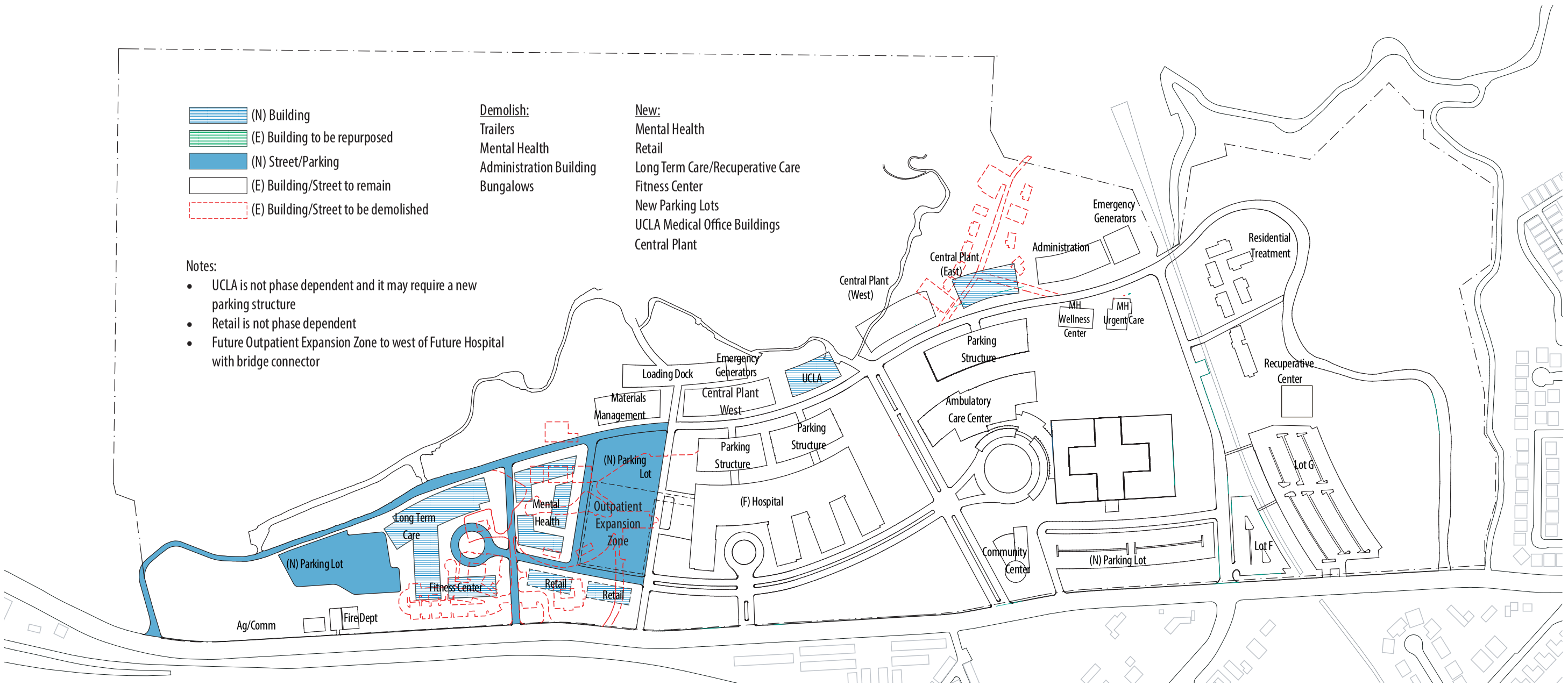
8.05 Phasing Diagram - Replacement Phase 2

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

SMITHGROUP JJR

REPLACEMENT PHASE 3

The final phase consists of the development of the west end of the campus. The new Supportive Care/Recuperative Care Building and Mental Health buildings are located in this area. The Fitness Center will serve the Long Term Care Building. The retail buildings are not necessarily tied to this phase of development, but can be built when deemed appropriate to the campus.



8.06 Phasing Diagram - Replacement Phase 3

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

(Original) SmithGroup JJR, 2015, (Updated) Perkins Eastman 2019

Future Hospital Entry Plaza and Drop-off

New Ambulatory Care Center and Existing Hospital Drop-off

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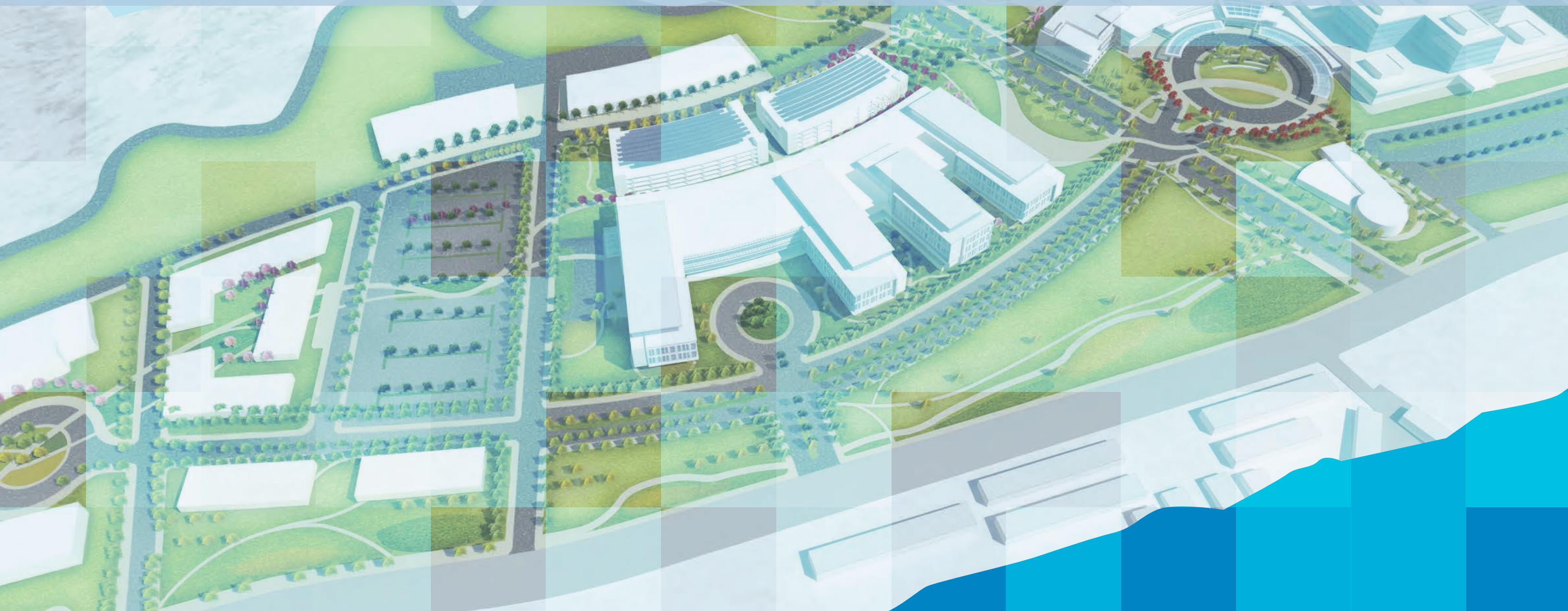

Appendix C

Air Quality, Energy, Greenhouse Gas Emissions Calculations

Los Angeles County Department of Public Works

Olive View-UCLA Medical Center Master Plan

ASSUMPTIONS

CONSTRUCTION

Tier 1A (Mental Health Wellness Center, Psych Urgent Care, Residential Treatment, and Recuperative Care)

Building	Demolition Required	Proposed	Units	Daily Trips	Daily Trips per ksf
Recuperative Care Center	-	16,356	sf	48	9.39
Residential Treatment Program Facility	-	47,035	sf	306	
Psychiatric Urgent Care Center	-	10,000	sf	335	
Mental Health Wellness Center	-	10,000	sf	297	29.70

Construction Schedule

Phase Name	Start Date	End Date	Num Days Week	Num Days
Demolition	1/1/2020	1/28/2020	5	20
Site Preparation	1/29/2020	1/30/2020	5	2
Grading	1/31/2020	2/5/2020	5	4
Building Construction	2/6/2020	11/11/2020	5	200
Paving	11/12/2020	11/25/2020	5	10
Architectural Coating	11/26/2020	12/9/2020	5	10

Assumptions / Notes

1. All buildings under construction concurrently. Default construction schedule based on building square footages.
2. Default construction equipment based on building square footages.
3. Off-site export is estimated to be 200 cy per day during the site prep and excavation phases; no import is assumed
4. No building demolition is required for the Restorative Village structures.
5. Default construction trip number and length.
6. Daily operational trips based on March 2019 TIA prepared by Fehr & Peers
7. Rule 403 compliance includes watering exposed areas three times per day and cleaning paved surfaces.
8. VOC content of architectural coatings changed to 50 g/L per SCAQMD Rule 1113

Tier 1B (Ambulatory Care Center, Parking Structure, Administration, Community Center, Material Management, and Central Plant East)

Building	Demolition Required	Proposed	Units	Daily Trips	Daily Trips per ksf	Import	Export
Ambulatory Care Center	-	296,000	sf	9,973	33.69	8,850	-
Parking Structure	-	674	spaces			700	3,600
Community Center	-	20,000	sf			1,000	1,000
Administration	52,300	96,000	sf			6,950	-
Central Plant East	51,000	77,000	sf			-	17,600
Material Management	32,500	68,100	sf			-	12,050
TOTAL	135,800				**TOTAL**	**17,500**	**34,250**
					Site Prep	5,833.33	11,417
					Grading	11,667	22,833

Construction Schedule

Phase Name	Start Date	End Date	Num Days Week	Num Days
Demolition	1/1/2021	1/28/2021	5	20
Site Preparation	1/29/2021	2/11/2021	5	10
Grading	2/12/2021	3/11/2021	5	20
Building Construction	3/12/2021	1/27/2022	5	230
Paving	1/28/2022	2/24/2022	5	20
Architectural Coating	2/25/2022	3/24/2022	5	20

Assumptions / Notes

1. All buildings under construction concurrently. Default construction schedule based on building square footages.
2. Default construction equipment based on building square footages.
3. Off-site export and import estimates provided by SmithGroupJJR. Import/export quantities assumed to be distributed evenly over demo, site prep, and grading phases.
4. Demolition square footage provided by SmithGroupJJR
5. Default construction trip number and length.
6. Daily operational trips based on March 2019 TIA prepared by Fehr & Peers
7. Rule 403 compliance includes watering exposed areas three times per day and cleaning paved surfaces.
8. VOC content of architectural coatings changed to 50 g/L per SCAQMD Rule 1113
9. Community center modeled as library, as this is the land use type that most closely resembles the function.

OPERATION

	Existing (sf)*	Proposed Tier 1 (sf)
Ambulatory Care Center	-	296,000
Community Center	9,300	20,000
Recuperative Care Center	-	16,356
Residential Treatment Program Facility	-	47,035
Psychiatric Urgent Care Center		10,000
Mental Health Wellness Center		10,000
Administration**	108,000	96,000
Retail	-	-
Mental Health	11,000	-
Materials Management/Supply Services	32,500	68,100
Central Utility Plant	51,000	77,000
Support Services Buildings	16,800	-
Storage Trailers (vacant during survey)	61,000	-
Parking Facilities		
Surface stalls	2,672	1,369
Stalls in structure	-	674
Surface square footage	1,256,000	643,000

Total Trips 6,132

Trips apportioned into Administration land use 56.78

* Only net changes in square footage were modeled under existing conditions.

Los Angeles County Department of Public Works
Olive View-UCLA Medical Center Master Plan
EMISSIONS FROM PERMITTED SOURCES

	MT/yr	tons/yr						lbs per average day					
	GHG	VOC	NOx	CO	SOx	PM10	PM2.5	VOC	NOx	CO	SOx	PM10	PM2.5
Existing (2016)	17,832	0.5	15.0	5.5	0.5	3.3	3.3	3	82	30	3	18	18
Net Proposed New Uses (a)	4,280	0.1	3.6	1.3	0.1	0.8	0.8	1	20	7	1	4	4
Ex + Project	22,112	1	19	7	1	4	4	4	102	37	4	23	23

Scalar (a) 24%

(a) Net increase in emissions after accounting for demolition of existing uses and construction of proposed new uses

	Existing	Tier 1A	Tier 1B
Area	0.5	0	<1
Energy	1,178	945	5,325
Mobile	11,190	1499	14,282
Waste	200	453	1,742
Water	424	74	635
	17,832		22,112
Permitted Total	*30,825*	*2,972*	*44,096*

Tier 1 Total	Net Emissions	Amortized Construction	Construction + Operation
47,068	16,243	55	16,298

GHGs is 2016; CP are 2016 from FIND

2018	2.0	17.6		0.5	3.4	3.4
2017	0.4	14.9	5.3	0.5	3.7	3.7
2016	0.542	14.981	5.451	0.518	3.346	3.346

Source: https://xappprod.aqmd.gov/find//facility/AQMDsearch?facilityID=3093

Year	GHGs
2012	16,610
2013	17,654
2014	17,596
2015	18,304
2016	17,832
2017	18,726

Source: https://ww2.arb.ca.gov/mrr-data

Tier 1 Building Square Footages

	Existing	Tier I (2035)		
		Proposed Demolition	Proposed New Development	
Recuperative Care Center	-	-	16,356	
Residential Treatment Program Facility	-	-	47,035	
Mental Health Urgent Care Center			10,000	
Mental Health Wellness Center			10,000	
Ambulatory Care Center	-	-	296,000	
Inpatient Hospital	534,300	4,300		
Community Center	9,300	-	10,000	
Central Utility Plant	51,000	51,000	77,000	
Materials Management/Supply Services	32,500	32,500	68,100	
Administration**	108,000	52,300	96,000	
Support Services Buildings	16,800	16,800		
Research and Development				
Long-Term Care				
Retail	-	-	-	
Mental Health	11,000	-	-	
Storage Trailers (vacant during survey)	61,000	-	-	
	823,900	**-156,900**	**640,491**	
Energy Use Intensity (kBtu/SF-yr)	450	450	250	**TOTAL**
Energy Use (kBtu/yr)	370,755,000	(70,605,000)	160,122,750	**460,272,750**
			124%	

	Energy Use Intensity (kBtu/SF-yr)	% Reduction from Existing
Existing	450	-
2020	250	44%
2030	50	89%

Source: August 2015 Olive View-UCLA Medical Center Master Plan, Figure 6.49, p. 103

Los Angeles County Department of Public Works
Olive View-UCLA Medical Center Master Plan
CONSTRUCTION EMISSIONS

Daily Construction Emissions

Tier 1A (Mental Health Wellness Center, Psych Urgent Care, Residential Treatment, and Recuperative Care)

Daily Construction Emissions (pounds per day) - Unmitigated

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Demolition	On-Site	2	21	15	0		1	1		1	1
	Off-Site	0	0	1	0	0	0	0	0	0	0
	Phase Total	**2**	**21**	**15**	**0**	**0**	**1**	**1**	**0**	**1**	**1**
Site Preparation	On-Site	2	18	8	0	2	1	3	1	1	2
	Off-Site	0	4	1	0	0	0	0	0	0	0
	Phase Total	**2**	**22**	**9**	**0**	**2**	**1**	**3**	**1**	**1**	**2**
Grading	On-Site	1	15	6	0	2	1	3	1	1	2
	Off-Site	0	2	1	0	0	0	0	0	0	0
	Phase Total	**1**	**17**	**7**	**0**	**2**	**1**	**3**	**1**	**1**	**2**
Building Construction	On-Site	2	15	13	0		1	1		1	1
	Off-Site	0	2	2	0	0	0	0	0	0	0
	Phase Total	**2**	**16**	**15**	**0**	**0**	**1**	**1**	**0**	**1**	**1**
Paving	On-Site	1	8	9	0		0	0		0	0
	Off-Site	0	0	1	0	0	0	0	0	0	0
	Phase Total	**1**	**8**	**9**	**0**	**0**	**0**	**1**	**0**	**0**	**0**
Architectural Coating	On-Site	39	2	2	0		0	0		0	0
	Off-Site	0	0	0	0	0	0	0	0	0	0
	Phase Total	**39**	**2**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Localized Emissions											
On-Site Emissions		39	21	15	0	2	1	3	1	1	2
10% of off-site emissions		0.00	0.00	0.11	0.00	0.02	0.00	0.01	0.00	0.00	0.00
Total On-Site Emissions		39	21	15	0	2	1	3	1	1	2
Localized Significance Thresholds (a)		N/A	122	2,227	N/A	N/A	N/A	54	N/A	N/A	18
Exceeds Threshold?		No	No	No	No	No	No	No	No	No	No
Regional Emissions											
Maximum Regional Emissions		39	22	15	0	2	1	3	1	1	2
Regional Significance Thresholds		75	100	550	150	N/A	N/A	150	N/A	N/A	55
Exceeds Threshold?		No	No	No	No	No	No	No	No	No	No

(a) LSTs for SRA 7 assume 1-acre site and a 200-m receptor distance. Actual receptor distance is approximately 350 m.

Tier 1B (Ambulatory Care Center, Parking Structure, Administration, Community Center, Material Management, and Central Plant East)

Daily Construction Emissions (pounds per day) - Unmitigated

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Demolition	On-Site	3	31	22	0	3	2	4	0	1	2
	Off-Site	0	8	3	0	0	0	0	0	0	0
	Phase Total	**3**	**40**	**24**	**0**	**3**	**2**	**5**	**1**	**1**	**2**
Site Preparation	On-Site	4	40	21	0	7	2	9	4	2	6
	Off-Site	2	58	14	0	2	0	3	1	0	1
	Phase Total	**6**	**98**	**35**	**0**	**10**	**2**	**12**	**5**	**2**	**7**
Grading	On-Site	2	25	16	0	3	1	4	1	1	2
	Off-Site	2	58	14	0	2	0	3	1	0	1
	Phase Total	**4**	**83**	**30**	**0**	**5**	**1**	**6**	**2**	**1**	**3**
Building Construction (2021)	On-Site	2	17	17	0		1	1		1	1
	Off-Site	2	14	16	0	3	0	3	1	0	1
	Phase Total	**4**	**31**	**32**	**0**	**3**	**1**	**4**	**1**	**1**	**2**
Building Construction (2022)	On-Site	2	16	16	0		1	1		1	1
	Off-Site	2	13	15	0	3	0	3	1	0	1
	Phase Total	**3**	**29**	**31**	**0**	**3**	**1**	**3**	**1**	**1**	**2**
Paving	On-Site	1	11	15	0		1	1		1	1
	Off-Site	0	0	1	0	0	0	0	0	0	0
	Phase Total	**1**	**11**	**15**	**0**	**0**	**1**	**1**	**0**	**1**	**1**
Architectural Coating	On-Site	66	1	2	0		0	0		0	0
	Off-Site	0	0	2	0	0	0	0	0	0	0
	Phase Total	**66**	**2**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Localized Emissions											
On-Site Total Emissions		66	40	22	0	7	2	9	4	2	6
10% of off-site emissions		0.02	5.79	0.25	0.02	0.25	0.02	0.26	0.07	0.02	0.09
Total On-Site Emissions		66	46	22	0	8	2	10	4	2	6
Localized Significance Thresholds (b)		N/A	165	1,872	N/A	N/A	N/A	42	N/A	N/A	10
Exceeds Threshold?		N/A	No	No	N/A	N/A	N/A	No	N/A	N/A	No
Regional Emissions											
Maximum Regional Emissions		66	98	35	0	10	2	12	5	2	7
Regional Significance Thresholds		75	100	550	150	N/A	N/A	150	N/A	N/A	55
Exceeds Threshold?		No	No	No	No	No	No	No	No	No	No

(b) LSTs for SRA 7 assume 5-acre site and a 50-m receptor distance from the proposed community center to the multi-family residential development south of the site.

Daily Construction Emissions (pounds per day) - Mitigated with Architectural Coatings VOC 25 g/L or less

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Demolition	On-Site	3	31	22	0	3	2	4	0	1	2
	Off-Site	0	8	3	0	0	0	0	0	0	0
	Phase Total	**3**	**40**	**24**	**0**	**3**	**2**	**5**	**1**	**1**	**2**
Site Preparation	On-Site	4	40	21	0	7	2	9	4	2	6
	Off-Site	2	58	14	0	2	0	3	1	0	1
	Phase Total	**6**	**98**	**35**	**0**	**10**	**2**	**12**	**5**	**2**	**7**
Grading	On-Site	2	25	16	0	3	1	4	1	1	2
	Off-Site	2	58	14	0	2	0	3	1	0	1
	Phase Total	**4**	**83**	**30**	**0**	**5**	**1**	**6**	**2**	**1**	**3**
Building Construction (2021)	On-Site	2	17	17	0		1	1		1	1
	Off-Site	2	14	16	0	3	0	3	1	0	1
	Phase Total	**4**	**31**	**32**	**0**	**3**	**1**	**4**	**1**	**1**	**2**
Building Construction (2022)	On-Site	2	16	16	0		1	1		1	1
	Off-Site	2	13	15	0	3	0	3	1	0	1
	Phase Total	**3**	**29**	**31**	**0**	**3**	**1**	**3**	**1**	**1**	**2**
Paving	On-Site	1	11	15	0		1	1		1	1
	Off-Site	0	0	1	0	0	0	0	0	0	0
	Phase Total	**1**	**11**	**15**	**0**	**0**	**1**	**1**	**0**	**1**	**1**
Architectural Coating	On-Site	66	1	2	0		0	0		0	0
	Off-Site	0	0	2	0	0	0	0	0	0	0
	Phase Total	**66**	**2**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Localized Emissions											
On-Site Total Emissions		66	40	22	0	7	2	9	4	2	6
10% of off-site emissions		0.02	5.79	0.25	0.02	0.25	0.02	0.26	0.07	0.02	0.09
Total On-Site Emissions		66	46	22	0	8	2	10	4	2	6
Localized Significance Thresholds (b)		N/A	165	1,872	N/A	N/A	N/A	42	N/A	N/A	10
Exceeds Threshold?		No	No	No	No	No	No	No	No	No	No
Regional Emissions											
Maximum Regional Emissions		66	98	35	0	10	2	12	5	2	7
Regional Significance Thresholds		75	100	550	150	N/A	N/A	150	N/A	N/A	55
Exceeds Threshold?		No	No	No	No	No	No	No	No	No	No

b. LSTs for SRA 7 assume 5-acre site and a 50-m receptor distance from the proposed community center to the multi-family residential development south of the site.

Annual Construction Emissions

Tier 1A (Mental Health Wellness Center, Psych Urgent Care, Residential Treatment, and Recuperative Care)

Annual Construction Emissions (tons per year, metric tons for CO2e) - Unmitigated

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2 Total (MT)	CO2e Total (MT)
Tier 1A	2020	0.45	1.96	1.70	0.00	0.03	0.10	0.13	0.01	0.09	0.10	280.54	281.6763
	Total	**0.45**	**1.96**	**1.70**	**0.00**	**0.03**	**0.10**	**0.13**	**0.01**	**0.09**	**0.10**	**280.54**	**281.6763**

Tier 1B (Ambulatory Care Center, Parking Structure, Administration, Community Center, Material Management, and Central Plant East)

Annual Construction Emissions (tons per year, metric tons for CO2e) - Unmitigated

		ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2 Total (MT)	CO2e Total (MT)
Tier 1B	2021	0.49	5.10	4.08	0.01	0.39	0.15	0.54	0.12	0.14	0.26	1267.50	1270.804
	2022	0.70	0.41	0.48	0.00	0.03	0.01	0.04	0.01	0.01	0.02	111.20	111.5647
	Total	**1.193**	**5.505**	**4.5626**	**0.01493**	**0.4163**	**0.1619**	**0.5783**	**0.13128**	**0.1517**	**0.283**	**1378.69**	**1382.369**

Amortized Construction Emissions	**55.47**	MT CO2e

Los Angeles County Department of Public Works
Olive View-UCLA Medical Center Master Plan
OPERATIONAL EMISSIONS

Daily Operational Emissions
Existing Daily Operational Emissions (pounds per day)

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	6	0	0	0		0	0		0	0
Energy	0	1	1	0		0	0		0	0
Mobile	22	90	295	1	49	1	50	13	1	14
Permitted Stationary Sources	3	82	30	3			18			18
Total	**31**	**173**	**325**	**4**	**49**	**1**	**68**	**13**	**1**	**32**

Tier 1A (Mental Health Wellness Center, Psych Urgent Care, Residential Treatment, and Recuperative Care)

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	2	0	0	0		0	0		0	0
Energy	0	1	1	0		0	0		0	0
Mobile	2	9	27	0	7	0	7	2	0	2
Total	**4**	**10**	**28**	**0**	**7**	**0**	**7**	**2**	**0**	**2**

Tier 1B (Ambulatory Care Center, Parking Structure, Administration, Community Center, Material Management, and Central Plant East)

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Area	12	0	0	0		0	0		0	0
Energy	1	6	5	0		0	0		0	0
Mobile	17	73	254	1	82	1	83	22	1	23
Net Mobile (Tier 1B-Tier 1A) (a)	16	64	227	1	75	1	76	20	1	21
Permitted Stationary Sources	4	102	37	4			23			23
Total	**32**	**172**	**269**	**4**	**75**	**1**	**99**	**20**	**1**	**44**

(a) The CalEEMod run for Tier 1B included all trips at Tier 1 buildout, including those associated the Tier 1A Restorative Care Village

Net Daily Operational Emissions (pounds per day)

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total
Regional	4	9	-29	1	34	0	38	9	0	14
Localized	8	20	7	1	N/A	N/A	4	N/A	N/A	4
Regional Threshold	55	55	550	150	N/A	N/A	150	N/A	N/A	55
LST (b)	N/A	194	4119	N/A	N/A	N/A	21	N/A	N/A	7

(b) 5-acre site with a 200-m receptor distance in SRA 7. Receptor distance is based on the distance from the nearest new on-site stationary source (at proposed ambulatory care center) to the nearest off-site receptor (multi-family residences south of Olive View Drive).

Annual Operational Emissions
Existing Annual Operational Emissions (tons per year)

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2e (MT/yr)	CO2e (MT/yr)
Area	1	0	0	0		0	0		0	0	0	0
Energy	0	0	0	0		0	0		0	0	1174	1178
Mobile	4	17	52	0	9	0	9	2	0	3	11170	11190
Waste						0	0		0	0	81	200
Water						0	0		0	0	363	424
Permitted Stationary Sources	1	15	5	1			3			3	17832	17832
Total	**6**	**32**	**58**	**1**	**9**	**0**	**12**	**2**	**0**	**6**	**30621**	**30825**

Tier 1A (Mental Health Wellness Center, Psych Urgent Care, Residential Treatment, and Recuperative Care)

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2e (MT/yr)	CO2e (MT/yr)
Area	0	0	0	0		0	0		0	0	0	0
Energy	0	0	0	0		0	0		0	0	942	945
Mobile	0	2	5	0	1	0	1	0	0	0	1497	1499
Waste						0	0		0	0	183	453
Water						0	0		0	0	63	74
Total	**1**	**2**	**5**	**0**	**1**	**0**	**1**	**0**	**0**	**0**	**2972**	**2972**

Tier 1B (Ambulatory Care Center, Parking Structure, Administration, Community Center, Material Management, and Central Plant East)

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2e (MT/yr)	CO2e (MT/yr)
Area	2	0	0	0		0	0		0	0	0	0
Energy	0	1	1	0		0	0		0	0	5306	5325
Mobile	3	14	44	0	15	0	15	4	0	4	15763	15782
Net Mobile (Tier 1B-Tier 1A) (a)	3	12	39	0	13	0	13	4	0	4	14265	14282
Waste						0	0		0	0	703	1742
Water						0	0		0	0	541	635
Permitted Stationary Sources	1	20	7	1			4	4.400219		4	22112	22112
Total	**6**	**33**	**48**	**1**	**13**	**0**	**18**	**8**	**0**	**8**	**42927**	**44096**

(a) The CalEEMod run for Tier 1B included all trips at Tier 1 buildout, including those associated the Tier 1A Restorative Care Village

Net Annual Operational Emissions (tons per year)

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	CO2e (MT/yr)	CO2e (MT/yr)
Regional	**1**	**2**	**-5**	**0**	**6**	**0**	**7**	**6**	**0**	**3**	**15278**	**16243**

Los Angeles County Department of Public Works

Olive View-UCLA Medical Center Master Plan

ENERGY

Tier 1A (Mental Health Wellness Center, Psych Urgent Care, Residential Treatment, and Recuperative Care)

Construction

1	2	3		4	5	6
C02 (metric tons)	**pounds per ton**	**pounds CO2**	**kg of CO2 per gallon of motor gasoline**	**pounds of CO2 per gallon diesel**	**gallons diesel**	**Btu/gal (gross)**
280.54	2,000	561,070	10.21	22.51	24,926	138,700
		=Col 1* Col 2			=Col 3 / Col 4	
CalEEMod output			Climate Registry 2017	Conversion factor		Oak Ridge National Lab 2019

7
MMBTU
3,457.28
=Col 5*Col6/1 mill

Construction MMBTU	**3,457**

Operation

	1	*2*	*3*	*4*	*5*	*6*
				kWh	**BTU/kWh**	**MMBTU/yr**
Electricity				1,804,684	3,412	6,158
				CalEEMod		=Col 5 * Col 6/1M
					kBTU	**MMBTU/yr**
Natural Gas					4,856,900	4,856.90
					CalEEMod	= Col 5/1,000
	MT/CO2 per year	**pounds/MT**	**pounds of CO2 for 90% gas/10% diesel trips**	**gallons of fuel**	**Btu/gal (gross)**	**MMBTU/yr**
Mobile	1,497.14	2204.6	19.89	165,944	138,700	23,016
	CalEEMod		19.6 lbs CO2/gal gas 22.5 lbs CO2/gal diesel	= Col 1 * Col 2/Col 3		=Col 4 * Col 5/1,000,000

Annual MMBTU	**34,031**

Tier 1B (Ambulatory Care Center, Parking Structure, Administration, Community Center, Material Management, and Central Plant East)

Construction

1	2	3		4	5	6
C02 (metric tons)	**pounds per ton**	**pounds CO2**	**kg of CO2 per gallon of motor gasoline**	**pounds of CO2 per gallon diesel**	**gallons diesel**	**Btu/gal (gross)**
1,378.69	2,000	2,757,390	10.21	22.51	122,501	138,700
		=Col 1* Col 2			=Col 3 / Col 4	
CalEEMod output			Climate Registry 2017	Conversion factor		Oak Ridge National Lab 2019

7
MMBTU
16,990.85
=Col 5*Col6/1 mill

Construction MMBTU	**16,991**

Operation

	1	2	3	4	5	6
				kWh	**BTU/kWh**	**MMBTU/yr**
Electricity				10,923,910	3,412	37,272
				CalEEMod		=Col 5 * Col 6/1M
					kBTU	**MMBTU/yr**
Natural Gas					21,983,307	21,983.31
					CalEEMod	= Col 5/1,000
	MT/CO2 per year	**pounds/MT**	**pounds of CO2 for 90% gas/10% diesel trips**	**gallons of fuel**	**Btu/gal (gross)**	**MMBTU/yr**
Mobile (a)	14,265.36	2204.6	19.89	1,581,184	138,700	219,310
	CalEEMod		19.6 lbs CO2/gal gas 22.5 lbs CO2/gal diesel	= Col 1 * Col 2/Col 3		=Col 4 * Col 5/1,000,000
Permitted Sources (b)					**Kbtu**	**MMBTU/yr**
					460,272,750	460,273
					LACDPW 2015	=Col 5/1,000
			Annual MMBTU	**738,839**		

Existing Conditions

Operation

	1	2	3	4	5	6
				kWh	**BTU/kWh**	**MMBTU/yr**
Electricity				2,749,848	3,412	9,382
				CalEEMod		=Col 5 * Col 6/1M
					kBTU	**MMBTU/yr**
Natural Gas					2,514,843	2,514.84
					CalEEMod	= Col 5/1,000
	MT/CO2 per year	**pounds/MT**	**pounds of CO2 for 90% gas/10% diesel trips**	**gallons of fuel**	**Btu/gal (gross)**	**MMBTU/yr**
Mobile	11,170.10	2204.6	19.89	1,238,102	138,700	171,725
	CalEEMod		19.6 lbs CO2/gal gas 22.5 lbs CO2/gal diesel	= Col 1 * Col 2/Col 3		=Col 4 * Col 5/1,000,000
Permitted Sources					**Kbtu**	**MMBTU/yr**
					370,755,000	370,755
					LACDPW 2015	=Col 5/1,000
			Annual MMBTU	**554,377**		

Net Operational MMBTU	**218,492**

(a) The CalEEMod run for Tier 1B included all trips at Tier 1 buildout, including those associated the Tier 1A Restorative Care Village. The number in this table reduces the CO2 emissions from Tier 1A mobile sources.

(b) All proposed permitted sources under Tier 1 assumed in Tier 1B. See Permitted Sources sheet.

Sources

Oak Ridge National Laboratory. 2019. Transportation Energy Data Book, Edition 37. Table B.4: Heat Content for Various Fuels.

Climate Registry. 2017. Default Emissions Factors. Table 13.1.1.

LACDPW. 2015. Olive View-UCLA Medical Center Master Plan, Figure 6.49, p. 103. kBtu/sf-yr multiplied by Existing and Tier I square footages. See Emisions from Permitted Sources sheets.

Los Angeles County Department of Public Works
Olive View-UCLA Medical Center Master Plan
Peak Hour Intersection Turning Movement Volumes (2035 Cumulative + Project)

Intersection #	Street 1 (North-South)	Street 2 (East-West)		Direction	AM	PM	AM Total	PM Total	Estimated Daily Vol
				N-S Vol	217	158			
1	Glenoaks	Foothill		E-W Vol	385	317	602	475	5385
				N-S Vol	749	904			
2	Roxford	I-210 WB Ramps		E-W Vol	364	197	1113	1101	11070
				N-S Vol	658	545			
3	Roxford	I-210 EB Ramps		E-W Vol	470	252	1128	797	9625
				N-S Vol	795	609			
4	Roxford	Foothill		E-W Vol	413	248	1208	857	10325
				N-S Vol	742	580			
5	Roxford	Glenoaks		E-W Vol	390	205	1132	785	9585
				N-S Vol	601	434			
6	Roxford	San Fernando		E-W Vol	351	384	952	818	8850
				N-S Vol	654	667			
7	Roxford	Encinitas/I-5 NB		E-W Vol	655	300	1309	967	11380
				N-S Vol	1278	896			
8	Roxford	I-5 SB Ramps		E-W Vol	251	265	1529	1161	13450
				N-S Vol	338	306			
9	Bledsoe	Olive View		E-W Vol	521	188	859	494	6765
				N-S Vol	280	251			
10	Bledsoe	Foothill		E-W Vol	335	262	615	513	5640
				N-S Vol	294	188			
11	Bledsoe	Glenoaks		E-W Vol	596	472	890	660	7750
				N-S Vol	830	595			
12	Polk	I-210 WB Ramps		E-W Vol	553	661	1383	1256	13195
				N-S Vol	1268	871			
13	Polk	I-210 EB Ramps		E-W Vol	309	299	1577	1170	13735
				N-S Vol	758	814			
14	Polk	Foothill		E-W Vol	642	498	1400	1312	13560
								Maximum	**13735**

LOS and V/C				Without Project		With Project		
Intersection #	Street 1 (North-South)	Street 2 (East-West)	Peak Hour	V/C	LOS	V/C	LOS	Change in V/C
			AM	0.283	A	0.301	A	0.018
1	Glenoaks	Foothill	PM	0.197	A	0.217	A	0.02
			AM	0.596	A	0.642	B	0.046
2	Roxford	I-210 WB Ramps	PM	0.539	A	0.634	B	0.095
			AM	0.607	B	0.692	B	0.085
3	Roxford	I-210 EB Ramps	PM	0.419	A	0.459	A	0.04
			AM	0.747	C	0.779	C	0.032
4	Roxford	Foothill	PM	0.508	A	0.523	A	0.015
			AM	0.63	B	0.655	B	0.025
5	Roxford	Glenoaks	PM	0.411	A	0.423	A	0.012
			AM	0.588	A	0.592	A	0.004
6	Roxford	San Fernando	PM	0.487	A	0.495	A	0.008
			AM	0.809	D	0.819	D	0.01
7	Roxford	Encinitas/I-5 NB	PM	0.568	A	0.579	A	0.011
			AM	0.969	E	0.973	E	0.004
8	Roxford	I-5 SB Ramps	PM	0.703	C	0.715	C	0.012
			AM	-	-	-	-	-
9	Bledsoe	Olive View	PM	-	-	-	-	-
			AM	0.292	A	0.31	A	0.018
10	Bledsoe	Foothill	PM	0.22	A	0.242	A	0.022
			AM	0.492	A	0.493	A	0.001
11	Bledsoe	Glenoaks	PM	0.336	A	0.34	A	0.004
			AM	0.807	D	0.822	D	0.015
12	Polk	I-210 WB Ramps	PM	0.729	C	0.737	C	0.008
			AM	0.945	E	0.951	E	0.006
13	Polk	I-210 EB Ramps	PM	0.666	B	0.68	B	0.014
			AM	0.909	E	0.918	E	0.009
14	Polk	Foothill	PM	0.836	D	0.854	D	0.018

Olive View Medical Center - Existing (2016) Operations

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	108.00	1000sqft	2.48	108,000.00	0
General Office Building	16.80	1000sqft	0.39	16,800.00	0
Medical Office Building	11.00	1000sqft	0.25	11,000.00	0
Day-Care Center	9.30	1000sqft	0.21	9,300.00	0
General Light Industry	51.00	1000sqft	1.17	51,000.00	0
Unrefrigerated Warehouse-No Rail	32.50	1000sqft	0.75	32,500.00	0
Unrefrigerated Warehouse-No Rail	61.00	1000sqft	1.40	61,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2016
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	834	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP CO2 intensity revised based on 2016 CO2 intensity identified in 2017 Power Strategic Long-Term Resource Plan (p. C-15).

Land Use - Square footages from project description

Construction Phase - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Grading - Existing operations only. No construction considered for this run.

Trips and VMT - Existing operations only. No construction considered for this run.

On-road Fugitive Dust - Existing operations only. No construction considered for this run.

Architectural Coating - Existing operations only. No construction considered for this run.

Vehicle Trips - According to the Traffic Impact Analysis, there are 6,132 trips daily. All have been apportioned to the Administration (general office) land use. All other trips have been zeroed out.

Vehicle Emission Factors - Defaults used.

Vehicle Emission Factors - Defaults used.

Vehicle Emission Factors - Defaults used.

Road Dust - Defaults used.

Energy Use - Defaults used.

Water And Wastewater - Defaults used.

Solid Waste - Defaults used.

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	1227.89	834
tblVehicleTrips	ST_TR	6.21	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	56.78
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	5.83	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	56.78
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	74.06	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	56.78
tblVehicleTrips	WD_TR	36.13	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.4066	55.9350	31.3347	0.0545	18.2675	3.1640	21.4315	9.9840	2.9109	12.8949	0.0000	5,536.4948	5,536.4948	1.2087	0.0000	5,558.5984
2015	134.8126	37.8657	29.6439	0.0542	1.5081	2.2180	3.7260	0.4068	2.0866	2.4933	0.0000	5,492.6626	5,492.6626	0.8550	0.0000	5,514.0366
Maximum	**134.8126**	**55.9350**	**31.3347**	**0.0545**	**18.2675**	**3.1640**	**21.4315**	**9.9840**	**2.9109**	**12.8949**	**0.0000**	**5,536.4948**	**5,536.4948**	**1.2087**	**0.0000**	**5,558.5984**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2014	5.4066	55.9350	31.3347	0.0545	18.2675	3.1640	21.4315	9.9840	2.9109	12.8949	0.0000	5,536.4948	5,536.4948	1.2087	0.0000	5,558.5984
2015	134.8126	37.8657	29.6439	0.0542	1.5081	2.2180	3.7260	0.4068	2.0866	2.4933	0.0000	5,492.6626	5,492.6626	0.8550	0.0000	5,514.0366
Maximum	**134.8126**	**55.9350**	**31.3347**	**0.0545**	**18.2675**	**3.1640**	**21.4315**	**9.9840**	**2.9109**	**12.8949**	**0.0000**	**5,536.4948**	**5,536.4948**	**1.2087**	**0.0000**	**5,558.5984**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.4725	2.9000e-004	0.0303	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0634	0.0634	1.8000e-004		0.0679
Energy	0.0743	0.6755	0.5674	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.5860	810.5860	0.0155	0.0149	815.4029
Mobile	21.9108	90.3015	294.8523	0.6936	48.5746	1.0552	49.6298	13.0078	0.9970	14.0048		70,170.4214	70,170.4214	4.8404		70,291.4308
Total	**28.4577**	**90.9773**	**295.4500**	**0.6977**	**48.5746**	**1.1066**	**49.6812**	**13.0078**	**1.0484**	**14.0562**		**70,981.0707**	**70,981.0707**	**4.8561**	**0.0149**	**71,106.9015**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.4725	2.9000e-004	0.0303	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0634	0.0634	1.8000e-004		0.0679
Energy	0.0743	0.6755	0.5674	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.5860	810.5860	0.0155	0.0149	815.4029
Mobile	21.9108	90.3015	294.8523	0.6936	48.5746	1.0552	49.6298	13.0078	0.9970	14.0048		70,170.4214	70,170.4214	4.8404		70,291.4308
Total	**28.4577**	**90.9773**	**295.4500**	**0.6977**	**48.5746**	**1.1066**	**49.6812**	**13.0078**	**1.0484**	**14.0562**		**70,981.0707**	**70,981.0707**	**4.8561**	**0.0149**	**71,106.9015**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2014	1/28/2014	5	20	
2	Site Preparation	Site Preparation	1/29/2014	2/11/2014	5	10	
3	Grading	Grading	2/12/2014	3/25/2014	5	20	
4	Building Construction	Building Construction	3/26/2014	5/19/2015	5	230	
5	Paving	Paving	5/20/2015	6/16/2015	5	20	
6	Architectural Coating	Architectural Coating	6/17/2015	7/14/2015	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 434,400; Non-Residential Outdoor: 144,800; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Olive View Medical Center - Existing (2016) Operations - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	47.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.5339	47.9591	23.3048	0.0388		2.5246	2.5246		2.3570	2.3570		4,047.0313	4,047.0313	1.0907		4,074.2982
Total	**4.5339**	**47.9591**	**23.3048**	**0.0388**		**2.5246**	**2.5246**		**2.3570**	**2.3570**		**4,047.0313**	**4,047.0313**	**1.0907**		**4,074.2982**

3.2 Demolition - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1350	0.1077	1.3458	2.0900e-003	0.1677	1.8900e-003	0.1696	0.0445	1.7500e-003	0.0462		206.7599	206.7599	0.0117		207.0530
Total	**0.1350**	**0.1077**	**1.3458**	**2.0900e-003**	**0.1677**	**1.8900e-003**	**0.1696**	**0.0445**	**1.7500e-003**	**0.0462**		**206.7599**	**206.7599**	**0.0117**		**207.0530**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.5339	47.9591	23.3048	0.0388		2.5246	2.5246		2.3570	2.3570	0.0000	4,047.0313	4,047.0313	1.0907		4,074.2982
Total	**4.5339**	**47.9591**	**23.3048**	**0.0388**		**2.5246**	**2.5246**		**2.3570**	**2.3570**	**0.0000**	**4,047.0313**	**4,047.0313**	**1.0907**		**4,074.2982**

3.2 Demolition - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1350	0.1077	1.3458	2.0900e-003	0.1677	1.8900e-003	0.1696	0.0445	1.7500e-003	0.0462		206.7599	206.7599	0.0117		207.0530
Total	**0.1350**	**0.1077**	**1.3458**	**2.0900e-003**	**0.1677**	**1.8900e-003**	**0.1696**	**0.0445**	**1.7500e-003**	**0.0462**		**206.7599**	**206.7599**	**0.0117**		**207.0530**

3.3 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2447	55.8058	23.8676	0.0381		3.1617	3.1617		2.9088	2.9088		4,042.6677	4,042.6677	1.1947		4,072.5340
Total	**5.2447**	**55.8058**	**23.8676**	**0.0381**	**18.0663**	**3.1617**	**21.2280**	**9.9307**	**2.9088**	**12.8395**		**4,042.6677**	**4,042.6677**	**1.1947**		**4,072.5340**

3.3 Site Preparation - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1620	0.1292	1.6150	2.5000e-003	0.2012	2.2700e-003	0.2035	0.0534	2.1000e-003	0.0555		248.1119	248.1119	0.0141		248.4636
Total	**0.1620**	**0.1292**	**1.6150**	**2.5000e-003**	**0.2012**	**2.2700e-003**	**0.2035**	**0.0534**	**2.1000e-003**	**0.0555**		**248.1119**	**248.1119**	**0.0141**		**248.4636**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	5.2447	55.8058	23.8676	0.0381		3.1617	3.1617		2.9088	2.9088	0.0000	4,042.6677	4,042.6677	1.1947		4,072.5340
Total	**5.2447**	**55.8058**	**23.8676**	**0.0381**	**18.0663**	**3.1617**	**21.2280**	**9.9307**	**2.9088**	**12.8395**	**0.0000**	**4,042.6677**	**4,042.6677**	**1.1947**		**4,072.5340**

3.3 Site Preparation - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1620	0.1292	1.6150	2.5000e-003	0.2012	2.2700e-003	0.2035	0.0534	2.1000e-003	0.0555		248.1119	248.1119	0.0141		248.4636
Total	**0.1620**	**0.1292**	**1.6150**	**2.5000e-003**	**0.2012**	**2.2700e-003**	**0.2035**	**0.0534**	**2.1000e-003**	**0.0555**		**248.1119**	**248.1119**	**0.0141**		**248.4636**

3.4 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.3025	37.1828	17.3114	0.0297		2.0094	2.0094		1.8487	1.8487		3,153.0047	3,153.0047	0.9318		3,176.2984
Total	**3.3025**	**37.1828**	**17.3114**	**0.0297**	**6.5523**	**2.0094**	**8.5618**	**3.3675**	**1.8487**	**5.2162**		**3,153.0047**	**3,153.0047**	**0.9318**		**3,176.2984**

3.4 Grading - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1350	0.1077	1.3458	2.0900e-003	0.1677	1.8900e-003	0.1696	0.0445	1.7500e-003	0.0462		206.7599	206.7599	0.0117		207.0530
Total	**0.1350**	**0.1077**	**1.3458**	**2.0900e-003**	**0.1677**	**1.8900e-003**	**0.1696**	**0.0445**	**1.7500e-003**	**0.0462**		**206.7599**	**206.7599**	**0.0117**		**207.0530**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.5523	0.0000	6.5523	3.3675	0.0000	3.3675			0.0000			0.0000
Off-Road	3.3025	37.1828	17.3114	0.0297		2.0094	2.0094		1.8487	1.8487	0.0000	3,153.0047	3,153.0047	0.9318		3,176.2984
Total	**3.3025**	**37.1828**	**17.3114**	**0.0297**	**6.5523**	**2.0094**	**8.5618**	**3.3675**	**1.8487**	**5.2162**	**0.0000**	**3,153.0047**	**3,153.0047**	**0.9318**		**3,176.2984**

3.4 Grading - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1350	0.1077	1.3458	2.0900e-003	0.1677	1.8900e-003	0.1696	0.0445	1.7500e-003	0.0462		206.7599	206.7599	0.0117		207.0530
Total	**0.1350**	**0.1077**	**1.3458**	**2.0900e-003**	**0.1677**	**1.8900e-003**	**0.1696**	**0.0445**	**1.7500e-003**	**0.0462**		**206.7599**	**206.7599**	**0.0117**		**207.0530**

3.5 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.8827	31.4296	18.9909	0.0269		2.2360	2.2360		2.1047	2.1047		2,720.7811	2,720.7811	0.6923		2,738.0882
Total	**3.8827**	**31.4296**	**18.9909**	**0.0269**		**2.2360**	**2.2360**		**2.1047**	**2.1047**		**2,720.7811**	**2,720.7811**	**0.6923**		**2,738.0882**

3.5 Building Construction - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3993	7.6270	2.6538	0.0125	0.3009	0.1119	0.4128	0.0866	0.1071	0.1937		1,327.0425	1,327.0425	0.1074		1,329.7283
Worker	0.9719	0.7751	9.6901	0.0150	1.2072	0.0136	1.2208	0.3202	0.0126	0.3328		1,488.6712	1,488.6712	0.0844		1,490.7819
Total	**1.3712**	**8.4020**	**12.3439**	**0.0276**	**1.5081**	**0.1256**	**1.6336**	**0.4068**	**0.1197**	**0.5265**		**2,815.7137**	**2,815.7137**	**0.1919**		**2,820.5102**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.8827	31.4296	18.9909	0.0269		2.2360	2.2360		2.1047	2.1047	0.0000	2,720.7811	2,720.7811	0.6923		2,738.0882
Total	**3.8827**	**31.4296**	**18.9909**	**0.0269**		**2.2360**	**2.2360**		**2.1047**	**2.1047**	**0.0000**	**2,720.7811**	**2,720.7811**	**0.6923**		**2,738.0882**

3.5 Building Construction - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3993	7.6270	2.6538	0.0125	0.3009	0.1119	0.4128	0.0866	0.1071	0.1937		1,327.0425	1,327.0425	0.1074		1,329.7283
Worker	0.9719	0.7751	9.6901	0.0150	1.2072	0.0136	1.2208	0.3202	0.0126	0.3328		1,488.6712	1,488.6712	0.0844		1,490.7819
Total	**1.3712**	**8.4020**	**12.3439**	**0.0276**	**1.5081**	**0.1256**	**1.6336**	**0.4068**	**0.1197**	**0.5265**		**2,815.7137**	**2,815.7137**	**0.1919**		**2,820.5102**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6734	30.2005	18.8039	0.0269		2.1245	2.1245		1.9976	1.9976		2,701.0442	2,701.0442	0.6782		2,718.0002
Total	**3.6734**	**30.2005**	**18.8039**	**0.0269**		**2.1245**	**2.1245**		**1.9976**	**1.9976**		**2,701.0442**	**2,701.0442**	**0.6782**		**2,718.0002**

3.5 Building Construction - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3288	6.9844	2.2515	0.0125	0.3009	0.0808	0.3817	0.0866	0.0773	0.1640		1,329.3239	1,329.3239	0.1019		1,331.8725
Worker	0.8660	0.6808	8.5885	0.0147	1.2072	0.0126	1.2198	0.3202	0.0117	0.3318		1,462.2946	1,462.2946	0.0748		1,464.1639
Total	**1.1949**	**7.6652**	**10.8400**	**0.0273**	**1.5081**	**0.0935**	**1.6015**	**0.4068**	**0.0890**	**0.4958**		**2,791.6185**	**2,791.6185**	**0.1767**		**2,796.0364**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	3.6734	30.2005	18.8039	0.0269		2.1245	2.1245		1.9976	1.9976	0.0000	2,701.0442	2,701.0442	0.6782		2,718.0002
Total	**3.6734**	**30.2005**	**18.8039**	**0.0269**		**2.1245**	**2.1245**		**1.9976**	**1.9976**	**0.0000**	**2,701.0442**	**2,701.0442**	**0.6782**		**2,718.0002**

3.5 Building Construction - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3288	6.9844	2.2515	0.0125	0.3009	0.0808	0.3817	0.0866	0.0773	0.1640		1,329.3239	1,329.3239	0.1019		1,331.8725
Worker	0.8660	0.6808	8.5885	0.0147	1.2072	0.0126	1.2198	0.3202	0.0117	0.3318		1,462.2946	1,462.2946	0.0748		1,464.1639
Total	**1.1949**	**7.6652**	**10.8400**	**0.0273**	**1.5081**	**0.0935**	**1.6015**	**0.4068**	**0.0890**	**0.4958**		**2,791.6185**	**2,791.6185**	**0.1767**		**2,796.0364**

3.6 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3639	25.7121	15.2877	0.0228		1.4415	1.4415		1.3262	1.3262		2,390.7486	2,390.7486	0.7137		2,408.5920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3639**	**25.7121**	**15.2877**	**0.0228**		**1.4415**	**1.4415**		**1.3262**	**1.3262**		**2,390.7486**	**2,390.7486**	**0.7137**		**2,408.5920**

3.6 Paving - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1203	0.0946	1.1929	2.0500e-003	0.1677	1.7500e-003	0.1694	0.0445	1.6200e-003	0.0461		203.0965	203.0965	0.0104		203.3561
Total	**0.1203**	**0.0946**	**1.1929**	**2.0500e-003**	**0.1677**	**1.7500e-003**	**0.1694**	**0.0445**	**1.6200e-003**	**0.0461**		**203.0965**	**203.0965**	**0.0104**		**203.3561**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.3639	25.7121	15.2877	0.0228		1.4415	1.4415		1.3262	1.3262	0.0000	2,390.7486	2,390.7486	0.7137		2,408.5920
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**2.3639**	**25.7121**	**15.2877**	**0.0228**		**1.4415**	**1.4415**		**1.3262**	**1.3262**	**0.0000**	**2,390.7486**	**2,390.7486**	**0.7137**		**2,408.5920**

3.6 Paving - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1203	0.0946	1.1929	2.0500e-003	0.1677	1.7500e-003	0.1694	0.0445	1.6200e-003	0.0461		203.0965	203.0965	0.0104		203.3561
Total	**0.1203**	**0.0946**	**1.1929**	**2.0500e-003**	**0.1677**	**1.7500e-003**	**0.1694**	**0.0445**	**1.6200e-003**	**0.0461**		**203.0965**	**203.0965**	**0.0104**		**203.3561**

3.7 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	134.2296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209		281.4481	281.4481	0.0367		282.3643
Total	**134.6362**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**		**281.4481**	**281.4481**	**0.0367**		**282.3643**

3.7 Architectural Coating - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1764	0.1387	1.7495	3.0000e-003	0.2459	2.5700e-003	0.2485	0.0652	2.3800e-003	0.0676		297.8748	297.8748	0.0152		298.2556
Total	**0.1764**	**0.1387**	**1.7495**	**3.0000e-003**	**0.2459**	**2.5700e-003**	**0.2485**	**0.0652**	**2.3800e-003**	**0.0676**		**297.8748**	**297.8748**	**0.0152**		**298.2556**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	134.2296					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.4066	2.5703	1.9018	2.9700e-003		0.2209	0.2209		0.2209	0.2209	0.0000	281.4481	281.4481	0.0367		282.3643
Total	**134.6362**	**2.5703**	**1.9018**	**2.9700e-003**		**0.2209**	**0.2209**		**0.2209**	**0.2209**	**0.0000**	**281.4481**	**281.4481**	**0.0367**		**282.3643**

3.7 Architectural Coating - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.1764	0.1387	1.7495	3.0000e-003	0.2459	2.5700e-003	0.2485	0.0652	2.3800e-003	0.0676		297.8748	297.8748	0.0152		298.2556
Total	**0.1764**	**0.1387**	**1.7495**	**3.0000e-003**	**0.2459**	**2.5700e-003**	**0.2485**	**0.0652**	**2.3800e-003**	**0.0676**		**297.8748**	**297.8748**	**0.0152**		**298.2556**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	21.9108	90.3015	294.8523	0.6936	48.5746	1.0552	49.6298	13.0078	0.9970	14.0048		70,170.4214	70,170.4214	4.8404		70,291.4308
Unmitigated	21.9108	90.3015	294.8523	0.6936	48.5746	1.0552	49.6298	13.0078	0.9970	14.0048		70,170.4214	70,170.4214	4.8404		70,291.4308

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Day-Care Center	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	6,132.24	6,132.24	6132.24	19,754,772	19,754,772
General Office Building	953.90	953.90	953.90	3,072,965	3,072,965
Medical Office Building	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	7,086.14	7,086.14	7,086.14	22,827,736	22,827,736

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Day-Care Center	16.60	8.40	6.90	12.70	82.30	5.00	28	58	14
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Day-Care Center	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
General Light Industry	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
General Office Building	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
Medical Office Building	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
Unrefrigerated Warehouse-No Rail	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Olive View Medical Center - Existing (2016) Operations - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0743	0.6755	0.5674	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.5860	810.5860	0.0155	0.0149	815.4029
NaturalGas Unmitigated	0.0743	0.6755	0.5674	4.0500e-003		0.0513	0.0513		0.0513	0.0513		810.5860	810.5860	0.0155	0.0149	815.4029

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Day-Care Center	264.986	2.8600e-003	0.0260	0.0218	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003		31.1749	31.1749	6.0000e-004	5.7000e-004	31.3601
General Light Industry	2529.04	0.0273	0.2480	0.2083	1.4900e-003		0.0188	0.0188		0.0188	0.0188		297.5343	297.5343	5.7000e-003	5.4500e-003	299.3023
General Office Building	3080.22	0.0332	0.3020	0.2537	1.8100e-003		0.0230	0.0230		0.0230	0.0230		362.3787	362.3787	6.9500e-003	6.6400e-003	364.5322
General Office Building	479.145	5.1700e-003	0.0470	0.0395	2.8000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003		56.3700	56.3700	1.0800e-003	1.0300e-003	56.7050
Medical Office Building	313.726	3.3800e-003	0.0308	0.0258	1.8000e-004		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003		36.9089	36.9089	7.1000e-004	6.8000e-004	37.1283
Unrefrigerated Warehouse-No Rail	145.397	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.1056	17.1056	3.3000e-004	3.1000e-004	17.2072
Unrefrigerated Warehouse-No Rail	77.4658	8.4000e-004	7.5900e-003	6.3800e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.1136	9.1136	1.7000e-004	1.7000e-004	9.1678
Total		**0.0743**	**0.6755**	**0.5674**	**4.0600e-003**		**0.0513**	**0.0513**		**0.0513**	**0.0513**		**810.5860**	**810.5860**	**0.0155**	**0.0149**	**815.4029**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Day-Care Center	0.264986	2.8600e-003	0.0260	0.0218	1.6000e-004		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003		31.1749	31.1749	6.0000e-004	5.7000e-004	31.3601
General Light Industry	2.52904	0.0273	0.2480	0.2083	1.4900e-003		0.0188	0.0188		0.0188	0.0188		297.5343	297.5343	5.7000e-003	5.4500e-003	299.3023
General Office Building	0.479145	5.1700e-003	0.0470	0.0395	2.8000e-004		3.5700e-003	3.5700e-003		3.5700e-003	3.5700e-003		56.3700	56.3700	1.0800e-003	1.0300e-003	56.7050
General Office Building	3.08022	0.0332	0.3020	0.2537	1.8100e-003		0.0230	0.0230		0.0230	0.0230		362.3787	362.3787	6.9500e-003	6.6400e-003	364.5322
Medical Office Building	0.313726	3.3800e-003	0.0308	0.0258	1.8000e-004		2.3400e-003	2.3400e-003		2.3400e-003	2.3400e-003		36.9089	36.9089	7.1000e-004	6.8000e-004	37.1283
Unrefrigerated Warehouse-No Rail	0.0774658	8.4000e-004	7.5900e-003	6.3800e-003	5.0000e-005		5.8000e-004	5.8000e-004		5.8000e-004	5.8000e-004		9.1136	9.1136	1.7000e-004	1.7000e-004	9.1678
Unrefrigerated Warehouse-No Rail	0.145397	1.5700e-003	0.0143	0.0120	9.0000e-005		1.0800e-003	1.0800e-003		1.0800e-003	1.0800e-003		17.1056	17.1056	3.3000e-004	3.1000e-004	17.2072
Total		**0.0743**	**0.6755**	**0.5674**	**4.0600e-003**		**0.0513**	**0.0513**		**0.0513**	**0.0513**		**810.5860**	**810.5860**	**0.0155**	**0.0149**	**815.4029**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.4725	2.9000e-004	0.0303	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0634	0.0634	1.8000e-004		0.0679
Unmitigated	6.4725	2.9000e-004	0.0303	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0634	0.0634	1.8000e-004		0.0679

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7355					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9600e-003	2.9000e-004	0.0303	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0634	0.0634	1.8000e-004		0.0679
Total	**6.4725**	**2.9000e-004**	**0.0303**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0634**	**0.0634**	**1.8000e-004**		**0.0679**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7355					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.7341					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.9600e-003	2.9000e-004	0.0303	0.0000		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004		0.0634	0.0634	1.8000e-004		0.0679
Total	**6.4725**	**2.9000e-004**	**0.0303**	**0.0000**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**		**0.0634**	**0.0634**	**1.8000e-004**		**0.0679**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Olive View Medical Center - Existing (2016) Operations

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	108.00	1000sqft	2.48	108,000.00	0
General Office Building	16.80	1000sqft	0.39	16,800.00	0
Medical Office Building	11.00	1000sqft	0.25	11,000.00	0
Day-Care Center	9.30	1000sqft	0.21	9,300.00	0
General Light Industry	51.00	1000sqft	1.17	51,000.00	0
Unrefrigerated Warehouse-No Rail	32.50	1000sqft	0.75	32,500.00	0
Unrefrigerated Warehouse-No Rail	61.00	1000sqft	1.40	61,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2016
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	834	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP CO2 intensity revised based on 2016 CO2 intensity identified in 2017 Power Strategic Long-Term Resource Plan (p. C-15).

Land Use - Square footages from project description

Construction Phase - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Off-road Equipment - Existing operations only. No construction considered for this run.

Grading - Existing operations only. No construction considered for this run.

Trips and VMT - Existing operations only. No construction considered for this run.

On-road Fugitive Dust - Existing operations only. No construction considered for this run.

Architectural Coating - Existing operations only. No construction considered for this run.

Vehicle Trips - According to the Traffic Impact Analysis, there are 6,132 trips daily. All have been apportioned to the Administration (general office) land use. All other trips have been zeroed out.

Vehicle Emission Factors - Defaults used.

Vehicle Emission Factors - Defaults used.

Vehicle Emission Factors - Defaults used.

Road Dust - Defaults used.

Energy Use - Defaults used.

Water And Wastewater - Defaults used.

Solid Waste - Defaults used.

Table Name	Column Name	Default Value	New Value
tblProjectCharacteristics	CO2IntensityFactor	1227.89	834
tblVehicleTrips	ST_TR	6.21	0.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	56.78
tblVehicleTrips	ST_TR	8.96	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	5.83	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	56.78
tblVehicleTrips	SU_TR	1.55	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	74.06	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	56.78
tblVehicleTrips	WD_TR	36.13	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.6549	5.3564	3.7700	6.4900e-003	0.3424	0.3087	0.6511	0.1417	0.2895	0.4312	0.0000	601.4401	601.4401	0.1090	0.0000	604.1640
2015	1.6146	2.1737	1.6528	2.9500e-003	0.0773	0.1265	0.2038	0.0209	0.1188	0.1397	0.0000	271.8709	271.8709	0.0454	0.0000	273.0070
Maximum	**1.6146**	**5.3564**	**3.7700**	**6.4900e-003**	**0.3424**	**0.3087**	**0.6511**	**0.1417**	**0.2895**	**0.4312**	**0.0000**	**601.4401**	**601.4401**	**0.1090**	**0.0000**	**604.1640**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2014	0.6549	5.3564	3.7700	6.4900e-003	0.3424	0.3087	0.6511	0.1417	0.2895	0.4312	0.0000	601.4397	601.4397	0.1090	0.0000	604.1635
2015	1.6146	2.1737	1.6528	2.9500e-003	0.0773	0.1265	0.2038	0.0209	0.1188	0.1397	0.0000	271.8707	271.8707	0.0454	0.0000	273.0068
Maximum	**1.6146**	**5.3564**	**3.7700**	**6.4900e-003**	**0.3424**	**0.3087**	**0.6511**	**0.1417**	**0.2895**	**0.4312**	**0.0000**	**601.4397**	**601.4397**	**0.1090**	**0.0000**	**604.1635**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Olive View Medical Center - Existing (2016) Operations - Los Angeles-South Coast County, Annual

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2014	3-31-2014	1.5430	1.5430
2	4-1-2014	6-30-2014	1.4653	1.4653
3	7-1-2014	9-30-2014	1.4814	1.4814
4	10-1-2014	12-31-2014	1.4904	1.4904
5	1-1-2015	3-31-2015	1.3809	1.3809
6	4-1-2015	6-30-2015	1.7184	1.7184
7	7-1-2015	9-30-2015	0.6876	0.6876
		Highest	1.7184	1.7184

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1811	4.0000e-005	3.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1900e-003	7.1900e-003	2.0000e-005	0.0000	7.7000e-003
Energy	0.0136	0.1233	0.1036	7.4000e-004		9.3700e-003	9.3700e-003		9.3700e-003	9.3700e-003	0.0000	1,174.4582	1,174.4582	0.0387	9.9400e-003	1,178.3902
Mobile	3.8233	17.3554	52.0646	0.1217	8.6700	0.1924	8.8625	2.3256	0.1818	2.5074	0.0000	11,170.0982	11,170.0982	0.7917	0.0000	11,189.8908
Waste						0.0000	0.0000		0.0000	0.0000	80.8066	0.0000	80.8066	4.7755	0.0000	200.1950
Water						0.0000	0.0000		0.0000	0.0000	18.2027	345.1755	363.3782	1.8816	0.0466	424.3135
Total	**5.0179**	**17.4787**	**52.1719**	**0.1224**	**8.6700**	**0.2018**	**8.8718**	**2.3256**	**0.1912**	**2.5167**	**99.0094**	**12,689.7390**	**12,788.7484**	**7.4876**	**0.0566**	**12,992.7972**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.1811	4.0000e-005	3.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1900e-003	7.1900e-003	2.0000e-005	0.0000	7.7000e-003
Energy	0.0136	0.1233	0.1036	7.4000e-004		9.3700e-003	9.3700e-003		9.3700e-003	9.3700e-003	0.0000	1,174.4582	1,174.4582	0.0387	9.9400e-003	1,178.3902
Mobile	3.8233	17.3554	52.0646	0.1217	8.6700	0.1924	8.8625	2.3256	0.1818	2.5074	0.0000	11,170.0982	11,170.0982	0.7917	0.0000	11,189.8908
Waste						0.0000	0.0000		0.0000	0.0000	80.8066	0.0000	80.8066	4.7755	0.0000	200.1950
Water						0.0000	0.0000		0.0000	0.0000	18.2027	345.1755	363.3782	1.8816	0.0466	424.3135
Total	**5.0179**	**17.4787**	**52.1719**	**0.1224**	**8.6700**	**0.2018**	**8.8718**	**2.3256**	**0.1912**	**2.5167**	**99.0094**	**12,689.7390**	**12,788.7484**	**7.4876**	**0.0566**	**12,992.7972**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2014	1/28/2014	5	20	
2	Site Preparation	Site Preparation	1/29/2014	2/11/2014	5	10	
3	Grading	Grading	2/12/2014	3/25/2014	5	20	
4	Building Construction	Building Construction	3/26/2014	5/19/2015	5	230	
5	Paving	Paving	5/20/2015	6/16/2015	5	20	
6	Architectural Coating	Architectural Coating	6/17/2015	7/14/2015	5	20	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 10

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 434,400; Non-Residential Outdoor: 144,800; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Olive View Medical Center - Existing (2016) Operations - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	22.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	108.00	47.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0453	0.4796	0.2331	3.9000e-004		0.0253	0.0253		0.0236	0.0236	0.0000	36.7141	36.7141	9.8900e-003	0.0000	36.9614
Total	**0.0453**	**0.4796**	**0.2331**	**3.9000e-004**		**0.0253**	**0.0253**		**0.0236**	**0.0236**	**0.0000**	**36.7141**	**36.7141**	**9.8900e-003**	**0.0000**	**36.9614**

3.2 Demolition - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3600e-003	1.2200e-003	0.0129	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	2.0000e-005	4.5000e-004	0.0000	1.7967	1.7967	1.0000e-004	0.0000	1.7992
Total	**1.3600e-003**	**1.2200e-003**	**0.0129**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**2.0000e-005**	**4.5000e-004**	**0.0000**	**1.7967**	**1.7967**	**1.0000e-004**	**0.0000**	**1.7992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0453	0.4796	0.2331	3.9000e-004		0.0253	0.0253		0.0236	0.0236	0.0000	36.7140	36.7140	9.8900e-003	0.0000	36.9614
Total	**0.0453**	**0.4796**	**0.2331**	**3.9000e-004**		**0.0253**	**0.0253**		**0.0236**	**0.0236**	**0.0000**	**36.7140**	**36.7140**	**9.8900e-003**	**0.0000**	**36.9614**

3.2 Demolition - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3600e-003	1.2200e-003	0.0129	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	2.0000e-005	4.5000e-004	0.0000	1.7967	1.7967	1.0000e-004	0.0000	1.7992
Total	**1.3600e-003**	**1.2200e-003**	**0.0129**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**2.0000e-005**	**4.5000e-004**	**0.0000**	**1.7967**	**1.7967**	**1.0000e-004**	**0.0000**	**1.7992**

3.3 Site Preparation - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2790	0.1193	1.9000e-004		0.0158	0.0158		0.0145	0.0145	0.0000	18.3372	18.3372	5.4200e-003	0.0000	18.4727
Total	**0.0262**	**0.2790**	**0.1193**	**1.9000e-004**	**0.0903**	**0.0158**	**0.1061**	**0.0497**	**0.0145**	**0.0642**	**0.0000**	**18.3372**	**18.3372**	**5.4200e-003**	**0.0000**	**18.4727**

3.3 Site Preparation - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	7.3000e-004	7.7200e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0780	1.0780	6.0000e-005	0.0000	1.0795
Total	**8.2000e-004**	**7.3000e-004**	**7.7200e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**1.0780**	**1.0780**	**6.0000e-005**	**0.0000**	**1.0795**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0903	0.0000	0.0903	0.0497	0.0000	0.0497	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0262	0.2790	0.1193	1.9000e-004		0.0158	0.0158		0.0145	0.0145	0.0000	18.3372	18.3372	5.4200e-003	0.0000	18.4727
Total	**0.0262**	**0.2790**	**0.1193**	**1.9000e-004**	**0.0903**	**0.0158**	**0.1061**	**0.0497**	**0.0145**	**0.0642**	**0.0000**	**18.3372**	**18.3372**	**5.4200e-003**	**0.0000**	**18.4727**

3.3 Site Preparation - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.2000e-004	7.3000e-004	7.7200e-003	1.0000e-005	9.9000e-004	1.0000e-005	1.0000e-003	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.0780	1.0780	6.0000e-005	0.0000	1.0795
Total	**8.2000e-004**	**7.3000e-004**	**7.7200e-003**	**1.0000e-005**	**9.9000e-004**	**1.0000e-005**	**1.0000e-003**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**1.0780**	**1.0780**	**6.0000e-005**	**0.0000**	**1.0795**

3.4 Grading - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0495	0.5577	0.2597	4.5000e-004		0.0301	0.0301		0.0277	0.0277	0.0000	42.9054	42.9054	0.0127	0.0000	43.2223
Total	**0.0495**	**0.5577**	**0.2597**	**4.5000e-004**	**0.0983**	**0.0301**	**0.1284**	**0.0505**	**0.0277**	**0.0782**	**0.0000**	**42.9054**	**42.9054**	**0.0127**	**0.0000**	**43.2223**

3.4 Grading - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0400e-003	1.8400e-003	0.0193	3.0000e-005	2.4700e-003	3.0000e-005	2.4900e-003	6.5000e-004	3.0000e-005	6.8000e-004	0.0000	2.6950	2.6950	1.5000e-004	0.0000	2.6989
Total	**2.0400e-003**	**1.8400e-003**	**0.0193**	**3.0000e-005**	**2.4700e-003**	**3.0000e-005**	**2.4900e-003**	**6.5000e-004**	**3.0000e-005**	**6.8000e-004**	**0.0000**	**2.6950**	**2.6950**	**1.5000e-004**	**0.0000**	**2.6989**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0983	0.0000	0.0983	0.0505	0.0000	0.0505	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0495	0.5577	0.2597	4.5000e-004		0.0301	0.0301		0.0277	0.0277	0.0000	42.9053	42.9053	0.0127	0.0000	43.2223
Total	**0.0495**	**0.5577**	**0.2597**	**4.5000e-004**	**0.0983**	**0.0301**	**0.1284**	**0.0505**	**0.0277**	**0.0782**	**0.0000**	**42.9053**	**42.9053**	**0.0127**	**0.0000**	**43.2223**

3.4 Grading - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0400e-003	1.8400e-003	0.0193	3.0000e-005	2.4700e-003	3.0000e-005	2.4900e-003	6.5000e-004	3.0000e-005	6.8000e-004	0.0000	2.6950	2.6950	1.5000e-004	0.0000	2.6989
Total	**2.0400e-003**	**1.8400e-003**	**0.0193**	**3.0000e-005**	**2.4700e-003**	**3.0000e-005**	**2.4900e-003**	**6.5000e-004**	**3.0000e-005**	**6.8000e-004**	**0.0000**	**2.6950**	**2.6950**	**1.5000e-004**	**0.0000**	**2.6989**

3.5 Building Construction - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3902	3.1587	1.9086	2.7100e-003		0.2247	0.2247		0.2115	0.2115	0.0000	248.0592	248.0592	0.0631	0.0000	249.6372
Total	**0.3902**	**3.1587**	**1.9086**	**2.7100e-003**		**0.2247**	**0.2247**		**0.2115**	**0.2115**	**0.0000**	**248.0592**	**248.0592**	**0.0631**	**0.0000**	**249.6372**

3.5 Building Construction - 2014

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0408	0.7890	0.2779	1.2500e-003	0.0298	0.0113	0.0411	8.5900e-003	0.0108	0.0194	0.0000	119.8479	119.8479	0.0101	0.0000	120.0999
Worker	0.0986	0.0886	0.9316	1.4500e-003	0.1189	1.3700e-003	0.1203	0.0316	1.2700e-003	0.0329	0.0000	130.0067	130.0067	7.4500e-003	0.0000	130.1928
Total	**0.1394**	**0.8776**	**1.2095**	**2.7000e-003**	**0.1487**	**0.0127**	**0.1614**	**0.0402**	**0.0121**	**0.0523**	**0.0000**	**249.8546**	**249.8546**	**0.0175**	**0.0000**	**250.2927**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.3902	3.1587	1.9086	2.7100e-003		0.2247	0.2247		0.2115	0.2115	0.0000	248.0589	248.0589	0.0631	0.0000	249.6369
Total	**0.3902**	**3.1587**	**1.9086**	**2.7100e-003**		**0.2247**	**0.2247**		**0.2115**	**0.2115**	**0.0000**	**248.0589**	**248.0589**	**0.0631**	**0.0000**	**249.6369**

3.5 Building Construction - 2014

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0408	0.7890	0.2779	1.2500e-003	0.0298	0.0113	0.0411	8.5900e-003	0.0108	0.0194	0.0000	119.8479	119.8479	0.0101	0.0000	120.0999
Worker	0.0986	0.0886	0.9316	1.4500e-003	0.1189	1.3700e-003	0.1203	0.0316	1.2700e-003	0.0329	0.0000	130.0067	130.0067	7.4500e-003	0.0000	130.1928
Total	**0.1394**	**0.8776**	**1.2095**	**2.7000e-003**	**0.1487**	**0.0127**	**0.1614**	**0.0402**	**0.0121**	**0.0523**	**0.0000**	**249.8546**	**249.8546**	**0.0175**	**0.0000**	**250.2927**

3.5 Building Construction - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1818	1.4949	0.9308	1.3300e-003		0.1052	0.1052		0.0989	0.0989	0.0000	121.2921	121.2921	0.0305	0.0000	122.0536
Total	**0.1818**	**1.4949**	**0.9308**	**1.3300e-003**		**0.1052**	**0.1052**		**0.0989**	**0.0989**	**0.0000**	**121.2921**	**121.2921**	**0.0305**	**0.0000**	**122.0536**

3.5 Building Construction - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0166	0.3550	0.1165	6.1000e-004	0.0147	4.0300e-003	0.0187	4.2300e-003	3.8500e-003	8.0800e-003	0.0000	59.0980	59.0980	4.7100e-003	0.0000	59.2158
Worker	0.0432	0.0383	0.4056	7.0000e-004	0.0586	6.2000e-004	0.0592	0.0156	5.8000e-004	0.0161	0.0000	62.8866	62.8866	3.2400e-003	0.0000	62.9677
Total	**0.0598**	**0.3933**	**0.5221**	**1.3100e-003**	**0.0732**	**4.6500e-003**	**0.0779**	**0.0198**	**4.4300e-003**	**0.0242**	**0.0000**	**121.9846**	**121.9846**	**7.9500e-003**	**0.0000**	**122.1835**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1818	1.4949	0.9308	1.3300e-003		0.1052	0.1052		0.0989	0.0989	0.0000	121.2920	121.2920	0.0305	0.0000	122.0534
Total	**0.1818**	**1.4949**	**0.9308**	**1.3300e-003**		**0.1052**	**0.1052**		**0.0989**	**0.0989**	**0.0000**	**121.2920**	**121.2920**	**0.0305**	**0.0000**	**122.0534**

3.5 Building Construction - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0166	0.3550	0.1165	6.1000e-004	0.0147	4.0300e-003	0.0187	4.2300e-003	3.8500e-003	8.0800e-003	0.0000	59.0980	59.0980	4.7100e-003	0.0000	59.2158
Worker	0.0432	0.0383	0.4056	7.0000e-004	0.0586	6.2000e-004	0.0592	0.0156	5.8000e-004	0.0161	0.0000	62.8866	62.8866	3.2400e-003	0.0000	62.9677
Total	**0.0598**	**0.3933**	**0.5221**	**1.3100e-003**	**0.0732**	**4.6500e-003**	**0.0779**	**0.0198**	**4.4300e-003**	**0.0242**	**0.0000**	**121.9846**	**121.9846**	**7.9500e-003**	**0.0000**	**122.1835**

3.6 Paving - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0236	0.2571	0.1529	2.3000e-004		0.0144	0.0144		0.0133	0.0133	0.0000	21.6885	21.6885	6.4700e-003	0.0000	21.8504
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0236**	**0.2571**	**0.1529**	**2.3000e-004**		**0.0144**	**0.0144**		**0.0133**	**0.0133**	**0.0000**	**21.6885**	**21.6885**	**6.4700e-003**	**0.0000**	**21.8504**

3.6 Paving - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	1.0700e-003	0.0114	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	2.0000e-005	4.5000e-004	0.0000	1.7645	1.7645	9.0000e-005	0.0000	1.7668
Total	**1.2100e-003**	**1.0700e-003**	**0.0114**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**2.0000e-005**	**4.5000e-004**	**0.0000**	**1.7645**	**1.7645**	**9.0000e-005**	**0.0000**	**1.7668**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0236	0.2571	0.1529	2.3000e-004		0.0144	0.0144		0.0133	0.0133	0.0000	21.6885	21.6885	6.4700e-003	0.0000	21.8504
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0236**	**0.2571**	**0.1529**	**2.3000e-004**		**0.0144**	**0.0144**		**0.0133**	**0.0133**	**0.0000**	**21.6885**	**21.6885**	**6.4700e-003**	**0.0000**	**21.8504**

3.6 Paving - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2100e-003	1.0700e-003	0.0114	2.0000e-005	1.6400e-003	2.0000e-005	1.6600e-003	4.4000e-004	2.0000e-005	4.5000e-004	0.0000	1.7645	1.7645	9.0000e-005	0.0000	1.7668
Total	**1.2100e-003**	**1.0700e-003**	**0.0114**	**2.0000e-005**	**1.6400e-003**	**2.0000e-005**	**1.6600e-003**	**4.4000e-004**	**2.0000e-005**	**4.5000e-004**	**0.0000**	**1.7645**	**1.7645**	**9.0000e-005**	**0.0000**	**1.7668**

3.7 Architectural Coating - 2015

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0700e-003	0.0257	0.0190	3.0000e-005		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	2.5533	2.5533	3.3000e-004	0.0000	2.5616
Total	**1.3464**	**0.0257**	**0.0190**	**3.0000e-005**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**2.5533**	**2.5533**	**3.3000e-004**	**0.0000**	**2.5616**

3.7 Architectural Coating - 2015

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.5800e-003	0.0167	3.0000e-005	2.4100e-003	3.0000e-005	2.4400e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	2.5879	2.5879	1.3000e-004	0.0000	2.5913
Total	**1.7800e-003**	**1.5800e-003**	**0.0167**	**3.0000e-005**	**2.4100e-003**	**3.0000e-005**	**2.4400e-003**	**6.4000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**2.5879**	**2.5879**	**1.3000e-004**	**0.0000**	**2.5913**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3423					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0700e-003	0.0257	0.0190	3.0000e-005		2.2100e-003	2.2100e-003		2.2100e-003	2.2100e-003	0.0000	2.5533	2.5533	3.3000e-004	0.0000	2.5616
Total	**1.3464**	**0.0257**	**0.0190**	**3.0000e-005**		**2.2100e-003**	**2.2100e-003**		**2.2100e-003**	**2.2100e-003**	**0.0000**	**2.5533**	**2.5533**	**3.3000e-004**	**0.0000**	**2.5616**

3.7 Architectural Coating - 2015

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.7800e-003	1.5800e-003	0.0167	3.0000e-005	2.4100e-003	3.0000e-005	2.4400e-003	6.4000e-004	2.0000e-005	6.6000e-004	0.0000	2.5879	2.5879	1.3000e-004	0.0000	2.5913
Total	**1.7800e-003**	**1.5800e-003**	**0.0167**	**3.0000e-005**	**2.4100e-003**	**3.0000e-005**	**2.4400e-003**	**6.4000e-004**	**2.0000e-005**	**6.6000e-004**	**0.0000**	**2.5879**	**2.5879**	**1.3000e-004**	**0.0000**	**2.5913**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.8233	17.3554	52.0646	0.1217	8.6700	0.1924	8.8625	2.3256	0.1818	2.5074	0.0000	11,170.0982	11,170.0982	0.7917	0.0000	11,189.8908
Unmitigated	3.8233	17.3554	52.0646	0.1217	8.6700	0.1924	8.8625	2.3256	0.1818	2.5074	0.0000	11,170.0982	11,170.0982	0.7917	0.0000	11,189.8908

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Day-Care Center	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	6,132.24	6,132.24	6132.24	19,754,772	19,754,772
General Office Building	953.90	953.90	953.90	3,072,965	3,072,965
Medical Office Building	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	7,086.14	7,086.14	7,086.14	22,827,736	22,827,736

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Day-Care Center	16.60	8.40	6.90	12.70	82.30	5.00	28	58	14
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Day-Care Center	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
General Light Industry	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
General Office Building	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
Medical Office Building	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994
Unrefrigerated Warehouse-No Rail	0.546581	0.047315	0.196959	0.128768	0.019038	0.005774	0.017712	0.026513	0.002264	0.002897	0.004538	0.000646	0.000994

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Olive View Medical Center - Existing (2016) Operations - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,040.2566	1,040.2566	0.0362	7.4800e-003	1,043.3911
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	1,040.2566	1,040.2566	0.0362	7.4800e-003	1,043.3911
NaturalGas Mitigated	0.0136	0.1233	0.1036	7.4000e-004		9.3700e-003	9.3700e-003		9.3700e-003	9.3700e-003	0.0000	134.2016	134.2016	2.5700e-003	2.4600e-003	134.9991
NaturalGas Unmitigated	0.0136	0.1233	0.1036	7.4000e-004		9.3700e-003	9.3700e-003		9.3700e-003	9.3700e-003	0.0000	134.2016	134.2016	2.5700e-003	2.4600e-003	134.9991

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Day-Care Center	96720	5.2000e-004	4.7400e-003	3.9800e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1614	5.1614	1.0000e-004	9.0000e-005	5.1920
General Light Industry	923100	4.9800e-003	0.0453	0.0380	2.7000e-004		3.4400e-003	3.4400e-003		3.4400e-003	3.4400e-003	0.0000	49.2601	49.2601	9.4000e-004	9.0000e-004	49.5529
General Office Building	1.12428e+006	6.0600e-003	0.0551	0.0463	3.3000e-004		4.1900e-003	4.1900e-003		4.1900e-003	4.1900e-003	0.0000	59.9959	59.9959	1.1500e-003	1.1000e-003	60.3524
General Office Building	174888	9.4000e-004	8.5700e-003	7.2000e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3327	9.3327	1.8000e-004	1.7000e-004	9.3882
Medical Office Building	114510	6.2000e-004	5.6100e-003	4.7200e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	6.1107	6.1107	1.2000e-004	1.1000e-004	6.1470
Unrefrigerated Warehouse-No Rail	28275	1.5000e-004	1.3900e-003	1.1600e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5089	1.5089	3.0000e-005	3.0000e-005	1.5178
Unrefrigerated Warehouse-No Rail	53070	2.9000e-004	2.6000e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8320	2.8320	5.0000e-005	5.0000e-005	2.8489
Total		**0.0136**	**0.1233**	**0.1036**	**7.4000e-004**		**9.3800e-003**	**9.3800e-003**		**9.3800e-003**	**9.3800e-003**	**0.0000**	**134.2016**	**134.2016**	**2.5700e-003**	**2.4500e-003**	**134.9991**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Day-Care Center	96720	5.2000e-004	4.7400e-003	3.9800e-003	3.0000e-005		3.6000e-004	3.6000e-004		3.6000e-004	3.6000e-004	0.0000	5.1614	5.1614	1.0000e-004	9.0000e-005	5.1920
General Light Industry	923100	4.9800e-003	0.0453	0.0380	2.7000e-004		3.4400e-003	3.4400e-003		3.4400e-003	3.4400e-003	0.0000	49.2601	49.2601	9.4000e-004	9.0000e-004	49.5529
General Office Building	1.12428e+006	6.0600e-003	0.0551	0.0463	3.3000e-004		4.1900e-003	4.1900e-003		4.1900e-003	4.1900e-003	0.0000	59.9959	59.9959	1.1500e-003	1.1000e-003	60.3524
General Office Building	174888	9.4000e-004	8.5700e-003	7.2000e-003	5.0000e-005		6.5000e-004	6.5000e-004		6.5000e-004	6.5000e-004	0.0000	9.3327	9.3327	1.8000e-004	1.7000e-004	9.3882
Medical Office Building	114510	6.2000e-004	5.6100e-003	4.7200e-003	3.0000e-005		4.3000e-004	4.3000e-004		4.3000e-004	4.3000e-004	0.0000	6.1107	6.1107	1.2000e-004	1.1000e-004	6.1470
Unrefrigerated Warehouse-No Rail	28275	1.5000e-004	1.3900e-003	1.1600e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5089	1.5089	3.0000e-005	3.0000e-005	1.5178
Unrefrigerated Warehouse-No Rail	53070	2.9000e-004	2.6000e-003	2.1900e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004	0.0000	2.8320	2.8320	5.0000e-005	5.0000e-005	2.8489
Total		**0.0136**	**0.1233**	**0.1036**	**7.4000e-004**		**9.3800e-003**	**9.3800e-003**		**9.3800e-003**	**9.3800e-003**	**0.0000**	**134.2016**	**134.2016**	**2.5700e-003**	**2.4500e-003**	**134.9991**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Day-Care Center	55056	20.8275	7.2000e-004	1.5000e-004	20.8902
General Light Industry	566100	214.1534	7.4500e-003	1.5400e-003	214.7987
General Office Building	1.40292e+006	530.7191	0.0185	3.8200e-003	532.3182
General Office Building	218232	82.5563	2.8700e-003	5.9000e-004	82.8051
Medical Office Building	142890	54.0547	1.8800e-003	3.9000e-004	54.2176
Unrefrigerated Warehouse-No Rail	126750	47.9490	1.6700e-003	3.4000e-004	48.0935
Unrefrigerated Warehouse-No Rail	237900	89.9966	3.1300e-003	6.5000e-004	90.2678
Total		**1,040.2566**	**0.0362**	**7.4800e-003**	**1,043.3911**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Day-Care Center	55056	20.8275	7.2000e-004	1.5000e-004	20.8902
General Light Industry	566100	214.1534	7.4500e-003	1.5400e-003	214.7987
General Office Building	1.40292e+006	530.7191	0.0185	3.8200e-003	532.3182
General Office Building	218232	82.5563	2.8700e-003	5.9000e-004	82.8051
Medical Office Building	142890	54.0547	1.8800e-003	3.9000e-004	54.2176
Unrefrigerated Warehouse-No Rail	126750	47.9490	1.6700e-003	3.4000e-004	48.0935
Unrefrigerated Warehouse-No Rail	237900	89.9966	3.1300e-003	6.5000e-004	90.2678
Total		**1,040.2566**	**0.0362**	**7.4800e-003**	**1,043.3911**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1811	4.0000e-005	3.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1900e-003	7.1900e-003	2.0000e-005	0.0000	7.7000e-003
Unmitigated	1.1811	4.0000e-005	3.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1900e-003	7.1900e-003	2.0000e-005	0.0000	7.7000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.7000e-004	4.0000e-005	3.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1900e-003	7.1900e-003	2.0000e-005	0.0000	7.7000e-003
Total	**1.1811**	**4.0000e-005**	**3.7900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.1900e-003**	**7.1900e-003**	**2.0000e-005**	**0.0000**	**7.7000e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1342					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0465					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	3.7000e-004	4.0000e-005	3.7900e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	7.1900e-003	7.1900e-003	2.0000e-005	0.0000	7.7000e-003
Total	**1.1811**	**4.0000e-005**	**3.7900e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**7.1900e-003**	**7.1900e-003**	**2.0000e-005**	**0.0000**	**7.7000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	363.3782	1.8816	0.0466	424.3135
Unmitigated	363.3782	1.8816	0.0466	424.3135

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Day-Care Center	0.398873 / 1.02567	6.4021	0.0132	3.5000e-004	6.8374
General Light Industry	11.7937 / 0	61.8352	0.3863	9.4900e-003	74.3218
General Office Building	22.1812 / 13.5949	173.4346	0.7286	0.0183	197.0910
Medical Office Building	1.38029 / 0.262912	8.3419	0.0453	1.1200e-003	9.8066
Unrefrigerated Warehouse-No Rail	21.6219 / 0	113.3645	0.7083	0.0174	136.2567
Total		**363.3782**	**1.8816**	**0.0466**	**424.3135**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Day-Care Center	0.398873 / 1.02567	6.4021	0.0132	3.5000e-004	6.8374
General Light Industry	11.7937 / 0	61.8352	0.3863	9.4900e-003	74.3218
General Office Building	22.1812 / 13.5949	173.4346	0.7286	0.0183	197.0910
Medical Office Building	1.38029 / 0.262912	8.3419	0.0453	1.1200e-003	9.8066
Unrefrigerated Warehouse-No Rail	21.6219 / 0	113.3645	0.7083	0.0174	136.2567
Total		**363.3782**	**1.8816**	**0.0466**	**424.3135**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	80.8066	4.7755	0.0000	200.1950
Unmitigated	80.8066	4.7755	0.0000	200.1950

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Day-Care Center	12.09	2.4542	0.1450	0.0000	6.0801
General Light Industry	63.24	12.8372	0.7587	0.0000	31.8035
General Office Building	116.06	23.5591	1.3923	0.0000	58.3668
Medical Office Building	118.8	24.1153	1.4252	0.0000	59.7447
Unrefrigerated Warehouse-No Rail	87.89	17.8409	1.0544	0.0000	44.2000
Total		**80.8067**	**4.7755**	**0.0000**	**200.1950**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Day-Care Center	12.09	2.4542	0.1450	0.0000	6.0801
General Light Industry	63.24	12.8372	0.7587	0.0000	31.8035
General Office Building	116.06	23.5591	1.3923	0.0000	58.3668
Medical Office Building	118.8	24.1153	1.4252	0.0000	59.7447
Unrefrigerated Warehouse-No Rail	87.89	17.8409	1.0544	0.0000	44.2000
Total		**80.8067**	**4.7755**	**0.0000**	**200.1950**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Olive View-UCLA Medical Center - Tier 1A (Restorative Care Village)

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	16.36	1000sqft	0.38	16,356.00	0
Hospital	47.03	1000sqft	1.08	47,035.00	0
Hospital	10.00	1000sqft	0.23	10,000.00	0
Medical Office Building	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	834	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction schedule based on the 9/4/2018 CEO letter to the Board of Supervisors stating that construction would be complete by early 2021. LADWP CO2 intensity revised based on 2016 CO2 intensity identified in 2017 Power Strategic Long-Term Resource Plan (p. C-15).

Land Use - Building square footages from project description. All Restorative Village structures modeled as hospital except for the Mental Health Wellness Center, which would function similar to a medical office building.

Construction Phase - Default construction schedule based on building square footages. All buildings assumed to be under construction concurrently

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Grading - Off-site export is estimated to be 200 cy per day during the site prep and excavation phases; no import is assumed.

Demolition - No building demolition is required for the Restorative Village structures.

Trips and VMT - Default number of trips and distances assumed.

On-road Fugitive Dust - Defaults assumed.

Architectural Coating - Defaults assumed.

Vehicle Trips - Daily trips based on March 2019 TIA prepared by Fehr & Peers

Energy Use - Defaults assumed.

Water And Wastewater - Defaults assumed.

Solid Waste - Defaults assumed.

Construction Off-road Equipment Mitigation - Rule 403 compliance

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	50
tblGrading	MaterialExported	0.00	200.00
tblGrading	MaterialExported	0.00	200.00
tblLandUse	LandUseSquareFeet	16,360.00	16,356.00
tblLandUse	LandUseSquareFeet	47,030.00	47,035.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	834
tblVehicleTrips	ST_TR	10.18	9.39
tblVehicleTrips	ST_TR	8.96	29.70
tblVehicleTrips	SU_TR	8.91	9.39
tblVehicleTrips	SU_TR	1.55	29.70
tblVehicleTrips	WD_TR	13.22	9.39
tblVehicleTrips	WD_TR	36.13	29.70

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	38.9172	21.9669	15.2265	0.0289	6.1189	1.1537	6.9520	3.0390	1.0773	3.8060	0.0000	2,831.2907	2,831.2907	0.6151	0.0000	2,846.6671
Maximum	**38.9172**	**21.9669**	**15.2265**	**0.0289**	**6.1189**	**1.1537**	**6.9520**	**3.0390**	**1.0773**	**3.8060**	**0.0000**	**2,831.2907**	**2,831.2907**	**0.6151**	**0.0000**	**2,846.6671**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	38.9172	21.9669	15.2265	0.0289	2.4527	1.1537	3.2859	1.2064	1.0773	1.9733	0.0000	2,831.2907	2,831.2907	0.6151	0.0000	2,846.6671
Maximum	**38.9172**	**21.9669**	**15.2265**	**0.0289**	**2.4527**	**1.1537**	**3.2859**	**1.2064**	**1.0773**	**1.9733**	**0.0000**	**2,831.2907**	**2,831.2907**	**0.6151**	**0.0000**	**2,846.6671**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**59.92**	**0.00**	**52.73**	**60.30**	**0.00**	**48.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.8637	8.0000e-005	8.5500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0183	0.0183	5.0000e-005		0.0195
Energy	0.1435	1.3046	1.0958	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,565.4798	1,565.4798	0.0300	0.0287	1,574.7827
Mobile	1.9318	9.1246	26.7459	0.0924	7.3192	0.0761	7.3953	1.9588	0.0710	2.0299		9,397.0937	9,397.0937	0.4870		9,409.2697
Total	**3.9390**	**10.4293**	**27.8503**	**0.1003**	**7.3192**	**0.1753**	**7.4945**	**1.9588**	**0.1702**	**2.1290**		**10,962.5918**	**10,962.5918**	**0.5171**	**0.0287**	**10,984.0718**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	1.8637	8.0000e-005	8.5500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0183	0.0183	5.0000e-005		0.0195
Energy	0.1435	1.3046	1.0958	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,565.4798	1,565.4798	0.0300	0.0287	1,574.7827
Mobile	1.9318	9.1246	26.7459	0.0924	7.3192	0.0761	7.3953	1.9588	0.0710	2.0299		9,397.0937	9,397.0937	0.4870		9,409.2697
Total	**3.9390**	**10.4293**	**27.8503**	**0.1003**	**7.3192**	**0.1753**	**7.4945**	**1.9588**	**0.1702**	**2.1290**		**10,962.5918**	**10,962.5918**	**0.5171**	**0.0287**	**10,984.0718**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	1/30/2020	5	2	
3	Grading	Grading	1/31/2020	2/5/2020	5	4	
4	Building Construction	Building Construction	2/6/2020	11/11/2020	5	200	
5	Paving	Paving	11/12/2020	11/25/2020	5	10	
6	Architectural Coating	Architectural Coating	11/26/2020	12/9/2020	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 125,087; Non-Residential Outdoor: 41,696; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Olive View-UCLA Medical Center - Tier 1A (Restorative Care Village) - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	25.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	25.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	27.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761		2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**		**1.1525**	**1.1525**		**1.0761**	**1.0761**		**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0598	0.0426	0.5692	1.5400e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		152.8947	152.8947	4.8200e-003		153.0152
Total	**0.0598**	**0.0426**	**0.5692**	**1.5400e-003**	**0.1453**	**1.2100e-003**	**0.1465**	**0.0385**	**1.1200e-003**	**0.0397**		**152.8947**	**152.8947**	**4.8200e-003**		**153.0152**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1262	20.9463	14.6573	0.0241		1.1525	1.1525		1.0761	1.0761	0.0000	2,322.3127	2,322.3127	0.5970		2,337.2363
Total	**2.1262**	**20.9463**	**14.6573**	**0.0241**		**1.1525**	**1.1525**		**1.0761**	**1.0761**	**0.0000**	**2,322.3127**	**2,322.3127**	**0.5970**		**2,337.2363**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0598	0.0426	0.5692	1.5400e-003	0.0822	1.2100e-003	0.0834	0.0230	1.1200e-003	0.0242		152.8947	152.8947	4.8200e-003		153.0152
Total	**0.0598**	**0.0426**	**0.5692**	**1.5400e-003**	**0.0822**	**1.2100e-003**	**0.0834**	**0.0230**	**1.1200e-003**	**0.0242**		**152.8947**	**152.8947**	**4.8200e-003**		**153.0152**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.8109	0.0000	5.8109	2.9554	0.0000	2.9554			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553		1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**5.8109**	**0.8210**	**6.6318**	**2.9554**	**0.7553**	**3.7107**		**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1092	3.5943	0.7965	9.8700e-003	0.2186	0.0115	0.2300	0.0599	0.0110	0.0709		1,069.7898	1,069.7898	0.0728		1,071.6102
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0368	0.0262	0.3503	9.4000e-004	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		94.0890	94.0890	2.9700e-003		94.1632
Total	**0.1460**	**3.6205**	**1.1467**	**0.0108**	**0.3080**	**0.0122**	**0.3202**	**0.0836**	**0.0117**	**0.0953**		**1,163.8788**	**1,163.8788**	**0.0758**		**1,165.7734**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.2662	0.0000	2.2662	1.1526	0.0000	1.1526			0.0000			0.0000
Off-Road	1.6299	18.3464	7.7093	0.0172		0.8210	0.8210		0.7553	0.7553	0.0000	1,667.4119	1,667.4119	0.5393		1,680.8937
Total	**1.6299**	**18.3464**	**7.7093**	**0.0172**	**2.2662**	**0.8210**	**3.0872**	**1.1526**	**0.7553**	**1.9079**	**0.0000**	**1,667.4119**	**1,667.4119**	**0.5393**		**1,680.8937**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1092	3.5943	0.7965	9.8700e-003	0.1359	0.0115	0.1474	0.0396	0.0110	0.0506		1,069.7898	1,069.7898	0.0728		1,071.6102
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0368	0.0262	0.3503	9.4000e-004	0.0506	7.5000e-004	0.0513	0.0142	6.9000e-004	0.0149		94.0890	94.0890	2.9700e-003		94.1632
Total	**0.1460**	**3.6205**	**1.1467**	**0.0108**	**0.1865**	**0.0122**	**0.1987**	**0.0538**	**0.0117**	**0.0655**		**1,163.8788**	**1,163.8788**	**0.0758**		**1,165.7734**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9199	0.0000	4.9199	2.5265	0.0000	2.5265			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296		1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**4.9199**	**0.6844**	**5.6043**	**2.5265**	**0.6296**	**3.1561**		**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0546	1.7971	0.3982	4.9400e-003	0.1093	5.7400e-003	0.1150	0.0300	5.4900e-003	0.0354		534.8949	534.8949	0.0364		535.8051
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0368	0.0262	0.3503	9.4000e-004	0.0894	7.5000e-004	0.0902	0.0237	6.9000e-004	0.0244		94.0890	94.0890	2.9700e-003		94.1632
Total	**0.0914**	**1.8233**	**0.7485**	**5.8800e-003**	**0.1987**	**6.4900e-003**	**0.2052**	**0.0537**	**6.1800e-003**	**0.0598**		**628.9839**	**628.9839**	**0.0394**		**629.9683**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.9188	0.0000	1.9188	0.9853	0.0000	0.9853			0.0000			0.0000
Off-Road	1.3498	15.0854	6.4543	0.0141		0.6844	0.6844		0.6296	0.6296	0.0000	1,365.7183	1,365.7183	0.4417		1,376.7609
Total	**1.3498**	**15.0854**	**6.4543**	**0.0141**	**1.9188**	**0.6844**	**2.6031**	**0.9853**	**0.6296**	**1.6150**	**0.0000**	**1,365.7183**	**1,365.7183**	**0.4417**		**1,376.7609**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0546	1.7971	0.3982	4.9400e-003	0.0680	5.7400e-003	0.0737	0.0198	5.4900e-003	0.0253		534.8949	534.8949	0.0364		535.8051
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0368	0.0262	0.3503	9.4000e-004	0.0506	7.5000e-004	0.0513	0.0142	6.9000e-004	0.0149		94.0890	94.0890	2.9700e-003		94.1632
Total	**0.0914**	**1.8233**	**0.7485**	**5.8800e-003**	**0.1185**	**6.4900e-003**	**0.1250**	**0.0340**	**6.1800e-003**	**0.0402**		**628.9839**	**628.9839**	**0.0394**		**629.9683**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688		2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**		**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0498	1.4892	0.3902	3.6300e-003	0.0896	7.0100e-003	0.0966	0.0258	6.7000e-003	0.0325		387.8346	387.8346	0.0237		388.4263
Worker	0.1243	0.0884	1.1822	3.1900e-003	0.3018	2.5200e-003	0.3043	0.0800	2.3200e-003	0.0824		317.5505	317.5505	0.0100		317.8008
Total	**0.1740**	**1.5776**	**1.5724**	**6.8200e-003**	**0.3914**	**9.5300e-003**	**0.4010**	**0.1059**	**9.0200e-003**	**0.1149**		**705.3851**	**705.3851**	**0.0337**		**706.2270**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.0305	14.7882	13.1881	0.0220		0.7960	0.7960		0.7688	0.7688	0.0000	2,001.1595	2,001.1595	0.3715		2,010.4467
Total	**2.0305**	**14.7882**	**13.1881**	**0.0220**		**0.7960**	**0.7960**		**0.7688**	**0.7688**	**0.0000**	**2,001.1595**	**2,001.1595**	**0.3715**		**2,010.4467**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0498	1.4892	0.3902	3.6300e-003	0.0577	7.0100e-003	0.0647	0.0180	6.7000e-003	0.0247		387.8346	387.8346	0.0237		388.4263
Worker	0.1243	0.0884	1.1822	3.1900e-003	0.1706	2.5200e-003	0.1731	0.0478	2.3200e-003	0.0502		317.5505	317.5505	0.0100		317.8008
Total	**0.1740**	**1.5776**	**1.5724**	**6.8200e-003**	**0.2283**	**9.5300e-003**	**0.2378**	**0.0658**	**9.0200e-003**	**0.0748**		**705.3851**	**705.3851**	**0.0337**		**706.2270**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8402	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328		1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8402**	**8.4514**	**8.8758**	**0.0135**		**0.4695**	**0.4695**		**0.4328**	**0.4328**		**1,296.9461**	**1,296.9461**	**0.4111**		**1,307.2246**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0598	0.0426	0.5692	1.5400e-003	0.1453	1.2100e-003	0.1465	0.0385	1.1200e-003	0.0397		152.8947	152.8947	4.8200e-003		153.0152
Total	**0.0598**	**0.0426**	**0.5692**	**1.5400e-003**	**0.1453**	**1.2100e-003**	**0.1465**	**0.0385**	**1.1200e-003**	**0.0397**		**152.8947**	**152.8947**	**4.8200e-003**		**153.0152**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8402	8.4514	8.8758	0.0135		0.4695	0.4695		0.4328	0.4328	0.0000	1,296.9461	1,296.9461	0.4111		1,307.2246
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8402**	**8.4514**	**8.8758**	**0.0135**		**0.4695**	**0.4695**		**0.4328**	**0.4328**	**0.0000**	**1,296.9461**	**1,296.9461**	**0.4111**		**1,307.2246**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0598	0.0426	0.5692	1.5400e-003	0.0822	1.2100e-003	0.0834	0.0230	1.1200e-003	0.0242		152.8947	152.8947	4.8200e-003		153.0152
Total	**0.0598**	**0.0426**	**0.5692**	**1.5400e-003**	**0.0822**	**1.2100e-003**	**0.0834**	**0.0230**	**1.1200e-003**	**0.0242**		**152.8947**	**152.8947**	**4.8200e-003**		**153.0152**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.6520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	**38.8941**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**		**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0230	0.0164	0.2189	5.9000e-004	0.0559	4.7000e-004	0.0564	0.0148	4.3000e-004	0.0153		58.8056	58.8056	1.8500e-003		58.8520
Total	**0.0230**	**0.0164**	**0.2189**	**5.9000e-004**	**0.0559**	**4.7000e-004**	**0.0564**	**0.0148**	**4.3000e-004**	**0.0153**		**58.8056**	**58.8056**	**1.8500e-003**		**58.8520**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	38.6520					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	**38.8941**	**1.6838**	**1.8314**	**2.9700e-003**		**0.1109**	**0.1109**		**0.1109**	**0.1109**	**0.0000**	**281.4481**	**281.4481**	**0.0218**		**281.9928**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0230	0.0164	0.2189	5.9000e-004	0.0316	4.7000e-004	0.0321	8.8600e-003	4.3000e-004	9.2900e-003		58.8056	58.8056	1.8500e-003		58.8520
Total	**0.0230**	**0.0164**	**0.2189**	**5.9000e-004**	**0.0316**	**4.7000e-004**	**0.0321**	**8.8600e-003**	**4.3000e-004**	**9.2900e-003**		**58.8056**	**58.8056**	**1.8500e-003**		**58.8520**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.9318	9.1246	26.7459	0.0924	7.3192	0.0761	7.3953	1.9588	0.0710	2.0299		9,397.0937	9,397.0937	0.4870		9,409.2697
Unmitigated	1.9318	9.1246	26.7459	0.0924	7.3192	0.0761	7.3953	1.9588	0.0710	2.0299		9,397.0937	9,397.0937	0.4870		9,409.2697

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	153.62	153.62	153.62	595,562	595,562
Hospital	441.61	441.61	441.61	1,712,059	1,712,059
Hospital	93.90	93.90	93.90	364,035	364,035
Medical Office Building	297.00	297.00	297.00	770,376	770,376
Total	986.13	986.13	986.13	3,442,032	3,442,032

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hospital	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Medical Office Building	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.1435	1.3046	1.0958	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,565.4798	1,565.4798	0.0300	0.0287	1,574.7827
NaturalGas Unmitigated	0.1435	1.3046	1.0958	7.8300e-003		0.0992	0.0992		0.0992	0.0992		1,565.4798	1,565.4798	0.0300	0.0287	1,574.7827

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hospital	1774.25	0.0191	0.1740	0.1461	1.0400e-003		0.0132	0.0132		0.0132	0.0132		208.7349	208.7349	4.0000e-003	3.8300e-003	209.9753
Hospital	2901.96	0.0313	0.2845	0.2390	1.7100e-003		0.0216	0.0216		0.0216	0.0216		341.4068	341.4068	6.5400e-003	6.2600e-003	343.4356
Hospital	8345.17	0.0900	0.8182	0.6873	4.9100e-003		0.0622	0.0622		0.0622	0.0622		981.7846	981.7846	0.0188	0.0180	987.6188
Medical Office Building	285.205	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Total		**0.1435**	**1.3046**	**1.0958**	**7.8300e-003**		**0.0992**	**0.0992**		**0.0992**	**0.0992**		**1,565.4798**	**1,565.4798**	**0.0300**	**0.0287**	**1,574.7827**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hospital	2.90196	0.0313	0.2845	0.2390	1.7100e-003		0.0216	0.0216		0.0216	0.0216		341.4068	341.4068	6.5400e-003	6.2600e-003	343.4356
Hospital	8.34517	0.0900	0.8182	0.6873	4.9100e-003		0.0622	0.0622		0.0622	0.0622		981.7846	981.7846	0.0188	0.0180	987.6188
Hospital	1.77425	0.0191	0.1740	0.1461	1.0400e-003		0.0132	0.0132		0.0132	0.0132		208.7349	208.7349	4.0000e-003	3.8300e-003	209.9753
Medical Office Building	0.285205	3.0800e-003	0.0280	0.0235	1.7000e-004		2.1300e-003	2.1300e-003		2.1300e-003	2.1300e-003		33.5536	33.5536	6.4000e-004	6.2000e-004	33.7530
Total		**0.1435**	**1.3046**	**1.0958**	**7.8300e-003**		**0.0992**	**0.0992**		**0.0992**	**0.0992**		**1,565.4798**	**1,565.4798**	**0.0300**	**0.0287**	**1,574.7827**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1.8637	8.0000e-005	8.5500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0183	0.0183	5.0000e-005		0.0195
Unmitigated	1.8637	8.0000e-005	8.5500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0183	0.0183	5.0000e-005		0.0195

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-004	8.0000e-005	8.5500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0183	0.0183	5.0000e-005		0.0195
Total	**1.8637**	**8.0000e-005**	**8.5500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0183**	**0.0183**	**5.0000e-005**		**0.0195**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.2118					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	1.6511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	8.0000e-004	8.0000e-005	8.5500e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005		0.0183	0.0183	5.0000e-005		0.0195
Total	**1.8637**	**8.0000e-005**	**8.5500e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**		**0.0183**	**0.0183**	**5.0000e-005**		**0.0195**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Olive View-UCLA Medical Center - Tier 1A (Restorative Care Village)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Hospital	16.36	1000sqft	0.38	16,356.00	0
Hospital	47.03	1000sqft	1.08	47,035.00	0
Hospital	10.00	1000sqft	0.23	10,000.00	0
Medical Office Building	10.00	1000sqft	0.23	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	834	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Construction schedule based on the 9/4/2018 CEO letter to the Board of Supervisors stating that construction would be complete by early 2021. LADWP CO2 intensity revised based on 2016 CO2 intensity identified in 2017 Power Strategic Long-Term Resource Plan (p. C-15).

Land Use - Building square footages from project description. All Restorative Village structures modeled as hospital except for the Mental Health Wellness Center, which would function similar to a medical office building.

Construction Phase - Default construction schedule based on building square footages. All buildings assumed to be under construction concurrently

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Off-road Equipment - Default construction equipment.

Grading - Off-site export is estimated to be 200 cy per day during the site prep and excavation phases; no import is assumed.

Demolition - No building demolition is required for the Restorative Village structures.

Trips and VMT - Default number of trips and distances assumed.

On-road Fugitive Dust - Defaults assumed.

Architectural Coating - Defaults assumed.

Vehicle Trips - Daily trips based on March 2019 TIA prepared by Fehr & Peers

Energy Use - Defaults assumed.

Water And Wastewater - Defaults assumed.

Solid Waste - Defaults assumed.

Construction Off-road Equipment Mitigation - Rule 403 compliance

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	50
tblGrading	MaterialExported	0.00	200.00
tblGrading	MaterialExported	0.00	200.00
tblLandUse	LandUseSquareFeet	16,360.00	16,356.00
tblLandUse	LandUseSquareFeet	47,030.00	47,035.00
tblProjectCharacteristics	CO2IntensityFactor	1227.89	834
tblVehicleTrips	ST_TR	10.18	9.39
tblVehicleTrips	ST_TR	8.96	29.70
tblVehicleTrips	SU_TR	8.91	9.39
tblVehicleTrips	SU_TR	1.55	29.70
tblVehicleTrips	WD_TR	13.22	9.39
tblVehicleTrips	WD_TR	36.13	29.70

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4462	1.9576	1.7034	3.2800e-003	0.0572	0.0972	0.1544	0.0192	0.0933	0.1126	0.0000	280.5350	280.5350	0.0457	0.0000	281.6766
Maximum	**0.4462**	**1.9576**	**1.7034**	**3.2800e-003**	**0.0572**	**0.0972**	**0.1544**	**0.0192**	**0.0933**	**0.1126**	**0.0000**	**280.5350**	**280.5350**	**0.0457**	**0.0000**	**281.6766**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.4462	1.9576	1.7034	3.2800e-003	0.0304	0.0972	0.1276	0.0101	0.0933	0.1035	0.0000	280.5348	280.5348	0.0457	0.0000	281.6763
Maximum	**0.4462**	**1.9576**	**1.7034**	**3.2800e-003**	**0.0304**	**0.0972**	**0.1276**	**0.0101**	**0.0933**	**0.1035**	**0.0000**	**280.5348**	**280.5348**	**0.0457**	**0.0000**	**281.6763**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**46.90**	**0.00**	**17.37**	**47.40**	**0.00**	**8.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2020**	**3-31-2020**	0.6535	0.6535
2	**4-1-2020**	**6-30-2020**	0.6035	0.6035
3	**7-1-2020**	**9-30-2020**	0.6102	0.6102
		Highest	0.6535	0.6535

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3401	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0700e-003	2.0700e-003	1.0000e-005	0.0000	2.2100e-003
Energy	0.0262	0.2381	0.2000	1.4300e-003		0.0181	0.0181		0.0181	0.0181	0.0000	941.8870	941.8870	0.0287	9.6600e-003	945.4843
Mobile	0.3341	1.7373	4.6836	0.0162	1.3064	0.0139	1.3202	0.3502	0.0129	0.3631	0.0000	1,497.1394	1,497.1394	0.0798	0.0000	1,499.1335
Waste						0.0000	0.0000		0.0000	0.0000	182.8157	0.0000	182.8157	10.8041	0.0000	452.9181
Water						0.0000	0.0000		0.0000	0.0000	3.3197	59.9194	63.2391	0.3431	8.4800e-003	74.3429
Total	**0.7003**	**1.9754**	**4.8847**	**0.0177**	**1.3064**	**0.0320**	**1.3383**	**0.3502**	**0.0310**	**0.3812**	**186.1354**	**2,498.9479**	**2,685.0833**	**11.2556**	**0.0181**	**2,971.8811**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.3401	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0700e-003	2.0700e-003	1.0000e-005	0.0000	2.2100e-003
Energy	0.0262	0.2381	0.2000	1.4300e-003		0.0181	0.0181		0.0181	0.0181	0.0000	941.8870	941.8870	0.0287	9.6600e-003	945.4843
Mobile	0.3341	1.7373	4.6836	0.0162	1.3064	0.0139	1.3202	0.3502	0.0129	0.3631	0.0000	1,497.1394	1,497.1394	0.0798	0.0000	1,499.1335
Waste						0.0000	0.0000		0.0000	0.0000	182.8157	0.0000	182.8157	10.8041	0.0000	452.9181
Water						0.0000	0.0000		0.0000	0.0000	3.3197	59.9194	63.2391	0.3431	8.4800e-003	74.3429
Total	**0.7003**	**1.9754**	**4.8847**	**0.0177**	**1.3064**	**0.0320**	**1.3383**	**0.3502**	**0.0310**	**0.3812**	**186.1354**	**2,498.9479**	**2,685.0833**	**11.2556**	**0.0181**	**2,971.8811**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2020	1/28/2020	5	20	
2	Site Preparation	Site Preparation	1/29/2020	1/30/2020	5	2	
3	Grading	Grading	1/31/2020	2/5/2020	5	4	
4	Building Construction	Building Construction	2/6/2020	11/11/2020	5	200	
5	Paving	Paving	11/12/2020	11/25/2020	5	10	
6	Architectural Coating	Architectural Coating	11/26/2020	12/9/2020	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 125,087; Non-Residential Outdoor: 41,696; Striped Parking Area: 0 (Architectural Coating – sqft)

<u>OffRoad Equipment</u>

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	25.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	25.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	27.00	14.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0677	21.0677	5.4200e-003	0.0000	21.2031
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**		**0.0115**	**0.0115**		**0.0108**	**0.0108**	**0.0000**	**21.0677**	**21.0677**	**5.4200e-003**	**0.0000**	**21.2031**

3.2 Demolition - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.8000e-004	5.3500e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4400e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.3278	1.3278	4.0000e-005	0.0000	1.3288
Total	**6.0000e-004**	**4.8000e-004**	**5.3500e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4400e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.3278**	**1.3278**	**4.0000e-005**	**0.0000**	**1.3288**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0213	0.2095	0.1466	2.4000e-004		0.0115	0.0115		0.0108	0.0108	0.0000	21.0676	21.0676	5.4200e-003	0.0000	21.2030
Total	**0.0213**	**0.2095**	**0.1466**	**2.4000e-004**		**0.0115**	**0.0115**		**0.0108**	**0.0108**	**0.0000**	**21.0676**	**21.0676**	**5.4200e-003**	**0.0000**	**21.2030**

3.2 Demolition - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-004	4.8000e-004	5.3500e-003	1.0000e-005	8.1000e-004	1.0000e-005	8.2000e-004	2.3000e-004	1.0000e-005	2.4000e-004	0.0000	1.3278	1.3278	4.0000e-005	0.0000	1.3288
Total	**6.0000e-004**	**4.8000e-004**	**5.3500e-003**	**1.0000e-005**	**8.1000e-004**	**1.0000e-005**	**8.2000e-004**	**2.3000e-004**	**1.0000e-005**	**2.4000e-004**	**0.0000**	**1.3278**	**1.3278**	**4.0000e-005**	**0.0000**	**1.3288**

3.3 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8100e-003	0.0000	5.8100e-003	2.9600e-003	0.0000	2.9600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	**1.6300e-003**	**0.0184**	**7.7100e-003**	**2.0000e-005**	**5.8100e-003**	**8.2000e-004**	**6.6300e-003**	**2.9600e-003**	**7.6000e-004**	**3.7200e-003**	**0.0000**	**1.5127**	**1.5127**	**4.9000e-004**	**0.0000**	**1.5249**

3.3 Site Preparation - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.7100e-003	8.2000e-004	1.0000e-005	2.1000e-004	1.0000e-005	2.3000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.9635	0.9635	7.0000e-005	0.0000	0.9652
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.3000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0817	0.0817	0.0000	0.0000	0.0818
Total	**1.5000e-004**	**3.7400e-003**	**1.1500e-003**	**1.0000e-005**	**3.0000e-004**	**1.0000e-005**	**3.2000e-004**	**8.0000e-005**	**1.0000e-005**	**9.0000e-005**	**0.0000**	**1.0452**	**1.0452**	**7.0000e-005**	**0.0000**	**1.0469**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.2700e-003	0.0000	2.2700e-003	1.1500e-003	0.0000	1.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0184	7.7100e-003	2.0000e-005		8.2000e-004	8.2000e-004		7.6000e-004	7.6000e-004	0.0000	1.5127	1.5127	4.9000e-004	0.0000	1.5249
Total	**1.6300e-003**	**0.0184**	**7.7100e-003**	**2.0000e-005**	**2.2700e-003**	**8.2000e-004**	**3.0900e-003**	**1.1500e-003**	**7.6000e-004**	**1.9100e-003**	**0.0000**	**1.5127**	**1.5127**	**4.9000e-004**	**0.0000**	**1.5249**

3.3 Site Preparation - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.7100e-003	8.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.9635	0.9635	7.0000e-005	0.0000	0.9652
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.3000e-004	0.0000	5.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0817	0.0817	0.0000	0.0000	0.0818
Total	**1.5000e-004**	**3.7400e-003**	**1.1500e-003**	**1.0000e-005**	**1.8000e-004**	**1.0000e-005**	**2.0000e-004**	**5.0000e-005**	**1.0000e-005**	**6.0000e-005**	**0.0000**	**1.0452**	**1.0452**	**7.0000e-005**	**0.0000**	**1.0469**

3.4 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8400e-003	0.0000	9.8400e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	**2.7000e-003**	**0.0302**	**0.0129**	**3.0000e-005**	**9.8400e-003**	**1.3700e-003**	**0.0112**	**5.0500e-003**	**1.2600e-003**	**6.3100e-003**	**0.0000**	**2.4779**	**2.4779**	**8.0000e-004**	**0.0000**	**2.4980**

3.4 Grading - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.7100e-003	8.2000e-004	1.0000e-005	2.1000e-004	1.0000e-005	2.3000e-004	6.0000e-005	1.0000e-005	7.0000e-005	0.0000	0.9635	0.9635	7.0000e-005	0.0000	0.9652
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	6.0000e-005	6.6000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1634	0.1634	1.0000e-005	0.0000	0.1635
Total	**1.8000e-004**	**3.7700e-003**	**1.4800e-003**	**1.0000e-005**	**3.9000e-004**	**1.0000e-005**	**4.1000e-004**	**1.1000e-004**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**1.1269**	**1.1269**	**8.0000e-005**	**0.0000**	**1.1287**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.8400e-003	0.0000	3.8400e-003	1.9700e-003	0.0000	1.9700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.7000e-003	0.0302	0.0129	3.0000e-005		1.3700e-003	1.3700e-003		1.2600e-003	1.2600e-003	0.0000	2.4779	2.4779	8.0000e-004	0.0000	2.4980
Total	**2.7000e-003**	**0.0302**	**0.0129**	**3.0000e-005**	**3.8400e-003**	**1.3700e-003**	**5.2100e-003**	**1.9700e-003**	**1.2600e-003**	**3.2300e-003**	**0.0000**	**2.4779**	**2.4779**	**8.0000e-004**	**0.0000**	**2.4980**

3.4 Grading - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	3.7100e-003	8.2000e-004	1.0000e-005	1.3000e-004	1.0000e-005	1.5000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.9635	0.9635	7.0000e-005	0.0000	0.9652
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	6.0000e-005	6.6000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1634	0.1634	1.0000e-005	0.0000	0.1635
Total	**1.8000e-004**	**3.7700e-003**	**1.4800e-003**	**1.0000e-005**	**2.3000e-004**	**1.0000e-005**	**2.5000e-004**	**7.0000e-005**	**1.0000e-005**	**8.0000e-005**	**0.0000**	**1.1269**	**1.1269**	**8.0000e-005**	**0.0000**	**1.1287**

3.5 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2031	1.4788	1.3188	2.2000e-003		0.0796	0.0796		0.0769	0.0769	0.0000	181.5421	181.5421	0.0337	0.0000	182.3847
Total	**0.2031**	**1.4788**	**1.3188**	**2.2000e-003**		**0.0796**	**0.0796**		**0.0769**	**0.0769**	**0.0000**	**181.5421**	**181.5421**	**0.0337**	**0.0000**	**182.3847**

3.5 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0800e-003	0.1517	0.0411	3.6000e-004	8.8200e-003	7.1000e-004	9.5200e-003	2.5500e-003	6.7000e-004	3.2200e-003	0.0000	34.7797	34.7797	2.2100e-003	0.0000	34.8349
Worker	0.0125	0.0101	0.1111	3.1000e-004	0.0296	2.5000e-004	0.0298	7.8600e-003	2.3000e-004	8.0900e-003	0.0000	27.5765	27.5765	8.7000e-004	0.0000	27.5982
Total	**0.0175**	**0.1618**	**0.1522**	**6.7000e-004**	**0.0384**	**9.6000e-004**	**0.0394**	**0.0104**	**9.0000e-004**	**0.0113**	**0.0000**	**62.3561**	**62.3561**	**3.0800e-003**	**0.0000**	**62.4331**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2031	1.4788	1.3188	2.2000e-003		0.0796	0.0796		0.0769	0.0769	0.0000	181.5419	181.5419	0.0337	0.0000	182.3844
Total	**0.2031**	**1.4788**	**1.3188**	**2.2000e-003**		**0.0796**	**0.0796**		**0.0769**	**0.0769**	**0.0000**	**181.5419**	**181.5419**	**0.0337**	**0.0000**	**182.3844**

3.5 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.0800e-003	0.1517	0.0411	3.6000e-004	5.7000e-003	7.1000e-004	6.4000e-003	1.7800e-003	6.7000e-004	2.4500e-003	0.0000	34.7797	34.7797	2.2100e-003	0.0000	34.8349
Worker	0.0125	0.0101	0.1111	3.1000e-004	0.0168	2.5000e-004	0.0170	4.7100e-003	2.3000e-004	4.9400e-003	0.0000	27.5765	27.5765	8.7000e-004	0.0000	27.5982
Total	**0.0175**	**0.1618**	**0.1522**	**6.7000e-004**	**0.0225**	**9.6000e-004**	**0.0234**	**6.4900e-003**	**9.0000e-004**	**7.3900e-003**	**0.0000**	**62.3561**	**62.3561**	**3.0800e-003**	**0.0000**	**62.4331**

3.6 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2000e-003	0.0423	0.0444	7.0000e-005		2.3500e-003	2.3500e-003		2.1600e-003	2.1600e-003	0.0000	5.8829	5.8829	1.8600e-003	0.0000	5.9295
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2000e-003**	**0.0423**	**0.0444**	**7.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.1600e-003**	**2.1600e-003**	**0.0000**	**5.8829**	**5.8829**	**1.8600e-003**	**0.0000**	**5.9295**

3.6 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.4000e-004	2.6800e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	1.0000e-005	1.9000e-004	0.0000	0.6639	0.6639	2.0000e-005	0.0000	0.6644
Total	**3.0000e-004**	**2.4000e-004**	**2.6800e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**1.0000e-005**	**1.9000e-004**	**0.0000**	**0.6639**	**0.6639**	**2.0000e-005**	**0.0000**	**0.6644**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2000e-003	0.0423	0.0444	7.0000e-005		2.3500e-003	2.3500e-003		2.1600e-003	2.1600e-003	0.0000	5.8828	5.8828	1.8600e-003	0.0000	5.9295
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.2000e-003**	**0.0423**	**0.0444**	**7.0000e-005**		**2.3500e-003**	**2.3500e-003**		**2.1600e-003**	**2.1600e-003**	**0.0000**	**5.8828**	**5.8828**	**1.8600e-003**	**0.0000**	**5.9295**

3.6 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-004	2.4000e-004	2.6800e-003	1.0000e-005	4.0000e-004	1.0000e-005	4.1000e-004	1.1000e-004	1.0000e-005	1.2000e-004	0.0000	0.6639	0.6639	2.0000e-005	0.0000	0.6644
Total	**3.0000e-004**	**2.4000e-004**	**2.6800e-003**	**1.0000e-005**	**4.0000e-004**	**1.0000e-005**	**4.1000e-004**	**1.1000e-004**	**1.0000e-005**	**1.2000e-004**	**0.0000**	**0.6639**	**0.6639**	**2.0000e-005**	**0.0000**	**0.6644**

3.7 Architectural Coating - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1933					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.1945**	**8.4200e-003**	**9.1600e-003**	**1.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

3.7 Architectural Coating - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	1.0300e-003	0.0000	2.7000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2553	0.2553	1.0000e-005	0.0000	0.2555
Total	**1.2000e-004**	**9.0000e-005**	**1.0300e-003**	**0.0000**	**2.7000e-004**	**0.0000**	**2.8000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**1.0000e-005**	**0.0000**	**0.2555**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1933					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.2100e-003	8.4200e-003	9.1600e-003	1.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	1.2766	1.2766	1.0000e-004	0.0000	1.2791
Total	**0.1945**	**8.4200e-003**	**9.1600e-003**	**1.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**1.2766**	**1.2766**	**1.0000e-004**	**0.0000**	**1.2791**

3.7 Architectural Coating - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.2000e-004	9.0000e-005	1.0300e-003	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	5.0000e-005	0.0000	0.2553	0.2553	1.0000e-005	0.0000	0.2555
Total	**1.2000e-004**	**9.0000e-005**	**1.0300e-003**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.2553**	**0.2553**	**1.0000e-005**	**0.0000**	**0.2555**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3341	1.7373	4.6836	0.0162	1.3064	0.0139	1.3202	0.3502	0.0129	0.3631	0.0000	1,497.1394	1,497.1394	0.0798	0.0000	1,499.1335
Unmitigated	0.3341	1.7373	4.6836	0.0162	1.3064	0.0139	1.3202	0.3502	0.0129	0.3631	0.0000	1,497.1394	1,497.1394	0.0798	0.0000	1,499.1335

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hospital	153.62	153.62	153.62	595,562	595,562
Hospital	441.61	441.61	441.61	1,712,059	1,712,059
Hospital	93.90	93.90	93.90	364,035	364,035
Medical Office Building	297.00	297.00	297.00	770,376	770,376
Total	986.13	986.13	986.13	3,442,032	3,442,032

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Medical Office Building	16.60	8.40	6.90	29.60	51.40	19.00	60	30	10

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hospital	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Medical Office Building	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	682.7043	682.7043	0.0237	4.9100e-003	684.7614
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	682.7043	682.7043	0.0237	4.9100e-003	684.7614
NaturalGas Mitigated	0.0262	0.2381	0.2000	1.4300e-003		0.0181	0.0181		0.0181	0.0181	0.0000	259.1827	259.1827	4.9700e-003	4.7500e-003	260.7229
NaturalGas Unmitigated	0.0262	0.2381	0.2000	1.4300e-003		0.0181	0.0181		0.0181	0.0181	0.0000	259.1827	259.1827	4.9700e-003	4.7500e-003	260.7229

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hospital	1.05921e+006	5.7100e-003	0.0519	0.0436	3.1000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003	0.0000	56.5237	56.5237	1.0800e-003	1.0400e-003	56.8596
Hospital	3.04599e+006	0.0164	0.1493	0.1254	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	162.5454	162.5454	3.1200e-003	2.9800e-003	163.5114
Hospital	647600	3.4900e-003	0.0318	0.0267	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003	0.0000	34.5584	34.5584	6.6000e-004	6.3000e-004	34.7638
Medical Office Building	104100	5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.5552	5.5552	1.1000e-004	1.0000e-004	5.5882
Total		**0.0262**	**0.2381**	**0.2000**	**1.4300e-003**		**0.0181**	**0.0181**		**0.0181**	**0.0181**	**0.0000**	**259.1827**	**259.1827**	**4.9700e-003**	**4.7500e-003**	**260.7229**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hospital	3.04599e+006	0.0164	0.1493	0.1254	9.0000e-004		0.0114	0.0114		0.0114	0.0114	0.0000	162.5454	162.5454	3.1200e-003	2.9800e-003	163.5114
Hospital	647600	3.4900e-003	0.0318	0.0267	1.9000e-004		2.4100e-003	2.4100e-003		2.4100e-003	2.4100e-003	0.0000	34.5584	34.5584	6.6000e-004	6.3000e-004	34.7638
Hospital	1.05921e+006	5.7100e-003	0.0519	0.0436	3.1000e-004		3.9500e-003	3.9500e-003		3.9500e-003	3.9500e-003	0.0000	56.5237	56.5237	1.0800e-003	1.0400e-003	56.8596
Medical Office Building	104100	5.6000e-004	5.1000e-003	4.2900e-003	3.0000e-005		3.9000e-004	3.9000e-004		3.9000e-004	3.9000e-004	0.0000	5.5552	5.5552	1.1000e-004	1.0000e-004	5.5882
Total		**0.0262**	**0.2381**	**0.2000**	**1.4300e-003**		**0.0181**	**0.0181**		**0.0181**	**0.0181**	**0.0000**	**259.1827**	**259.1827**	**4.9700e-003**	**4.7500e-003**	**260.7229**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hospital	1.07334e+006	406.0398	0.0141	2.9200e-003	407.2633
Hospital	228200	86.3272	3.0000e-003	6.2000e-004	86.5873
Hospital	373244	141.1967	4.9100e-003	1.0200e-003	141.6222
Medical Office Building	129900	49.1407	1.7100e-003	3.5000e-004	49.2887
Total		**682.7043**	**0.0237**	**4.9100e-003**	**684.7614**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hospital	1.07334e+006	406.0398	0.0141	2.9200e-003	407.2633
Hospital	228200	86.3272	3.0000e-003	6.2000e-004	86.5873
Hospital	373244	141.1967	4.9100e-003	1.0200e-003	141.6222
Medical Office Building	129900	49.1407	1.7100e-003	3.5000e-004	49.2887
Total		**682.7043**	**0.0237**	**4.9100e-003**	**684.7614**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3401	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0700e-003	2.0700e-003	1.0000e-005	0.0000	2.2100e-003
Unmitigated	0.3401	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0700e-003	2.0700e-003	1.0000e-005	0.0000	2.2100e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0387					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3013					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0700e-003	2.0700e-003	1.0000e-005	0.0000	2.2100e-003
Total	**0.3401**	**1.0000e-005**	**1.0700e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0700e-003**	**2.0700e-003**	**1.0000e-005**	**0.0000**	**2.2100e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0387					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3013					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-004	1.0000e-005	1.0700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0700e-003	2.0700e-003	1.0000e-005	0.0000	2.2100e-003
Total	**0.3401**	**1.0000e-005**	**1.0700e-003**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**2.0700e-003**	**2.0700e-003**	**1.0000e-005**	**0.0000**	**2.2100e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	63.2391	0.3431	8.4800e-003	74.3429
Unmitigated	63.2391	0.3431	8.4800e-003	74.3429

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hospital	9.20902 / 1.7541	55.6556	0.3019	7.4600e-003	65.4278
Medical Office Building	1.25481 / 0.239011	7.5835	0.0411	1.0200e-003	8.9151
Total		**63.2391**	**0.3431**	**8.4800e-003**	**74.3429**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hospital	9.20902 / 1.7541	55.6556	0.3019	7.4600e-003	65.4278
Medical Office Building	1.25481 / 0.239011	7.5835	0.0411	1.0200e-003	8.9151
Total		**63.2391**	**0.3431**	**8.4800e-003**	**74.3429**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	182.8157	10.8041	0.0000	452.9181
Unmitigated	182.8157	10.8041	0.0000	452.9181

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hospital	792.61	160.8927	9.5085	0.0000	398.6048
Medical Office Building	108	21.9230	1.2956	0.0000	54.3134
Total		**182.8157**	**10.8041**	**0.0000**	**452.9181**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hospital	792.61	160.8927	9.5085	0.0000	398.6048
Medical Office Building	108	21.9230	1.2956	0.0000	54.3134
Total		**182.8157**	**10.8041**	**0.0000**	**452.9181**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Olive View-UCLA Medical Center - Tier 1B

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	96.00	1000sqft	0.67	96,000.00	0
Hospital	296.00	1000sqft	1.40	296,000.00	0
Library	20.00	1000sqft	0.55	20,000.00	0
General Light Industry	77.00	1000sqft	0.78	77,000.00	0
Unrefrigerated Warehouse-No Rail	68.10	1000sqft	0.56	68,100.00	0
Enclosed Parking with Elevator	674.00	Space	1.06	269,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	834	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP CO2 intensity revised based on 2016 CO2 intensity identified in 2017 Power Strategic Long-Term Resource Plan (p. C-15).

Land Use - Building square footages from project description.

Construction Phase - Default construction schedule based on building square footages. All buildings assumed to be under construction concurrently.

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Grading - Off-site export and import estimates provided by SmithGroupJJR. Import/export quantities assumed to be distributed evenly over site prep and grading phases.

Demolition - Demolition square footage provided by SmithGroupJJR

Trips and VMT - Default number of trips and distances assumed.

On-road Fugitive Dust - Defaults assumed.

Architectural Coating - VOC content of architectural coatings changed to 25 g/L to exceed SCAQMD Rule 1113 requirements.

Vehicle Trips - Daily operational trips based on March 2019 TIA prepared by Fehr & Peers, which would total 9,973 trips per day. All trips included in the Hospital land use, including internal capture, transit/walk/bike credit, and carpool accounted for.

Vehicle Emission Factors - Defaults assumed.

Vehicle Emission Factors - Defaults assumed.

Vehicle Emission Factors - Defaults assumed.

Road Dust - Defaults assumed.

Area Coating - VOC content of architectural coatings changed to 50 g/L to meet SCAQMD Rule 1113 requirements

Energy Use - Defaults assumed.

Water And Wastewater - Defaults assumed.

Solid Waste - Defaults assumed.

Construction Off-road Equipment Mitigation - Rule 403 compliance

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Summer

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaMitigation	UseLowVOCPaintParkingValue	100	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	50	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	50	0
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	50
tblGrading	AcresOfGrading	10.00	5.00
tblGrading	AcresOfGrading	0.00	5.00
tblGrading	MaterialExported	0.00	22,833.00
tblGrading	MaterialExported	0.00	11,417.00
tblGrading	MaterialImported	0.00	11,667.00
tblGrading	MaterialImported	0.00	5,833.00
tblLandUse	LotAcreage	2.20	0.67
tblLandUse	LotAcreage	6.80	1.40
tblLandUse	LotAcreage	0.46	0.55
tblLandUse	LotAcreage	1.77	0.78
tblLandUse	LotAcreage	1.56	0.56
tblLandUse	LotAcreage	6.07	1.06
tblProjectCharacteristics	CO2IntensityFactor	1227.89	834
tblTripsAndVMT	HaulingTripNumber	4,313.00	4,312.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	10.18	33.69

tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.91	33.69
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	13.22	33.69
tblVehicleTrips	WD_TR	56.24	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.7630	98.3834	35.4395	0.2083	22.7626	2.2236	24.9862	11.1042	2.0522	13.1565	0.0000	22,140.0170	22,140.0170	2.4365	0.0000	22,200.9301
2022	131.4358	28.8999	31.0508	0.0953	4.3070	0.8594	5.1664	1.1619	0.8084	1.9703	0.0000	9,616.9270	9,616.9270	0.9165	0.0000	9,639.8381
Maximum	**131.4358**	**98.3834**	**35.4395**	**0.2083**	**22.7626**	**2.2236**	**24.9862**	**11.1042**	**2.0522**	**13.1565**	**0.0000**	**22,140.0170**	**22,140.0170**	**2.4365**	**0.0000**	**22,200.9301**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.7630	98.3834	35.4395	0.2083	9.7871	2.2236	12.0107	4.6223	2.0522	6.6745	0.0000	22,140.0170	22,140.0170	2.4365	0.0000	22,200.9301
2022	131.4358	28.8999	31.0508	0.0953	2.5026	0.8594	3.3620	0.7190	0.8084	1.5274	0.0000	9,616.9270	9,616.9270	0.9165	0.0000	9,639.8381
Maximum	**131.4358**	**98.3834**	**35.4395**	**0.2083**	**9.7871**	**2.2236**	**12.0107**	**4.6223**	**2.0522**	**6.6745**	**0.0000**	**22,140.0170**	**22,140.0170**	**2.4365**	**0.0000**	**22,200.9301**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**54.60**	**0.00**	**49.02**	**56.46**	**0.00**	**45.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.8657	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Energy	0.6495	5.9047	4.9600	0.0354		0.4488	0.4488		0.4488	0.4488		7,085.6622	7,085.6622	0.1358	0.1299	7,127.7688
Mobile	17.4418	73.0423	253.6076	0.9711	82.2093	0.7056	82.9150	21.9997	0.6564	22.6560		98,883.0293	98,883.0293	4.6583		98,999.4879
Total	**29.9570**	**78.9482**	**258.6932**	**1.0066**	**82.2093**	**1.1549**	**83.3642**	**21.9997**	**1.1056**	**23.1053**		**105,968.9610**	**105,968.9610**	**4.7949**	**0.1299**	**106,127.5437**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.8657	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Energy	0.6495	5.9047	4.9600	0.0354		0.4488	0.4488		0.4488	0.4488		7,085.6622	7,085.6622	0.1358	0.1299	7,127.7688
Mobile	17.4418	73.0423	253.6076	0.9711	82.2093	0.7056	82.9150	21.9997	0.6564	22.6560		98,883.0293	98,883.0293	4.6583		98,999.4879
Total	**29.9570**	**78.9482**	**258.6932**	**1.0066**	**82.2093**	**1.1549**	**83.3642**	**21.9997**	**1.1056**	**23.1053**		**105,968.9610**	**105,968.9610**	**4.7949**	**0.1299**	**106,127.5437**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
3	Grading	Grading	2/12/2021	3/11/2021	5	20	
4	Building Construction	Building Construction	3/12/2021	1/27/2022	5	230	
5	Paving	Paving	1/28/2022	2/24/2022	5	20	
6	Architectural Coating	Architectural Coating	2/25/2022	3/24/2022	5	20	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 5

Acres of Paving: 1.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 835,650; Non-Residential Outdoor: 278,550; Striped Parking Area: 16,176 (Architectural Coating – sqft)

OffRoad Equipment

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	618.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	2,156.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,312.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	308.00	135.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	62.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6838	0.0000	6.6838	1.0120	0.0000	1.0120			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**6.6838**	**1.5513**	**8.2351**	**1.0120**	**1.4411**	**2.4531**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2576	8.2887	1.9435	0.0241	0.5403	0.0254	0.5657	0.1481	0.0243	0.1725		2,615.5190	2,615.5190	0.1775		2,619.9564
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.3219**	**8.3329**	**2.5476**	**0.0258**	**0.7080**	**0.0268**	**0.7348**	**0.1926**	**0.0256**	**0.2182**		**2,786.3345**	**2,786.3345**	**0.1825**		**2,790.8977**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6067	0.0000	2.6067	0.3947	0.0000	0.3947			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**2.6067**	**1.5513**	**4.1580**	**0.3947**	**1.4411**	**1.8358**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2576	8.2887	1.9435	0.0241	0.3360	0.0254	0.3615	0.0980	0.0243	0.1223		2,615.5190	2,615.5190	0.1775		2,619.9564
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.0948	1.3500e-003	0.0961	0.0266	1.2500e-003	0.0278		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.3219**	**8.3329**	**2.5476**	**0.0258**	**0.4308**	**0.0268**	**0.4576**	**0.1246**	**0.0256**	**0.1501**		**2,786.3345**	**2,786.3345**	**0.1825**		**2,790.8977**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.7916	0.0000	18.7916	10.0175	0.0000	10.0175			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.7916**	**2.0445**	**20.8361**	**10.0175**	**1.8809**	**11.8984**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7977	57.8333	13.5603	0.1682	3.7699	0.1775	3.9474	1.0334	0.1698	1.2032		18,249.3816	18,249.3816	1.2385		18,280.3433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**1.8748**	**57.8863**	**14.2852**	**0.1703**	**3.9711**	**0.1791**	**4.1502**	**1.0867**	**0.1713**	**1.2581**		**18,454.3602**	**18,454.3602**	**1.2445**		**18,485.4729**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3287	0.0000	7.3287	3.9068	0.0000	3.9068			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**7.3287**	**2.0445**	**9.3732**	**3.9068**	**1.8809**	**5.7877**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7977	57.8333	13.5603	0.1682	2.3446	0.1775	2.5221	0.6836	0.1698	0.8534		18,249.3816	18,249.3816	1.2385		18,280.3433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.1137	1.6300e-003	0.1154	0.0319	1.5000e-003	0.0334		204.9786	204.9786	6.0400e-003		205.1296
Total	**1.8748**	**57.8863**	**14.2852**	**0.1703**	**2.4584**	**0.1791**	**2.6375**	**0.7154**	**0.1713**	**0.8868**		**18,454.3602**	**18,454.3602**	**1.2445**		**18,485.4729**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4823	0.0000	6.4823	3.3684	0.0000	3.3684			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.4823**	**1.1599**	**7.6422**	**3.3684**	**1.0671**	**4.4355**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7977	57.8333	13.5603	0.1682	3.7699	0.1775	3.9474	1.0334	0.1698	1.2032		18,249.3816	18,249.3816	1.2385		18,280.3433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**1.8620**	**57.8775**	**14.1644**	**0.1699**	**3.9375**	**0.1789**	**4.1164**	**1.0779**	**0.1711**	**1.2489**		**18,420.1971**	**18,420.1971**	**1.2435**		**18,451.2846**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5281	0.0000	2.5281	1.3137	0.0000	1.3137			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**2.5281**	**1.1599**	**3.6880**	**1.3137**	**1.0671**	**2.3808**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7977	57.8333	13.5603	0.1682	2.3446	0.1775	2.5221	0.6836	0.1698	0.8534		18,249.3816	18,249.3816	1.2385		18,280.3433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.0948	1.3500e-003	0.0961	0.0266	1.2500e-003	0.0278		170.8155	170.8155	5.0300e-003		170.9413
Total	**1.8620**	**57.8775**	**14.1644**	**0.1699**	**2.4394**	**0.1789**	**2.6183**	**0.7101**	**0.1711**	**0.8812**		**18,420.1971**	**18,420.1971**	**1.2435**		**18,451.2846**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4104	13.1071	3.4265	0.0347	0.8643	0.0268	0.8911	0.2488	0.0256	0.2745		3,710.8885	3,710.8885	0.2186		3,716.3540
Worker	1.3203	0.9075	12.4054	0.0352	3.4427	0.0278	3.4705	0.9130	0.0256	0.9387		3,507.4112	3,507.4112	0.1034		3,509.9948
Total	**1.7306**	**14.0146**	**15.8320**	**0.0699**	**4.3070**	**0.0546**	**4.3616**	**1.1619**	**0.0513**	**1.2131**		**7,218.2997**	**7,218.2997**	**0.3220**		**7,226.3488**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4104	13.1071	3.4265	0.0347	0.5564	0.0268	0.5832	0.1733	0.0256	0.1989		3,710.8885	3,710.8885	0.2186		3,716.3540
Worker	1.3203	0.9075	12.4054	0.0352	1.9462	0.0278	1.9740	0.5457	0.0256	0.5713		3,507.4112	3,507.4112	0.1034		3,509.9948
Total	**1.7306**	**14.0146**	**15.8320**	**0.0699**	**2.5026**	**0.0546**	**2.5572**	**0.7190**	**0.0513**	**0.7702**		**7,218.2997**	**7,218.2997**	**0.3220**		**7,226.3488**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3851	12.4646	3.2420	0.0344	0.8643	0.0234	0.8877	0.2489	0.0224	0.2713		3,678.5595	3,678.5595	0.2111		3,683.8370
Worker	1.2367	0.8197	11.4454	0.0340	3.4427	0.0270	3.4697	0.9130	0.0248	0.9379		3,384.0339	3,384.0339	0.0934		3,386.3690
Total	**1.6218**	**13.2843**	**14.6874**	**0.0683**	**4.3070**	**0.0504**	**4.3574**	**1.1619**	**0.0472**	**1.2091**		**7,062.5934**	**7,062.5934**	**0.3045**		**7,070.2059**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3851	12.4646	3.2420	0.0344	0.5564	0.0234	0.5799	0.1733	0.0224	0.1957		3,678.5595	3,678.5595	0.2111		3,683.8370
Worker	1.2367	0.8197	11.4454	0.0340	1.9462	0.0270	1.9732	0.5457	0.0248	0.5705		3,384.0339	3,384.0339	0.0934		3,386.3690
Total	**1.6218**	**13.2843**	**14.6874**	**0.0683**	**2.5026**	**0.0504**	**2.5530**	**0.7190**	**0.0472**	**0.7662**		**7,062.5934**	**7,062.5934**	**0.3045**		**7,070.2059**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.0948	1.3100e-003	0.0961	0.0266	1.2100e-003	0.0278		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.0948**	**1.3100e-003**	**0.0961**	**0.0266**	**1.2100e-003**	**0.0278**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	130.9823					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**131.1869**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2489	0.1650	2.3039	6.8400e-003	0.6930	5.4200e-003	0.6984	0.1838	5.0000e-003	0.1888		681.2016	681.2016	0.0188		681.6717
Total	**0.2489**	**0.1650**	**2.3039**	**6.8400e-003**	**0.6930**	**5.4200e-003**	**0.6984**	**0.1838**	**5.0000e-003**	**0.1888**		**681.2016**	**681.2016**	**0.0188**		**681.6717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	130.9823					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**131.1869**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2489	0.1650	2.3039	6.8400e-003	0.3918	5.4200e-003	0.3972	0.1099	5.0000e-003	0.1149		681.2016	681.2016	0.0188		681.6717
Total	**0.2489**	**0.1650**	**2.3039**	**6.8400e-003**	**0.3918**	**5.4200e-003**	**0.3972**	**0.1099**	**5.0000e-003**	**0.1149**		**681.2016**	**681.2016**	**0.0188**		**681.6717**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.4418	73.0423	253.6076	0.9711	82.2093	0.7056	82.9150	21.9997	0.6564	22.6560		98,883.0293	98,883.0293	4.6583		98,999.4879
Unmitigated	17.4418	73.0423	253.6076	0.9711	82.2093	0.7056	82.9150	21.9997	0.6564	22.6560		98,883.0293	98,883.0293	4.6583		98,999.4879

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Hospital	9,972.24	9,972.24	9972.24	38,660,796	38,660,796
Library	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	9,972.24	9,972.24	9,972.24	38,660,796	38,660,796

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Light Industry	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Hospital	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Library	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Unrefrigerated Warehouse-No Rail	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.6495	5.9047	4.9600	0.0354		0.4488	0.4488		0.4488	0.4488		7,085.6622	7,085.6622	0.1358	0.1299	7,127.7688
NaturalGas Unmitigated	0.6495	5.9047	4.9600	0.0354		0.4488	0.4488		0.4488	0.4488		7,085.6622	7,085.6622	0.1358	0.1299	7,127.7688

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	3818.36	0.0412	0.3744	0.3145	2.2500e-003		0.0285	0.0285		0.0285	0.0285		449.2184	449.2184	8.6100e-003	8.2400e-003	451.8879
General Office Building	2737.97	0.0295	0.2684	0.2255	1.6100e-003		0.0204	0.0204		0.0204	0.0204		322.1144	322.1144	6.1700e-003	5.9100e-003	324.0286
Hospital	52517.7	0.5664	5.1488	4.3250	0.0309		0.3913	0.3913		0.3913	0.3913		6,178.5528	6,178.5528	0.1184	0.1133	6,215.2688
Library	991.781	0.0107	0.0972	0.0817	5.8000e-004		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003		116.6801	116.6801	2.2400e-003	2.1400e-003	117.3735
Unrefrigerated Warehouse-No Rail	162.321	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		19.0965	19.0965	3.7000e-004	3.5000e-004	19.2100
Total		**0.6495**	**5.9047**	**4.9600**	**0.0354**		**0.4488**	**0.4488**		**0.4488**	**0.4488**		**7,085.6622**	**7,085.6622**	**0.1358**	**0.1299**	**7,127.7688**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	3.81836	0.0412	0.3744	0.3145	2.2500e-003		0.0285	0.0285		0.0285	0.0285		449.2184	449.2184	8.6100e-003	8.2400e-003	451.8879
General Office Building	2.73797	0.0295	0.2684	0.2255	1.6100e-003		0.0204	0.0204		0.0204	0.0204		322.1144	322.1144	6.1700e-003	5.9100e-003	324.0286
Hospital	52.5177	0.5664	5.1488	4.3250	0.0309		0.3913	0.3913		0.3913	0.3913		6,178.5528	6,178.5528	0.1184	0.1133	6,215.2688
Library	0.991781	0.0107	0.0972	0.0817	5.8000e-004		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003		116.6801	116.6801	2.2400e-003	2.1400e-003	117.3735
Unrefrigerated Warehouse-No Rail	0.162321	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		19.0965	19.0965	3.7000e-004	3.5000e-004	19.2100
Total		**0.6495**	**5.9047**	**4.9600**	**0.0354**		**0.4488**	**0.4488**		**0.4488**	**0.4488**		**7,085.6622**	**7,085.6622**	**0.1358**	**0.1299**	**7,127.7688**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.8657	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Unmitigated	11.8657	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.1261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0116	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Total	**11.8657**	**1.1400e-003**	**0.1257**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**		**0.2694**	**0.2694**	**7.1000e-004**		**0.2871**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7280					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.1261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0116	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Total	**11.8657**	**1.1400e-003**	**0.1257**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**		**0.2694**	**0.2694**	**7.1000e-004**		**0.2871**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Olive View-UCLA Medical Center - Tier 1B

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	96.00	1000sqft	0.67	96,000.00	0
Hospital	296.00	1000sqft	1.40	296,000.00	0
Library	20.00	1000sqft	0.55	20,000.00	0
General Light Industry	77.00	1000sqft	0.78	77,000.00	0
Unrefrigerated Warehouse-No Rail	68.10	1000sqft	0.56	68,100.00	0
Enclosed Parking with Elevator	674.00	Space	1.06	269,600.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	834	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP CO2 intensity revised based on 2016 CO2 intensity identified in 2017 Power Strategic Long-Term Resource Plan (p. C-15).

Land Use - Building square footages from project description.

Construction Phase - Default construction schedule based on building square footages. All buildings assumed to be under construction concurrently.

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Grading - Off-site export and import estimates provided by SmithGroupJJR. Import/export quantities assumed to be distributed evenly over site prep and grading phases.

Demolition - Demolition square footage provided by SmithGroupJJR

Trips and VMT - Default number of trips and distances assumed.

On-road Fugitive Dust - Defaults assumed.

Architectural Coating - VOC content of architectural coatings changed to 25 g/L to exceed SCAQMD Rule 1113 requirements.

Vehicle Trips - Daily operational trips based on March 2019 TIA prepared by Fehr & Peers, which would total 9,973 trips per day. All trips included in the Hospital land use, including internal capture, transit/walk/bike credit, and carpool accounted for.

Vehicle Emission Factors - Defaults assumed.

Vehicle Emission Factors - Defaults assumed.

Vehicle Emission Factors - Defaults assumed.

Road Dust - Defaults assumed.

Area Coating - VOC content of architectural coatings changed to 50 g/L to meet SCAQMD Rule 1113 requirements

Energy Use - Defaults assumed.

Water And Wastewater - Defaults assumed.

Solid Waste - Defaults assumed.

Construction Off-road Equipment Mitigation - Rule 403 compliance

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Annual

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	50.00
tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	50.00
tblArchitecturalCoating	EF_Parking	100.00	50.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	50
tblAreaCoating	Area_EF_Nonresidential_Interior	100	50
tblAreaMitigation	UseLowVOCPaintParkingValue	100	0
tblAreaMitigation	UseLowVOCPaintResidentialExteriorValue	50	0
tblAreaMitigation	UseLowVOCPaintResidentialInteriorValue	50	0
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	50
tblGrading	AcresOfGrading	10.00	5.00
tblGrading	AcresOfGrading	0.00	5.00
tblGrading	MaterialExported	0.00	22,833.00
tblGrading	MaterialExported	0.00	11,417.00
tblGrading	MaterialImported	0.00	11,667.00
tblGrading	MaterialImported	0.00	5,833.00
tblLandUse	LotAcreage	2.20	0.67
tblLandUse	LotAcreage	6.80	1.40
tblLandUse	LotAcreage	0.46	0.55
tblLandUse	LotAcreage	1.77	0.78
tblLandUse	LotAcreage	1.56	0.56
tblLandUse	LotAcreage	6.07	1.06
tblProjectCharacteristics	CO2IntensityFactor	1227.89	834
tblTripsAndVMT	HaulingTripNumber	4,313.00	4,312.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	10.18	33.69

tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.91	33.69
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	13.22	33.69
tblVehicleTrips	WD_TR	56.24	0.00
tblVehicleTrips	WD_TR	1.68	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4901	5.0999	4.0820	0.0137	0.7366	0.1472	0.8838	0.2322	0.1379	0.3701	0.0000	1,267.4994	1,267.4994	0.1322	0.0000	1,270.8047
2022	1.3578	0.4051	0.4806	1.2300e-003	0.0486	0.0147	0.0633	0.0131	0.0138	0.0269	0.0000	111.1958	111.1958	0.0148	0.0000	111.5648
Maximum	**1.3578**	**5.0999**	**4.0820**	**0.0137**	**0.7366**	**0.1472**	**0.8838**	**0.2322**	**0.1379**	**0.3701**	**0.0000**	**1,267.4994**	**1,267.4994**	**0.1322**	**0.0000**	**1,270.8047**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4901	5.0999	4.0820	0.0137	0.3881	0.1472	0.5354	0.1232	0.1379	0.2611	0.0000	1,267.4991	1,267.4991	0.1322	0.0000	1,270.8043
2022	1.3578	0.4051	0.4806	1.2300e-003	0.0282	0.0147	0.0429	8.0800e-003	0.0138	0.0219	0.0000	111.1957	111.1957	0.0148	0.0000	111.5647
Maximum	**1.3578**	**5.0999**	**4.0820**	**0.0137**	**0.3881**	**0.1472**	**0.5354**	**0.1232**	**0.1379**	**0.2611**	**0.0000**	**1,267.4991**	**1,267.4991**	**0.1322**	**0.0000**	**1,270.8043**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**46.98**	**0.00**	**38.94**	**46.48**	**0.00**	**28.73**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2021**	**3-31-2021**	2.0859	2.0859
2	**4-1-2021**	**6-30-2021**	1.1400	1.1400
3	**7-1-2021**	**9-30-2021**	1.1526	1.1526
4	**10-1-2021**	**12-31-2021**	1.1604	1.1604
5	**1-1-2022**	**3-31-2022**	1.7668	1.7668
		Highest	2.0859	2.0859

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1648	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Energy	0.1185	1.0776	0.9052	6.4700e-003		0.0819	0.0819		0.0819	0.0819	0.0000	5,305.5812	5,305.5812	0.1662	0.0512	5,325.0043
Mobile	3.0122	13.9140	44.1792	0.1705	14.6733	0.1285	14.8017	3.9331	0.1195	4.0526	0.0000	15,762.5023	15,762.5023	0.7622	0.0000	15,781.5564
Waste						0.0000	0.0000		0.0000	0.0000	703.1587	0.0000	703.1587	41.5555	0.0000	1,742.0458
Water						0.0000	0.0000		0.0000	0.0000	28.0404	513.1652	541.2056	2.8979	0.0717	635.0174
Total	**5.2955**	**14.9917**	**45.1001**	**0.1770**	**14.6733**	**0.2104**	**14.8837**	**3.9331**	**0.2015**	**4.1345**	**731.1991**	**21,581.2792**	**22,312.4783**	**45.3818**	**0.1229**	**23,483.6566**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1648	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Energy	0.1185	1.0776	0.9052	6.4700e-003		0.0819	0.0819		0.0819	0.0819	0.0000	5,305.5812	5,305.5812	0.1662	0.0512	5,325.0043
Mobile	3.0122	13.9140	44.1792	0.1705	14.6733	0.1285	14.8017	3.9331	0.1195	4.0526	0.0000	15,762.5023	15,762.5023	0.7622	0.0000	15,781.5564
Waste						0.0000	0.0000		0.0000	0.0000	703.1587	0.0000	703.1587	41.5555	0.0000	1,742.0458
Water						0.0000	0.0000		0.0000	0.0000	28.0404	513.1652	541.2056	2.8979	0.0717	635.0174
Total	**5.2955**	**14.9917**	**45.1001**	**0.1770**	**14.6733**	**0.2104**	**14.8837**	**3.9331**	**0.2015**	**4.1345**	**731.1991**	**21,581.2792**	**22,312.4783**	**45.3818**	**0.1229**	**23,483.6566**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
3	Grading	Grading	2/12/2021	3/11/2021	5	20	
4	Building Construction	Building Construction	3/12/2021	1/27/2022	5	230	
5	Paving	Paving	1/28/2022	2/24/2022	5	20	
6	Architectural Coating	Architectural Coating	2/25/2022	3/24/2022	5	20	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 5

Acres of Paving: 1.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 835,650; Non-Residential Outdoor: 278,550; Striped Parking Area: 16,176 (Architectural Coating – sqft)

OffRoad Equipment

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	15.00	0.00	618.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	2,156.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,312.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	308.00	135.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	62.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0668	0.0000	0.0668	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0008	34.0008	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**	**0.0668**	**0.0155**	**0.0824**	**0.0101**	**0.0144**	**0.0245**	**0.0000**	**34.0008**	**34.0008**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.0855	0.0199	2.4000e-004	5.3100e-003	2.6000e-004	5.5700e-003	1.4600e-003	2.4000e-004	1.7000e-003	0.0000	23.5550	23.5550	1.6300e-003	0.0000	23.5958
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**3.2500e-003**	**0.0860**	**0.0256**	**2.6000e-004**	**6.9500e-003**	**2.7000e-004**	**7.2300e-003**	**1.9000e-003**	**2.5000e-004**	**2.1500e-003**	**0.0000**	**25.0383**	**25.0383**	**1.6700e-003**	**0.0000**	**25.0803**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0261	0.0000	0.0261	3.9500e-003	0.0000	3.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0007	34.0007	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**	**0.0261**	**0.0155**	**0.0416**	**3.9500e-003**	**0.0144**	**0.0184**	**0.0000**	**34.0007**	**34.0007**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.0855	0.0199	2.4000e-004	3.3100e-003	2.6000e-004	3.5700e-003	9.7000e-004	2.4000e-004	1.2100e-003	0.0000	23.5550	23.5550	1.6300e-003	0.0000	23.5958
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**3.2500e-003**	**0.0860**	**0.0256**	**2.6000e-004**	**4.2400e-003**	**2.7000e-004**	**4.5100e-003**	**1.2300e-003**	**2.5000e-004**	**1.4800e-003**	**0.0000**	**25.0383**	**25.0383**	**1.6700e-003**	**0.0000**	**25.0803**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0940	0.0000	0.0940	0.0501	0.0000	0.0501	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0940**	**0.0102**	**0.1042**	**0.0501**	**9.4000e-003**	**0.0595**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0800e-003	0.2984	0.0696	8.3000e-004	0.0185	8.9000e-004	0.0194	5.0900e-003	8.5000e-004	5.9400e-003	0.0000	82.1755	82.1755	5.7000e-003	0.0000	82.3181
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.0000e-004	3.4000e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8900	0.8900	3.0000e-005	0.0000	0.8907
Total	**9.4700e-003**	**0.2987**	**0.0730**	**8.4000e-004**	**0.0195**	**9.0000e-004**	**0.0204**	**5.3500e-003**	**8.6000e-004**	**6.2100e-003**	**0.0000**	**83.0656**	**83.0656**	**5.7300e-003**	**0.0000**	**83.2088**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0366	0.0000	0.0366	0.0195	0.0000	0.0195	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0366**	**0.0102**	**0.0469**	**0.0195**	**9.4000e-003**	**0.0289**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0800e-003	0.2984	0.0696	8.3000e-004	0.0116	8.9000e-004	0.0125	3.3800e-003	8.5000e-004	4.2300e-003	0.0000	82.1755	82.1755	5.7000e-003	0.0000	82.3181
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.0000e-004	3.4000e-003	1.0000e-005	5.6000e-004	1.0000e-005	5.7000e-004	1.6000e-004	1.0000e-005	1.6000e-004	0.0000	0.8900	0.8900	3.0000e-005	0.0000	0.8907
Total	**9.4700e-003**	**0.2987**	**0.0730**	**8.4000e-004**	**0.0121**	**9.0000e-004**	**0.0130**	**3.5400e-003**	**8.6000e-004**	**4.3900e-003**	**0.0000**	**83.0656**	**83.0656**	**5.7300e-003**	**0.0000**	**83.2088**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0648	0.0000	0.0648	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644
Total	**0.0229**	**0.2474**	**0.1586**	**3.0000e-004**	**0.0648**	**0.0116**	**0.0764**	**0.0337**	**0.0107**	**0.0444**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2644**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0182	0.5968	0.1392	1.6700e-003	0.0371	1.7900e-003	0.0388	0.0102	1.7100e-003	0.0119	0.0000	164.3511	164.3511	0.0114	0.0000	164.6363
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**0.0188**	**0.5973**	**0.1448**	**1.6900e-003**	**0.0387**	**1.8000e-003**	**0.0405**	**0.0106**	**1.7200e-003**	**0.0123**	**0.0000**	**165.8344**	**165.8344**	**0.0115**	**0.0000**	**166.1207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0253	0.0000	0.0253	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643
Total	**0.0229**	**0.2474**	**0.1586**	**3.0000e-004**	**0.0253**	**0.0116**	**0.0369**	**0.0131**	**0.0107**	**0.0238**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2643**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0182	0.5968	0.1392	1.6700e-003	0.0231	1.7900e-003	0.0249	6.7600e-003	1.7100e-003	8.4700e-003	0.0000	164.3511	164.3511	0.0114	0.0000	164.6363
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**0.0188**	**0.5973**	**0.1448**	**1.6900e-003**	**0.0241**	**1.8000e-003**	**0.0259**	**7.0200e-003**	**1.7200e-003**	**8.7400e-003**	**0.0000**	**165.8344**	**165.8344**	**0.0115**	**0.0000**	**166.1207**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2006	1.8391	1.7487	2.8400e-003		0.1011	0.1011		0.0951	0.0951	0.0000	244.3773	244.3773	0.0590	0.0000	245.8513
Total	**0.2006**	**1.8391**	**1.7487**	**2.8400e-003**		**0.1011**	**0.1011**		**0.0951**	**0.0951**	**0.0000**	**244.3773**	**244.3773**	**0.0590**	**0.0000**	**245.8513**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0442	1.4056	0.3811	3.6200e-003	0.0897	2.8700e-003	0.0926	0.0259	2.7400e-003	0.0286	0.0000	351.0728	351.0728	0.0215	0.0000	351.6111
Worker	0.1398	0.1089	1.2288	3.5600e-003	0.3561	2.9300e-003	0.3590	0.0946	2.7000e-003	0.0973	0.0000	321.3387	321.3387	9.4600e-003	0.0000	321.5751
Total	**0.1840**	**1.5144**	**1.6099**	**7.1800e-003**	**0.4458**	**5.8000e-003**	**0.4516**	**0.1205**	**5.4400e-003**	**0.1259**	**0.0000**	**672.4115**	**672.4115**	**0.0310**	**0.0000**	**673.1862**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2006	1.8391	1.7487	2.8400e-003		0.1011	0.1011		0.0951	0.0951	0.0000	244.3770	244.3770	0.0590	0.0000	245.8510
Total	**0.2006**	**1.8391**	**1.7487**	**2.8400e-003**		**0.1011**	**0.1011**		**0.0951**	**0.0951**	**0.0000**	**244.3770**	**244.3770**	**0.0590**	**0.0000**	**245.8510**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0442	1.4056	0.3811	3.6200e-003	0.0580	2.8700e-003	0.0608	0.0181	2.7400e-003	0.0208	0.0000	351.0728	351.0728	0.0215	0.0000	351.6111
Worker	0.1398	0.1089	1.2288	3.5600e-003	0.2018	2.9300e-003	0.2047	0.0567	2.7000e-003	0.0594	0.0000	321.3387	321.3387	9.4600e-003	0.0000	321.5751
Total	**0.1840**	**1.5144**	**1.6099**	**7.1800e-003**	**0.2597**	**5.8000e-003**	**0.2655**	**0.0748**	**5.4400e-003**	**0.0802**	**0.0000**	**672.4115**	**672.4115**	**0.0310**	**0.0000**	**673.1862**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0162	0.1484	0.1555	2.6000e-004		7.6900e-003	7.6900e-003		7.2300e-003	7.2300e-003	0.0000	22.0139	22.0139	5.2700e-003	0.0000	22.1458
Total	**0.0162**	**0.1484**	**0.1555**	**2.6000e-004**		**7.6900e-003**	**7.6900e-003**		**7.2300e-003**	**7.2300e-003**	**0.0000**	**22.0139**	**22.0139**	**5.2700e-003**	**0.0000**	**22.1458**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7400e-003	0.1203	0.0325	3.2000e-004	8.0800e-003	2.3000e-004	8.3000e-003	2.3300e-003	2.2000e-004	2.5500e-003	0.0000	31.3355	31.3355	1.8700e-003	0.0000	31.3823
Worker	0.0118	8.8500e-003	0.1020	3.1000e-004	0.0321	2.6000e-004	0.0323	8.5200e-003	2.4000e-004	8.7500e-003	0.0000	27.9186	27.9186	7.7000e-004	0.0000	27.9378
Total	**0.0156**	**0.1291**	**0.1344**	**6.3000e-004**	**0.0401**	**4.9000e-004**	**0.0406**	**0.0109**	**4.6000e-004**	**0.0113**	**0.0000**	**59.2541**	**59.2541**	**2.6400e-003**	**0.0000**	**59.3201**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0162	0.1484	0.1555	2.6000e-004		7.6900e-003	7.6900e-003		7.2300e-003	7.2300e-003	0.0000	22.0139	22.0139	5.2700e-003	0.0000	22.1457
Total	**0.0162**	**0.1484**	**0.1555**	**2.6000e-004**		**7.6900e-003**	**7.6900e-003**		**7.2300e-003**	**7.2300e-003**	**0.0000**	**22.0139**	**22.0139**	**5.2700e-003**	**0.0000**	**22.1457**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7400e-003	0.1203	0.0325	3.2000e-004	5.2200e-003	2.3000e-004	5.4500e-003	1.6300e-003	2.2000e-004	1.8500e-003	0.0000	31.3355	31.3355	1.8700e-003	0.0000	31.3823
Worker	0.0118	8.8500e-003	0.1020	3.1000e-004	0.0182	2.6000e-004	0.0184	5.1100e-003	2.4000e-004	5.3400e-003	0.0000	27.9186	27.9186	7.7000e-004	0.0000	27.9378
Total	**0.0156**	**0.1291**	**0.1344**	**6.3000e-004**	**0.0234**	**4.9000e-004**	**0.0239**	**6.7400e-003**	**4.6000e-004**	**7.1900e-003**	**0.0000**	**59.2541**	**59.2541**	**2.6400e-003**	**0.0000**	**59.3201**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1000e-004	4.5000e-004	5.2300e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4312	1.4312	4.0000e-005	0.0000	1.4322
Total	**6.1000e-004**	**4.5000e-004**	**5.2300e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4312**	**1.4312**	**4.0000e-005**	**0.0000**	**1.4322**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1000e-004	4.5000e-004	5.2300e-003	2.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.4312	1.4312	4.0000e-005	0.0000	1.4322
Total	**6.1000e-004**	**4.5000e-004**	**5.2300e-003**	**2.0000e-005**	**9.3000e-004**	**1.0000e-005**	**9.4000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**1.4312**	**1.4312**	**4.0000e-005**	**0.0000**	**1.4322**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3098					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.3119**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-003	1.8800e-003	0.0216	7.0000e-005	6.7900e-003	5.0000e-005	6.8500e-003	1.8000e-003	5.0000e-005	1.8500e-003	0.0000	5.9158	5.9158	1.6000e-004	0.0000	5.9198
Total	**2.5000e-003**	**1.8800e-003**	**0.0216**	**7.0000e-005**	**6.7900e-003**	**5.0000e-005**	**6.8500e-003**	**1.8000e-003**	**5.0000e-005**	**1.8500e-003**	**0.0000**	**5.9158**	**5.9158**	**1.6000e-004**	**0.0000**	**5.9198**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.3098					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**1.3119**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-003	1.8800e-003	0.0216	7.0000e-005	3.8500e-003	5.0000e-005	3.9000e-003	1.0800e-003	5.0000e-005	1.1300e-003	0.0000	5.9158	5.9158	1.6000e-004	0.0000	5.9198
Total	**2.5000e-003**	**1.8800e-003**	**0.0216**	**7.0000e-005**	**3.8500e-003**	**5.0000e-005**	**3.9000e-003**	**1.0800e-003**	**5.0000e-005**	**1.1300e-003**	**0.0000**	**5.9158**	**5.9158**	**1.6000e-004**	**0.0000**	**5.9198**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0122	13.9140	44.1792	0.1705	14.6733	0.1285	14.8017	3.9331	0.1195	4.0526	0.0000	15,762.5023	15,762.5023	0.7622	0.0000	15,781.5564
Unmitigated	3.0122	13.9140	44.1792	0.1705	14.6733	0.1285	14.8017	3.9331	0.1195	4.0526	0.0000	15,762.5023	15,762.5023	0.7622	0.0000	15,781.5564

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Hospital	9,972.24	9,972.24	9972.24	38,660,796	38,660,796
Library	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Total	9,972.24	9,972.24	9,972.24	38,660,796	38,660,796

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Light Industry	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Hospital	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Library	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Unrefrigerated Warehouse-No Rail	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,132.4703	4,132.4703	0.1437	0.0297	4,144.9223
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,132.4703	4,132.4703	0.1437	0.0297	4,144.9223
NaturalGas Mitigated	0.1185	1.0776	0.9052	6.4700e-003		0.0819	0.0819		0.0819	0.0819	0.0000	1,173.1108	1,173.1108	0.0225	0.0215	1,180.0821
NaturalGas Unmitigated	0.1185	1.0776	0.9052	6.4700e-003		0.0819	0.0819		0.0819	0.0819	0.0000	1,173.1108	1,173.1108	0.0225	0.0215	1,180.0821

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	1.3937e+006	7.5200e-003	0.0683	0.0574	4.1000e-004		5.1900e-003	5.1900e-003		5.1900e-003	5.1900e-003	0.0000	74.3731	74.3731	1.4300e-003	1.3600e-003	74.8151
General Office Building	999360	5.3900e-003	0.0490	0.0412	2.9000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	53.3297	53.3297	1.0200e-003	9.8000e-004	53.6466
Hospital	1.9169e+007	0.1034	0.9397	0.7893	5.6400e-003		0.0714	0.0714		0.0714	0.0714	0.0000	1,022.9287	1,022.9287	0.0196	0.0188	1,029.0075
Library	362000	1.9500e-003	0.0178	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	19.3177	19.3177	3.7000e-004	3.5000e-004	19.4325
Unrefrigerated Warehouse-No Rail	59247	3.2000e-004	2.9000e-003	2.4400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1617	3.1617	6.0000e-005	6.0000e-005	3.1804
Total		**0.1185**	**1.0776**	**0.9052**	**6.4700e-003**		**0.0819**	**0.0819**		**0.0819**	**0.0819**	**0.0000**	**1,173.1109**	**1,173.1109**	**0.0225**	**0.0215**	**1,180.0821**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	1.3937e+006	7.5200e-003	0.0683	0.0574	4.1000e-004		5.1900e-003	5.1900e-003		5.1900e-003	5.1900e-003	0.0000	74.3731	74.3731	1.4300e-003	1.3600e-003	74.8151
General Office Building	999360	5.3900e-003	0.0490	0.0412	2.9000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	53.3297	53.3297	1.0200e-003	9.8000e-004	53.6466
Hospital	1.9169e+007	0.1034	0.9397	0.7893	5.6400e-003		0.0714	0.0714		0.0714	0.0714	0.0000	1,022.9287	1,022.9287	0.0196	0.0188	1,029.0075
Library	362000	1.9500e-003	0.0178	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	19.3177	19.3177	3.7000e-004	3.5000e-004	19.4325
Unrefrigerated Warehouse-No Rail	59247	3.2000e-004	2.9000e-003	2.4400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1617	3.1617	6.0000e-005	6.0000e-005	3.1804
Total		**0.1185**	**1.0776**	**0.9052**	**6.4700e-003**		**0.0819**	**0.0819**		**0.0819**	**0.0819**	**0.0000**	**1,173.1109**	**1,173.1109**	**0.0225**	**0.0215**	**1,180.0821**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.57986e+006	597.6533	0.0208	4.3000e-003	599.4541
General Light Industry	854700	323.3296	0.0112	2.3300e-003	324.3039
General Office Building	1.24704e+006	471.7503	0.0164	3.3900e-003	473.1718
Hospital	6.75472e+006	2,555.2838	0.0889	0.0184	2,562.9834
Library	222000	83.9817	2.9200e-003	6.0000e-004	84.2348
Unrefrigerated Warehouse-No Rail	265590	100.4716	3.4900e-003	7.2000e-004	100.7744
Total		**4,132.4703**	**0.1437**	**0.0297**	**4,144.9223**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.57986e+006	597.6533	0.0208	4.3000e-003	599.4541
General Light Industry	854700	323.3296	0.0112	2.3300e-003	324.3039
General Office Building	1.24704e+006	471.7503	0.0164	3.3900e-003	473.1718
Hospital	6.75472e+006	2,555.2838	0.0889	0.0184	2,562.9834
Library	222000	83.9817	2.9200e-003	6.0000e-004	84.2348
Unrefrigerated Warehouse-No Rail	265590	100.4716	3.4900e-003	7.2000e-004	100.7744
Total		**4,132.4703**	**0.1437**	**0.0297**	**4,144.9223**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1648	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Unmitigated	2.1648	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4600e-003	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Total	**2.1648**	**1.4000e-004**	**0.0157**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0306**	**0.0306**	**8.0000e-005**	**0.0000**	**0.0326**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1329					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4600e-003	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Total	**2.1648**	**1.4000e-004**	**0.0157**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0306**	**0.0306**	**8.0000e-005**	**0.0000**	**0.0326**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	541.2056	2.8979	0.0717	635.0174
Unmitigated	541.2056	2.8979	0.0717	635.0174

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	17.8062 / 0	93.3590	0.5833	0.0143	112.2114
General Office Building	17.0624 / 10.4576	133.4112	0.5604	0.0141	151.6085
Hospital	37.1422 / 7.07471	224.4726	1.2177	0.0301	263.8865
Library	0.625778 / 0.978781	7.3947	0.0206	5.3000e-004	8.0696
Unrefrigerated Warehouse-No Rail	15.7481 / 0	82.5682	0.5159	0.0127	99.2415
Total		**541.2056**	**2.8979**	**0.0717**	**635.0174**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	17.8062 / 0	93.3590	0.5833	0.0143	112.2114
General Office Building	17.0624 / 10.4576	133.4112	0.5604	0.0141	151.6085
Hospital	37.1422 / 7.07471	224.4726	1.2177	0.0301	263.8865
Library	0.625778 / 0.978781	7.3947	0.0206	5.3000e-004	8.0696
Unrefrigerated Warehouse-No Rail	15.7481 / 0	82.5682	0.5159	0.0127	99.2415
Total		**541.2056**	**2.8979**	**0.0717**	**635.0174**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	703.1587	41.5555	0.0000	1,742.0458
Unmitigated	703.1587	41.5555	0.0000	1,742.0458

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	95.48	19.3816	1.1454	0.0000	48.0170
General Office Building	89.28	18.1230	1.0710	0.0000	44.8991
Hospital	3196.8	648.9215	38.3502	0.0000	1,607.6756
Library	18.42	3.7391	0.2210	0.0000	9.2635
Unrefrigerated Warehouse-No Rail	64.01	12.9935	0.7679	0.0000	32.1907
Total		**703.1587**	**41.5555**	**0.0000**	**1,742.0458**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	95.48	19.3816	1.1454	0.0000	48.0170
General Office Building	89.28	18.1230	1.0710	0.0000	44.8991
Hospital	3196.8	648.9215	38.3502	0.0000	1,607.6756
Library	18.42	3.7391	0.2210	0.0000	9.2635
Unrefrigerated Warehouse-No Rail	64.01	12.9935	0.7679	0.0000	32.1907
Total		**703.1587**	**41.5555**	**0.0000**	**1,742.0458**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Olive View-UCLA Medical Center - Tier 1B

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	96.00	1000sqft	0.67	96,000.00	0
Hospital	296.00	1000sqft	1.40	296,000.00	0
General Light Industry	77.00	1000sqft	0.78	77,000.00	0
Unrefrigerated Warehouse-No Rail	68.10	1000sqft	0.56	68,100.00	0
Enclosed Parking with Elevator	674.00	Space	1.06	269,600.00	0
Library	20.00	1000sqft	0.55	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	834	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP CO2 intensity revised based on 2016 CO2 intensity identified in 2017 Power Strategic Long-Term Resource Plan (p. C-15).

Land Use - Building square footages from project description.

Construction Phase - Default construction schedule based on building square footages. All buildings assumed to be under construction concurrently.

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Grading - Off-site export and import estimates provided by SmithGroupJJR. Import/export quantities assumed to be distributed evenly over site prep and grading phases.

Demolition - Demolition square footage provided by SmithGroupJJR

Trips and VMT - Default number of trips and distances assumed.

On-road Fugitive Dust - Defaults assumed.

Architectural Coating - VOC content of architectural coatings changed to 25 g/L to exceed SCAQMD Rule 1113 requirements.

Vehicle Trips - Daily operational trips based on March 2019 TIA prepared by Fehr & Peers, which would total 9,973 trips per day. All trips included in the Hospital land use, including internal capture, transit/walk/bike credit, and carpool accounted for.

Vehicle Emission Factors - Defaults assumed.

Vehicle Emission Factors - Defaults assumed.

Vehicle Emission Factors - Defaults assumed.

Area Coating - VOC content of architectural coatings changed to 25 g/L to exceed SCAQMD Rule 1113 requirements

Energy Use - Defaults assumed.

Water And Wastewater - Defaults assumed.

Solid Waste - Defaults assumed.

Construction Off-road Equipment Mitigation - Rule 403 compliance

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	25.00

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	25.00
tblArchitecturalCoating	EF_Parking	100.00	25.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	25
tblAreaCoating	Area_EF_Nonresidential_Interior	100	25
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	50
tblGrading	AcresOfGrading	10.00	5.00
tblGrading	AcresOfGrading	0.00	5.00
tblGrading	MaterialExported	0.00	22,833.00
tblGrading	MaterialExported	0.00	11,417.00
tblGrading	MaterialImported	0.00	11,667.00
tblGrading	MaterialImported	0.00	5,833.00
tblLandUse	LotAcreage	2.20	0.67
tblLandUse	LotAcreage	6.80	1.40
tblLandUse	LotAcreage	1.77	0.78
tblLandUse	LotAcreage	1.56	0.56
tblLandUse	LotAcreage	6.07	1.06
tblLandUse	LotAcreage	0.46	0.55
tblProjectCharacteristics	CO2IntensityFactor	1227.89	834
tblTripsAndVMT	HaulingTripNumber	4,313.00	4,312.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	10.18	33.69
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.91	33.69

tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	13.22	33.69
tblVehicleTrips	WD_TR	1.68	0.00
tblVehicleTrips	WD_TR	56.24	0.00

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.7630	98.3834	35.4395	0.2083	22.7626	2.2236	24.9862	11.1042	2.0522	13.1565	0.0000	22,140.0170	22,140.0170	2.4365	0.0000	22,200.9301
2022	65.9446	28.8999	31.0508	0.0953	4.3070	0.8594	5.1664	1.1619	0.8084	1.9703	0.0000	9,616.9270	9,616.9270	0.9165	0.0000	9,639.8381
Maximum	**65.9446**	**98.3834**	**35.4395**	**0.2083**	**22.7626**	**2.2236**	**24.9862**	**11.1042**	**2.0522**	**13.1565**	**0.0000**	**22,140.0170**	**22,140.0170**	**2.4365**	**0.0000**	**22,200.9301**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	5.7630	98.3834	35.4395	0.2083	9.7871	2.2236	12.0107	4.6223	2.0522	6.6745	0.0000	22,140.0170	22,140.0170	2.4365	0.0000	22,200.9301
2022	65.9446	28.8999	31.0508	0.0953	2.5026	0.8594	3.3620	0.7190	0.8084	1.5274	0.0000	9,616.9270	9,616.9270	0.9165	0.0000	9,639.8381
Maximum	**65.9446**	**98.3834**	**35.4395**	**0.2083**	**9.7871**	**2.2236**	**12.0107**	**4.6223**	**2.0522**	**6.6745**	**0.0000**	**22,140.0170**	**22,140.0170**	**2.4365**	**0.0000**	**22,200.9301**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**54.60**	**0.00**	**49.02**	**56.46**	**0.00**	**45.78**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.5120	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Energy	0.6495	5.9047	4.9600	0.0354		0.4488	0.4488		0.4488	0.4488		7,085.6622	7,085.6622	0.1358	0.1299	7,127.7688
Mobile	17.4418	73.0423	253.6076	0.9711	82.2093	0.7056	82.9150	21.9997	0.6564	22.6560		98,883.0293	98,883.0293	4.6583		98,999.4879
Total	**29.6033**	**78.9482**	**258.6932**	**1.0066**	**82.2093**	**1.1549**	**83.3642**	**21.9997**	**1.1056**	**23.1053**		**105,968.9610**	**105,968.9610**	**4.7949**	**0.1299**	**106,127.5437**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	11.5120	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Energy	0.6495	5.9047	4.9600	0.0354		0.4488	0.4488		0.4488	0.4488		7,085.6622	7,085.6622	0.1358	0.1299	7,127.7688
Mobile	17.4418	73.0423	253.6076	0.9711	82.2093	0.7056	82.9150	21.9997	0.6564	22.6560		98,883.0293	98,883.0293	4.6583		98,999.4879
Total	**29.6033**	**78.9482**	**258.6932**	**1.0066**	**82.2093**	**1.1549**	**83.3642**	**21.9997**	**1.1056**	**23.1053**		**105,968.9610**	**105,968.9610**	**4.7949**	**0.1299**	**106,127.5437**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
3	Grading	Grading	2/12/2021	3/11/2021	5	20	
4	Building Construction	Building Construction	3/12/2021	1/27/2022	5	230	
5	Paving	Paving	1/28/2022	2/24/2022	5	20	
6	Architectural Coating	Architectural Coating	2/25/2022	3/24/2022	5	20	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 5

Acres of Paving: 1.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 835,650; Non-Residential Outdoor: 278,550; Striped Parking Area: 16,176 (Architectural Coating – sqft)

OffRoad Equipment

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	62.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	308.00	135.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	618.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,312.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	2,156.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.6838	0.0000	6.6838	1.0120	0.0000	1.0120			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411		3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**6.6838**	**1.5513**	**8.2351**	**1.0120**	**1.4411**	**2.4531**		**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2576	8.2887	1.9435	0.0241	0.5403	0.0254	0.5657	0.1481	0.0243	0.1725		2,615.5190	2,615.5190	0.1775		2,619.9564
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.3219**	**8.3329**	**2.5476**	**0.0258**	**0.7080**	**0.0268**	**0.7348**	**0.1926**	**0.0256**	**0.2182**		**2,786.3345**	**2,786.3345**	**0.1825**		**2,790.8977**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.6067	0.0000	2.6067	0.3947	0.0000	0.3947			0.0000			0.0000
Off-Road	3.1651	31.4407	21.5650	0.0388		1.5513	1.5513		1.4411	1.4411	0.0000	3,747.9449	3,747.9449	1.0549		3,774.3174
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**2.6067**	**1.5513**	**4.1580**	**0.3947**	**1.4411**	**1.8358**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.2576	8.2887	1.9435	0.0241	0.3360	0.0254	0.3615	0.0980	0.0243	0.1223		2,615.5190	2,615.5190	0.1775		2,619.9564
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.0948	1.3500e-003	0.0961	0.0266	1.2500e-003	0.0278		170.8155	170.8155	5.0300e-003		170.9413
Total	**0.3219**	**8.3329**	**2.5476**	**0.0258**	**0.4308**	**0.0268**	**0.4576**	**0.1246**	**0.0256**	**0.1501**		**2,786.3345**	**2,786.3345**	**0.1825**		**2,790.8977**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.7916	0.0000	18.7916	10.0175	0.0000	10.0175			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809		3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.7916**	**2.0445**	**20.8361**	**10.0175**	**1.8809**	**11.8984**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7977	57.8333	13.5603	0.1682	3.7699	0.1775	3.9474	1.0334	0.1698	1.2032		18,249.3816	18,249.3816	1.2385		18,280.3433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		204.9786	204.9786	6.0400e-003		205.1296
Total	**1.8748**	**57.8863**	**14.2852**	**0.1703**	**3.9711**	**0.1791**	**4.1502**	**1.0867**	**0.1713**	**1.2581**		**18,454.3602**	**18,454.3602**	**1.2445**		**18,485.4729**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.3287	0.0000	7.3287	3.9068	0.0000	3.9068			0.0000			0.0000
Off-Road	3.8882	40.4971	21.1543	0.0380		2.0445	2.0445		1.8809	1.8809	0.0000	3,685.6569	3,685.6569	1.1920		3,715.4573
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**7.3287**	**2.0445**	**9.3732**	**3.9068**	**1.8809**	**5.7877**	**0.0000**	**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

Olive View-UCLA Medical Center - Tier 1B

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	96.00	1000sqft	0.67	96,000.00	0
Hospital	296.00	1000sqft	1.40	296,000.00	0
General Light Industry	77.00	1000sqft	0.78	77,000.00	0
Unrefrigerated Warehouse-No Rail	68.10	1000sqft	0.56	68,100.00	0
Enclosed Parking with Elevator	674.00	Space	1.06	269,600.00	0
Library	20.00	1000sqft	0.55	20,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2023
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	834	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics - LADWP CO2 intensity revised based on 2016 CO2 intensity identified in 2017 Power Strategic Long-Term Resource Plan (p. C-15).

Land Use - Building square footages from project description.

Construction Phase - Default construction schedule based on building square footages. All buildings assumed to be under construction concurrently.

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Off-road Equipment - Default construction equipment

Grading - Off-site export and import estimates provided by SmithGroupJJR. Import/export quantities assumed to be distributed evenly over site prep and grading phases.

Demolition - Demolition square footage provided by SmithGroupJJR

Trips and VMT - Default number of trips and distances assumed.

On-road Fugitive Dust - Defaults assumed.

Architectural Coating - VOC content of architectural coatings changed to 25 g/L to exceed SCAQMD Rule 1113 requirements.

Vehicle Trips - Daily operational trips based on March 2019 TIA prepared by Fehr & Peers, which would total 9,973 trips per day. All trips included in the Hospital land use, including internal capture, transit/walk/bike credit, and carpool accounted for.

Vehicle Emission Factors - Defaults assumed.

Vehicle Emission Factors - Defaults assumed.

Vehicle Emission Factors - Defaults assumed.

Area Coating - VOC content of architectural coatings changed to 25 g/L to exceed SCAQMD Rule 1113 requirements

Energy Use - Defaults assumed.

Water And Wastewater - Defaults assumed.

Solid Waste - Defaults assumed.

Construction Off-road Equipment Mitigation - Rule 403 compliance

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Nonresidential_Exterior	100.00	25.00

tblArchitecturalCoating	EF_Nonresidential_Interior	100.00	25.00
tblArchitecturalCoating	EF_Parking	100.00	25.00
tblAreaCoating	Area_EF_Nonresidential_Exterior	100	25
tblAreaCoating	Area_EF_Nonresidential_Interior	100	25
tblConstDustMitigation	CleanPavedRoadPercentReduction	0	50
tblGrading	AcresOfGrading	10.00	5.00
tblGrading	AcresOfGrading	0.00	5.00
tblGrading	MaterialExported	0.00	22,833.00
tblGrading	MaterialExported	0.00	11,417.00
tblGrading	MaterialImported	0.00	11,667.00
tblGrading	MaterialImported	0.00	5,833.00
tblLandUse	LotAcreage	2.20	0.67
tblLandUse	LotAcreage	6.80	1.40
tblLandUse	LotAcreage	1.77	0.78
tblLandUse	LotAcreage	1.56	0.56
tblLandUse	LotAcreage	6.07	1.06
tblLandUse	LotAcreage	0.46	0.55
tblProjectCharacteristics	CO2IntensityFactor	1227.89	834
tblTripsAndVMT	HaulingTripNumber	4,313.00	4,312.00
tblVehicleTrips	ST_TR	1.32	0.00
tblVehicleTrips	ST_TR	2.46	0.00
tblVehicleTrips	ST_TR	10.18	33.69
tblVehicleTrips	ST_TR	1.68	0.00
tblVehicleTrips	ST_TR	46.55	0.00
tblVehicleTrips	SU_TR	0.68	0.00
tblVehicleTrips	SU_TR	1.05	0.00
tblVehicleTrips	SU_TR	8.91	33.69

tblVehicleTrips	SU_TR	1.68	0.00
tblVehicleTrips	SU_TR	25.49	0.00
tblVehicleTrips	WD_TR	6.97	0.00
tblVehicleTrips	WD_TR	11.03	0.00
tblVehicleTrips	WD_TR	13.22	33.69
tblVehicleTrips	WD_TR	1.68	0.00
tblVehicleTrips	WD_TR	56.24	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4901	5.0999	4.0820	0.0137	0.7366	0.1472	0.8838	0.2322	0.1379	0.3701	0.0000	1,267.4994	1,267.4994	0.1322	0.0000	1,270.8047
2022	0.7029	0.4051	0.4806	1.2300e-003	0.0486	0.0147	0.0633	0.0131	0.0138	0.0269	0.0000	111.1958	111.1958	0.0148	0.0000	111.5648
Maximum	**0.7029**	**5.0999**	**4.0820**	**0.0137**	**0.7366**	**0.1472**	**0.8838**	**0.2322**	**0.1379**	**0.3701**	**0.0000**	**1,267.4994**	**1,267.4994**	**0.1322**	**0.0000**	**1,270.8047**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2021	0.4901	5.0999	4.0820	0.0137	0.3881	0.1472	0.5354	0.1232	0.1379	0.2611	0.0000	1,267.4991	1,267.4991	0.1322	0.0000	1,270.8043
2022	0.7029	0.4051	0.4806	1.2300e-003	0.0282	0.0147	0.0429	8.0800e-003	0.0138	0.0219	0.0000	111.1957	111.1957	0.0148	0.0000	111.5647
Maximum	**0.7029**	**5.0999**	**4.0820**	**0.0137**	**0.3881**	**0.1472**	**0.5354**	**0.1232**	**0.1379**	**0.2611**	**0.0000**	**1,267.4991**	**1,267.4991**	**0.1322**	**0.0000**	**1,270.8043**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**46.98**	**0.00**	**38.94**	**46.48**	**0.00**	**28.73**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2021**	**3-31-2021**	2.0859	2.0859
2	**4-1-2021**	**6-30-2021**	1.1400	1.1400
3	**7-1-2021**	**9-30-2021**	1.1526	1.1526
4	**10-1-2021**	**12-31-2021**	1.1604	1.1604
5	**1-1-2022**	**3-31-2022**	1.1119	1.1119
		Highest	2.0859	2.0859

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1003	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Energy	0.1185	1.0776	0.9052	6.4700e-003		0.0819	0.0819		0.0819	0.0819	0.0000	5,305.5812	5,305.5812	0.1662	0.0512	5,325.0043
Mobile	3.0122	13.9140	44.1792	0.1705	14.6733	0.1285	14.8017	3.9331	0.1195	4.0526	0.0000	15,762.5023	15,762.5023	0.7622	0.0000	15,781.5564
Waste						0.0000	0.0000		0.0000	0.0000	703.1587	0.0000	703.1587	41.5555	0.0000	1,742.0458
Water						0.0000	0.0000		0.0000	0.0000	28.0404	513.1652	541.2056	2.8979	0.0717	635.0174
Total	**5.2310**	**14.9917**	**45.1001**	**0.1770**	**14.6733**	**0.2104**	**14.8837**	**3.9331**	**0.2015**	**4.1345**	**731.1991**	**21,581.2792**	**22,312.4783**	**45.3818**	**0.1229**	**23,483.6566**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.1003	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Energy	0.1185	1.0776	0.9052	6.4700e-003		0.0819	0.0819		0.0819	0.0819	0.0000	5,305.5812	5,305.5812	0.1662	0.0512	5,325.0043
Mobile	3.0122	13.9140	44.1792	0.1705	14.6733	0.1285	14.8017	3.9331	0.1195	4.0526	0.0000	15,762.5023	15,762.5023	0.7622	0.0000	15,781.5564
Waste						0.0000	0.0000		0.0000	0.0000	703.1587	0.0000	703.1587	41.5555	0.0000	1,742.0458
Water						0.0000	0.0000		0.0000	0.0000	28.0404	513.1652	541.2056	2.8979	0.0717	635.0174
Total	**5.2310**	**14.9917**	**45.1001**	**0.1770**	**14.6733**	**0.2104**	**14.8837**	**3.9331**	**0.2015**	**4.1345**	**731.1991**	**21,581.2792**	**22,312.4783**	**45.3818**	**0.1229**	**23,483.6566**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	1/1/2021	1/28/2021	5	20	
2	Site Preparation	Site Preparation	1/29/2021	2/11/2021	5	10	
3	Grading	Grading	2/12/2021	3/11/2021	5	20	
4	Building Construction	Building Construction	3/12/2021	1/27/2022	5	230	
5	Paving	Paving	1/28/2022	2/24/2022	5	20	
6	Architectural Coating	Architectural Coating	2/25/2022	3/24/2022	5	20	

Acres of Grading (Site Preparation Phase): 5

Acres of Grading (Grading Phase): 5

Acres of Paving: 1.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 835,650; Non-Residential Outdoor: 278,550; Striped Parking Area: 16,176 (Architectural Coating – sqft)

OffRoad Equipment

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Demolition	Excavators	3	8.00	158	0.38
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Excavators	1	8.00	158	0.38
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Paving	Pavers	2	8.00	130	0.42
Paving	Rollers	2	8.00	80	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Paving	Paving Equipment	2	8.00	132	0.36
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	1	62.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	308.00	135.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	6	15.00	0.00	618.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	4,312.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	2,156.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Clean Paved Roads

3.2 Demolition - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0668	0.0000	0.0668	0.0101	0.0000	0.0101	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0008	34.0008	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**	**0.0668**	**0.0155**	**0.0824**	**0.0101**	**0.0144**	**0.0245**	**0.0000**	**34.0008**	**34.0008**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.0855	0.0199	2.4000e-004	5.3100e-003	2.6000e-004	5.5700e-003	1.4600e-003	2.4000e-004	1.7000e-003	0.0000	23.5550	23.5550	1.6300e-003	0.0000	23.5958
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**3.2500e-003**	**0.0860**	**0.0256**	**2.6000e-004**	**6.9500e-003**	**2.7000e-004**	**7.2300e-003**	**1.9000e-003**	**2.5000e-004**	**2.1500e-003**	**0.0000**	**25.0383**	**25.0383**	**1.6700e-003**	**0.0000**	**25.0803**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0261	0.0000	0.0261	3.9500e-003	0.0000	3.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3144	0.2157	3.9000e-004		0.0155	0.0155		0.0144	0.0144	0.0000	34.0007	34.0007	9.5700e-003	0.0000	34.2400
Total	**0.0317**	**0.3144**	**0.2157**	**3.9000e-004**	**0.0261**	**0.0155**	**0.0416**	**3.9500e-003**	**0.0144**	**0.0184**	**0.0000**	**34.0007**	**34.0007**	**9.5700e-003**	**0.0000**	**34.2400**

3.2 Demolition - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.6000e-003	0.0855	0.0199	2.4000e-004	3.3100e-003	2.6000e-004	3.5700e-003	9.7000e-004	2.4000e-004	1.2100e-003	0.0000	23.5550	23.5550	1.6300e-003	0.0000	23.5958
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**3.2500e-003**	**0.0860**	**0.0256**	**2.6000e-004**	**4.2400e-003**	**2.7000e-004**	**4.5100e-003**	**1.2300e-003**	**2.5000e-004**	**1.4800e-003**	**0.0000**	**25.0383**	**25.0383**	**1.6700e-003**	**0.0000**	**25.0803**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0940	0.0000	0.0940	0.0501	0.0000	0.0501	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7179	16.7179	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0940**	**0.0102**	**0.1042**	**0.0501**	**9.4000e-003**	**0.0595**	**0.0000**	**16.7179**	**16.7179**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0800e-003	0.2984	0.0696	8.3000e-004	0.0185	8.9000e-004	0.0194	5.0900e-003	8.5000e-004	5.9400e-003	0.0000	82.1755	82.1755	5.7000e-003	0.0000	82.3181
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.0000e-004	3.4000e-003	1.0000e-005	9.9000e-004	1.0000e-005	9.9000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	0.8900	0.8900	3.0000e-005	0.0000	0.8907
Total	**9.4700e-003**	**0.2987**	**0.0730**	**8.4000e-004**	**0.0195**	**9.0000e-004**	**0.0204**	**5.3500e-003**	**8.6000e-004**	**6.2100e-003**	**0.0000**	**83.0656**	**83.0656**	**5.7300e-003**	**0.0000**	**83.2088**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0366	0.0000	0.0366	0.0195	0.0000	0.0195	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.2025	0.1058	1.9000e-004		0.0102	0.0102		9.4000e-003	9.4000e-003	0.0000	16.7178	16.7178	5.4100e-003	0.0000	16.8530
Total	**0.0194**	**0.2025**	**0.1058**	**1.9000e-004**	**0.0366**	**0.0102**	**0.0469**	**0.0195**	**9.4000e-003**	**0.0289**	**0.0000**	**16.7178**	**16.7178**	**5.4100e-003**	**0.0000**	**16.8530**

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0800e-003	0.2984	0.0696	8.3000e-004	0.0116	8.9000e-004	0.0125	3.3800e-003	8.5000e-004	4.2300e-003	0.0000	82.1755	82.1755	5.7000e-003	0.0000	82.3181
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.9000e-004	3.0000e-004	3.4000e-003	1.0000e-005	5.6000e-004	1.0000e-005	5.7000e-004	1.6000e-004	1.0000e-005	1.6000e-004	0.0000	0.8900	0.8900	3.0000e-005	0.0000	0.8907
Total	**9.4700e-003**	**0.2987**	**0.0730**	**8.4000e-004**	**0.0121**	**9.0000e-004**	**0.0130**	**3.5400e-003**	**8.6000e-004**	**4.3900e-003**	**0.0000**	**83.0656**	**83.0656**	**5.7300e-003**	**0.0000**	**83.2088**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0648	0.0000	0.0648	0.0337	0.0000	0.0337	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2644
Total	**0.0229**	**0.2474**	**0.1586**	**3.0000e-004**	**0.0648**	**0.0116**	**0.0764**	**0.0337**	**0.0107**	**0.0444**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2644**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0182	0.5968	0.1392	1.6700e-003	0.0371	1.7900e-003	0.0388	0.0102	1.7100e-003	0.0119	0.0000	164.3511	164.3511	0.0114	0.0000	164.6363
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**0.0188**	**0.5973**	**0.1448**	**1.6900e-003**	**0.0387**	**1.8000e-003**	**0.0405**	**0.0106**	**1.7200e-003**	**0.0123**	**0.0000**	**165.8344**	**165.8344**	**0.0115**	**0.0000**	**166.1207**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0253	0.0000	0.0253	0.0131	0.0000	0.0131	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0229	0.2474	0.1586	3.0000e-004		0.0116	0.0116		0.0107	0.0107	0.0000	26.0537	26.0537	8.4300e-003	0.0000	26.2643
Total	**0.0229**	**0.2474**	**0.1586**	**3.0000e-004**	**0.0253**	**0.0116**	**0.0369**	**0.0131**	**0.0107**	**0.0238**	**0.0000**	**26.0537**	**26.0537**	**8.4300e-003**	**0.0000**	**26.2643**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0182	0.5968	0.1392	1.6700e-003	0.0231	1.7900e-003	0.0249	6.7600e-003	1.7100e-003	8.4700e-003	0.0000	164.3511	164.3511	0.0114	0.0000	164.6363
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.5000e-004	5.0000e-004	5.6700e-003	2.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.4834	1.4834	4.0000e-005	0.0000	1.4845
Total	**0.0188**	**0.5973**	**0.1448**	**1.6900e-003**	**0.0241**	**1.8000e-003**	**0.0259**	**7.0200e-003**	**1.7200e-003**	**8.7400e-003**	**0.0000**	**165.8344**	**165.8344**	**0.0115**	**0.0000**	**166.1207**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2006	1.8391	1.7487	2.8400e-003		0.1011	0.1011		0.0951	0.0951	0.0000	244.3773	244.3773	0.0590	0.0000	245.8513
Total	**0.2006**	**1.8391**	**1.7487**	**2.8400e-003**		**0.1011**	**0.1011**		**0.0951**	**0.0951**	**0.0000**	**244.3773**	**244.3773**	**0.0590**	**0.0000**	**245.8513**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0442	1.4056	0.3811	3.6200e-003	0.0897	2.8700e-003	0.0926	0.0259	2.7400e-003	0.0286	0.0000	351.0728	351.0728	0.0215	0.0000	351.6111
Worker	0.1398	0.1089	1.2288	3.5600e-003	0.3561	2.9300e-003	0.3590	0.0946	2.7000e-003	0.0973	0.0000	321.3387	321.3387	9.4600e-003	0.0000	321.5751
Total	**0.1840**	**1.5144**	**1.6099**	**7.1800e-003**	**0.4458**	**5.8000e-003**	**0.4516**	**0.1205**	**5.4400e-003**	**0.1259**	**0.0000**	**672.4115**	**672.4115**	**0.0310**	**0.0000**	**673.1862**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2006	1.8391	1.7487	2.8400e-003		0.1011	0.1011		0.0951	0.0951	0.0000	244.3770	244.3770	0.0590	0.0000	245.8510
Total	**0.2006**	**1.8391**	**1.7487**	**2.8400e-003**		**0.1011**	**0.1011**		**0.0951**	**0.0951**	**0.0000**	**244.3770**	**244.3770**	**0.0590**	**0.0000**	**245.8510**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0442	1.4056	0.3811	3.6200e-003	0.0580	2.8700e-003	0.0608	0.0181	2.7400e-003	0.0208	0.0000	351.0728	351.0728	0.0215	0.0000	351.6111
Worker	0.1398	0.1089	1.2288	3.5600e-003	0.2018	2.9300e-003	0.2047	0.0567	2.7000e-003	0.0594	0.0000	321.3387	321.3387	9.4600e-003	0.0000	321.5751
Total	**0.1840**	**1.5144**	**1.6099**	**7.1800e-003**	**0.2597**	**5.8000e-003**	**0.2655**	**0.0748**	**5.4400e-003**	**0.0802**	**0.0000**	**672.4115**	**672.4115**	**0.0310**	**0.0000**	**673.1862**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0162	0.1484	0.1555	2.6000e-004		7.6900e-003	7.6900e-003		7.2300e-003	7.2300e-003	0.0000	22.0139	22.0139	5.2700e-003	0.0000	22.1458
Total	**0.0162**	**0.1484**	**0.1555**	**2.6000e-004**		**7.6900e-003**	**7.6900e-003**		**7.2300e-003**	**7.2300e-003**	**0.0000**	**22.0139**	**22.0139**	**5.2700e-003**	**0.0000**	**22.1458**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7400e-003	0.1203	0.0325	3.2000e-004	8.0800e-003	2.3000e-004	8.3000e-003	2.3300e-003	2.2000e-004	2.5500e-003	0.0000	31.3355	31.3355	1.8700e-003	0.0000	31.3823
Worker	0.0118	8.8500e-003	0.1020	3.1000e-004	0.0321	2.6000e-004	0.0323	8.5200e-003	2.4000e-004	8.7500e-003	0.0000	27.9186	27.9186	7.7000e-004	0.0000	27.9378
Total	**0.0156**	**0.1291**	**0.1344**	**6.3000e-004**	**0.0401**	**4.9000e-004**	**0.0406**	**0.0109**	**4.6000e-004**	**0.0113**	**0.0000**	**59.2541**	**59.2541**	**2.6400e-003**	**0.0000**	**59.3201**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0162	0.1484	0.1555	2.6000e-004		7.6900e-003	7.6900e-003		7.2300e-003	7.2300e-003	0.0000	22.0139	22.0139	5.2700e-003	0.0000	22.1457
Total	**0.0162**	**0.1484**	**0.1555**	**2.6000e-004**		**7.6900e-003**	**7.6900e-003**		**7.2300e-003**	**7.2300e-003**	**0.0000**	**22.0139**	**22.0139**	**5.2700e-003**	**0.0000**	**22.1457**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.7400e-003	0.1203	0.0325	3.2000e-004	5.2200e-003	2.3000e-004	5.4500e-003	1.6300e-003	2.2000e-004	1.8500e-003	0.0000	31.3355	31.3355	1.8700e-003	0.0000	31.3823
Worker	0.0118	8.8500e-003	0.1020	3.1000e-004	0.0182	2.6000e-004	0.0184	5.1100e-003	2.4000e-004	5.3400e-003	0.0000	27.9186	27.9186	7.7000e-004	0.0000	27.9378
Total	**0.0156**	**0.1291**	**0.1344**	**6.3000e-004**	**0.0234**	**4.9000e-004**	**0.0239**	**6.7400e-003**	**4.6000e-004**	**7.1900e-003**	**0.0000**	**59.2541**	**59.2541**	**2.6400e-003**	**0.0000**	**59.3201**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0276	20.0276	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0276**	**20.0276**	**6.4800e-003**	**0.0000**	**20.1895**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1000e-004	4.5000e-004	5.2300e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.4312	1.4312	4.0000e-005	0.0000	1.4322
Total	**6.1000e-004**	**4.5000e-004**	**5.2300e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.4312**	**1.4312**	**4.0000e-005**	**0.0000**	**1.4322**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0110	0.1113	0.1458	2.3000e-004		5.6800e-003	5.6800e-003		5.2200e-003	5.2200e-003	0.0000	20.0275	20.0275	6.4800e-003	0.0000	20.1895
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0110**	**0.1113**	**0.1458**	**2.3000e-004**		**5.6800e-003**	**5.6800e-003**		**5.2200e-003**	**5.2200e-003**	**0.0000**	**20.0275**	**20.0275**	**6.4800e-003**	**0.0000**	**20.1895**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1000e-004	4.5000e-004	5.2300e-003	2.0000e-005	9.3000e-004	1.0000e-005	9.4000e-004	2.6000e-004	1.0000e-005	2.7000e-004	0.0000	1.4312	1.4312	4.0000e-005	0.0000	1.4322
Total	**6.1000e-004**	**4.5000e-004**	**5.2300e-003**	**2.0000e-005**	**9.3000e-004**	**1.0000e-005**	**9.4000e-004**	**2.6000e-004**	**1.0000e-005**	**2.7000e-004**	**0.0000**	**1.4312**	**1.4312**	**4.0000e-005**	**0.0000**	**1.4322**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.6570**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-003	1.8800e-003	0.0216	7.0000e-005	6.7900e-003	5.0000e-005	6.8500e-003	1.8000e-003	5.0000e-005	1.8500e-003	0.0000	5.9158	5.9158	1.6000e-004	0.0000	5.9198
Total	**2.5000e-003**	**1.8800e-003**	**0.0216**	**7.0000e-005**	**6.7900e-003**	**5.0000e-005**	**6.8500e-003**	**1.8000e-003**	**5.0000e-005**	**1.8500e-003**	**0.0000**	**5.9158**	**5.9158**	**1.6000e-004**	**0.0000**	**5.9198**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6549					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0500e-003	0.0141	0.0181	3.0000e-005		8.2000e-004	8.2000e-004		8.2000e-004	8.2000e-004	0.0000	2.5533	2.5533	1.7000e-004	0.0000	2.5574
Total	**0.6570**	**0.0141**	**0.0181**	**3.0000e-005**		**8.2000e-004**	**8.2000e-004**		**8.2000e-004**	**8.2000e-004**	**0.0000**	**2.5533**	**2.5533**	**1.7000e-004**	**0.0000**	**2.5574**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-003	1.8800e-003	0.0216	7.0000e-005	3.8500e-003	5.0000e-005	3.9000e-003	1.0800e-003	5.0000e-005	1.1300e-003	0.0000	5.9158	5.9158	1.6000e-004	0.0000	5.9198
Total	**2.5000e-003**	**1.8800e-003**	**0.0216**	**7.0000e-005**	**3.8500e-003**	**5.0000e-005**	**3.9000e-003**	**1.0800e-003**	**5.0000e-005**	**1.1300e-003**	**0.0000**	**5.9158**	**5.9158**	**1.6000e-004**	**0.0000**	**5.9198**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	3.0122	13.9140	44.1792	0.1705	14.6733	0.1285	14.8017	3.9331	0.1195	4.0526	0.0000	15,762.5023	15,762.5023	0.7622	0.0000	15,781.5564
Unmitigated	3.0122	13.9140	44.1792	0.1705	14.6733	0.1285	14.8017	3.9331	0.1195	4.0526	0.0000	15,762.5023	15,762.5023	0.7622	0.0000	15,781.5564

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Hospital	9,972.24	9,972.24	9972.24	38,660,796	38,660,796
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Library	0.00	0.00	0.00		
Total	9,972.24	9,972.24	9,972.24	38,660,796	38,660,796

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Light Industry	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Hospital	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Unrefrigerated Warehouse-No Rail	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Library	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,132.4703	4,132.4703	0.1437	0.0297	4,144.9223
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4,132.4703	4,132.4703	0.1437	0.0297	4,144.9223
NaturalGas Mitigated	0.1185	1.0776	0.9052	6.4700e-003		0.0819	0.0819		0.0819	0.0819	0.0000	1,173.1108	1,173.1108	0.0225	0.0215	1,180.0821
NaturalGas Unmitigated	0.1185	1.0776	0.9052	6.4700e-003		0.0819	0.0819		0.0819	0.0819	0.0000	1,173.1108	1,173.1108	0.0225	0.0215	1,180.0821

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	1.3937e+006	7.5200e-003	0.0683	0.0574	4.1000e-004		5.1900e-003	5.1900e-003		5.1900e-003	5.1900e-003	0.0000	74.3731	74.3731	1.4300e-003	1.3600e-003	74.8151
General Office Building	999360	5.3900e-003	0.0490	0.0412	2.9000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	53.3297	53.3297	1.0200e-003	9.8000e-004	53.6466
Hospital	1.9169e+007	0.1034	0.9397	0.7893	5.6400e-003		0.0714	0.0714		0.0714	0.0714	0.0000	1,022.9287	1,022.9287	0.0196	0.0188	1,029.0075
Library	362000	1.9500e-003	0.0178	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	19.3177	19.3177	3.7000e-004	3.5000e-004	19.4325
Unrefrigerated Warehouse-No Rail	59247	3.2000e-004	2.9000e-003	2.4400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1617	3.1617	6.0000e-005	6.0000e-005	3.1804
Total		**0.1185**	**1.0776**	**0.9052**	**6.4700e-003**		**0.0819**	**0.0819**		**0.0819**	**0.0819**	**0.0000**	**1,173.1109**	**1,173.1109**	**0.0225**	**0.0215**	**1,180.0821**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	1.3937e+006	7.5200e-003	0.0683	0.0574	4.1000e-004		5.1900e-003	5.1900e-003		5.1900e-003	5.1900e-003	0.0000	74.3731	74.3731	1.4300e-003	1.3600e-003	74.8151
General Office Building	999360	5.3900e-003	0.0490	0.0412	2.9000e-004		3.7200e-003	3.7200e-003		3.7200e-003	3.7200e-003	0.0000	53.3297	53.3297	1.0200e-003	9.8000e-004	53.6466
Hospital	1.9169e+007	0.1034	0.9397	0.7893	5.6400e-003		0.0714	0.0714		0.0714	0.0714	0.0000	1,022.9287	1,022.9287	0.0196	0.0188	1,029.0075
Library	362000	1.9500e-003	0.0178	0.0149	1.1000e-004		1.3500e-003	1.3500e-003		1.3500e-003	1.3500e-003	0.0000	19.3177	19.3177	3.7000e-004	3.5000e-004	19.4325
Unrefrigerated Warehouse-No Rail	59247	3.2000e-004	2.9000e-003	2.4400e-003	2.0000e-005		2.2000e-004	2.2000e-004		2.2000e-004	2.2000e-004	0.0000	3.1617	3.1617	6.0000e-005	6.0000e-005	3.1804
Total		**0.1185**	**1.0776**	**0.9052**	**6.4700e-003**		**0.0819**	**0.0819**		**0.0819**	**0.0819**	**0.0000**	**1,173.1109**	**1,173.1109**	**0.0225**	**0.0215**	**1,180.0821**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.57986e+006	597.6533	0.0208	4.3000e-003	599.4541
General Light Industry	854700	323.3296	0.0112	2.3300e-003	324.3039
General Office Building	1.24704e+006	471.7503	0.0164	3.3900e-003	473.1718
Hospital	6.75472e+006	2,555.2838	0.0889	0.0184	2,562.9834
Library	222000	83.9817	2.9200e-003	6.0000e-004	84.2348
Unrefrigerated Warehouse-No Rail	265590	100.4716	3.4900e-003	7.2000e-004	100.7744
Total		**4,132.4703**	**0.1437**	**0.0297**	**4,144.9223**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking with Elevator	1.57986e+006	597.6533	0.0208	4.3000e-003	599.4541
General Light Industry	854700	323.3296	0.0112	2.3300e-003	324.3039
General Office Building	1.24704e+006	471.7503	0.0164	3.3900e-003	473.1718
Hospital	6.75472e+006	2,555.2838	0.0889	0.0184	2,562.9834
Library	222000	83.9817	2.9200e-003	6.0000e-004	84.2348
Unrefrigerated Warehouse-No Rail	265590	100.4716	3.4900e-003	7.2000e-004	100.7744
Total		**4,132.4703**	**0.1437**	**0.0297**	**4,144.9223**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.1003	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Unmitigated	2.1003	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0683					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4600e-003	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Total	**2.1003**	**1.4000e-004**	**0.0157**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0306**	**0.0306**	**8.0000e-005**	**0.0000**	**0.0326**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0683					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.0305					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.4600e-003	1.4000e-004	0.0157	0.0000		6.0000e-005	6.0000e-005		6.0000e-005	6.0000e-005	0.0000	0.0306	0.0306	8.0000e-005	0.0000	0.0326
Total	**2.1003**	**1.4000e-004**	**0.0157**	**0.0000**		**6.0000e-005**	**6.0000e-005**		**6.0000e-005**	**6.0000e-005**	**0.0000**	**0.0306**	**0.0306**	**8.0000e-005**	**0.0000**	**0.0326**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	541.2056	2.8979	0.0717	635.0174
Unmitigated	541.2056	2.8979	0.0717	635.0174

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	17.8062 / 0	93.3590	0.5833	0.0143	112.2114
General Office Building	17.0624 / 10.4576	133.4112	0.5604	0.0141	151.6085
Hospital	37.1422 / 7.07471	224.4726	1.2177	0.0301	263.8865
Library	0.625778 / 0.978781	7.3947	0.0206	5.3000e-004	8.0696
Unrefrigerated Warehouse-No Rail	15.7481 / 0	82.5682	0.5159	0.0127	99.2415
Total		**541.2056**	**2.8979**	**0.0717**	**635.0174**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking with Elevator	0 / 0	0.0000	0.0000	0.0000	0.0000
General Light Industry	17.8062 / 0	93.3590	0.5833	0.0143	112.2114
General Office Building	17.0624 / 10.4576	133.4112	0.5604	0.0141	151.6085
Hospital	37.1422 / 7.07471	224.4726	1.2177	0.0301	263.8865
Library	0.625778 / 0.978781	7.3947	0.0206	5.3000e-004	8.0696
Unrefrigerated Warehouse-No Rail	15.7481 / 0	82.5682	0.5159	0.0127	99.2415
Total		**541.2056**	**2.8979**	**0.0717**	**635.0174**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	703.1587	41.5555	0.0000	1,742.0458
Unmitigated	703.1587	41.5555	0.0000	1,742.0458

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	95.48	19.3816	1.1454	0.0000	48.0170
General Office Building	89.28	18.1230	1.0710	0.0000	44.8991
Hospital	3196.8	648.9215	38.3502	0.0000	1,607.6756
Library	18.42	3.7391	0.2210	0.0000	9.2635
Unrefrigerated Warehouse-No Rail	64.01	12.9935	0.7679	0.0000	32.1907
Total		**703.1587**	**41.5555**	**0.0000**	**1,742.0458**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000
General Light Industry	95.48	19.3816	1.1454	0.0000	48.0170
General Office Building	89.28	18.1230	1.0710	0.0000	44.8991
Hospital	3196.8	648.9215	38.3502	0.0000	1,607.6756
Library	18.42	3.7391	0.2210	0.0000	9.2635
Unrefrigerated Warehouse-No Rail	64.01	12.9935	0.7679	0.0000	32.1907
Total		**703.1587**	**41.5555**	**0.0000**	**1,742.0458**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

3.3 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7977	57.8333	13.5603	0.1682	2.3446	0.1775	2.5221	0.6836	0.1698	0.8534		18,249.3816	18,249.3816	1.2385		18,280.3433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0772	0.0530	0.7250	2.0600e-003	0.1137	1.6300e-003	0.1154	0.0319	1.5000e-003	0.0334		204.9786	204.9786	6.0400e-003		205.1296
Total	**1.8748**	**57.8863**	**14.2852**	**0.1703**	**2.4584**	**0.1791**	**2.6375**	**0.7154**	**0.1713**	**0.8868**		**18,454.3602**	**18,454.3602**	**1.2445**		**18,485.4729**

3.4 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.4823	0.0000	6.4823	3.3684	0.0000	3.3684			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671		2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**6.4823**	**1.1599**	**7.6422**	**3.3684**	**1.0671**	**4.4355**		**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.4 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7977	57.8333	13.5603	0.1682	3.7699	0.1775	3.9474	1.0334	0.1698	1.2032		18,249.3816	18,249.3816	1.2385		18,280.3433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
Total	**1.8620**	**57.8775**	**14.1644**	**0.1699**	**3.9375**	**0.1789**	**4.1164**	**1.0779**	**0.1711**	**1.2489**		**18,420.1971**	**18,420.1971**	**1.2435**		**18,451.2846**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.5281	0.0000	2.5281	1.3137	0.0000	1.3137			0.0000			0.0000
Off-Road	2.2903	24.7367	15.8575	0.0296		1.1599	1.1599		1.0671	1.0671	0.0000	2,871.9285	2,871.9285	0.9288		2,895.1495
Total	**2.2903**	**24.7367**	**15.8575**	**0.0296**	**2.5281**	**1.1599**	**3.6880**	**1.3137**	**1.0671**	**2.3808**	**0.0000**	**2,871.9285**	**2,871.9285**	**0.9288**		**2,895.1495**

3.4 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.7977	57.8333	13.5603	0.1682	2.3446	0.1775	2.5221	0.6836	0.1698	0.8534		18,249.3816	18,249.3816	1.2385		18,280.3433
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.0948	1.3500e-003	0.0961	0.0266	1.2500e-003	0.0278		170.8155	170.8155	5.0300e-003		170.9413
Total	**1.8620**	**57.8775**	**14.1644**	**0.1699**	**2.4394**	**0.1789**	**2.6183**	**0.7101**	**0.1711**	**0.8812**		**18,420.1971**	**18,420.1971**	**1.2435**		**18,451.2846**

3.5 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**		**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4104	13.1071	3.4265	0.0347	0.8643	0.0268	0.8911	0.2488	0.0256	0.2745		3,710.8885	3,710.8885	0.2186		3,716.3540
Worker	1.3203	0.9075	12.4054	0.0352	3.4427	0.0278	3.4705	0.9130	0.0256	0.9387		3,507.4112	3,507.4112	0.1034		3,509.9948
Total	**1.7306**	**14.0146**	**15.8320**	**0.0699**	**4.3070**	**0.0546**	**4.3616**	**1.1619**	**0.0513**	**1.2131**		**7,218.2997**	**7,218.2997**	**0.3220**		**7,226.3488**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.3639	2,553.3639	0.6160		2,568.7643
Total	**1.9009**	**17.4321**	**16.5752**	**0.0269**		**0.9586**	**0.9586**		**0.9013**	**0.9013**	**0.0000**	**2,553.3639**	**2,553.3639**	**0.6160**		**2,568.7643**

3.5 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4104	13.1071	3.4265	0.0347	0.5564	0.0268	0.5832	0.1733	0.0256	0.1989		3,710.8885	3,710.8885	0.2186		3,716.3540
Worker	1.3203	0.9075	12.4054	0.0352	1.9462	0.0278	1.9740	0.5457	0.0256	0.5713		3,507.4112	3,507.4112	0.1034		3,509.9948
Total	**1.7306**	**14.0146**	**15.8320**	**0.0699**	**2.5026**	**0.0546**	**2.5572**	**0.7190**	**0.0513**	**0.7702**		**7,218.2997**	**7,218.2997**	**0.3220**		**7,226.3488**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**		**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3851	12.4646	3.2420	0.0344	0.8643	0.0234	0.8877	0.2489	0.0224	0.2713		3,678.5595	3,678.5595	0.2111		3,683.8370
Worker	1.2367	0.8197	11.4454	0.0340	3.4427	0.0270	3.4697	0.9130	0.0248	0.9379		3,384.0339	3,384.0339	0.0934		3,386.3690
Total	**1.6218**	**13.2843**	**14.6874**	**0.0683**	**4.3070**	**0.0504**	**4.3574**	**1.1619**	**0.0472**	**1.2091**		**7,062.5934**	**7,062.5934**	**0.3045**		**7,070.2059**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3851	12.4646	3.2420	0.0344	0.5564	0.0234	0.5799	0.1733	0.0224	0.1957		3,678.5595	3,678.5595	0.2111		3,683.8370
Worker	1.2367	0.8197	11.4454	0.0340	1.9462	0.0270	1.9732	0.5457	0.0248	0.5705		3,384.0339	3,384.0339	0.0934		3,386.3690
Total	**1.6218**	**13.2843**	**14.6874**	**0.0683**	**2.5026**	**0.0504**	**2.5530**	**0.7190**	**0.0472**	**0.7662**		**7,062.5934**	**7,062.5934**	**0.3045**		**7,070.2059**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225		2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**		**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.1677	1.3100e-003	0.1690	0.0445	1.2100e-003	0.0457		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.1677**	**1.3100e-003**	**0.1690**	**0.0445**	**1.2100e-003**	**0.0457**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.1028	11.1249	14.5805	0.0228		0.5679	0.5679		0.5225	0.5225	0.0000	2,207.6603	2,207.6603	0.7140		2,225.5104
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.1028**	**11.1249**	**14.5805**	**0.0228**		**0.5679**	**0.5679**		**0.5225**	**0.5225**	**0.0000**	**2,207.6603**	**2,207.6603**	**0.7140**		**2,225.5104**

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0602	0.0399	0.5574	1.6500e-003	0.0948	1.3100e-003	0.0961	0.0266	1.2100e-003	0.0278		164.8069	164.8069	4.5500e-003		164.9206
Total	**0.0602**	**0.0399**	**0.5574**	**1.6500e-003**	**0.0948**	**1.3100e-003**	**0.0961**	**0.0266**	**1.2100e-003**	**0.0278**		**164.8069**	**164.8069**	**4.5500e-003**		**164.9206**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.4912					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**65.6957**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2489	0.1650	2.3039	6.8400e-003	0.6930	5.4200e-003	0.6984	0.1838	5.0000e-003	0.1888		681.2016	681.2016	0.0188		681.6717
Total	**0.2489**	**0.1650**	**2.3039**	**6.8400e-003**	**0.6930**	**5.4200e-003**	**0.6984**	**0.1838**	**5.0000e-003**	**0.1888**		**681.2016**	**681.2016**	**0.0188**		**681.6717**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	65.4912					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**65.6957**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2489	0.1650	2.3039	6.8400e-003	0.3918	5.4200e-003	0.3972	0.1099	5.0000e-003	0.1149		681.2016	681.2016	0.0188		681.6717
Total	**0.2489**	**0.1650**	**2.3039**	**6.8400e-003**	**0.3918**	**5.4200e-003**	**0.3972**	**0.1099**	**5.0000e-003**	**0.1149**		**681.2016**	**681.2016**	**0.0188**		**681.6717**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	17.4418	73.0423	253.6076	0.9711	82.2093	0.7056	82.9150	21.9997	0.6564	22.6560		98,883.0293	98,883.0293	4.6583		98,999.4879
Unmitigated	17.4418	73.0423	253.6076	0.9711	82.2093	0.7056	82.9150	21.9997	0.6564	22.6560		98,883.0293	98,883.0293	4.6583		98,999.4879

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking with Elevator	0.00	0.00	0.00		
General Light Industry	0.00	0.00	0.00		
General Office Building	0.00	0.00	0.00		
Hospital	9,972.24	9,972.24	9972.24	38,660,796	38,660,796
Unrefrigerated Warehouse-No Rail	0.00	0.00	0.00		
Library	0.00	0.00	0.00		
Total	9,972.24	9,972.24	9,972.24	38,660,796	38,660,796

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Enclosed Parking with Elevator	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
Hospital	16.60	8.40	6.90	64.90	16.10	19.00	73	25	2
Unrefrigerated Warehouse-No	16.60	8.40	6.90	59.00	0.00	41.00	92	5	3
Library	16.60	8.40	6.90	52.00	43.00	5.00	44	44	12

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking with Elevator	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Light Industry	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
General Office Building	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Hospital	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Unrefrigerated Warehouse-No Rail	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862
Library	0.545842	0.044768	0.205288	0.119317	0.015350	0.006227	0.020460	0.031333	0.002546	0.002133	0.005184	0.000692	0.000862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Olive View-UCLA Medical Center - Tier 1B - Los Angeles-South Coast County, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.6495	5.9047	4.9600	0.0354		0.4488	0.4488		0.4488	0.4488		7,085.6622	7,085.6622	0.1358	0.1299	7,127.7688
NaturalGas Unmitigated	0.6495	5.9047	4.9600	0.0354		0.4488	0.4488		0.4488	0.4488		7,085.6622	7,085.6622	0.1358	0.1299	7,127.7688

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	3818.36	0.0412	0.3744	0.3145	2.2500e-003		0.0285	0.0285		0.0285	0.0285		449.2184	449.2184	8.6100e-003	8.2400e-003	451.8879
General Office Building	2737.97	0.0295	0.2684	0.2255	1.6100e-003		0.0204	0.0204		0.0204	0.0204		322.1144	322.1144	6.1700e-003	5.9100e-003	324.0286
Hospital	52517.7	0.5664	5.1488	4.3250	0.0309		0.3913	0.3913		0.3913	0.3913		6,178.5528	6,178.5528	0.1184	0.1133	6,215.2688
Library	991.781	0.0107	0.0972	0.0817	5.8000e-004		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003		116.6801	116.6801	2.2400e-003	2.1400e-003	117.3735
Unrefrigerated Warehouse-No Rail	162.321	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		19.0965	19.0965	3.7000e-004	3.5000e-004	19.2100
Total		**0.6495**	**5.9047**	**4.9600**	**0.0354**		**0.4488**	**0.4488**		**0.4488**	**0.4488**		**7,085.6622**	**7,085.6622**	**0.1358**	**0.1299**	**7,127.7688**

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Enclosed Parking with Elevator	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
General Light Industry	3.81836	0.0412	0.3744	0.3145	2.2500e-003		0.0285	0.0285		0.0285	0.0285		449.2184	449.2184	8.6100e-003	8.2400e-003	451.8879
General Office Building	2.73797	0.0295	0.2684	0.2255	1.6100e-003		0.0204	0.0204		0.0204	0.0204		322.1144	322.1144	6.1700e-003	5.9100e-003	324.0286
Hospital	52.5177	0.5664	5.1488	4.3250	0.0309		0.3913	0.3913		0.3913	0.3913		6,178.5528	6,178.5528	0.1184	0.1133	6,215.2688
Library	0.991781	0.0107	0.0972	0.0817	5.8000e-004		7.3900e-003	7.3900e-003		7.3900e-003	7.3900e-003		116.6801	116.6801	2.2400e-003	2.1400e-003	117.3735
Unrefrigerated Warehouse-No Rail	0.162321	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003		19.0965	19.0965	3.7000e-004	3.5000e-004	19.2100
Total		**0.6495**	**5.9047**	**4.9600**	**0.0354**		**0.4488**	**0.4488**		**0.4488**	**0.4488**		**7,085.6622**	**7,085.6622**	**0.1358**	**0.1299**	**7,127.7688**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	11.5120	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Unmitigated	11.5120	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3743					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.1261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0116	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Total	**11.5120**	**1.1400e-003**	**0.1257**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**		**0.2694**	**0.2694**	**7.1000e-004**		**0.2871**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.3743					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.1261					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	0.0116	1.1400e-003	0.1257	1.0000e-005		4.5000e-004	4.5000e-004		4.5000e-004	4.5000e-004		0.2694	0.2694	7.1000e-004		0.2871
Total	**11.5120**	**1.1400e-003**	**0.1257**	**1.0000e-005**		**4.5000e-004**	**4.5000e-004**		**4.5000e-004**	**4.5000e-004**		**0.2694**	**0.2694**	**7.1000e-004**		**0.2871**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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** Lakes Environmental AERMOD MPI
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**
** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 4/3/2019
** File: C:\project_files\Olive_View\AERMOD\OVMC_Construction_Elev\OVMC_Construction_Elev.ADI
**
****************************************
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** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE Olive View UCLA Medical Center: Construction DPM concentration
   TITLETWO ELEV Option
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   URBANOPT 9818605
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL OVMC_Construction_Elev.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION T1A_1        AREAPOLY   367101.744  3799472.640      454.190
** DESCRSRC Tier 1A: Residential Treatment 1
   LOCATION T1A_2        AREAPOLY   367103.122  3799454.497      451.180
** DESCRSRC Tier 1A: Residential Treatment 2
   LOCATION T1A_3        AREAPOLY   367113.451  3799413.347      449.420
** DESCRSRC Tier 1A: Residential Treatment 3
   LOCATION T1A_4        AREAPOLY   367124.440  3799457.687      450.470
** DESCRSRC Tier 1A: Residential Treatment 4
   LOCATION T1A_5        AREAPOLY   367135.919  3799436.298      449.780
** DESCRSRC Tier 1A: Residential Treatment 5
   LOCATION T1A_6        AREAPOLY   367133.070  3799379.087      449.440
** DESCRSRC Tier 1A: Recuperative Care Center
   LOCATION T1A_7        AREAPOLY   366994.462  3799413.385      450.020
** DESCRSRC Tier 1A: Psych Urgent Care
   LOCATION T1A_8        AREAPOLY   366934.668  3799405.359      449.270
** DESCRSRC Tier 1A: Mental Health Wellness Center
   LOCATION T1B_UM_1     AREAPOLY   366920.768  3799460.598      451.580
** DESCRSRC Tier 1B - Unmitigated: Administration
   LOCATION T1B_UM_2     AREAPOLY   366819.539  3799439.778      449.270
** DESCRSRC Tier 1B - Unmitigated: Central Plant East
   LOCATION T1B_UM_3     AREAPOLY   366574.399  3799321.960      449.150
** DESCRSRC Tier 1B - Unmitigated: Material Management
   LOCATION T1B_UM_4     AREAPOLY   366781.937  3799356.625      445.400
** DESCRSRC Tier 1B - Unmitigated: Parking Structure
   LOCATION T1B_UM_5     AREAPOLY   366778.172  3799284.843      444.020
** DESCRSRC Tier 1B - Unmitigated: Ambulatory Care Center
   LOCATION T1B_UM_6     AREAPOLY   366885.524  3799153.037      441.290
** DESCRSRC Tier 1B - Unmitigated: Community Center
   LOCATION T1B_M_1      AREAPOLY   366920.768  3799460.598      451.580
** DESCRSRC Tier 1B - Mitigated: Administration
   LOCATION T1B_M_2      AREAPOLY   366819.539  3799439.778      449.270
** DESCRSRC Tier 1B - Mitigated: Central Plant East
   LOCATION T1B_M_3      AREAPOLY   366574.399  3799321.960      449.150
** DESCRSRC Tier 1B - Mitigated: Material Management
   LOCATION T1B_M_4      AREAPOLY   366781.937  3799356.625      445.400
** DESCRSRC Tier 1B - Mitigated: Parking Structure
   LOCATION T1B_M_5      AREAPOLY   366778.172  3799284.843      444.020
** DESCRSRC Tier 1B - Mitigated: Ambulatory Care Center
   LOCATION T1B_M_6      AREAPOLY   366885.524  3799153.037      441.290
** DESCRSRC Tier 1B - Mitigated: Community Center
** Source Parameters **
   SRCPARAM T1A_1        4.409E-06     2.550         9     2.370
   AREAVERT T1A_1        367101.744 3799472.640 367117.016 3799477.807
   AREAVERT T1A_1        367117.131 3799481.023 367126.088 3799483.664
   AREAVERT T1A_1        367126.662 3799481.712 367130.222 3799482.056
   AREAVERT T1A_1        367134.011 3799469.539 367134.011 3799469.425
   AREAVERT T1A_1        367105.993 3799460.353
   SRCPARAM T1A_2        4.409E-06     2.550         8     2.370
   AREAVERT T1A_2        367103.122 3799454.497 367113.457 3799458.056
   AREAVERT T1A_2        367123.102 3799428.889 367112.653 3799425.444
   AREAVERT T1A_2        367111.619 3799428.430 367108.978 3799427.167
   AREAVERT T1A_2        367105.763 3799436.813 367108.519 3799437.846
   SRCPARAM T1A_3        4.409E-06     2.550         9     2.370
   AREAVERT T1A_3        367113.451 3799413.347 367117.160 3799414.421
   AREAVERT T1A_3        367116.477 3799416.861 367127.604 3799420.277
   AREAVERT T1A_3        367135.900 3799393.533 367135.900 3799393.337
   AREAVERT T1A_3        367124.871 3799389.921 367119.990 3799405.343
   AREAVERT T1A_3        367117.257 3799404.367
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SRCPARAM T1A_4        4.409E-06     2.550         8     2.370
AREAVERT T1A_4        367124.440 3799457.687 367153.147 3799467.643
AREAVERT T1A_4        367157.130 3799456.774 367141.615 3799451.381
AREAVERT T1A_4        367142.361 3799447.979 367132.156 3799444.163
AREAVERT T1A_4        367131.161 3799447.233 367128.672 3799446.652
SRCPARAM T1A_5        4.409E-06     2.550         8     2.370
AREAVERT T1A_5        367135.919 3799436.298 367145.651 3799439.471
AREAVERT T1A_5        367146.568 3799437.073 367149.389 3799437.849
AREAVERT T1A_5        367152.069 3799429.598 367149.459 3799428.328
AREAVERT T1A_5        367154.537 3799413.307 367144.875 3799410.063
SRCPARAM T1A_6        4.409E-06     2.550        18     2.370
AREAVERT T1A_6        367133.070 3799379.087 367143.026 3799382.210
AREAVERT T1A_6        367147.906 3799367.667 367143.611 3799366.593
AREAVERT T1A_6        367145.856 3799359.566 367149.565 3799360.737
AREAVERT T1A_6        367161.376 3799330.674 367157.471 3799329.503
AREAVERT T1A_6        367158.447 3799326.477 367154.153 3799324.525
AREAVERT T1A_6        367153.274 3799326.867 367149.175 3799325.598
AREAVERT T1A_6        367138.145 3799357.223 367135.315 3799356.345
AREAVERT T1A_6        367132.777 3799363.763 367134.534 3799364.348
AREAVERT T1A_6        367131.118 3799374.987 367133.753 3799375.866
SRCPARAM T1A_7        4.409E-06     2.550         9     2.370
AREAVERT T1A_7        366994.462 3799413.385 367014.100 3799413.271
AREAVERT T1A_7        367016.053 3799408.677 367016.627 3799395.814
AREAVERT T1A_7        367010.655 3799395.240 367008.703 3799377.899
AREAVERT T1A_7        366987.916 3799379.506 366989.064 3799402.131
AREAVERT T1A_7        366993.888 3799402.705
SRCPARAM T1A_8        4.409E-06     2.550         4     2.370
AREAVERT T1A_8        366934.668 3799405.359 366971.132 3799401.692
AREAVERT T1A_8        366969.016 3799380.604 366932.482 3799384.412
SRCPARAM T1B_UM_1     1.6336E-06     2.550        22     2.370
AREAVERT T1B_UM_1     366920.768 3799460.598 366937.600 3799463.965
AREAVERT T1B_UM_1     366948.260 3799466.022 366957.798 3799468.079
AREAVERT T1B_UM_1     366961.725 3799468.827 366971.076 3799472.007
AREAVERT T1B_UM_1     366985.290 3799476.308 366997.259 3799480.235
AREAVERT T1B_UM_1     367003.805 3799482.480 367015.213 3799456.671
AREAVERT T1B_UM_1     367003.057 3799451.995 366997.259 3799449.751
AREAVERT T1B_UM_1     366994.454 3799448.442 366980.801 3799444.328
AREAVERT T1B_UM_1     366971.824 3799441.709 366960.790 3799439.278
AREAVERT T1B_UM_1     366945.080 3799435.725 366938.161 3799433.855
AREAVERT T1B_UM_1     366930.306 3799432.171 366925.069 3799430.862
AREAVERT T1B_UM_1     366921.703 3799455.362 366920.394 3799461.346
SRCPARAM T1B_UM_2     1.6336E-06     2.550        18     2.370
AREAVERT T1B_UM_2     366819.539 3799439.778 366828.704 3799442.770
AREAVERT T1B_UM_2     366840.112 3799445.950 366849.277 3799448.568
AREAVERT T1B_UM_2     366857.319 3799450.813 366866.109 3799453.057
AREAVERT T1B_UM_2     366874.152 3799454.740 366881.072 3799456.610
AREAVERT T1B_UM_2     366889.675 3799458.855 366896.034 3799426.686
AREAVERT T1B_UM_2     366888.740 3799424.816 366875.087 3799422.010
AREAVERT T1B_UM_2     366864.800 3799419.766 366859.563 3799418.831
AREAVERT T1B_UM_2     366855.636 3799417.709 366846.845 3799414.903
AREAVERT T1B_UM_2     366840.299 3799412.659 366830.387 3799409.666
SRCPARAM T1B_UM_3     1.6336E-06     2.550        23     2.370
AREAVERT T1B_UM_3     366574.399 3799321.960 366582.189 3799324.185
AREAVERT T1B_UM_3     366590.297 3799326.411 366596.179 3799328.001
AREAVERT T1B_UM_3     366602.220 3799329.750 366604.287 3799330.386
AREAVERT T1B_UM_3     366611.759 3799333.406 366623.842 3799338.176
AREAVERT T1B_UM_3     366636.560 3799343.263 366646.576 3799347.397
AREAVERT T1B_UM_3     366654.048 3799350.894 366661.361 3799354.233
AREAVERT T1B_UM_3     366674.875 3799328.796 366666.767 3799325.139
AREAVERT T1B_UM_3     366650.869 3799317.667 366642.443 3799314.011
AREAVERT T1B_UM_3     366637.673 3799311.944 366629.724 3799308.128
AREAVERT T1B_UM_3     366626.068 3799306.538 366622.888 3799305.426
AREAVERT T1B_UM_3     366610.805 3799301.928 366590.615 3799296.046
AREAVERT T1B_UM_3     366578.691 3799292.389
SRCPARAM T1B_UM_4     1.6336E-06     2.550        20     2.370
AREAVERT T1B_UM_4     366781.937 3799356.625 366803.447 3799365.603
AREAVERT T1B_UM_4     366818.224 3799371.775 366827.389 3799375.703
AREAVERT T1B_UM_4     366831.317 3799377.200 366834.684 3799378.322
AREAVERT T1B_UM_4     366846.468 3799381.315 366865.172 3799386.365
AREAVERT T1B_UM_4     366879.575 3799390.106 366889.675 3799392.538
AREAVERT T1B_UM_4     366901.459 3799395.530 366903.330 3799359.804
AREAVERT T1B_UM_4     366885.560 3799356.064 366865.546 3799351.949
AREAVERT T1B_UM_4     366858.252 3799349.891 366845.907 3799346.337
AREAVERT T1B_UM_4     366827.389 3799340.165 366821.029 3799338.481
AREAVERT T1B_UM_4     366807.749 3799331.748 366793.908 3799325.388
SRCPARAM T1B_UM_5     1.6336E-06     2.550        45     2.370
AREAVERT T1B_UM_5     366778.172 3799284.843 366791.452 3799294.195
AREAVERT T1B_UM_5     366802.863 3799302.425 366810.719 3799307.476
AREAVERT T1B_UM_5     366819.884 3799313.274 366822.877 3799315.145
AREAVERT T1B_UM_5     366824.561 3799312.900 366839.151 3799317.390
AREAVERT T1B_UM_5     366852.431 3799322.253 366861.410 3799324.872
AREAVERT T1B_UM_5     366869.827 3799327.677 366877.870 3799330.109
AREAVERT T1B_UM_5     366886.100 3799331.793 366907.611 3799334.972
AREAVERT T1B_UM_5     366909.295 3799302.987 366887.036 3799299.058
AREAVERT T1B_UM_5     366887.784 3799290.080 366892.273 3799289.145
AREAVERT T1B_UM_5     366895.453 3799292.138 366904.432 3799289.332
AREAVERT T1B_UM_5     366908.547 3799287.835 366916.216 3799282.785
AREAVERT T1B_UM_5     366918.647 3799281.289 366917.899 3799276.986
AREAVERT T1B_UM_5     366926.691 3799267.821 366928.187 3799220.497
AREAVERT T1B_UM_5     366925.007 3799219.936 366923.511 3799239.576
AREAVERT T1B_UM_5     366922.950 3799245.936 366915.468 3799260.152
AREAVERT T1B_UM_5     366908.734 3799266.886 366905.180 3799264.267
AREAVERT T1B_UM_5     366890.403 3799272.497 366890.029 3799276.238
AREAVERT T1B_UM_5     366878.993 3799277.922 366870.201 3799276.612
AREAVERT T1B_UM_5     366862.906 3799275.864 366859.913 3799275.303
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AREAVERT T1B_UM_5     366839.712 3799267.073 366827.179 3799262.022
AREAVERT T1B_UM_5     366820.819 3799275.490 366809.596 3799268.382
AREAVERT T1B_UM_5     366806.042 3799265.389 366793.323 3799254.166
AREAVERT T1B_UM_5     366779.294 3799282.411
SRCPARAM T1B_UM_6     1.6336E-06     2.550        24     2.370
AREAVERT T1B_UM_6     366885.524 3799153.037 366886.955 3799159.556
AREAVERT T1B_UM_6     366899.676 3799159.556 366902.379 3799113.922
AREAVERT T1B_UM_6     366899.199 3799113.922 366897.768 3799108.993
AREAVERT T1B_UM_6     366895.542 3799106.131 366893.475 3799103.746
AREAVERT T1B_UM_6     366889.659 3799102.315 366887.750 3799101.997
AREAVERT T1B_UM_6     366886.001 3799102.156 366882.980 3799102.315
AREAVERT T1B_UM_6     366879.323 3799105.336 366876.938 3799109.788
AREAVERT T1B_UM_6     366875.507 3799114.876 366875.825 3799118.533
AREAVERT T1B_UM_6     366862.787 3799143.656 366864.377 3799144.928
AREAVERT T1B_UM_6     366867.716 3799148.426 366870.260 3799149.698
AREAVERT T1B_UM_6     366873.599 3799151.129 366874.871 3799151.765
AREAVERT T1B_UM_6     366879.800 3799152.083 366882.662 3799152.719
SRCPARAM T1B_M_1      4.962E-08     2.550        22     2.370
AREAVERT T1B_M_1      366920.768 3799460.598 366937.600 3799463.965
AREAVERT T1B_M_1      366948.260 3799466.022 366957.798 3799468.079
AREAVERT T1B_M_1      366961.725 3799468.827 366971.076 3799472.007
AREAVERT T1B_M_1      366985.290 3799476.308 366997.259 3799480.235
AREAVERT T1B_M_1      367003.805 3799482.480 367015.213 3799456.671
AREAVERT T1B_M_1      367003.057 3799451.995 366997.259 3799449.751
AREAVERT T1B_M_1      366994.454 3799448.442 366980.801 3799444.328
AREAVERT T1B_M_1      366971.824 3799441.709 366960.790 3799439.278
AREAVERT T1B_M_1      366945.080 3799435.725 366938.161 3799433.855
AREAVERT T1B_M_1      366930.306 3799432.171 366925.069 3799430.862
AREAVERT T1B_M_1      366921.703 3799455.362 366920.394 3799461.346
SRCPARAM T1B_M_2      4.962E-08     2.550        18     2.370
AREAVERT T1B_M_2      366819.539 3799439.778 366828.704 3799442.770
AREAVERT T1B_M_2      366840.112 3799445.950 366849.277 3799448.568
AREAVERT T1B_M_2      366857.319 3799450.813 366866.109 3799453.057
AREAVERT T1B_M_2      366874.152 3799454.740 366881.072 3799456.610
AREAVERT T1B_M_2      366889.675 3799458.855 366896.034 3799426.686
AREAVERT T1B_M_2      366888.740 3799424.816 366875.087 3799422.010
AREAVERT T1B_M_2      366864.800 3799419.766 366859.563 3799418.831
AREAVERT T1B_M_2      366855.636 3799417.709 366846.845 3799414.903
AREAVERT T1B_M_2      366840.299 3799412.659 366830.387 3799409.666
SRCPARAM T1B_M_3      4.962E-08     2.550        23     2.370
AREAVERT T1B_M_3      366574.399 3799321.960 366582.189 3799324.185
AREAVERT T1B_M_3      366590.297 3799326.411 366596.179 3799328.001
AREAVERT T1B_M_3      366602.220 3799329.750 366604.287 3799330.386
AREAVERT T1B_M_3      366611.759 3799333.406 366623.842 3799338.176
AREAVERT T1B_M_3      366636.560 3799343.263 366646.576 3799347.397
AREAVERT T1B_M_3      366654.048 3799350.894 366661.361 3799354.233
AREAVERT T1B_M_3      366674.875 3799328.796 366666.767 3799325.139
AREAVERT T1B_M_3      366650.869 3799317.667 366642.443 3799314.011
AREAVERT T1B_M_3      366637.673 3799311.944 366629.724 3799308.128
AREAVERT T1B_M_3      366626.068 3799306.538 366622.888 3799305.426
AREAVERT T1B_M_3      366610.805 3799301.928 366590.615 3799296.046
AREAVERT T1B_M_3      366578.691 3799292.389
SRCPARAM T1B_M_4      4.962E-08     2.550        20     2.370
AREAVERT T1B_M_4      366781.937 3799356.625 366803.447 3799365.603
AREAVERT T1B_M_4      366818.224 3799371.775 366827.389 3799375.703
AREAVERT T1B_M_4      366831.317 3799377.200 366834.684 3799378.322
AREAVERT T1B_M_4      366846.468 3799381.315 366865.172 3799386.365
AREAVERT T1B_M_4      366879.575 3799390.106 366889.675 3799392.538
AREAVERT T1B_M_4      366901.459 3799395.530 366903.330 3799359.804
AREAVERT T1B_M_4      366885.560 3799356.064 366865.546 3799351.949
AREAVERT T1B_M_4      366858.252 3799349.891 366845.907 3799346.337
AREAVERT T1B_M_4      366827.389 3799340.165 366821.029 3799338.481
AREAVERT T1B_M_4      366807.749 3799331.748 366793.908 3799325.388
SRCPARAM T1B_M_5      4.962E-08     2.550        45     2.370
AREAVERT T1B_M_5      366778.172 3799284.843 366791.452 3799294.195
AREAVERT T1B_M_5      366802.863 3799302.425 366810.719 3799307.476
AREAVERT T1B_M_5      366819.884 3799313.274 366822.877 3799315.145
AREAVERT T1B_M_5      366824.561 3799312.900 366839.151 3799317.390
AREAVERT T1B_M_5      366852.431 3799322.253 366861.410 3799324.872
AREAVERT T1B_M_5      366869.827 3799327.677 366877.870 3799330.109
AREAVERT T1B_M_5      366886.100 3799331.793 366907.611 3799334.972
AREAVERT T1B_M_5      366909.295 3799302.987 366887.036 3799299.058
AREAVERT T1B_M_5      366887.784 3799290.080 366892.273 3799289.145
AREAVERT T1B_M_5      366895.453 3799292.138 366904.432 3799289.332
AREAVERT T1B_M_5      366908.547 3799287.835 366916.216 3799282.785
AREAVERT T1B_M_5      366918.647 3799281.289 366917.899 3799276.986
AREAVERT T1B_M_5      366926.691 3799267.821 366928.187 3799220.497
AREAVERT T1B_M_5      366925.007 3799219.936 366923.511 3799239.576
AREAVERT T1B_M_5      366922.950 3799245.936 366915.468 3799260.152
AREAVERT T1B_M_5      366908.734 3799266.886 366905.180 3799264.267
AREAVERT T1B_M_5      366890.403 3799272.497 366890.029 3799276.238
AREAVERT T1B_M_5      366878.993 3799277.922 366870.201 3799276.612
AREAVERT T1B_M_5      366862.906 3799275.864 366859.913 3799275.303
AREAVERT T1B_M_5      366839.712 3799267.073 366827.179 3799262.022
AREAVERT T1B_M_5      366820.819 3799275.490 366809.596 3799268.382
AREAVERT T1B_M_5      366806.042 3799265.389 366793.323 3799254.166
AREAVERT T1B_M_5      366779.294 3799282.411
SRCPARAM T1B_M_6      4.962E-08     2.550        24     2.370
AREAVERT T1B_M_6      366885.524 3799153.037 366886.955 3799159.556
AREAVERT T1B_M_6      366899.676 3799159.556 366902.379 3799113.922
AREAVERT T1B_M_6      366899.199 3799113.922 366897.768 3799108.993
AREAVERT T1B_M_6      366895.542 3799106.131 366893.475 3799103.746
AREAVERT T1B_M_6      366889.659 3799102.315 366887.750 3799101.997
AREAVERT T1B_M_6      366886.001 3799102.156 366882.980 3799102.315
AREAVERT T1B_M_6      366879.323 3799105.336 366876.938 3799109.788
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   AREAVERT T1B_M_6      366875.507 3799114.876 366875.825 3799118.533
   AREAVERT T1B_M_6      366862.787 3799143.656 366864.377 3799144.928
   AREAVERT T1B_M_6      366867.716 3799148.426 366870.260 3799149.698
   AREAVERT T1B_M_6      366873.599 3799151.129 366874.871 3799151.765
   AREAVERT T1B_M_6      366879.800 3799152.083 366882.662 3799152.719
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Seven Days (HRDOW7)"
** Variable Emission Scenario: "Scenario 1"
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1A_7        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1B_UM_1     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_1     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1B_UM_2     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP TIER1A   T1A_1 T1A_2 T1A_3 T1A_4 T1A_5 T1A_6 T1A_7 T1A_8
   SRCGROUP TIER1BM  T1B_M_1 T1B_M_2 T1B_M_3 T1B_M_4 T1B_M_5 T1B_M_6
   SRCGROUP TIER1BUM T1B_UM_1 T1B_UM_2 T1B_UM_3 T1B_UM_4 T1B_UM_5 T1B_UM_6
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED OVMC_Construction_Elev.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\metdata\KBUR_V9_ADJU\KBUR_v9.SFC
   PROFFILE ..\..\metdata\KBUR_V9_ADJU\KBUR_v9.PFL
   SURFDATA 23152 2012
   UAIRDATA 3190 2012
   PROFBASE 236.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   PLOTFILE PERIOD TIER1A OVMC_CONSTRUCTION_ELEV.AD\OVMC_Construction_Elev_DPM_Tier1A.PLT 31
   PLOTFILE PERIOD TIER1BM OVMC_CONSTRUCTION_ELEV.AD\OVMC_Construction_Elev_DPM_Tier1BM.PLT 32
   PLOTFILE PERIOD TIER1BUM OVMC_CONSTRUCTION_ELEV.AD\OVMC_Construction_Elev_DPM_Tier1BUM.PLT 33
   SUMMFILE OVMC_Construction_Elev.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
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A Total of            2 Warning Message(s)
A Total of            0 Informational Message(s)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W186     740       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used           0.50
ME W187     740       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

***********************************
*** SETUP Finishes Successfully ***
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```
                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

**Model Is Setup For Calculation of Average CONCentration Values.

  --  DEPOSITION LOGIC  --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION.  DRYDPLT  =  F
**Model Uses NO WET DEPLETION.  WETDPLT  =  F

**Model Uses URBAN Dispersion Algorithm for the SBL for    20 Source(s),
  for Total of    1 Urban Area(s):
  Urban Population =   9818605.0 ;  Urban Roughness Length =  1.000 m

**Model Uses Regulatory DEFAULT Options:
        1. Stack-tip Downwash.
        2. Model Accounts for ELEVated Terrain Effects.
        3. Use Calms Processing Routine.
        4. Use Missing Data Processing Routine.
        5. No Exponential Decay.
        6. Urban Roughness Length of 1.0 Meter Assumed.

**Other Options Specified:
        ADJ_U*   - Use ADJ_U* option for SBL in AERMET
        CCVR_Sub - Meteorological data includes CCVR substitutions
        TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of:  DPM

**Model Calculates PERIOD Averages Only

**This Run Includes:     20 Source(s);       4 Source Group(s); and     193 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:      0 VOLUME source(s)
                and:     20 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with      0 line(s)


**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date:  16216

**Output Options Selected:
         Model Outputs Tables of PERIOD Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                m for Missing Hours
                                                                b for Both Calm and Missing Hours

**Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   236.00 ;  Decay Coef. =    0.000     ;  Rot. Angle =     0.0
                 Emission Units = GRAMS/SEC                                ;  Emission Rate Unit Factor =   0.10000E+07
                 Output Units   = MICROGRAMS/M**3

**Approximate Storage Requirements of Model =      3.6 MB of RAM.

**Input Runstream File:          aermod.inp
**Output Print File:             aermod.out

**Detailed Error/Message File:   OVMC_Construction_Elev.err
**File for Summary of Results:   OVMC_Construction_Elev.sum
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
T1A_1	0	0.44090E-05	367101.7	3799472.6	454.2	2.55	9	2.37	YES	HRDOW7
T1A_2	0	0.44090E-05	367103.1	3799454.5	451.2	2.55	8	2.37	YES	HRDOW7
T1A_3	0	0.44090E-05	367113.5	3799413.3	449.4	2.55	9	2.37	YES	HRDOW7
T1A_4	0	0.44090E-05	367124.4	3799457.7	450.5	2.55	8	2.37	YES	HRDOW7
T1A_5	0	0.44090E-05	367135.9	3799436.3	449.8	2.55	8	2.37	YES	HRDOW7
T1A_6	0	0.44090E-05	367133.1	3799379.1	449.4	2.55	18	2.37	YES	HRDOW7
T1A_7	0	0.44090E-05	366994.5	3799413.4	450.0	2.55	9	2.37	YES	HRDOW7
T1A_8	0	0.44090E-05	366934.7	3799405.4	449.3	2.55	4	2.37	YES	HRDOW7
T1B_UM_1	0	0.16336E-05	366920.8	3799460.6	451.6	2.55	22	2.37	YES	HRDOW7
T1B_UM_2	0	0.16336E-05	366819.5	3799439.8	449.3	2.55	18	2.37	YES	HRDOW7
T1B_UM_3	0	0.16336E-05	366574.4	3799322.0	449.2	2.55	23	2.37	YES	HRDOW7
T1B_UM_4	0	0.16336E-05	366781.9	3799356.6	445.4	2.55	20	2.37	YES	HRDOW7
T1B_UM_5	0	0.16336E-05	366778.2	3799284.8	444.0	2.55	45	2.37	YES	HRDOW7
T1B_UM_6	0	0.16336E-05	366885.5	3799153.0	441.3	2.55	24	2.37	YES	HRDOW7
T1B_M_1	0	0.49620E-07	366920.8	3799460.6	451.6	2.55	22	2.37	YES	HRDOW7
T1B_M_2	0	0.49620E-07	366819.5	3799439.8	449.3	2.55	18	2.37	YES	HRDOW7
T1B_M_3	0	0.49620E-07	366574.4	3799322.0	449.2	2.55	23	2.37	YES	HRDOW7
T1B_M_4	0	0.49620E-07	366781.9	3799356.6	445.4	2.55	20	2.37	YES	HRDOW7
T1B_M_5	0	0.49620E-07	366778.2	3799284.8	444.0	2.55	45	2.37	YES	HRDOW7
T1B_M_6	0	0.49620E-07	366885.5	3799153.0	441.3	2.55	24	2.37	YES	HRDOW7

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs								
TIER1A	T1A_1	, T1A_2	, T1A_3	, T1A_4	, T1A_5	, T1A_6	, T1A_7	, T1A_8	,
TIER1BM	T1B_M_1	, T1B_M_2	, T1B_M_3	, T1B_M_4	, T1B_M_5	, T1B_M_6	,		
TIER1BUM	T1B_UM_1	, T1B_UM_2	, T1B_UM_3	, T1B_UM_4	, T1B_UM_5	, T1B_UM_6	,		
ALL	T1A_1	, T1A_2	, T1A_3	, T1A_4	, T1A_5	, T1A_6	, T1A_7	, T1A_8	,
	T1B_UM_1	, T1B_UM_2	, T1B_UM_3	, T1B_UM_4	, T1B_UM_5	, T1B_UM_6	, T1B_M_1	, T1B_M_2	,
	T1B_M_3	, T1B_M_4	, T1B_M_5	, T1B_M_6	,				

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	9818605.	T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 , T1A_6 , T1A_7 , T1A_8 ,
		T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 , T1B_UM_6 , T1B_M_1 , T1B_M_2 ,
		T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_2 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_3 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_4 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_5 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_6 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_7 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_8 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_2 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_3 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_4 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_5 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_6 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_2 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_3 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_4 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_5 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_6 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(367472.3,	3799121.8,	439.9,	690.0,	0.0);	(367469.4,	3799140.8,	440.0,	690.0,	0.0);
(367470.4,	3799156.9,	440.5,	690.0,	0.0);	(367472.3,	3799171.1,	441.0,	690.0,	0.0);
(367474.2,	3799185.3,	441.4,	690.0,	0.0);	(367475.1,	3799202.3,	442.3,	690.0,	0.0);
(367474.2,	3799217.5,	442.8,	690.0,	0.0);	(367476.1,	3799231.7,	443.7,	690.0,	0.0);
(367477.0,	3799246.8,	444.0,	690.0,	0.0);	(367474.2,	3799270.5,	445.7,	690.0,	0.0);
(367475.1,	3799283.8,	446.0,	690.0,	0.0);	(367475.1,	3799298.9,	446.5,	690.0,	0.0);
(367475.1,	3799314.1,	446.8,	690.0,	0.0);	(367475.1,	3799329.2,	446.9,	690.0,	0.0);
(367476.1,	3799343.4,	447.2,	690.0,	0.0);	(367497.8,	3799350.1,	447.5,	690.0,	0.0);
(367527.2,	3799373.8,	452.2,	690.0,	0.0);	(367525.3,	3799400.3,	452.9,	690.0,	0.0);
(367521.5,	3799441.9,	462.9,	690.0,	0.0);	(367512.0,	3799459.0,	464.0,	690.0,	0.0);
(367501.6,	3799475.1,	464.9,	690.0,	0.0);	(367492.2,	3799492.1,	465.9,	690.0,	0.0);
(367485.5,	3799518.7,	466.1,	690.0,	0.0);	(367734.7,	3799074.8,	449.5,	690.0,	0.0);
(367702.4,	3799074.8,	447.6,	690.0,	0.0);	(367676.8,	3799072.6,	446.8,	690.0,	0.0);
(367641.1,	3799073.7,	443.9,	690.0,	0.0);	(367591.0,	3799073.7,	443.4,	690.0,	0.0);
(367543.1,	3799070.4,	439.8,	690.0,	0.0);	(367467.3,	3799067.0,	438.2,	690.0,	0.0);
(367429.4,	3799058.1,	436.8,	690.0,	0.0);	(367401.6,	3799055.9,	435.9,	690.0,	0.0);
(367348.1,	3799059.2,	433.6,	690.0,	0.0);	(367367.0,	3799048.1,	433.4,	690.0,	0.0);
(367287.9,	3799063.7,	436.5,	690.0,	0.0);	(367329.1,	3799049.2,	433.4,	690.0,	0.0);
(367177.6,	3799048.1,	436.7,	690.0,	0.0);	(367106.3,	3799060.4,	437.5,	690.0,	0.0);
(367072.9,	3799055.9,	437.3,	690.0,	0.0);	(367055.0,	3799062.6,	437.6,	690.0,	0.0);
(367002.7,	3799057.0,	437.1,	690.0,	0.0);	(366905.7,	3799025.8,	435.1,	690.0,	0.0);
(367018.3,	3798993.5,	435.3,	690.0,	0.0);	(366971.5,	3798998.0,	434.8,	690.0,	0.0);
(367162.0,	3799024.7,	436.2,	690.0,	0.0);	(366833.3,	3798998.0,	433.1,	690.0,	0.0);
(366848.9,	3798962.3,	431.9,	690.0,	0.0);	(366866.7,	3798933.3,	431.7,	690.0,	0.0);
(366880.1,	3798905.5,	431.0,	690.0,	0.0);	(366896.8,	3798876.5,	431.3,	690.0,	0.0);
(366805.4,	3799008.0,	433.6,	690.0,	0.0);	(366792.1,	3799029.2,	435.2,	690.0,	0.0);
(366763.1,	3799030.3,	435.0,	690.0,	0.0);	(366730.8,	3799023.6,	434.3,	690.0,	0.0);
(366710.7,	3799022.5,	433.9,	690.0,	0.0);	(366686.2,	3799026.9,	434.0,	690.0,	0.0);
(366658.3,	3799025.8,	434.2,	690.0,	0.0);	(366612.7,	3799018.0,	432.7,	690.0,	0.0);
(366578.1,	3799015.8,	433.0,	690.0,	0.0);	(366902.3,	3799006.5,	434.6,	690.0,	0.0);
(366930.5,	3798998.4,	434.7,	690.0,	0.0);	(366941.0,	3798993.6,	434.6,	690.0,	0.0);
(366923.2,	3798975.1,	433.8,	690.0,	0.0);	(366991.7,	3798982.3,	434.4,	690.0,	0.0);
(367015.8,	3799008.9,	435.6,	690.0,	0.0);	(366977.2,	3798971.9,	433.9,	690.0,	0.0);
(367002.1,	3798965.4,	434.1,	690.0,	0.0);	(366993.3,	3798955.0,	433.7,	690.0,	0.0);
(366978.8,	3798942.1,	433.0,	690.0,	0.0);	(366952.2,	3798932.4,	432.2,	690.0,	0.0);
(366955.5,	3798913.1,	431.8,	690.0,	0.0);	(366818.6,	3798975.9,	432.5,	690.0,	0.0);
(366826.6,	3798961.4,	432.4,	690.0,	0.0);	(366833.9,	3798945.3,	432.2,	690.0,	0.0);
(366841.1,	3798930.0,	432.1,	690.0,	0.0);	(366847.6,	3798917.9,	431.5,	690.0,	0.0);
(366803.3,	3798969.5,	432.1,	690.0,	0.0);	(366792.8,	3798956.6,	432.1,	690.0,	0.0);
(366798.5,	3798995.2,	433.1,	690.0,	0.0);	(366784.8,	3798979.9,	433.3,	690.0,	0.0);
(366771.9,	3798966.2,	432.5,	690.0,	0.0);	(366760.6,	3798954.2,	432.4,	690.0,	0.0);
(366781.6,	3798937.3,	431.7,	690.0,	0.0);	(366797.7,	3798930.8,	431.9,	690.0,	0.0);
(366818.6,	3798918.8,	431.7,	690.0,	0.0);	(366827.5,	3798912.3,	431.4,	690.0,	0.0);
(366845.2,	3798900.2,	430.3,	690.0,	0.0);	(366858.8,	3798893.0,	430.1,	690.0,	0.0);
(366904.7,	3798862.4,	430.7,	690.0,	0.0);	(366755.8,	3799010.5,	433.9,	690.0,	0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(366772.7,	3799008.1,	434.6,	690.0,	0.0);	(366691.4,	3799007.3,	433.3,	690.0,	0.0);
(366671.3,	3799007.3,	432.9,	690.0,	0.0);	(366643.1,	3799005.7,	432.5,	690.0,	0.0);
(366695.4,	3798992.0,	433.2,	690.0,	0.0);	(366709.9,	3798996.8,	432.6,	690.0,	0.0);
(366730.8,	3798998.4,	433.9,	690.0,	0.0);	(366746.9,	3798995.2,	433.4,	690.0,	0.0);
(366712.3,	3798975.1,	432.5,	690.0,	0.0);	(366732.5,	3798976.7,	432.8,	690.0,	0.0);
(366746.1,	3798977.5,	432.5,	690.0,	0.0);	(367168.8,	3799016.2,	436.1,	690.0,	0.0);
(367153.6,	3799001.1,	435.8,	690.0,	0.0);	(367133.8,	3799002.3,	435.7,	690.0,	0.0);
(367144.3,	3798992.4,	435.5,	690.0,	0.0);	(367120.5,	3798992.4,	435.3,	690.0,	0.0);
(367108.2,	3798981.3,	434.9,	690.0,	0.0);	(367130.9,	3798983.1,	435.1,	690.0,	0.0);
(367083.8,	3798953.4,	434.1,	690.0,	0.0);	(367072.8,	3798944.7,	433.8,	690.0,	0.0);
(367067.5,	3798937.7,	433.7,	690.0,	0.0);	(367064.0,	3798928.4,	433.5,	690.0,	0.0);
(367103.6,	3798929.0,	433.0,	690.0,	0.0);	(367053.6,	3798920.3,	433.0,	690.0,	0.0);
(367025.1,	3798892.3,	431.7,	690.0,	0.0);	(367013.4,	3798879.5,	431.2,	690.0,	0.0);
(367054.2,	3798899.9,	432.4,	690.0,	0.0);	(367018.7,	3798871.4,	431.1,	690.0,	0.0);
(367005.3,	3798849.9,	430.1,	690.0,	0.0);	(366993.7,	3798839.4,	429.7,	690.0,	0.0);
(367114.1,	3798903.4,	432.3,	690.0,	0.0);	(367058.2,	3798869.1,	431.2,	690.0,	0.0);
(367103.0,	3798882.5,	431.5,	690.0,	0.0);	(367082.1,	3798914.4,	432.6,	690.0,	0.0);
(367061.7,	3798894.7,	432.0,	690.0,	0.0);	(367042.5,	3798887.7,	431.7,	690.0,	0.0);
(367006.5,	3798866.8,	430.8,	690.0,	0.0);	(367021.6,	3798841.7,	430.0,	690.0,	0.0);
(367029.7,	3798835.3,	429.9,	690.0,	0.0);	(367043.7,	3798858.0,	430.7,	690.0,	0.0);
(367084.4,	3798883.0,	431.7,	690.0,	0.0);	(367093.1,	3798891.2,	431.9,	690.0,	0.0);
(367098.9,	3798950.5,	433.9,	690.0,	0.0);	(366837.8,	3798982.5,	432.2,	690.0,	0.0);
(367082.1,	3798871.4,	431.2,	690.0,	0.0);	(367073.9,	3798862.7,	431.1,	690.0,	0.0);
(367063.5,	3799045.3,	436.9,	690.0,	0.0);	(366998.9,	3799039.5,	436.7,	690.0,	0.0);
(367061.7,	3798850.5,	430.7,	690.0,	0.0);	(367079.2,	3798850.5,	430.4,	690.0,	0.0);
(367118.1,	3798889.4,	431.7,	690.0,	0.0);	(367123.4,	3798878.4,	431.4,	690.0,	0.0);
(367139.1,	3798868.5,	431.2,	690.0,	0.0);	(367145.5,	3798858.0,	430.9,	690.0,	0.0);
(367101.8,	3798838.2,	430.1,	690.0,	0.0);	(367104.8,	3798862.7,	430.9,	690.0,	0.0);
(367096.0,	3798824.3,	429.6,	690.0,	0.0);	(367051.2,	3798849.3,	430.5,	690.0,	0.0);
(367062.9,	3798838.2,	430.3,	690.0,	0.0);	(367068.7,	3798833.6,	430.1,	690.0,	0.0);
(367076.8,	3798820.8,	429.7,	690.0,	0.0);	(367014.0,	3798819.6,	429.2,	690.0,	0.0);
(367024.5,	3798815.0,	429.1,	690.0,	0.0);	(367162.9,	3798990.1,	435.4,	690.0,	0.0);
(367140.2,	3798980.2,	435.1,	690.0,	0.0);	(367132.7,	3798965.6,	434.4,	690.0,	0.0);
(367159.4,	3798973.2,	434.7,	690.0,	0.0);	(367161.8,	3798962.1,	434.3,	690.0,	0.0);
(367149.5,	3798958.1,	434.0,	690.0,	0.0);	(367144.3,	3798948.8,	433.7,	690.0,	0.0);
(367197.8,	3798965.0,	434.2,	690.0,	0.0);	(367178.6,	3798942.9,	433.9,	690.0,	0.0);
(367171.6,	3798929.0,	433.2,	690.0,	0.0);	(367179.2,	3798924.3,	432.9,	690.0,	0.0);
(367228.7,	3798958.1,	433.6,	690.0,	0.0);	(367203.6,	3798938.3,	433.6,	690.0,	0.0);
(367207.7,	3798929.6,	433.4,	690.0,	0.0);	(367197.2,	3798916.2,	433.0,	690.0,	0.0);
(367218.8,	3798919.1,	433.0,	690.0,	0.0);	(367279.3,	3798961.0,	432.6,	690.0,	0.0);
(367281.6,	3799037.2,	434.7,	690.0,	0.0);	(367313.5,	3799050.2,	434.3,	690.0,	0.0);
(367310.8,	3799027.6,	433.5,	690.0,	0.0);	(367304.6,	3799043.4,	434.7,	690.0,	0.0);
(367319.7,	3799018.8,	433.5,	690.0,	0.0);	(367329.9,	3799007.1,	433.2,	690.0,	0.0);
(367336.1,	3798994.1,	433.3,	690.0,	0.0);	(367345.7,	3798986.6,	433.2,	690.0,	0.0);
(367345.7,	3798974.3,	433.3,	690.0,	0.0);	(367337.5,	3798961.3,	433.2,	690.0,	0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(367360.7,	3798959.2,	432.9,	690.0,	0.0);	(367359.4,	3798944.1,	433.0,	690.0,	0.0);
(367366.9,	3799035.2,	433.2,	690.0,	0.0);	(367373.7,	3799022.2,	433.2,	690.0,	0.0);
(367381.3,	3799014.6,	433.2,	690.0,	0.0);	(367382.6,	3799002.3,	433.0,	690.0,	0.0);
(367360.7,	3799061.9,	433.8,	690.0,	0.0);	(367390.8,	3798993.4,	433.0,	690.0,	0.0);
(367398.4,	3798974.9,	432.8,	690.0,	0.0);	(367400.4,	3799019.4,	433.8,	690.0,	0.0);
(367388.1,	3799042.7,	433.8,	690.0,	0.0);	(367420.3,	3799006.4,	435.6,	690.0,	0.0);
(367440.8,	3799023.5,	436.9,	690.0,	0.0);					

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\..\metdata\KBUR_V9_ADJU\KBUR_v9.SFC Met Version: 16216
Profile file: ..\..\metdata\KBUR_V9_ADJU\KBUR_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23152 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-23.4	0.241	-9.000	-9.000	-999.	285.	64.1	0.16	3.02	1.00	2.45	359.	7.9	286.4	2.0
12	01	01	1	02	-11.3	0.143	-9.000	-9.000	-999.	134.	23.1	0.16	3.02	1.00	1.50	289.	7.9	284.9	2.0
12	01	01	1	03	-4.8	0.092	-9.000	-9.000	-999.	68.	14.5	0.16	3.02	1.00	0.99	300.	7.9	283.8	2.0
12	01	01	1	04	-8.1	0.121	-9.000	-9.000	-999.	100.	19.1	0.16	3.02	1.00	1.28	295.	7.9	284.2	2.0
12	01	01	1	05	-2.9	0.074	-9.000	-9.000	-999.	49.	12.3	0.16	3.02	1.00	0.75	323.	7.9	282.5	2.0
12	01	01	1	06	-11.3	0.143	-9.000	-9.000	-999.	130.	23.0	0.16	3.02	1.00	1.50	306.	7.9	283.1	2.0
12	01	01	1	07	-16.9	0.176	-9.000	-9.000	-999.	178.	34.3	0.16	3.02	1.00	1.82	315.	7.9	284.9	2.0
12	01	01	1	08	-8.8	0.134	-9.000	-9.000	-999.	118.	24.3	0.16	3.02	0.55	1.40	323.	7.9	287.0	2.0
12	01	01	1	09	36.3	0.171	0.339	0.008	38.	169.	-12.2	0.16	3.02	0.32	1.31	23.	7.9	288.8	2.0
12	01	01	1	10	110.9	0.119	0.729	0.009	124.	99.	-1.4	0.16	3.02	0.24	0.62	163.	7.9	292.0	2.0
12	01	01	1	11	165.2	0.157	1.185	0.005	358.	149.	-2.1	0.16	3.02	0.21	0.89	112.	7.9	296.4	2.0
12	01	01	1	12	192.9	0.184	1.540	0.005	672.	189.	-2.8	0.16	3.02	0.20	1.11	225.	7.9	299.2	2.0
12	01	01	1	13	192.1	0.199	1.840	0.005	1152.	213.	-3.6	0.16	3.02	0.20	1.26	250.	7.9	299.9	2.0
12	01	01	1	14	164.6	0.270	1.886	0.005	1447.	337.	-10.6	0.16	3.02	0.21	2.03	273.	7.9	300.4	2.0
12	01	01	1	15	111.1	0.289	1.699	0.005	1566.	373.	-19.3	0.16	3.02	0.25	2.35	270.	7.9	300.4	2.0
12	01	01	1	16	35.3	0.338	1.167	0.005	1596.	472.	-96.9	0.16	3.02	0.33	3.12	289.	7.9	298.8	2.0
12	01	01	1	17	-20.8	0.255	-9.000	-9.000	-999.	312.	71.4	0.16	3.02	0.60	2.57	318.	7.9	296.4	2.0
12	01	01	1	18	-35.0	0.369	-9.000	-9.000	-999.	538.	149.9	0.16	3.02	1.00	3.68	320.	7.9	293.8	2.0
12	01	01	1	19	-27.7	0.291	-9.000	-9.000	-999.	380.	93.2	0.16	3.02	1.00	2.93	345.	7.9	292.0	2.0
12	01	01	1	20	-20.7	0.216	-9.000	-9.000	-999.	243.	51.2	0.16	3.02	1.00	2.20	325.	7.9	290.4	2.0
12	01	01	1	21	-8.5	0.124	-9.000	-9.000	-999.	108.	19.8	0.16	3.02	1.00	1.31	359.	7.9	288.1	2.0
12	01	01	1	22	-7.4	0.116	-9.000	-9.000	-999.	94.	18.4	0.16	3.02	1.00	1.23	304.	7.9	287.5	2.0
12	01	01	1	23	-6.3	0.106	-9.000	-9.000	-999.	82.	16.7	0.16	3.02	1.00	1.13	314.	7.9	285.9	2.0
12	01	01	1	24	-19.7	0.203	-9.000	-9.000	-999.	220.	45.5	0.16	3.02	1.00	2.08	319.	7.9	287.0	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
12	01	01	01	7.9	1	359.	2.45	286.5	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1A ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367472.27	3799121.83	0.00092	367469.43	3799140.77	0.00099
367470.38	3799156.87	0.00105	367472.27	3799171.08	0.00109
367474.17	3799185.29	0.00114	367475.11	3799202.33	0.00120
367474.17	3799217.49	0.00127	367476.06	3799231.69	0.00133
367477.01	3799246.85	0.00139	367474.17	3799270.53	0.00153
367475.11	3799283.78	0.00160	367475.11	3799298.94	0.00168
367475.11	3799314.09	0.00176	367475.11	3799329.25	0.00184
367476.06	3799343.45	0.00191	367497.84	3799350.08	0.00172
367527.20	3799373.76	0.00152	367525.31	3799400.28	0.00160
367521.52	3799441.95	0.00161	367512.05	3799459.00	0.00170
367501.63	3799475.10	0.00180	367492.16	3799492.15	0.00190
367485.53	3799518.67	0.00196	367734.73	3799074.85	0.00037
367702.41	3799074.85	0.00041	367676.79	3799072.62	0.00043
367641.13	3799073.73	0.00048	367590.99	3799073.73	0.00055
367543.08	3799070.39	0.00063	367467.31	3799067.05	0.00078
367429.42	3799058.13	0.00083	367401.56	3799055.90	0.00088
367348.08	3799059.25	0.00100	367367.02	3799048.10	0.00091
367287.91	3799063.70	0.00113	367329.14	3799049.22	0.00098
367177.60	3799048.10	0.00101	367106.29	3799060.36	0.00101
367072.86	3799055.90	0.00094	367055.03	3799062.59	0.00095
367002.66	3799057.02	0.00084	366905.72	3799025.82	0.00058
367018.26	3798993.51	0.00059	366971.46	3798997.96	0.00056
367162.00	3799024.70	0.00086	366833.29	3798997.96	0.00044
366848.89	3798962.31	0.00040	366866.72	3798933.34	0.00036
366880.09	3798905.48	0.00033	366896.81	3798876.51	0.00030
366805.44	3799007.99	0.00043	366792.07	3799029.16	0.00045
366763.09	3799030.28	0.00041	366730.78	3799023.59	0.00036
366710.72	3799022.48	0.00033	366686.21	3799026.93	0.00031
366658.35	3799025.82	0.00028	366612.67	3799018.02	0.00023
366578.13	3799015.79	0.00020	366902.32	3799006.50	0.00052
366930.50	3798998.45	0.00053	366940.97	3798993.62	0.00053
366923.25	3798975.11	0.00047	366991.69	3798982.35	0.00054
367015.84	3799008.92	0.00064	366977.19	3798971.89	0.00050
367002.15	3798965.45	0.00050	366993.30	3798954.98	0.00047
366978.81	3798942.10	0.00043	366952.24	3798932.44	0.00040
366955.46	3798913.12	0.00037	366818.59	3798975.91	0.00039
366826.64	3798961.42	0.00038	366833.89	3798945.32	0.00036
366841.14	3798930.02	0.00035	366847.58	3798917.95	0.00034
366803.30	3798969.47	0.00037	366792.83	3798956.59	0.00035
366798.47	3798995.23	0.00040	366784.78	3798979.94	0.00037

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1A ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
366771.90	3798966.25	0.00035	366760.63	3798954.17	0.00032
366781.56	3798937.27	0.00032	366797.66	3798930.83	0.00033
366818.59	3798918.75	0.00032	366827.45	3798912.31	0.00032
366845.16	3798900.23	0.00031	366858.85	3798892.99	0.00031
366904.74	3798862.40	0.00029	366755.80	3799010.53	0.00038
366772.70	3799008.11	0.00039	366691.39	3799007.31	0.00030
366671.26	3799007.31	0.00028	366643.09	3799005.70	0.00025
366695.42	3798992.01	0.00030	366709.91	3798996.84	0.00031
366730.84	3798998.45	0.00034	366746.94	3798995.23	0.00035
366712.33	3798975.10	0.00030	366732.45	3798976.72	0.00032
366746.14	3798977.52	0.00033	367168.75	3799016.24	0.00083
367153.62	3799001.12	0.00075	367133.85	3799002.28	0.00073
367144.32	3798992.39	0.00070	367120.47	3798992.39	0.00068
367108.25	3798981.34	0.00063	367130.94	3798983.09	0.00066
367083.82	3798953.42	0.00053	367072.77	3798944.69	0.00050
367067.53	3798937.71	0.00048	367064.04	3798928.41	0.00045
367103.60	3798928.99	0.00048	367053.57	3798920.26	0.00043
367025.07	3798892.34	0.00036	367013.44	3798879.55	0.00034
367054.16	3798899.91	0.00039	367018.67	3798871.40	0.00033
367005.30	3798849.88	0.00030	366993.66	3798839.41	0.00028
367114.07	3798903.40	0.00043	367058.23	3798869.08	0.00034
367103.02	3798882.46	0.00039	367082.08	3798914.45	0.00043
367061.72	3798894.67	0.00039	367042.52	3798887.69	0.00036
367006.46	3798866.75	0.00032	367021.58	3798841.74	0.00029
367029.73	3798835.34	0.00029	367043.69	3798858.03	0.00032
367084.40	3798883.04	0.00038	367093.13	3798891.18	0.00040
367098.94	3798950.51	0.00053	366837.77	3798982.50	0.00042
367082.08	3798871.40	0.00036	367073.93	3798862.68	0.00034
367063.46	3799045.32	0.00086	366998.90	3799039.51	0.00075
367061.72	3798850.46	0.00032	367079.17	3798850.46	0.00033
367118.14	3798889.44	0.00041	367123.38	3798878.38	0.00039
367139.08	3798868.50	0.00038	367145.48	3798858.03	0.00037
367101.85	3798838.25	0.00032	367104.76	3798862.68	0.00035
367096.04	3798824.29	0.00030	367051.25	3798849.30	0.00031
367062.88	3798838.25	0.00030	367068.70	3798833.59	0.00030
367076.84	3798820.80	0.00029	367014.02	3798819.63	0.00027
367024.49	3798814.98	0.00027	367162.93	3798990.07	0.00071
367140.24	3798980.18	0.00065	367132.68	3798965.64	0.00060
367159.44	3798973.20	0.00065	367161.77	3798962.14	0.00061
367149.55	3798958.07	0.00059	367144.32	3798948.77	0.00056

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1A ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367197.83	3798965.05	0.00065	367178.63	3798942.95	0.00057
367171.65	3798928.99	0.00053	367179.22	3798924.34	0.00052
367228.66	3798958.07	0.00064	367203.65	3798938.30	0.00057
367207.72	3798929.57	0.00055	367197.25	3798916.19	0.00051
367218.77	3798919.10	0.00053	367279.26	3798960.98	0.00066
367281.59	3799037.18	0.00097	367313.51	3799050.23	0.00101
367310.77	3799027.64	0.00090	367304.61	3799043.38	0.00099
367319.67	3799018.75	0.00086	367329.93	3799007.11	0.00080
367336.09	3798994.11	0.00075	367345.67	3798986.58	0.00072
367345.67	3798974.26	0.00068	367337.46	3798961.26	0.00065
367360.73	3798959.21	0.00063	367359.36	3798944.15	0.00059
367366.89	3799035.17	0.00086	367373.73	3799022.17	0.00081
367381.26	3799014.64	0.00077	367382.63	3799002.32	0.00073
367360.73	3799061.86	0.00099	367390.84	3798993.42	0.00070
367398.37	3798974.95	0.00064	367400.42	3799019.43	0.00076
367388.10	3799042.70	0.00086	367420.27	3799006.43	0.00070
367440.80	3799023.54	0.00071			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BM ***
INCLUDING SOURCE(S): T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 ,
T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367472.27	3799121.83	0.00003	367469.43	3799140.77	0.00003
367470.38	3799156.87	0.00003	367472.27	3799171.08	0.00003
367474.17	3799185.29	0.00003	367475.11	3799202.33	0.00003
367474.17	3799217.49	0.00003	367476.06	3799231.69	0.00003
367477.01	3799246.85	0.00003	367474.17	3799270.53	0.00004
367475.11	3799283.78	0.00004	367475.11	3799298.94	0.00004
367475.11	3799314.09	0.00004	367475.11	3799329.25	0.00004
367476.06	3799343.45	0.00004	367497.84	3799350.08	0.00004
367527.20	3799373.76	0.00003	367525.31	3799400.28	0.00003
367521.52	3799441.95	0.00003	367512.05	3799459.00	0.00003
367501.63	3799475.10	0.00004	367492.16	3799492.15	0.00004
367485.53	3799518.67	0.00004	367734.73	3799074.85	0.00001
367702.41	3799074.85	0.00001	367676.79	3799072.62	0.00002
367641.13	3799073.73	0.00002	367590.99	3799073.73	0.00002
367543.08	3799070.39	0.00002	367467.31	3799067.05	0.00003
367429.42	3799058.13	0.00003	367401.56	3799055.90	0.00003
367348.08	3799059.25	0.00004	367367.02	3799048.10	0.00003
367287.91	3799063.70	0.00004	367329.14	3799049.22	0.00004
367177.60	3799048.10	0.00006	367106.29	3799060.36	0.00009
367072.86	3799055.90	0.00010	367055.03	3799062.59	0.00012
367002.66	3799057.02	0.00015	366905.72	3799025.82	0.00013
367018.26	3798993.51	0.00008	366971.46	3798997.96	0.00009
367162.00	3799024.70	0.00006	366833.29	3798997.96	0.00007
366848.89	3798962.31	0.00005	366866.72	3798933.34	0.00005
366880.09	3798905.48	0.00004	366896.81	3798876.51	0.00003
366805.44	3799007.99	0.00007	366792.07	3799029.16	0.00008
366763.09	3799030.28	0.00007	366730.78	3799023.59	0.00006
366710.72	3799022.48	0.00006	366686.21	3799026.93	0.00005
366658.35	3799025.82	0.00005	366612.67	3799018.02	0.00004
366578.13	3799015.79	0.00003	366902.32	3799006.50	0.00010
366930.50	3798998.45	0.00009	366940.97	3798993.62	0.00009
366923.25	3798975.11	0.00007	366991.69	3798982.35	0.00008
367015.84	3799008.92	0.00009	366977.19	3798971.89	0.00007
367002.15	3798965.45	0.00007	366993.30	3798954.98	0.00006
366978.81	3798942.10	0.00006	366952.24	3798932.44	0.00005
366955.46	3798913.12	0.00005	366818.59	3798975.91	0.00006
366826.64	3798961.42	0.00005	366833.89	3798945.32	0.00005
366841.14	3798930.02	0.00004	366847.58	3798917.95	0.00004
366803.30	3798969.47	0.00005	366792.83	3798956.59	0.00005
366798.47	3798995.23	0.00006	366784.78	3798979.94	0.00005

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BM ***
INCLUDING SOURCE(S): T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 ,
T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
366771.90	3798966.25	0.00005	366760.63	3798954.17	0.00004
366781.56	3798937.27	0.00004	366797.66	3798930.83	0.00004
366818.59	3798918.75	0.00004	366827.45	3798912.31	0.00004
366845.16	3798900.23	0.00004	366858.85	3798892.99	0.00003
366904.74	3798862.40	0.00003	366755.80	3799010.53	0.00006
366772.70	3799008.11	0.00006	366691.39	3799007.31	0.00005
366671.26	3799007.31	0.00005	366643.09	3799005.70	0.00004
366695.42	3798992.01	0.00005	366709.91	3798996.84	0.00005
366730.84	3798998.45	0.00005	366746.94	3798995.23	0.00005
366712.33	3798975.10	0.00004	366732.45	3798976.72	0.00005
366746.14	3798977.52	0.00005	367168.75	3799016.24	0.00006
367153.62	3799001.12	0.00006	367133.85	3799002.28	0.00006
367144.32	3798992.39	0.00006	367120.47	3798992.39	0.00006
367108.25	3798981.34	0.00006	367130.94	3798983.09	0.00006
367083.82	3798953.42	0.00006	367072.77	3798944.69	0.00005
367067.53	3798937.71	0.00005	367064.04	3798928.41	0.00005
367103.60	3798928.99	0.00005	367053.57	3798920.26	0.00005
367025.07	3798892.34	0.00004	367013.44	3798879.55	0.00004
367054.16	3798899.91	0.00004	367018.67	3798871.40	0.00004
367005.30	3798849.88	0.00003	366993.66	3798839.41	0.00003
367114.07	3798903.40	0.00004	367058.23	3798869.08	0.00004
367103.02	3798882.46	0.00004	367082.08	3798914.45	0.00005
367061.72	3798894.67	0.00004	367042.52	3798887.69	0.00004
367006.46	3798866.75	0.00004	367021.58	3798841.74	0.00003
367029.73	3798835.34	0.00003	367043.69	3798858.03	0.00004
367084.40	3798883.04	0.00004	367093.13	3798891.18	0.00004
367098.94	3798950.51	0.00005	366837.77	3798982.50	0.00006
367082.08	3798871.40	0.00004	367073.93	3798862.68	0.00004
367063.46	3799045.32	0.00010	366998.90	3799039.51	0.00013
367061.72	3798850.46	0.00003	367079.17	3798850.46	0.00003
367118.14	3798889.44	0.00004	367123.38	3798878.38	0.00004
367139.08	3798868.50	0.00003	367145.48	3798858.03	0.00003
367101.85	3798838.25	0.00003	367104.76	3798862.68	0.00003
367096.04	3798824.29	0.00003	367051.25	3798849.30	0.00003
367062.88	3798838.25	0.00003	367068.70	3798833.59	0.00003
367076.84	3798820.80	0.00003	367014.02	3798819.63	0.00003
367024.49	3798814.98	0.00003	367162.93	3798990.07	0.00005
367140.24	3798980.18	0.00005	367132.68	3798965.64	0.00005
367159.44	3798973.20	0.00005	367161.77	3798962.14	0.00005
367149.55	3798958.07	0.00005	367144.32	3798948.77	0.00005

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BM ***
INCLUDING SOURCE(S): T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 ,
T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367197.83	3798965.05	0.00004	367178.63	3798942.95	0.00004
367171.65	3798928.99	0.00004	367179.22	3798924.34	0.00004
367228.66	3798958.07	0.00004	367203.65	3798938.30	0.00004
367207.72	3798929.57	0.00004	367197.25	3798916.19	0.00004
367218.77	3798919.10	0.00003	367279.26	3798960.98	0.00003
367281.59	3799037.18	0.00004	367313.51	3799050.23	0.00004
367310.77	3799027.64	0.00004	367304.61	3799043.38	0.00004
367319.67	3799018.75	0.00004	367329.93	3799007.11	0.00003
367336.09	3798994.11	0.00003	367345.67	3798986.58	0.00003
367345.67	3798974.26	0.00003	367337.46	3798961.26	0.00003
367360.73	3798959.21	0.00003	367359.36	3798944.15	0.00003
367366.89	3799035.17	0.00003	367373.73	3799022.17	0.00003
367381.26	3799014.64	0.00003	367382.63	3799002.32	0.00003
367360.73	3799061.86	0.00003	367390.84	3798993.42	0.00003
367398.37	3798974.95	0.00003	367400.42	3799019.43	0.00003
367388.10	3799042.70	0.00003	367420.27	3799006.43	0.00003
367440.80	3799023.54	0.00003			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BUM ***
INCLUDING SOURCE(S): T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367472.27	3799121.83	0.00092	367469.43	3799140.77	0.00096
367470.38	3799156.87	0.00099	367472.27	3799171.08	0.00101
367474.17	3799185.29	0.00103	367475.11	3799202.33	0.00106
367474.17	3799217.49	0.00109	367476.06	3799231.69	0.00111
367477.01	3799246.85	0.00113	367474.17	3799270.53	0.00118
367475.11	3799283.78	0.00120	367475.11	3799298.94	0.00122
367475.11	3799314.09	0.00124	367475.11	3799329.25	0.00126
367476.06	3799343.45	0.00128	367497.84	3799350.08	0.00119
367527.20	3799373.76	0.00108	367525.31	3799400.28	0.00110
367521.52	3799441.95	0.00109	367512.05	3799459.00	0.00113
367501.63	3799475.10	0.00117	367492.16	3799492.15	0.00120
367485.53	3799518.67	0.00123	367734.73	3799074.85	0.00044
367702.41	3799074.85	0.00047	367676.79	3799072.62	0.00049
367641.13	3799073.73	0.00054	367590.99	3799073.73	0.00061
367543.08	3799070.39	0.00068	367467.31	3799067.05	0.00084
367429.42	3799058.13	0.00092	367401.56	3799055.90	0.00099
367348.08	3799059.25	0.00118	367367.02	3799048.10	0.00108
367287.91	3799063.70	0.00147	367329.14	3799049.22	0.00122
367177.60	3799048.10	0.00209	367106.29	3799060.36	0.00298
367072.86	3799055.90	0.00339	367055.03	3799062.59	0.00386
367002.66	3799057.02	0.00492	366905.72	3799025.82	0.00419
367018.26	3798993.51	0.00272	366971.46	3798997.96	0.00309
367162.00	3799024.70	0.00201	366833.29	3798997.96	0.00235
366848.89	3798962.31	0.00181	366866.72	3798933.34	0.00151
366880.09	3798905.48	0.00129	366896.81	3798876.51	0.00112
366805.44	3799007.99	0.00236	366792.07	3799029.16	0.00271
366763.09	3799030.28	0.00244	366730.78	3799023.59	0.00206
366710.72	3799022.48	0.00191	366686.21	3799026.93	0.00180
366658.35	3799025.82	0.00161	366612.67	3799018.02	0.00128
366578.13	3799015.79	0.00111	366902.32	3799006.50	0.00322
366930.50	3798998.45	0.00312	366940.97	3798993.62	0.00299
366923.25	3798975.11	0.00242	366991.69	3798982.35	0.00262
367015.84	3799008.92	0.00307	366977.19	3798971.89	0.00244
367002.15	3798965.45	0.00227	366993.30	3798954.98	0.00212
366978.81	3798942.10	0.00193	366952.24	3798932.44	0.00177
366955.46	3798913.12	0.00155	366818.59	3798975.91	0.00188
366826.64	3798961.42	0.00172	366833.89	3798945.32	0.00155
366841.14	3798930.02	0.00141	366847.58	3798917.95	0.00132
366803.30	3798969.47	0.00173	366792.83	3798956.59	0.00155
366798.47	3798995.23	0.00208	366784.78	3798979.94	0.00179

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BUM ***
INCLUDING SOURCE(S): T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
366771.90	3798966.25	0.00157	366760.63	3798954.17	0.00142
366781.56	3798937.27	0.00133	366797.66	3798930.83	0.00132
366818.59	3798918.75	0.00126	366827.45	3798912.31	0.00123
366845.16	3798900.23	0.00117	366858.85	3798892.99	0.00114
366904.74	3798862.40	0.00104	366755.80	3799010.53	0.00204
366772.70	3799008.11	0.00212	366691.39	3799007.31	0.00162
366671.26	3799007.31	0.00151	366643.09	3799005.70	0.00135
366695.42	3798992.01	0.00150	366709.91	3798996.84	0.00161
366730.84	3798998.45	0.00174	366746.94	3798995.23	0.00178
366712.33	3798975.10	0.00143	366732.45	3798976.72	0.00152
366746.14	3798977.52	0.00158	367168.75	3799016.24	0.00190
367153.62	3799001.12	0.00187	367133.85	3799002.28	0.00201
367144.32	3798992.39	0.00186	367120.47	3798992.39	0.00200
367108.25	3798981.34	0.00196	367130.94	3798983.09	0.00185
367083.82	3798953.42	0.00181	367072.77	3798944.69	0.00177
367067.53	3798937.71	0.00172	367064.04	3798928.41	0.00165
367103.60	3798928.99	0.00153	367053.57	3798920.26	0.00160
367025.07	3798892.34	0.00140	367013.44	3798879.55	0.00130
367054.16	3798899.91	0.00143	367018.67	3798871.40	0.00124
367005.30	3798849.88	0.00110	366993.66	3798839.41	0.00104
367114.07	3798903.40	0.00134	367058.23	3798869.08	0.00121
367103.02	3798882.46	0.00123	367082.08	3798914.45	0.00148
367061.72	3798894.67	0.00138	367042.52	3798887.69	0.00135
367006.46	3798866.75	0.00121	367021.58	3798841.74	0.00106
367029.73	3798835.34	0.00103	367043.69	3798858.03	0.00115
367084.40	3798883.04	0.00127	367093.13	3798891.18	0.00130
367098.94	3798950.51	0.00172	366837.77	3798982.50	0.00207
367082.08	3798871.40	0.00120	367073.93	3798862.68	0.00116
367063.46	3799045.32	0.00331	366998.90	3799039.51	0.00426
367061.72	3798850.46	0.00110	367079.17	3798850.46	0.00109
367118.14	3798889.44	0.00125	367123.38	3798878.38	0.00118
367139.08	3798868.50	0.00110	367145.48	3798858.03	0.00105
367101.85	3798838.25	0.00101	367104.76	3798862.68	0.00113
367096.04	3798824.29	0.00096	367051.25	3798849.30	0.00110
367062.88	3798838.25	0.00104	367068.70	3798833.59	0.00102
367076.84	3798820.80	0.00096	367014.02	3798819.63	0.00095
367024.49	3798814.98	0.00093	367162.93	3798990.07	0.00173
367140.24	3798980.18	0.00178	367132.68	3798965.64	0.00170
367159.44	3798973.20	0.00163	367161.77	3798962.14	0.00155
367149.55	3798958.07	0.00157	367144.32	3798948.77	0.00153

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BUM ***
INCLUDING SOURCE(S): T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367197.83	3798965.05	0.00142	367178.63	3798942.95	0.00137
367171.65	3798928.99	0.00132	367179.22	3798924.34	0.00127
367228.66	3798958.07	0.00127	367203.65	3798938.30	0.00126
367207.72	3798929.57	0.00121	367197.25	3798916.19	0.00119
367218.77	3798919.10	0.00114	367279.26	3798960.98	0.00111
367281.59	3799037.18	0.00139	367313.51	3799050.23	0.00129
367310.77	3799027.64	0.00123	367304.61	3799043.38	0.00131
367319.67	3799018.75	0.00116	367329.93	3799007.11	0.00109
367336.09	3798994.11	0.00104	367345.67	3798986.58	0.00099
367345.67	3798974.26	0.00096	367337.46	3798961.26	0.00095
367360.73	3798959.21	0.00089	367359.36	3798944.15	0.00086
367366.89	3799035.17	0.00105	367373.73	3799022.17	0.00100
367381.26	3799014.64	0.00096	367382.63	3799002.32	0.00093
367360.73	3799061.86	0.00114	367390.84	3798993.42	0.00089
367398.37	3798974.95	0.00083	367400.42	3799019.43	0.00092
367388.10	3799042.70	0.00100	367420.27	3799006.43	0.00084
367440.80	3799023.54	0.00082			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 , T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 , T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367472.27	3799121.83	0.00187	367469.43	3799140.77	0.00198
367470.38	3799156.87	0.00206	367472.27	3799171.08	0.00213
367474.17	3799185.29	0.00220	367475.11	3799202.33	0.00229
367474.17	3799217.49	0.00240	367476.06	3799231.69	0.00247
367477.01	3799246.85	0.00256	367474.17	3799270.53	0.00275
367475.11	3799283.78	0.00283	367475.11	3799298.94	0.00293
367475.11	3799314.09	0.00304	367475.11	3799329.25	0.00314
367476.06	3799343.45	0.00322	367497.84	3799350.08	0.00294
367527.20	3799373.76	0.00263	367525.31	3799400.28	0.00274
367521.52	3799441.95	0.00273	367512.05	3799459.00	0.00286
367501.63	3799475.10	0.00300	367492.16	3799492.15	0.00313
367485.53	3799518.67	0.00322	367734.73	3799074.85	0.00082
367702.41	3799074.85	0.00089	367676.79	3799072.62	0.00094
367641.13	3799073.73	0.00104	367590.99	3799073.73	0.00118
367543.08	3799070.39	0.00134	367467.31	3799067.05	0.00164
367429.42	3799058.13	0.00178	367401.56	3799055.90	0.00190
367348.08	3799059.25	0.00222	367367.02	3799048.10	0.00203
367287.91	3799063.70	0.00264	367329.14	3799049.22	0.00224
367177.60	3799048.10	0.00317	367106.29	3799060.36	0.00408
367072.86	3799055.90	0.00443	367055.03	3799062.59	0.00493
367002.66	3799057.02	0.00591	366905.72	3799025.82	0.00489
367018.26	3798993.51	0.00339	366971.46	3798997.96	0.00375
367162.00	3799024.70	0.00294	366833.29	3798997.96	0.00286
366848.89	3798962.31	0.00226	366866.72	3798933.34	0.00192
366880.09	3798905.48	0.00166	366896.81	3798876.51	0.00145
366805.44	3799007.99	0.00286	366792.07	3799029.16	0.00324
366763.09	3799030.28	0.00292	366730.78	3799023.59	0.00248
366710.72	3799022.48	0.00230	366686.21	3799026.93	0.00216
366658.35	3799025.82	0.00194	366612.67	3799018.02	0.00155
366578.13	3799015.79	0.00134	366902.32	3799006.50	0.00384
366930.50	3798998.45	0.00374	366940.97	3798993.62	0.00361
366923.25	3798975.11	0.00297	366991.69	3798982.35	0.00324
367015.84	3799008.92	0.00381	366977.19	3798971.89	0.00301
367002.15	3798965.45	0.00284	366993.30	3798954.98	0.00265
366978.81	3798942.10	0.00243	366952.24	3798932.44	0.00223
366955.46	3798913.12	0.00197	366818.59	3798975.91	0.00233
366826.64	3798961.42	0.00215	366833.89	3798945.32	0.00196
366841.14	3798930.02	0.00180	366847.58	3798917.95	0.00169
366803.30	3798969.47	0.00215	366792.83	3798956.59	0.00194
366798.47	3798995.23	0.00254	366784.78	3798979.94	0.00221

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 , T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 , T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
366771.90	3798966.25	0.00197	366760.63	3798954.17	0.00179
366781.56	3798937.27	0.00170	366797.66	3798930.83	0.00169
366818.59	3798918.75	0.00163	366827.45	3798912.31	0.00159
366845.16	3798900.23	0.00152	366858.85	3798892.99	0.00149
366904.74	3798862.40	0.00137	366755.80	3799010.53	0.00248
366772.70	3799008.11	0.00258	366691.39	3799007.31	0.00197
366671.26	3799007.31	0.00184	366643.09	3799005.70	0.00164
366695.42	3798992.01	0.00184	366709.91	3798996.84	0.00197
366730.84	3798998.45	0.00213	366746.94	3798995.23	0.00219
366712.33	3798975.10	0.00177	366732.45	3798976.72	0.00189
366746.14	3798977.52	0.00197	367168.75	3799016.24	0.00279
367153.62	3799001.12	0.00268	367133.85	3799002.28	0.00280
367144.32	3798992.39	0.00262	367120.47	3798992.39	0.00274
367108.25	3798981.34	0.00265	367130.94	3798983.09	0.00257
367083.82	3798953.42	0.00239	367072.77	3798944.69	0.00232
367067.53	3798937.71	0.00225	367064.04	3798928.41	0.00215
367103.60	3798928.99	0.00206	367053.57	3798920.26	0.00207
367025.07	3798892.34	0.00180	367013.44	3798879.55	0.00168
367054.16	3798899.91	0.00186	367018.67	3798871.40	0.00161
367005.30	3798849.88	0.00144	366993.66	3798839.41	0.00135
367114.07	3798903.40	0.00181	367058.23	3798869.08	0.00159
367103.02	3798882.46	0.00166	367082.08	3798914.45	0.00196
367061.72	3798894.67	0.00180	367042.52	3798887.69	0.00175
367006.46	3798866.75	0.00157	367021.58	3798841.74	0.00139
367029.73	3798835.34	0.00135	367043.69	3798858.03	0.00151
367084.40	3798883.04	0.00168	367093.13	3798891.18	0.00174
367098.94	3798950.51	0.00230	366837.77	3798982.50	0.00256
367082.08	3798871.40	0.00160	367073.93	3798862.68	0.00154
367063.46	3799045.32	0.00427	366998.90	3799039.51	0.00513
367061.72	3798850.46	0.00146	367079.17	3798850.46	0.00145
367118.14	3798889.44	0.00169	367123.38	3798878.38	0.00160
367139.08	3798868.50	0.00152	367145.48	3798858.03	0.00145
367101.85	3798838.25	0.00137	367104.76	3798862.68	0.00152
367096.04	3798824.29	0.00129	367051.25	3798849.30	0.00145
367062.88	3798838.25	0.00138	367068.70	3798833.59	0.00135
367076.84	3798820.80	0.00127	367014.02	3798819.63	0.00125
367024.49	3798814.98	0.00123	367162.93	3798990.07	0.00250
367140.24	3798980.18	0.00249	367132.68	3798965.64	0.00235
367159.44	3798973.20	0.00233	367161.77	3798962.14	0.00221
367149.55	3798958.07	0.00221	367144.32	3798948.77	0.00214

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 , T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 , T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367197.83	3798965.05	0.00211	367178.63	3798942.95	0.00198
367171.65	3798928.99	0.00189	367179.22	3798924.34	0.00183
367228.66	3798958.07	0.00195	367203.65	3798938.30	0.00187
367207.72	3798929.57	0.00180	367197.25	3798916.19	0.00173
367218.77	3798919.10	0.00170	367279.26	3798960.98	0.00181
367281.59	3799037.18	0.00240	367313.51	3799050.23	0.00234
367310.77	3799027.64	0.00217	367304.61	3799043.38	0.00233
367319.67	3799018.75	0.00205	367329.93	3799007.11	0.00193
367336.09	3798994.11	0.00182	367345.67	3798986.58	0.00174
367345.67	3798974.26	0.00167	367337.46	3798961.26	0.00163
367360.73	3798959.21	0.00154	367359.36	3798944.15	0.00148
367366.89	3799035.17	0.00194	367373.73	3799022.17	0.00183
367381.26	3799014.64	0.00176	367382.63	3799002.32	0.00168
367360.73	3799061.86	0.00216	367390.84	3798993.42	0.00161
367398.37	3798974.95	0.00150	367400.42	3799019.43	0.00170
367388.10	3799042.70	0.00189	367420.27	3799006.43	0.00156
367440.80	3799023.54	0.00156			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)					OF TYPE	NETWORK GRID-ID
TIER1A	1ST HIGHEST VALUE IS	0.00196 AT (	367485.53,	3799518.67,	466.12,	690.05,	0.00)	DC	
	2ND HIGHEST VALUE IS	0.00191 AT (	367476.06,	3799343.45,	447.18,	690.05,	0.00)	DC	
	3RD HIGHEST VALUE IS	0.00190 AT (	367492.16,	3799492.15,	465.90,	690.05,	0.00)	DC	
	4TH HIGHEST VALUE IS	0.00184 AT (	367475.11,	3799329.25,	446.95,	690.05,	0.00)	DC	
	5TH HIGHEST VALUE IS	0.00180 AT (	367501.63,	3799475.10,	464.94,	690.05,	0.00)	DC	
	6TH HIGHEST VALUE IS	0.00176 AT (	367475.11,	3799314.09,	446.79,	690.05,	0.00)	DC	
	7TH HIGHEST VALUE IS	0.00172 AT (	367497.84,	3799350.08,	447.49,	690.05,	0.00)	DC	
	8TH HIGHEST VALUE IS	0.00170 AT (	367512.05,	3799459.00,	463.98,	690.05,	0.00)	DC	
	9TH HIGHEST VALUE IS	0.00168 AT (	367475.11,	3799298.94,	446.47,	690.05,	0.00)	DC	
	10TH HIGHEST VALUE IS	0.00161 AT (	367521.52,	3799441.95,	462.92,	690.05,	0.00)	DC	
TIER1BM	1ST HIGHEST VALUE IS	0.00015 AT (	367002.66,	3799057.02,	437.11,	690.05,	0.00)	DC	
	2ND HIGHEST VALUE IS	0.00013 AT (	366998.90,	3799039.51,	436.68,	690.05,	0.00)	DC	
	3RD HIGHEST VALUE IS	0.00013 AT (	366905.72,	3799025.82,	435.07,	690.05,	0.00)	DC	
	4TH HIGHEST VALUE IS	0.00012 AT (	367055.03,	3799062.59,	437.56,	690.05,	0.00)	DC	
	5TH HIGHEST VALUE IS	0.00010 AT (	367072.86,	3799055.90,	437.30,	690.05,	0.00)	DC	
	6TH HIGHEST VALUE IS	0.00010 AT (	367063.46,	3799045.32,	436.95,	690.05,	0.00)	DC	
	7TH HIGHEST VALUE IS	0.00010 AT (	366902.32,	3799006.50,	434.60,	690.05,	0.00)	DC	
	8TH HIGHEST VALUE IS	0.00009 AT (	366930.50,	3798998.45,	434.74,	690.05,	0.00)	DC	
	9TH HIGHEST VALUE IS	0.00009 AT (	366971.46,	3798997.96,	434.77,	690.05,	0.00)	DC	
	10TH HIGHEST VALUE IS	0.00009 AT (	367015.84,	3799008.92,	435.61,	690.05,	0.00)	DC	
TIER1BUM	1ST HIGHEST VALUE IS	0.00492 AT (	367002.66,	3799057.02,	437.11,	690.05,	0.00)	DC	
	2ND HIGHEST VALUE IS	0.00426 AT (	366998.90,	3799039.51,	436.68,	690.05,	0.00)	DC	
	3RD HIGHEST VALUE IS	0.00419 AT (	366905.72,	3799025.82,	435.07,	690.05,	0.00)	DC	
	4TH HIGHEST VALUE IS	0.00386 AT (	367055.03,	3799062.59,	437.56,	690.05,	0.00)	DC	
	5TH HIGHEST VALUE IS	0.00339 AT (	367072.86,	3799055.90,	437.30,	690.05,	0.00)	DC	
	6TH HIGHEST VALUE IS	0.00331 AT (	367063.46,	3799045.32,	436.95,	690.05,	0.00)	DC	
	7TH HIGHEST VALUE IS	0.00322 AT (	366902.32,	3799006.50,	434.60,	690.05,	0.00)	DC	
	8TH HIGHEST VALUE IS	0.00312 AT (	366930.50,	3798998.45,	434.74,	690.05,	0.00)	DC	
	9TH HIGHEST VALUE IS	0.00309 AT (	366971.46,	3798997.96,	434.77,	690.05,	0.00)	DC	
	10TH HIGHEST VALUE IS	0.00307 AT (	367015.84,	3799008.92,	435.61,	690.05,	0.00)	DC	
ALL	1ST HIGHEST VALUE IS	0.00591 AT (	367002.66,	3799057.02,	437.11,	690.05,	0.00)	DC	
	2ND HIGHEST VALUE IS	0.00513 AT (	366998.90,	3799039.51,	436.68,	690.05,	0.00)	DC	
	3RD HIGHEST VALUE IS	0.00493 AT (	367055.03,	3799062.59,	437.56,	690.05,	0.00)	DC	
	4TH HIGHEST VALUE IS	0.00489 AT (	366905.72,	3799025.82,	435.07,	690.05,	0.00)	DC	
	5TH HIGHEST VALUE IS	0.00443 AT (	367072.86,	3799055.90,	437.30,	690.05,	0.00)	DC	
	6TH HIGHEST VALUE IS	0.00427 AT (	367063.46,	3799045.32,	436.95,	690.05,	0.00)	DC	
	7TH HIGHEST VALUE IS	0.00408 AT (	367106.29,	3799060.36,	437.47,	690.05,	0.00)	DC	
	8TH HIGHEST VALUE IS	0.00384 AT (	366902.32,	3799006.50,	434.60,	690.05,	0.00)	DC	
	9TH HIGHEST VALUE IS	0.00381 AT (	367015.84,	3799008.92,	435.61,	690.05,	0.00)	DC	
	10TH HIGHEST VALUE IS	0.00375 AT (	366971.46,	3798997.96,	434.77,	690.05,	0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

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*** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN  ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            2 Warning Message(s)
A Total of          713 Informational Message(s)

A Total of        43848 Hours Were Processed

A Total of          519 Calm Hours Identified

A Total of          194 Missing Hours Identified (  0.44 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W186     740       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
ME W187     740       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

   ************************************
   *** AERMOD Finishes Successfully ***
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** Lakes Environmental AERMOD MPI
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** AERMOD Input Produced by:
** AERMOD View Ver. 9.6.5
** Lakes Environmental Software Inc.
** Date: 4/3/2019
** File: C:\project_files\Olive_View\AERMOD\OVMC_Construction_Flat\OVMC_Construction_Flat.ADI
**
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** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE Olive View UCLA Medical Center: Construction DPM concentration
   TITLETWO FLAT Option
   MODELOPT CONC FLAT
   AVERTIME PERIOD
   URBANOPT 9818605
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL OVMC_Construction_Flat.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION T1A_1        AREAPOLY   367101.744  3799472.640          0.0
** DESCRSRC Tier 1A: Residential Treatment 1
   LOCATION T1A_2        AREAPOLY   367103.122  3799454.497          0.0
** DESCRSRC Tier 1A: Residential Treatment 2
   LOCATION T1A_3        AREAPOLY   367113.451  3799413.347          0.0
** DESCRSRC Tier 1A: Residential Treatment 3
   LOCATION T1A_4        AREAPOLY   367124.440  3799457.687          0.0
** DESCRSRC Tier 1A: Residential Treatment 4
   LOCATION T1A_5        AREAPOLY   367135.919  3799436.298          0.0
** DESCRSRC Tier 1A: Residential Treatment 5
   LOCATION T1A_6        AREAPOLY   367133.070  3799379.087          0.0
** DESCRSRC Tier 1A: Recuperative Care Center
   LOCATION T1A_7        AREAPOLY   366994.462  3799413.385          0.0
** DESCRSRC Tier 1A: Psych Urgent Care
   LOCATION T1A_8        AREAPOLY   366934.668  3799405.359          0.0
** DESCRSRC Tier 1A: Mental Health Wellness Center
   LOCATION T1B_UM_1     AREAPOLY   366920.768  3799460.598          0.0
** DESCRSRC Tier 1B - Unmitigated: Administration
   LOCATION T1B_UM_2     AREAPOLY   366819.539  3799439.778          0.0
** DESCRSRC Tier 1B - Unmitigated: Central Plant East
   LOCATION T1B_UM_3     AREAPOLY   366574.399  3799321.960          0.0
** DESCRSRC Tier 1B - Unmitigated: Material Management
   LOCATION T1B_UM_4     AREAPOLY   366781.937  3799356.625          0.0
** DESCRSRC Tier 1B - Unmitigated: Parking Structure
   LOCATION T1B_UM_5     AREAPOLY   366778.172  3799284.843          0.0
** DESCRSRC Tier 1B - Unmitigated: Ambulatory Care Center
   LOCATION T1B_UM_6     AREAPOLY   366885.524  3799153.037          0.0
** DESCRSRC Tier 1B - Unmitigated: Community Center
   LOCATION T1B_M_1      AREAPOLY   366920.768  3799460.598          0.0
** DESCRSRC Tier 1B - Mitigated: Administration
   LOCATION T1B_M_2      AREAPOLY   366819.539  3799439.778          0.0
** DESCRSRC Tier 1B - Mitigated: Central Plant East
   LOCATION T1B_M_3      AREAPOLY   366574.399  3799321.960          0.0
** DESCRSRC Tier 1B - Mitigated: Material Management
   LOCATION T1B_M_4      AREAPOLY   366781.937  3799356.625          0.0
** DESCRSRC Tier 1B - Mitigated: Parking Structure
   LOCATION T1B_M_5      AREAPOLY   366778.172  3799284.843          0.0
** DESCRSRC Tier 1B - Mitigated: Ambulatory Care Center
   LOCATION T1B_M_6      AREAPOLY   366885.524  3799153.037          0.0
** DESCRSRC Tier 1B - Mitigated: Community Center
** Source Parameters **
   SRCPARAM T1A_1        4.409E-06     2.550         9     2.370
   AREAVERT T1A_1        367101.744 3799472.640 367117.016 3799477.807
   AREAVERT T1A_1        367117.131 3799481.023 367126.088 3799483.664
   AREAVERT T1A_1        367126.662 3799481.712 367130.222 3799482.056
   AREAVERT T1A_1        367134.011 3799469.539 367134.011 3799469.425
   AREAVERT T1A_1        367105.993 3799460.353
   SRCPARAM T1A_2        4.409E-06     2.550         8     2.370
   AREAVERT T1A_2        367103.122 3799454.497 367113.457 3799458.056
   AREAVERT T1A_2        367123.102 3799428.889 367112.653 3799425.444
   AREAVERT T1A_2        367111.619 3799428.430 367108.978 3799427.167
   AREAVERT T1A_2        367105.763 3799436.813 367108.519 3799437.846
   SRCPARAM T1A_3        4.409E-06     2.550         9     2.370
   AREAVERT T1A_3        367113.451 3799413.347 367117.160 3799414.421
   AREAVERT T1A_3        367116.477 3799416.861 367127.604 3799420.277
   AREAVERT T1A_3        367135.900 3799393.533 367135.900 3799393.337
   AREAVERT T1A_3        367124.871 3799389.921 367119.990 3799405.343
   AREAVERT T1A_3        367117.257 3799404.367
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SRCPARAM T1A_4        4.409E-06     2.550         8     2.370
AREAVERT T1A_4        367124.440 3799457.687 367153.147 3799467.643
AREAVERT T1A_4        367157.130 3799456.774 367141.615 3799451.381
AREAVERT T1A_4        367142.361 3799447.979 367132.156 3799444.163
AREAVERT T1A_4        367131.161 3799447.233 367128.672 3799446.652
SRCPARAM T1A_5        4.409E-06     2.550         8     2.370
AREAVERT T1A_5        367135.919 3799436.298 367145.651 3799439.471
AREAVERT T1A_5        367146.568 3799437.073 367149.389 3799437.849
AREAVERT T1A_5        367152.069 3799429.598 367149.459 3799428.328
AREAVERT T1A_5        367154.537 3799413.307 367144.875 3799410.063
SRCPARAM T1A_6        4.409E-06     2.550        18     2.370
AREAVERT T1A_6        367133.070 3799379.087 367143.026 3799382.210
AREAVERT T1A_6        367147.906 3799367.667 367143.611 3799366.593
AREAVERT T1A_6        367145.856 3799359.566 367149.565 3799360.737
AREAVERT T1A_6        367161.376 3799330.674 367157.471 3799329.503
AREAVERT T1A_6        367158.447 3799326.477 367154.153 3799324.525
AREAVERT T1A_6        367153.274 3799326.867 367149.175 3799325.598
AREAVERT T1A_6        367138.145 3799357.223 367135.315 3799356.345
AREAVERT T1A_6        367132.777 3799363.763 367134.534 3799364.348
AREAVERT T1A_6        367131.118 3799374.987 367133.753 3799375.866
SRCPARAM T1A_7        4.409E-06     2.550         9     2.370
AREAVERT T1A_7        366994.462 3799413.385 367014.100 3799413.271
AREAVERT T1A_7        367016.053 3799408.677 367016.627 3799395.814
AREAVERT T1A_7        367010.655 3799395.240 367008.703 3799377.899
AREAVERT T1A_7        366987.916 3799379.506 366989.064 3799402.131
AREAVERT T1A_7        366993.888 3799402.705
SRCPARAM T1A_8        4.409E-06     2.550         4     2.370
AREAVERT T1A_8        366934.668 3799405.359 366971.132 3799401.692
AREAVERT T1A_8        366969.016 3799380.604 366932.482 3799384.412
SRCPARAM T1B_UM_1     1.6336E-06     2.550        22     2.370
AREAVERT T1B_UM_1     366920.768 3799460.598 366937.600 3799463.965
AREAVERT T1B_UM_1     366948.260 3799466.022 366957.798 3799468.079
AREAVERT T1B_UM_1     366961.725 3799468.827 366971.076 3799472.007
AREAVERT T1B_UM_1     366985.290 3799476.308 366997.259 3799480.235
AREAVERT T1B_UM_1     367003.805 3799482.480 367015.213 3799456.671
AREAVERT T1B_UM_1     367003.057 3799451.995 366997.259 3799449.751
AREAVERT T1B_UM_1     366994.454 3799448.442 366980.801 3799444.328
AREAVERT T1B_UM_1     366971.824 3799441.709 366960.790 3799439.278
AREAVERT T1B_UM_1     366945.080 3799435.725 366938.161 3799433.855
AREAVERT T1B_UM_1     366930.306 3799432.171 366925.069 3799430.862
AREAVERT T1B_UM_1     366921.703 3799455.362 366920.394 3799461.346
SRCPARAM T1B_UM_2     1.6336E-06     2.550        18     2.370
AREAVERT T1B_UM_2     366819.539 3799439.778 366828.704 3799442.770
AREAVERT T1B_UM_2     366840.112 3799445.950 366849.277 3799448.568
AREAVERT T1B_UM_2     366857.319 3799450.813 366866.109 3799453.057
AREAVERT T1B_UM_2     366874.152 3799454.740 366881.072 3799456.610
AREAVERT T1B_UM_2     366889.675 3799458.855 366896.034 3799426.686
AREAVERT T1B_UM_2     366888.740 3799424.816 366875.087 3799422.010
AREAVERT T1B_UM_2     366864.800 3799419.766 366859.563 3799418.831
AREAVERT T1B_UM_2     366855.636 3799417.709 366846.845 3799414.903
AREAVERT T1B_UM_2     366840.299 3799412.659 366830.387 3799409.666
SRCPARAM T1B_UM_3     1.6336E-06     2.550        23     2.370
AREAVERT T1B_UM_3     366574.399 3799321.960 366582.189 3799324.185
AREAVERT T1B_UM_3     366590.297 3799326.411 366596.179 3799328.001
AREAVERT T1B_UM_3     366602.220 3799329.750 366604.287 3799330.386
AREAVERT T1B_UM_3     366611.759 3799333.406 366623.842 3799338.176
AREAVERT T1B_UM_3     366636.560 3799343.263 366646.576 3799347.397
AREAVERT T1B_UM_3     366654.048 3799350.894 366661.361 3799354.233
AREAVERT T1B_UM_3     366674.875 3799328.796 366666.767 3799325.139
AREAVERT T1B_UM_3     366650.869 3799317.667 366642.443 3799314.011
AREAVERT T1B_UM_3     366637.673 3799311.944 366629.724 3799308.128
AREAVERT T1B_UM_3     366626.068 3799306.538 366622.888 3799305.426
AREAVERT T1B_UM_3     366610.805 3799301.928 366590.615 3799296.046
AREAVERT T1B_UM_3     366578.691 3799292.389
SRCPARAM T1B_UM_4     1.6336E-06     2.550        20     2.370
AREAVERT T1B_UM_4     366781.937 3799356.625 366803.447 3799365.603
AREAVERT T1B_UM_4     366818.224 3799371.775 366827.389 3799375.703
AREAVERT T1B_UM_4     366831.317 3799377.200 366834.684 3799378.322
AREAVERT T1B_UM_4     366846.468 3799381.315 366865.172 3799386.365
AREAVERT T1B_UM_4     366879.575 3799390.106 366889.675 3799392.538
AREAVERT T1B_UM_4     366901.459 3799395.530 366903.330 3799359.804
AREAVERT T1B_UM_4     366885.560 3799356.064 366865.546 3799351.949
AREAVERT T1B_UM_4     366858.252 3799349.891 366845.907 3799346.337
AREAVERT T1B_UM_4     366827.389 3799340.165 366821.029 3799338.481
AREAVERT T1B_UM_4     366807.749 3799331.748 366793.908 3799325.388
SRCPARAM T1B_UM_5     1.6336E-06     2.550        45     2.370
AREAVERT T1B_UM_5     366778.172 3799284.843 366791.452 3799294.195
AREAVERT T1B_UM_5     366802.863 3799302.425 366810.719 3799307.476
AREAVERT T1B_UM_5     366819.884 3799313.274 366822.877 3799315.145
AREAVERT T1B_UM_5     366824.561 3799312.900 366839.151 3799317.390
AREAVERT T1B_UM_5     366852.431 3799322.253 366861.410 3799324.872
AREAVERT T1B_UM_5     366869.827 3799327.677 366877.870 3799330.109
AREAVERT T1B_UM_5     366886.100 3799331.793 366907.611 3799334.972
AREAVERT T1B_UM_5     366909.295 3799302.987 366887.036 3799299.058
AREAVERT T1B_UM_5     366887.784 3799290.080 366892.273 3799289.145
AREAVERT T1B_UM_5     366895.453 3799292.138 366904.432 3799289.332
AREAVERT T1B_UM_5     366908.547 3799287.835 366916.216 3799282.785
AREAVERT T1B_UM_5     366918.647 3799281.289 366917.899 3799276.986
AREAVERT T1B_UM_5     366926.691 3799267.821 366928.187 3799220.497
AREAVERT T1B_UM_5     366925.007 3799219.936 366923.511 3799239.576
AREAVERT T1B_UM_5     366922.950 3799245.936 366915.468 3799260.152
AREAVERT T1B_UM_5     366908.734 3799266.886 366905.180 3799264.267
AREAVERT T1B_UM_5     366890.403 3799272.497 366890.029 3799276.238
AREAVERT T1B_UM_5     366878.993 3799277.922 366870.201 3799276.612
AREAVERT T1B_UM_5     366862.906 3799275.864 366859.913 3799275.303
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AREAVERT T1B_UM_5     366839.712 3799267.073 366827.179 3799262.022
AREAVERT T1B_UM_5     366820.819 3799275.490 366809.596 3799268.382
AREAVERT T1B_UM_5     366806.042 3799265.389 366793.323 3799254.166
AREAVERT T1B_UM_5     366779.294 3799282.411
SRCPARAM T1B_UM_6     1.6336E-06     2.550        24     2.370
AREAVERT T1B_UM_6     366885.524 3799153.037 366886.955 3799159.556
AREAVERT T1B_UM_6     366899.676 3799159.556 366902.379 3799113.922
AREAVERT T1B_UM_6     366899.199 3799113.922 366897.768 3799108.993
AREAVERT T1B_UM_6     366895.542 3799106.131 366893.475 3799103.746
AREAVERT T1B_UM_6     366889.659 3799102.315 366887.750 3799101.997
AREAVERT T1B_UM_6     366886.001 3799102.156 366882.980 3799102.315
AREAVERT T1B_UM_6     366879.323 3799105.336 366876.938 3799109.788
AREAVERT T1B_UM_6     366875.507 3799114.876 366875.825 3799118.533
AREAVERT T1B_UM_6     366862.787 3799143.656 366864.377 3799144.928
AREAVERT T1B_UM_6     366867.716 3799148.426 366870.260 3799149.698
AREAVERT T1B_UM_6     366873.599 3799151.129 366874.871 3799151.765
AREAVERT T1B_UM_6     366879.800 3799152.083 366882.662 3799152.719
SRCPARAM T1B_M_1      4.962E-08     2.550        22     2.370
AREAVERT T1B_M_1      366920.768 3799460.598 366937.600 3799463.965
AREAVERT T1B_M_1      366948.260 3799466.022 366957.798 3799468.079
AREAVERT T1B_M_1      366961.725 3799468.827 366971.076 3799472.007
AREAVERT T1B_M_1      366985.290 3799476.308 366997.259 3799480.235
AREAVERT T1B_M_1      367003.805 3799482.480 367015.213 3799456.671
AREAVERT T1B_M_1      367003.057 3799451.995 366997.259 3799449.751
AREAVERT T1B_M_1      366994.454 3799448.442 366980.801 3799444.328
AREAVERT T1B_M_1      366971.824 3799441.709 366960.790 3799439.278
AREAVERT T1B_M_1      366945.080 3799435.725 366938.161 3799433.855
AREAVERT T1B_M_1      366930.306 3799432.171 366925.069 3799430.862
AREAVERT T1B_M_1      366921.703 3799455.362 366920.394 3799461.346
SRCPARAM T1B_M_2      4.962E-08     2.550        18     2.370
AREAVERT T1B_M_2      366819.539 3799439.778 366828.704 3799442.770
AREAVERT T1B_M_2      366840.112 3799445.950 366849.277 3799448.568
AREAVERT T1B_M_2      366857.319 3799450.813 366866.109 3799453.057
AREAVERT T1B_M_2      366874.152 3799454.740 366881.072 3799456.610
AREAVERT T1B_M_2      366889.675 3799458.855 366896.034 3799426.686
AREAVERT T1B_M_2      366888.740 3799424.816 366875.087 3799422.010
AREAVERT T1B_M_2      366864.800 3799419.766 366859.563 3799418.831
AREAVERT T1B_M_2      366855.636 3799417.709 366846.845 3799414.903
AREAVERT T1B_M_2      366840.299 3799412.659 366830.387 3799409.666
SRCPARAM T1B_M_3      4.962E-08     2.550        23     2.370
AREAVERT T1B_M_3      366574.399 3799321.960 366582.189 3799324.185
AREAVERT T1B_M_3      366590.297 3799326.411 366596.179 3799328.001
AREAVERT T1B_M_3      366602.220 3799329.750 366604.287 3799330.386
AREAVERT T1B_M_3      366611.759 3799333.406 366623.842 3799338.176
AREAVERT T1B_M_3      366636.560 3799343.263 366646.576 3799347.397
AREAVERT T1B_M_3      366654.048 3799350.894 366661.361 3799354.233
AREAVERT T1B_M_3      366674.875 3799328.796 366666.767 3799325.139
AREAVERT T1B_M_3      366650.869 3799317.667 366642.443 3799314.011
AREAVERT T1B_M_3      366637.673 3799311.944 366629.724 3799308.128
AREAVERT T1B_M_3      366626.068 3799306.538 366622.888 3799305.426
AREAVERT T1B_M_3      366610.805 3799301.928 366590.615 3799296.046
AREAVERT T1B_M_3      366578.691 3799292.389
SRCPARAM T1B_M_4      4.962E-08     2.550        20     2.370
AREAVERT T1B_M_4      366781.937 3799356.625 366803.447 3799365.603
AREAVERT T1B_M_4      366818.224 3799371.775 366827.389 3799375.703
AREAVERT T1B_M_4      366831.317 3799377.200 366834.684 3799378.322
AREAVERT T1B_M_4      366846.468 3799381.315 366865.172 3799386.365
AREAVERT T1B_M_4      366879.575 3799390.106 366889.675 3799392.538
AREAVERT T1B_M_4      366901.459 3799395.530 366903.330 3799359.804
AREAVERT T1B_M_4      366885.560 3799356.064 366865.546 3799351.949
AREAVERT T1B_M_4      366858.252 3799349.891 366845.907 3799346.337
AREAVERT T1B_M_4      366827.389 3799340.165 366821.029 3799338.481
AREAVERT T1B_M_4      366807.749 3799331.748 366793.908 3799325.388
SRCPARAM T1B_M_5      4.962E-08     2.550        45     2.370
AREAVERT T1B_M_5      366778.172 3799284.843 366791.452 3799294.195
AREAVERT T1B_M_5      366802.863 3799302.425 366810.719 3799307.476
AREAVERT T1B_M_5      366819.884 3799313.274 366822.877 3799315.145
AREAVERT T1B_M_5      366824.561 3799312.900 366839.151 3799317.390
AREAVERT T1B_M_5      366852.431 3799322.253 366861.410 3799324.872
AREAVERT T1B_M_5      366869.827 3799327.677 366877.870 3799330.109
AREAVERT T1B_M_5      366886.100 3799331.793 366907.611 3799334.972
AREAVERT T1B_M_5      366909.295 3799302.987 366887.036 3799299.058
AREAVERT T1B_M_5      366887.784 3799290.080 366892.273 3799289.145
AREAVERT T1B_M_5      366895.453 3799292.138 366904.432 3799289.332
AREAVERT T1B_M_5      366908.547 3799287.835 366916.216 3799282.785
AREAVERT T1B_M_5      366918.647 3799281.289 366917.899 3799276.986
AREAVERT T1B_M_5      366926.691 3799267.821 366928.187 3799220.497
AREAVERT T1B_M_5      366925.007 3799219.936 366923.511 3799239.576
AREAVERT T1B_M_5      366922.950 3799245.936 366915.468 3799260.152
AREAVERT T1B_M_5      366908.734 3799266.886 366905.180 3799264.267
AREAVERT T1B_M_5      366890.403 3799272.497 366890.029 3799276.238
AREAVERT T1B_M_5      366878.993 3799277.922 366870.201 3799276.612
AREAVERT T1B_M_5      366862.906 3799275.864 366859.913 3799275.303
AREAVERT T1B_M_5      366839.712 3799267.073 366827.179 3799262.022
AREAVERT T1B_M_5      366820.819 3799275.490 366809.596 3799268.382
AREAVERT T1B_M_5      366806.042 3799265.389 366793.323 3799254.166
AREAVERT T1B_M_5      366779.294 3799282.411
SRCPARAM T1B_M_6      4.962E-08     2.550        24     2.370
AREAVERT T1B_M_6      366885.524 3799153.037 366886.955 3799159.556
AREAVERT T1B_M_6      366899.676 3799159.556 366902.379 3799113.922
AREAVERT T1B_M_6      366899.199 3799113.922 366897.768 3799108.993
AREAVERT T1B_M_6      366895.542 3799106.131 366893.475 3799103.746
AREAVERT T1B_M_6      366889.659 3799102.315 366887.750 3799101.997
AREAVERT T1B_M_6      366886.001 3799102.156 366882.980 3799102.315
AREAVERT T1B_M_6      366879.323 3799105.336 366876.938 3799109.788
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   AREAVERT T1B_M_6      366875.507 3799114.876 366875.825 3799118.533
   AREAVERT T1B_M_6      366862.787 3799143.656 366864.377 3799144.928
   AREAVERT T1B_M_6      366867.716 3799148.426 366870.260 3799149.698
   AREAVERT T1B_M_6      366873.599 3799151.129 366874.871 3799151.765
   AREAVERT T1B_M_6      366879.800 3799152.083 366882.662 3799152.719
   URBANSRC ALL

** Variable Emissions Type: "By Hour / Seven Days (HRDOW7)"
** Variable Emission Scenario: "Scenario 1"
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_1        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_2        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_3        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_4        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_5        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_6        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_7        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1A_8        HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_1     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_2     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1B_UM_2     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_2     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_3     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_4     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_5     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_UM_6     HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_1      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_2      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_3      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT T1B_M_4      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_4      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_5      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT T1B_M_6      HRDOW7 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP TIER1A   T1A_1 T1A_2 T1A_3 T1A_4 T1A_5 T1A_6 T1A_7 T1A_8
   SRCGROUP TIER1BM  T1B_M_1 T1B_M_2 T1B_M_3 T1B_M_4 T1B_M_5 T1B_M_6
   SRCGROUP TIER1BUM T1B_UM_1 T1B_UM_2 T1B_UM_3 T1B_UM_4 T1B_UM_5 T1B_UM_6
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
** DESCRREC "" ""
   DISCCART    367472.27   3799121.83
   DISCCART    367469.43   3799140.77
   DISCCART    367470.38   3799156.87
   DISCCART    367472.27   3799171.08
   DISCCART    367474.17   3799185.29
   DISCCART    367475.11   3799202.33
   DISCCART    367474.17   3799217.49
   DISCCART    367476.06   3799231.69
   DISCCART    367477.01   3799246.85
   DISCCART    367474.17   3799270.53
   DISCCART    367475.11   3799283.78
   DISCCART    367475.11   3799298.94
   DISCCART    367475.11   3799314.09
   DISCCART    367475.11   3799329.25
   DISCCART    367476.06   3799343.45
   DISCCART    367497.84   3799350.08
   DISCCART    367527.20   3799373.76
   DISCCART    367525.31   3799400.28
   DISCCART    367521.52   3799441.95
   DISCCART    367512.05   3799459.00
   DISCCART    367501.63   3799475.10
   DISCCART    367492.16   3799492.15
   DISCCART    367485.53   3799518.67
   DISCCART    367734.73   3799074.85
   DISCCART    367702.41   3799074.85
   DISCCART    367676.79   3799072.62
   DISCCART    367641.13   3799073.73
   DISCCART    367590.99   3799073.73
   DISCCART    367543.08   3799070.39
   DISCCART    367467.31   3799067.05
   DISCCART    367429.42   3799058.13
   DISCCART    367401.56   3799055.90
   DISCCART    367348.08   3799059.25
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DISCCART	367287.91	3799063.70
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DISCCART	367177.60	3799048.10
DISCCART	367106.29	3799060.36
DISCCART	367072.86	3799055.90
DISCCART	367055.03	3799062.59
DISCCART	367002.66	3799057.02
DISCCART	366905.72	3799025.82
DISCCART	367018.26	3798993.51
DISCCART	366971.46	3798997.96
DISCCART	367162.00	3799024.70
DISCCART	366833.29	3798997.96
DISCCART	366848.89	3798962.31
DISCCART	366866.72	3798933.34
DISCCART	366880.09	3798905.48
DISCCART	366896.81	3798876.51
DISCCART	366805.44	3799007.99
DISCCART	366792.07	3799029.16
DISCCART	366763.09	3799030.28
DISCCART	366730.78	3799023.59
DISCCART	366710.72	3799022.48
DISCCART	366686.21	3799026.93
DISCCART	366658.35	3799025.82
DISCCART	366612.67	3799018.02
DISCCART	366578.13	3799015.79
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DISCCART	366930.50	3798998.45
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DISCCART	366818.59	3798975.91
DISCCART	366826.64	3798961.42
DISCCART	366833.89	3798945.32
DISCCART	366841.14	3798930.02
DISCCART	366847.58	3798917.95
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DISCCART	366798.47	3798995.23
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DISCCART	366771.90	3798966.25
DISCCART	366760.63	3798954.17
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DISCCART	366845.16	3798900.23
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DISCCART	366904.74	3798862.40
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DISCCART	366709.91	3798996.84
DISCCART	366730.84	3798998.45
DISCCART	366746.94	3798995.23
DISCCART	366712.33	3798975.10
DISCCART	366732.45	3798976.72
DISCCART	366746.14	3798977.52
DISCCART	367168.75	3799016.24
DISCCART	367153.62	3799001.12
DISCCART	367133.85	3799002.28
DISCCART	367144.32	3798992.39
DISCCART	367120.47	3798992.39
DISCCART	367108.25	3798981.34
DISCCART	367130.94	3798983.09
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DISCCART	367072.77	3798944.69
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DISCCART	367064.04	3798928.41
DISCCART	367103.60	3798928.99
DISCCART	367053.57	3798920.26
DISCCART	367025.07	3798892.34
DISCCART	367013.44	3798879.55
DISCCART	367054.16	3798899.91
DISCCART	367018.67	3798871.40
DISCCART	367005.30	3798849.88
DISCCART	366993.66	3798839.41
DISCCART	367114.07	3798903.40
DISCCART	367058.23	3798869.08
DISCCART	367103.02	3798882.46
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DISCCART	367021.58	3798841.74

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   DISCCART    367084.40   3798883.04
   DISCCART    367093.13   3798891.18
   DISCCART    367098.94   3798950.51
   DISCCART    366837.77   3798982.50
   DISCCART    367082.08   3798871.40
   DISCCART    367073.93   3798862.68
   DISCCART    367063.46   3799045.32
   DISCCART    366998.90   3799039.51
   DISCCART    367061.72   3798850.46
   DISCCART    367079.17   3798850.46
   DISCCART    367118.14   3798889.44
   DISCCART    367123.38   3798878.38
   DISCCART    367139.08   3798868.50
   DISCCART    367145.48   3798858.03
   DISCCART    367101.85   3798838.25
   DISCCART    367104.76   3798862.68
   DISCCART    367096.04   3798824.29
   DISCCART    367051.25   3798849.30
   DISCCART    367062.88   3798838.25
   DISCCART    367068.70   3798833.59
   DISCCART    367076.84   3798820.80
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   DISCCART    367197.83   3798965.05
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   DISCCART    367179.22   3798924.34
   DISCCART    367228.66   3798958.07
   DISCCART    367203.65   3798938.30
   DISCCART    367207.72   3798929.57
   DISCCART    367197.25   3798916.19
   DISCCART    367218.77   3798919.10
   DISCCART    367279.26   3798960.98
   DISCCART    367281.59   3799037.18
   DISCCART    367313.51   3799050.23
   DISCCART    367310.77   3799027.64
   DISCCART    367304.61   3799043.38
   DISCCART    367319.67   3799018.75
   DISCCART    367329.93   3799007.11
   DISCCART    367336.09   3798994.11
   DISCCART    367345.67   3798986.58
   DISCCART    367345.67   3798974.26
   DISCCART    367337.46   3798961.26
   DISCCART    367360.73   3798959.21
   DISCCART    367359.36   3798944.15
   DISCCART    367366.89   3799035.17
   DISCCART    367373.73   3799022.17
   DISCCART    367381.26   3799014.64
   DISCCART    367382.63   3799002.32
   DISCCART    367360.73   3799061.86
   DISCCART    367390.84   3798993.42
   DISCCART    367398.37   3798974.95
   DISCCART    367400.42   3799019.43
   DISCCART    367388.10   3799042.70
   DISCCART    367420.27   3799006.43
   DISCCART    367440.80   3799023.54
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
   SURFFILE ..\..\metdata\KBUR_V9_ADJU\KBUR_v9.SFC
   PROFFILE ..\..\metdata\KBUR_V9_ADJU\KBUR_v9.PFL
   SURFDATA 23152 2012
   UAIRDATA 3190 2012
   PROFBASE 236.0 METERS
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
   PLOTFILE PERIOD TIER1A OVMC_CONSTRUCTION_FLAT.AD\OVMC_Construction_Flat_DPM_Tier1A.PLT 31
   PLOTFILE PERIOD TIER1BM OVMC_CONSTRUCTION_FLAT.AD\OVMC_Construction_Flat_DPM_Tier1BM.PLT 32
   PLOTFILE PERIOD TIER1BUM OVMC_CONSTRUCTION_FLAT.AD\OVMC_Construction_Flat_DPM_Tier1BUM.PLT 33
   SUMMFILE OVMC_Construction_Flat.sum
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***
```

```
 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            2 Warning Message(s)
A Total of            0 Informational Message(s)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W186     933       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used           0.50
ME W187     933       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

***********************************
*** SETUP Finishes Successfully ***
***********************************
```

```
*** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
- - - -
```

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
T1A_1	0	0.44090E-05	367101.7	3799472.6	236.0	2.55	9	2.37	YES	HRDOW7
T1A_2	0	0.44090E-05	367103.1	3799454.5	236.0	2.55	8	2.37	YES	HRDOW7
T1A_3	0	0.44090E-05	367113.5	3799413.3	236.0	2.55	9	2.37	YES	HRDOW7
T1A_4	0	0.44090E-05	367124.4	3799457.7	236.0	2.55	8	2.37	YES	HRDOW7
T1A_5	0	0.44090E-05	367135.9	3799436.3	236.0	2.55	8	2.37	YES	HRDOW7
T1A_6	0	0.44090E-05	367133.1	3799379.1	236.0	2.55	18	2.37	YES	HRDOW7
T1A_7	0	0.44090E-05	366994.5	3799413.4	236.0	2.55	9	2.37	YES	HRDOW7
T1A_8	0	0.44090E-05	366934.7	3799405.4	236.0	2.55	4	2.37	YES	HRDOW7
T1B_UM_1	0	0.16336E-05	366920.8	3799460.6	236.0	2.55	22	2.37	YES	HRDOW7
T1B_UM_2	0	0.16336E-05	366819.5	3799439.8	236.0	2.55	18	2.37	YES	HRDOW7
T1B_UM_3	0	0.16336E-05	366574.4	3799322.0	236.0	2.55	23	2.37	YES	HRDOW7
T1B_UM_4	0	0.16336E-05	366781.9	3799356.6	236.0	2.55	20	2.37	YES	HRDOW7
T1B_UM_5	0	0.16336E-05	366778.2	3799284.8	236.0	2.55	45	2.37	YES	HRDOW7
T1B_UM_6	0	0.16336E-05	366885.5	3799153.0	236.0	2.55	24	2.37	YES	HRDOW7
T1B_M_1	0	0.49620E-07	366920.8	3799460.6	236.0	2.55	22	2.37	YES	HRDOW7
T1B_M_2	0	0.49620E-07	366819.5	3799439.8	236.0	2.55	18	2.37	YES	HRDOW7
T1B_M_3	0	0.49620E-07	366574.4	3799322.0	236.0	2.55	23	2.37	YES	HRDOW7
T1B_M_4	0	0.49620E-07	366781.9	3799356.6	236.0	2.55	20	2.37	YES	HRDOW7
T1B_M_5	0	0.49620E-07	366778.2	3799284.8	236.0	2.55	45	2.37	YES	HRDOW7
T1B_M_6	0	0.49620E-07	366885.5	3799153.0	236.0	2.55	24	2.37	YES	HRDOW7

*** MODELOPTs: NonDEFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
TIER1A	T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 , T1A_6 , T1A_7 , T1A_8 ,
TIER1BM	T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,
TIER1BUM	T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 , T1B_UM_6 ,
ALL	T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 , T1A_6 , T1A_7 , T1A_8 ,
	T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 , T1B_UM_6 , T1B_M_1 , T1B_M_2 ,
	T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

URBAN ID	URBAN POP	SOURCE IDs
	9818605.	T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 , T1A_6 , T1A_7 , T1A_8 ,
		T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 , T1B_UM_6 , T1B_M_1 , T1B_M_2 ,
		T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_2 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_3 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_4 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_5 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_6 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_7 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1A_8 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_2 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_3 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_4 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_5 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_UM_6 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_1 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_2 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_3 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_4 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
							DAY OF WEEK = MONDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
							DAY OF WEEK = TUESDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
							DAY OF WEEK = WEDNESDY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
							DAY OF WEEK = THURSDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
							DAY OF WEEK = FRIDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
							DAY OF WEEK = SATURDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
							DAY OF WEEK = SUNDAY								
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_5 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW7) *

SOURCE ID = T1B_M_6 ; SOURCE TYPE = AREAPOLY :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = MONDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = TUESDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = WEDNESDY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = THURSDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = FRIDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(367472.3,	3799121.8,	236.0,	236.0,	0.0);	(367469.4,	3799140.8,	236.0,	236.0,	0.0);
(367470.4,	3799156.9,	236.0,	236.0,	0.0);	(367472.3,	3799171.1,	236.0,	236.0,	0.0);
(367474.2,	3799185.3,	236.0,	236.0,	0.0);	(367475.1,	3799202.3,	236.0,	236.0,	0.0);
(367474.2,	3799217.5,	236.0,	236.0,	0.0);	(367476.1,	3799231.7,	236.0,	236.0,	0.0);
(367477.0,	3799246.8,	236.0,	236.0,	0.0);	(367474.2,	3799270.5,	236.0,	236.0,	0.0);
(367475.1,	3799283.8,	236.0,	236.0,	0.0);	(367475.1,	3799298.9,	236.0,	236.0,	0.0);
(367475.1,	3799314.1,	236.0,	236.0,	0.0);	(367475.1,	3799329.2,	236.0,	236.0,	0.0);
(367476.1,	3799343.4,	236.0,	236.0,	0.0);	(367497.8,	3799350.1,	236.0,	236.0,	0.0);
(367527.2,	3799373.8,	236.0,	236.0,	0.0);	(367525.3,	3799400.3,	236.0,	236.0,	0.0);
(367521.5,	3799441.9,	236.0,	236.0,	0.0);	(367512.0,	3799459.0,	236.0,	236.0,	0.0);
(367501.6,	3799475.1,	236.0,	236.0,	0.0);	(367492.2,	3799492.1,	236.0,	236.0,	0.0);
(367485.5,	3799518.7,	236.0,	236.0,	0.0);	(367734.7,	3799074.8,	236.0,	236.0,	0.0);
(367702.4,	3799074.8,	236.0,	236.0,	0.0);	(367676.8,	3799072.6,	236.0,	236.0,	0.0);
(367641.1,	3799073.7,	236.0,	236.0,	0.0);	(367591.0,	3799073.7,	236.0,	236.0,	0.0);
(367543.1,	3799070.4,	236.0,	236.0,	0.0);	(367467.3,	3799067.0,	236.0,	236.0,	0.0);
(367429.4,	3799058.1,	236.0,	236.0,	0.0);	(367401.6,	3799055.9,	236.0,	236.0,	0.0);
(367348.1,	3799059.2,	236.0,	236.0,	0.0);	(367367.0,	3799048.1,	236.0,	236.0,	0.0);
(367287.9,	3799063.7,	236.0,	236.0,	0.0);	(367329.1,	3799049.2,	236.0,	236.0,	0.0);
(367177.6,	3799048.1,	236.0,	236.0,	0.0);	(367106.3,	3799060.4,	236.0,	236.0,	0.0);
(367072.9,	3799055.9,	236.0,	236.0,	0.0);	(367055.0,	3799062.6,	236.0,	236.0,	0.0);
(367002.7,	3799057.0,	236.0,	236.0,	0.0);	(366905.7,	3799025.8,	236.0,	236.0,	0.0);
(367018.3,	3798993.5,	236.0,	236.0,	0.0);	(366971.5,	3798998.0,	236.0,	236.0,	0.0);
(367162.0,	3799024.7,	236.0,	236.0,	0.0);	(366833.3,	3798998.0,	236.0,	236.0,	0.0);
(366848.9,	3798962.3,	236.0,	236.0,	0.0);	(366866.7,	3798933.3,	236.0,	236.0,	0.0);
(366880.1,	3798905.5,	236.0,	236.0,	0.0);	(366896.8,	3798876.5,	236.0,	236.0,	0.0);
(366805.4,	3799008.0,	236.0,	236.0,	0.0);	(366792.1,	3799029.2,	236.0,	236.0,	0.0);
(366763.1,	3799030.3,	236.0,	236.0,	0.0);	(366730.8,	3799023.6,	236.0,	236.0,	0.0);
(366710.7,	3799022.5,	236.0,	236.0,	0.0);	(366686.2,	3799026.9,	236.0,	236.0,	0.0);
(366658.3,	3799025.8,	236.0,	236.0,	0.0);	(366612.7,	3799018.0,	236.0,	236.0,	0.0);
(366578.1,	3799015.8,	236.0,	236.0,	0.0);	(366902.3,	3799006.5,	236.0,	236.0,	0.0);
(366930.5,	3798998.4,	236.0,	236.0,	0.0);	(366941.0,	3798993.6,	236.0,	236.0,	0.0);
(366923.2,	3798975.1,	236.0,	236.0,	0.0);	(366991.7,	3798982.3,	236.0,	236.0,	0.0);
(367015.8,	3799008.9,	236.0,	236.0,	0.0);	(366977.2,	3798971.9,	236.0,	236.0,	0.0);
(367002.1,	3798965.4,	236.0,	236.0,	0.0);	(366993.3,	3798955.0,	236.0,	236.0,	0.0);
(366978.8,	3798942.1,	236.0,	236.0,	0.0);	(366952.2,	3798932.4,	236.0,	236.0,	0.0);
(366955.5,	3798913.1,	236.0,	236.0,	0.0);	(366818.6,	3798975.9,	236.0,	236.0,	0.0);
(366826.6,	3798961.4,	236.0,	236.0,	0.0);	(366833.9,	3798945.3,	236.0,	236.0,	0.0);
(366841.1,	3798930.0,	236.0,	236.0,	0.0);	(366847.6,	3798917.9,	236.0,	236.0,	0.0);
(366803.3,	3798969.5,	236.0,	236.0,	0.0);	(366792.8,	3798956.6,	236.0,	236.0,	0.0);
(366798.5,	3798995.2,	236.0,	236.0,	0.0);	(366784.8,	3798979.9,	236.0,	236.0,	0.0);
(366771.9,	3798966.2,	236.0,	236.0,	0.0);	(366760.6,	3798954.2,	236.0,	236.0,	0.0);
(366781.6,	3798937.3,	236.0,	236.0,	0.0);	(366797.7,	3798930.8,	236.0,	236.0,	0.0);
(366818.6,	3798918.8,	236.0,	236.0,	0.0);	(366827.5,	3798912.3,	236.0,	236.0,	0.0);
(366845.2,	3798900.2,	236.0,	236.0,	0.0);	(366858.8,	3798893.0,	236.0,	236.0,	0.0);
(366904.7,	3798862.4,	236.0,	236.0,	0.0);	(366755.8,	3799010.5,	236.0,	236.0,	0.0);

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(366772.7,	3799008.1,	236.0,	236.0,	0.0);	(366691.4,	3799007.3,	236.0,	236.0,	0.0);
(366671.3,	3799007.3,	236.0,	236.0,	0.0);	(366643.1,	3799005.7,	236.0,	236.0,	0.0);
(366695.4,	3798992.0,	236.0,	236.0,	0.0);	(366709.9,	3798996.8,	236.0,	236.0,	0.0);
(366730.8,	3798998.4,	236.0,	236.0,	0.0);	(366746.9,	3798995.2,	236.0,	236.0,	0.0);
(366712.3,	3798975.1,	236.0,	236.0,	0.0);	(366732.5,	3798976.7,	236.0,	236.0,	0.0);
(366746.1,	3798977.5,	236.0,	236.0,	0.0);	(367168.8,	3799016.2,	236.0,	236.0,	0.0);
(367153.6,	3799001.1,	236.0,	236.0,	0.0);	(367133.8,	3799002.3,	236.0,	236.0,	0.0);
(367144.3,	3798992.4,	236.0,	236.0,	0.0);	(367120.5,	3798992.4,	236.0,	236.0,	0.0);
(367108.2,	3798981.3,	236.0,	236.0,	0.0);	(367130.9,	3798983.1,	236.0,	236.0,	0.0);
(367083.8,	3798953.4,	236.0,	236.0,	0.0);	(367072.8,	3798944.7,	236.0,	236.0,	0.0);
(367067.5,	3798937.7,	236.0,	236.0,	0.0);	(367064.0,	3798928.4,	236.0,	236.0,	0.0);
(367103.6,	3798929.0,	236.0,	236.0,	0.0);	(367053.6,	3798920.3,	236.0,	236.0,	0.0);
(367025.1,	3798892.3,	236.0,	236.0,	0.0);	(367013.4,	3798879.5,	236.0,	236.0,	0.0);
(367054.2,	3798899.9,	236.0,	236.0,	0.0);	(367018.7,	3798871.4,	236.0,	236.0,	0.0);
(367005.3,	3798849.9,	236.0,	236.0,	0.0);	(366993.7,	3798839.4,	236.0,	236.0,	0.0);
(367114.1,	3798903.4,	236.0,	236.0,	0.0);	(367058.2,	3798869.1,	236.0,	236.0,	0.0);
(367103.0,	3798882.5,	236.0,	236.0,	0.0);	(367082.1,	3798914.4,	236.0,	236.0,	0.0);
(367061.7,	3798894.7,	236.0,	236.0,	0.0);	(367042.5,	3798887.7,	236.0,	236.0,	0.0);
(367006.5,	3798866.8,	236.0,	236.0,	0.0);	(367021.6,	3798841.7,	236.0,	236.0,	0.0);
(367029.7,	3798835.3,	236.0,	236.0,	0.0);	(367043.7,	3798858.0,	236.0,	236.0,	0.0);
(367084.4,	3798883.0,	236.0,	236.0,	0.0);	(367093.1,	3798891.2,	236.0,	236.0,	0.0);
(367098.9,	3798950.5,	236.0,	236.0,	0.0);	(366837.8,	3798982.5,	236.0,	236.0,	0.0);
(367082.1,	3798871.4,	236.0,	236.0,	0.0);	(367073.9,	3798862.7,	236.0,	236.0,	0.0);
(367063.5,	3799045.3,	236.0,	236.0,	0.0);	(366998.9,	3799039.5,	236.0,	236.0,	0.0);
(367061.7,	3798850.5,	236.0,	236.0,	0.0);	(367079.2,	3798850.5,	236.0,	236.0,	0.0);
(367118.1,	3798889.4,	236.0,	236.0,	0.0);	(367123.4,	3798878.4,	236.0,	236.0,	0.0);
(367139.1,	3798868.5,	236.0,	236.0,	0.0);	(367145.5,	3798858.0,	236.0,	236.0,	0.0);
(367101.8,	3798838.2,	236.0,	236.0,	0.0);	(367104.8,	3798862.7,	236.0,	236.0,	0.0);
(367096.0,	3798824.3,	236.0,	236.0,	0.0);	(367051.2,	3798849.3,	236.0,	236.0,	0.0);
(367062.9,	3798838.2,	236.0,	236.0,	0.0);	(367068.7,	3798833.6,	236.0,	236.0,	0.0);
(367076.8,	3798820.8,	236.0,	236.0,	0.0);	(367014.0,	3798819.6,	236.0,	236.0,	0.0);
(367024.5,	3798815.0,	236.0,	236.0,	0.0);	(367162.9,	3798990.1,	236.0,	236.0,	0.0);
(367140.2,	3798980.2,	236.0,	236.0,	0.0);	(367132.7,	3798965.6,	236.0,	236.0,	0.0);
(367159.4,	3798973.2,	236.0,	236.0,	0.0);	(367161.8,	3798962.1,	236.0,	236.0,	0.0);
(367149.5,	3798958.1,	236.0,	236.0,	0.0);	(367144.3,	3798948.8,	236.0,	236.0,	0.0);
(367197.8,	3798965.0,	236.0,	236.0,	0.0);	(367178.6,	3798942.9,	236.0,	236.0,	0.0);
(367171.6,	3798929.0,	236.0,	236.0,	0.0);	(367179.2,	3798924.3,	236.0,	236.0,	0.0);
(367228.7,	3798958.1,	236.0,	236.0,	0.0);	(367203.6,	3798938.3,	236.0,	236.0,	0.0);
(367207.7,	3798929.6,	236.0,	236.0,	0.0);	(367197.2,	3798916.2,	236.0,	236.0,	0.0);
(367218.8,	3798919.1,	236.0,	236.0,	0.0);	(367279.3,	3798961.0,	236.0,	236.0,	0.0);
(367281.6,	3799037.2,	236.0,	236.0,	0.0);	(367313.5,	3799050.2,	236.0,	236.0,	0.0);
(367310.8,	3799027.6,	236.0,	236.0,	0.0);	(367304.6,	3799043.4,	236.0,	236.0,	0.0);
(367319.7,	3799018.8,	236.0,	236.0,	0.0);	(367329.9,	3799007.1,	236.0,	236.0,	0.0);
(367336.1,	3798994.1,	236.0,	236.0,	0.0);	(367345.7,	3798986.6,	236.0,	236.0,	0.0);
(367345.7,	3798974.3,	236.0,	236.0,	0.0);	(367337.5,	3798961.3,	236.0,	236.0,	0.0);

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(367360.7,	3798959.2,	236.0,	236.0,	0.0);	(367359.4,	3798944.1,	236.0,	236.0,	0.0);
(367366.9,	3799035.2,	236.0,	236.0,	0.0);	(367373.7,	3799022.2,	236.0,	236.0,	0.0);
(367381.3,	3799014.6,	236.0,	236.0,	0.0);	(367382.6,	3799002.3,	236.0,	236.0,	0.0);
(367360.7,	3799061.9,	236.0,	236.0,	0.0);	(367390.8,	3798993.4,	236.0,	236.0,	0.0);
(367398.4,	3798974.9,	236.0,	236.0,	0.0);	(367400.4,	3799019.4,	236.0,	236.0,	0.0);
(367388.1,	3799042.7,	236.0,	236.0,	0.0);	(367420.3,	3799006.4,	236.0,	236.0,	0.0);
(367440.8,	3799023.5,	236.0,	236.0,	0.0);					

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

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1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\..\metdata\KBUR_V9_ADJU\KBUR_v9.SFC Met Version: 16216
Profile file: ..\..\metdata\KBUR_V9_ADJU\KBUR_v9.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 23152 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2012 Year: 2012

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
12	01	01	1	01	-23.4	0.241	-9.000	-9.000	-999.	285.	64.1	0.16	3.02	1.00	2.45	359.	7.9	286.4	2.0
12	01	01	1	02	-11.3	0.143	-9.000	-9.000	-999.	134.	23.1	0.16	3.02	1.00	1.50	289.	7.9	284.9	2.0
12	01	01	1	03	-4.8	0.092	-9.000	-9.000	-999.	68.	14.5	0.16	3.02	1.00	0.99	300.	7.9	283.8	2.0
12	01	01	1	04	-8.1	0.121	-9.000	-9.000	-999.	100.	19.1	0.16	3.02	1.00	1.28	295.	7.9	284.2	2.0
12	01	01	1	05	-2.9	0.074	-9.000	-9.000	-999.	49.	12.3	0.16	3.02	1.00	0.75	323.	7.9	282.5	2.0
12	01	01	1	06	-11.3	0.143	-9.000	-9.000	-999.	130.	23.0	0.16	3.02	1.00	1.50	306.	7.9	283.1	2.0
12	01	01	1	07	-16.9	0.176	-9.000	-9.000	-999.	178.	34.3	0.16	3.02	1.00	1.82	315.	7.9	284.9	2.0
12	01	01	1	08	-8.8	0.134	-9.000	-9.000	-999.	118.	24.3	0.16	3.02	0.55	1.40	323.	7.9	287.0	2.0
12	01	01	1	09	36.3	0.171	0.339	0.008	38.	169.	-12.2	0.16	3.02	0.32	1.31	23.	7.9	288.8	2.0
12	01	01	1	10	110.9	0.119	0.729	0.009	124.	99.	-1.4	0.16	3.02	0.24	0.62	163.	7.9	292.0	2.0
12	01	01	1	11	165.2	0.157	1.185	0.005	358.	149.	-2.1	0.16	3.02	0.21	0.89	112.	7.9	296.4	2.0
12	01	01	1	12	192.9	0.184	1.540	0.005	672.	189.	-2.8	0.16	3.02	0.20	1.11	225.	7.9	299.2	2.0
12	01	01	1	13	192.1	0.199	1.840	0.005	1152.	213.	-3.6	0.16	3.02	0.20	1.26	250.	7.9	299.9	2.0
12	01	01	1	14	164.6	0.270	1.886	0.005	1447.	337.	-10.6	0.16	3.02	0.21	2.03	273.	7.9	300.4	2.0
12	01	01	1	15	111.1	0.289	1.699	0.005	1566.	373.	-19.3	0.16	3.02	0.25	2.35	270.	7.9	300.4	2.0
12	01	01	1	16	35.3	0.338	1.167	0.005	1596.	472.	-96.9	0.16	3.02	0.33	3.12	289.	7.9	298.8	2.0
12	01	01	1	17	-20.8	0.255	-9.000	-9.000	-999.	312.	71.4	0.16	3.02	0.60	2.57	318.	7.9	296.4	2.0
12	01	01	1	18	-35.0	0.369	-9.000	-9.000	-999.	538.	149.9	0.16	3.02	1.00	3.68	320.	7.9	293.8	2.0
12	01	01	1	19	-27.7	0.291	-9.000	-9.000	-999.	380.	93.2	0.16	3.02	1.00	2.93	345.	7.9	292.0	2.0
12	01	01	1	20	-20.7	0.216	-9.000	-9.000	-999.	243.	51.2	0.16	3.02	1.00	2.20	325.	7.9	290.4	2.0
12	01	01	1	21	-8.5	0.124	-9.000	-9.000	-999.	108.	19.8	0.16	3.02	1.00	1.31	359.	7.9	288.1	2.0
12	01	01	1	22	-7.4	0.116	-9.000	-9.000	-999.	94.	18.4	0.16	3.02	1.00	1.23	304.	7.9	287.5	2.0
12	01	01	1	23	-6.3	0.106	-9.000	-9.000	-999.	82.	16.7	0.16	3.02	1.00	1.13	314.	7.9	285.9	2.0
12	01	01	1	24	-19.7	0.203	-9.000	-9.000	-999.	220.	45.5	0.16	3.02	1.00	2.08	319.	7.9	287.0	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
12	01	01	01	7.9	1	359.	2.45	286.5	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1A ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367472.27	3799121.83	0.00092	367469.43	3799140.77	0.00099
367470.38	3799156.87	0.00104	367472.27	3799171.08	0.00109
367474.17	3799185.29	0.00113	367475.11	3799202.33	0.00120
367474.17	3799217.49	0.00127	367476.06	3799231.69	0.00132
367477.01	3799246.85	0.00139	367474.17	3799270.53	0.00152
367475.11	3799283.78	0.00159	367475.11	3799298.94	0.00167
367475.11	3799314.09	0.00175	367475.11	3799329.25	0.00183
367476.06	3799343.45	0.00190	367497.84	3799350.08	0.00171
367527.20	3799373.76	0.00154	367525.31	3799400.28	0.00164
367521.52	3799441.95	0.00176	367512.05	3799459.00	0.00188
367501.63	3799475.10	0.00201	367492.16	3799492.15	0.00212
367485.53	3799518.67	0.00220	367734.73	3799074.85	0.00037
367702.41	3799074.85	0.00041	367676.79	3799072.62	0.00043
367641.13	3799073.73	0.00048	367590.99	3799073.73	0.00055
367543.08	3799070.39	0.00063	367467.31	3799067.05	0.00077
367429.42	3799058.13	0.00083	367401.56	3799055.90	0.00089
367348.08	3799059.25	0.00102	367367.02	3799048.10	0.00093
367287.91	3799063.70	0.00114	367329.14	3799049.22	0.00100
367177.60	3799048.10	0.00103	367106.29	3799060.36	0.00102
367072.86	3799055.90	0.00095	367055.03	3799062.59	0.00097
367002.66	3799057.02	0.00085	366905.72	3799025.82	0.00058
367018.26	3798993.51	0.00060	366971.46	3798997.96	0.00057
367162.00	3799024.70	0.00088	366833.29	3798997.96	0.00045
366848.89	3798962.31	0.00040	366866.72	3798933.34	0.00037
366880.09	3798905.48	0.00034	366896.81	3798876.51	0.00031
366805.44	3799007.99	0.00043	366792.07	3799029.16	0.00045
366763.09	3799030.28	0.00041	366730.78	3799023.59	0.00036
366710.72	3799022.48	0.00034	366686.21	3799026.93	0.00031
366658.35	3799025.82	0.00028	366612.67	3799018.02	0.00023
366578.13	3799015.79	0.00020	366902.32	3799006.50	0.00053
366930.50	3798998.45	0.00054	366940.97	3798993.62	0.00053
366923.25	3798975.11	0.00048	366991.69	3798982.35	0.00055
367015.84	3799008.92	0.00065	366977.19	3798971.89	0.00051
367002.15	3798965.45	0.00051	366993.30	3798954.98	0.00048
366978.81	3798942.10	0.00044	366952.24	3798932.44	0.00041
366955.46	3798913.12	0.00038	366818.59	3798975.91	0.00040
366826.64	3798961.42	0.00039	366833.89	3798945.32	0.00037
366841.14	3798930.02	0.00035	366847.58	3798917.95	0.00034
366803.30	3798969.47	0.00038	366792.83	3798956.59	0.00036
366798.47	3798995.23	0.00041	366784.78	3798979.94	0.00038

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1A ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
366771.90	3798966.25	0.00035	366760.63	3798954.17	0.00033
366781.56	3798937.27	0.00033	366797.66	3798930.83	0.00033
366818.59	3798918.75	0.00033	366827.45	3798912.31	0.00033
366845.16	3798900.23	0.00032	366858.85	3798892.99	0.00032
366904.74	3798862.40	0.00029	366755.80	3799010.53	0.00038
366772.70	3799008.11	0.00040	366691.39	3799007.31	0.00030
366671.26	3799007.31	0.00028	366643.09	3799005.70	0.00025
366695.42	3798992.01	0.00030	366709.91	3798996.84	0.00032
366730.84	3798998.45	0.00034	366746.94	3798995.23	0.00035
366712.33	3798975.10	0.00030	366732.45	3798976.72	0.00032
366746.14	3798977.52	0.00034	367168.75	3799016.24	0.00084
367153.62	3799001.12	0.00076	367133.85	3799002.28	0.00074
367144.32	3798992.39	0.00071	367120.47	3798992.39	0.00069
367108.25	3798981.34	0.00064	367130.94	3798983.09	0.00066
367083.82	3798953.42	0.00053	367072.77	3798944.69	0.00050
367067.53	3798937.71	0.00048	367064.04	3798928.41	0.00046
367103.60	3798928.99	0.00048	367053.57	3798920.26	0.00043
367025.07	3798892.34	0.00037	367013.44	3798879.55	0.00035
367054.16	3798899.91	0.00040	367018.67	3798871.40	0.00034
367005.30	3798849.88	0.00030	366993.66	3798839.41	0.00029
367114.07	3798903.40	0.00044	367058.23	3798869.08	0.00035
367103.02	3798882.46	0.00039	367082.08	3798914.45	0.00044
367061.72	3798894.67	0.00039	367042.52	3798887.69	0.00037
367006.46	3798866.75	0.00032	367021.58	3798841.74	0.00030
367029.73	3798835.34	0.00029	367043.69	3798858.03	0.00033
367084.40	3798883.04	0.00038	367093.13	3798891.18	0.00040
367098.94	3798950.51	0.00054	366837.77	3798982.50	0.00043
367082.08	3798871.40	0.00036	367073.93	3798862.68	0.00034
367063.46	3799045.32	0.00088	366998.90	3799039.51	0.00076
367061.72	3798850.46	0.00032	367079.17	3798850.46	0.00033
367118.14	3798889.44	0.00041	367123.38	3798878.38	0.00039
367139.08	3798868.50	0.00039	367145.48	3798858.03	0.00037
367101.85	3798838.25	0.00032	367104.76	3798862.68	0.00036
367096.04	3798824.29	0.00030	367051.25	3798849.30	0.00032
367062.88	3798838.25	0.00031	367068.70	3798833.59	0.00030
367076.84	3798820.80	0.00029	367014.02	3798819.63	0.00027
367024.49	3798814.98	0.00027	367162.93	3798990.07	0.00072
367140.24	3798980.18	0.00066	367132.68	3798965.64	0.00061
367159.44	3798973.20	0.00065	367161.77	3798962.14	0.00062
367149.55	3798958.07	0.00060	367144.32	3798948.77	0.00056

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1A ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367197.83	3798965.05	0.00066	367178.63	3798942.95	0.00057
367171.65	3798928.99	0.00053	367179.22	3798924.34	0.00053
367228.66	3798958.07	0.00065	367203.65	3798938.30	0.00058
367207.72	3798929.57	0.00056	367197.25	3798916.19	0.00052
367218.77	3798919.10	0.00054	367279.26	3798960.98	0.00067
367281.59	3799037.18	0.00099	367313.51	3799050.23	0.00103
367310.77	3799027.64	0.00092	367304.61	3799043.38	0.00100
367319.67	3799018.75	0.00087	367329.93	3799007.11	0.00081
367336.09	3798994.11	0.00076	367345.67	3798986.58	0.00073
367345.67	3798974.26	0.00069	367337.46	3798961.26	0.00066
367360.73	3798959.21	0.00064	367359.36	3798944.15	0.00060
367366.89	3799035.17	0.00088	367373.73	3799022.17	0.00082
367381.26	3799014.64	0.00078	367382.63	3799002.32	0.00074
367360.73	3799061.86	0.00100	367390.84	3798993.42	0.00070
367398.37	3798974.95	0.00064	367400.42	3799019.43	0.00077
367388.10	3799042.70	0.00087	367420.27	3799006.43	0.00070
367440.80	3799023.54	0.00071			

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BM ***
INCLUDING SOURCE(S): T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 ,
T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367472.27	3799121.83	0.00003	367469.43	3799140.77	0.00003
367470.38	3799156.87	0.00003	367472.27	3799171.08	0.00003
367474.17	3799185.29	0.00003	367475.11	3799202.33	0.00003
367474.17	3799217.49	0.00003	367476.06	3799231.69	0.00003
367477.01	3799246.85	0.00003	367474.17	3799270.53	0.00004
367475.11	3799283.78	0.00004	367475.11	3799298.94	0.00004
367475.11	3799314.09	0.00004	367475.11	3799329.25	0.00004
367476.06	3799343.45	0.00004	367497.84	3799350.08	0.00004
367527.20	3799373.76	0.00003	367525.31	3799400.28	0.00003
367521.52	3799441.95	0.00004	367512.05	3799459.00	0.00004
367501.63	3799475.10	0.00004	367492.16	3799492.15	0.00004
367485.53	3799518.67	0.00004	367734.73	3799074.85	0.00001
367702.41	3799074.85	0.00001	367676.79	3799072.62	0.00002
367641.13	3799073.73	0.00002	367590.99	3799073.73	0.00002
367543.08	3799070.39	0.00002	367467.31	3799067.05	0.00003
367429.42	3799058.13	0.00003	367401.56	3799055.90	0.00003
367348.08	3799059.25	0.00004	367367.02	3799048.10	0.00003
367287.91	3799063.70	0.00004	367329.14	3799049.22	0.00004
367177.60	3799048.10	0.00006	367106.29	3799060.36	0.00009
367072.86	3799055.90	0.00010	367055.03	3799062.59	0.00012
367002.66	3799057.02	0.00015	366905.72	3799025.82	0.00013
367018.26	3798993.51	0.00008	366971.46	3798997.96	0.00010
367162.00	3799024.70	0.00006	366833.29	3798997.96	0.00007
366848.89	3798962.31	0.00006	366866.72	3798933.34	0.00005
366880.09	3798905.48	0.00004	366896.81	3798876.51	0.00003
366805.44	3799007.99	0.00007	366792.07	3799029.16	0.00008
366763.09	3799030.28	0.00008	366730.78	3799023.59	0.00006
366710.72	3799022.48	0.00006	366686.21	3799026.93	0.00006
366658.35	3799025.82	0.00005	366612.67	3799018.02	0.00004
366578.13	3799015.79	0.00003	366902.32	3799006.50	0.00010
366930.50	3798998.45	0.00010	366940.97	3798993.62	0.00009
366923.25	3798975.11	0.00008	366991.69	3798982.35	0.00008
367015.84	3799008.92	0.00009	366977.19	3798971.89	0.00008
367002.15	3798965.45	0.00007	366993.30	3798954.98	0.00007
366978.81	3798942.10	0.00006	366952.24	3798932.44	0.00005
366955.46	3798913.12	0.00005	366818.59	3798975.91	0.00006
366826.64	3798961.42	0.00005	366833.89	3798945.32	0.00005
366841.14	3798930.02	0.00004	366847.58	3798917.95	0.00004
366803.30	3798969.47	0.00005	366792.83	3798956.59	0.00005
366798.47	3798995.23	0.00006	366784.78	3798979.94	0.00006

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BM ***
INCLUDING SOURCE(S): T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 ,
T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
366771.90	3798966.25	0.00005	366760.63	3798954.17	0.00004
366781.56	3798937.27	0.00004	366797.66	3798930.83	0.00004
366818.59	3798918.75	0.00004	366827.45	3798912.31	0.00004
366845.16	3798900.23	0.00004	366858.85	3798892.99	0.00004
366904.74	3798862.40	0.00003	366755.80	3799010.53	0.00006
366772.70	3799008.11	0.00007	366691.39	3799007.31	0.00005
366671.26	3799007.31	0.00005	366643.09	3799005.70	0.00004
366695.42	3798992.01	0.00005	366709.91	3798996.84	0.00005
366730.84	3798998.45	0.00005	366746.94	3798995.23	0.00006
366712.33	3798975.10	0.00004	366732.45	3798976.72	0.00005
366746.14	3798977.52	0.00005	367168.75	3799016.24	0.00006
367153.62	3799001.12	0.00006	367133.85	3799002.28	0.00006
367144.32	3798992.39	0.00006	367120.47	3798992.39	0.00006
367108.25	3798981.34	0.00006	367130.94	3798983.09	0.00006
367083.82	3798953.42	0.00006	367072.77	3798944.69	0.00005
367067.53	3798937.71	0.00005	367064.04	3798928.41	0.00005
367103.60	3798928.99	0.00005	367053.57	3798920.26	0.00005
367025.07	3798892.34	0.00004	367013.44	3798879.55	0.00004
367054.16	3798899.91	0.00004	367018.67	3798871.40	0.00004
367005.30	3798849.88	0.00003	366993.66	3798839.41	0.00003
367114.07	3798903.40	0.00004	367058.23	3798869.08	0.00004
367103.02	3798882.46	0.00004	367082.08	3798914.45	0.00005
367061.72	3798894.67	0.00004	367042.52	3798887.69	0.00004
367006.46	3798866.75	0.00004	367021.58	3798841.74	0.00003
367029.73	3798835.34	0.00003	367043.69	3798858.03	0.00004
367084.40	3798883.04	0.00004	367093.13	3798891.18	0.00004
367098.94	3798950.51	0.00005	366837.77	3798982.50	0.00006
367082.08	3798871.40	0.00004	367073.93	3798862.68	0.00004
367063.46	3799045.32	0.00010	366998.90	3799039.51	0.00013
367061.72	3798850.46	0.00003	367079.17	3798850.46	0.00003
367118.14	3798889.44	0.00004	367123.38	3798878.38	0.00004
367139.08	3798868.50	0.00003	367145.48	3798858.03	0.00003
367101.85	3798838.25	0.00003	367104.76	3798862.68	0.00003
367096.04	3798824.29	0.00003	367051.25	3798849.30	0.00003
367062.88	3798838.25	0.00003	367068.70	3798833.59	0.00003
367076.84	3798820.80	0.00003	367014.02	3798819.63	0.00003
367024.49	3798814.98	0.00003	367162.93	3798990.07	0.00005
367140.24	3798980.18	0.00005	367132.68	3798965.64	0.00005
367159.44	3798973.20	0.00005	367161.77	3798962.14	0.00005
367149.55	3798958.07	0.00005	367144.32	3798948.77	0.00005

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BM ***
INCLUDING SOURCE(S): T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 ,
T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367197.83	3798965.05	0.00004	367178.63	3798942.95	0.00004
367171.65	3798928.99	0.00004	367179.22	3798924.34	0.00004
367228.66	3798958.07	0.00004	367203.65	3798938.30	0.00004
367207.72	3798929.57	0.00004	367197.25	3798916.19	0.00004
367218.77	3798919.10	0.00003	367279.26	3798960.98	0.00003
367281.59	3799037.18	0.00004	367313.51	3799050.23	0.00004
367310.77	3799027.64	0.00004	367304.61	3799043.38	0.00004
367319.67	3799018.75	0.00004	367329.93	3799007.11	0.00003
367336.09	3798994.11	0.00003	367345.67	3798986.58	0.00003
367345.67	3798974.26	0.00003	367337.46	3798961.26	0.00003
367360.73	3798959.21	0.00003	367359.36	3798944.15	0.00003
367366.89	3799035.17	0.00003	367373.73	3799022.17	0.00003
367381.26	3799014.64	0.00003	367382.63	3799002.32	0.00003
367360.73	3799061.86	0.00003	367390.84	3798993.42	0.00003
367398.37	3798974.95	0.00003	367400.42	3799019.43	0.00003
367388.10	3799042.70	0.00003	367420.27	3799006.43	0.00003
367440.80	3799023.54	0.00002			

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BUM ***
INCLUDING SOURCE(S): T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367472.27	3799121.83	0.00091	367469.43	3799140.77	0.00096
367470.38	3799156.87	0.00098	367472.27	3799171.08	0.00100
367474.17	3799185.29	0.00103	367475.11	3799202.33	0.00105
367474.17	3799217.49	0.00109	367476.06	3799231.69	0.00111
367477.01	3799246.85	0.00113	367474.17	3799270.53	0.00118
367475.11	3799283.78	0.00120	367475.11	3799298.94	0.00123
367475.11	3799314.09	0.00125	367475.11	3799329.25	0.00127
367476.06	3799343.45	0.00129	367497.84	3799350.08	0.00120
367527.20	3799373.76	0.00111	367525.31	3799400.28	0.00114
367521.52	3799441.95	0.00118	367512.05	3799459.00	0.00123
367501.63	3799475.10	0.00128	367492.16	3799492.15	0.00132
367485.53	3799518.67	0.00135	367734.73	3799074.85	0.00044
367702.41	3799074.85	0.00047	367676.79	3799072.62	0.00050
367641.13	3799073.73	0.00054	367590.99	3799073.73	0.00061
367543.08	3799070.39	0.00068	367467.31	3799067.05	0.00083
367429.42	3799058.13	0.00091	367401.56	3799055.90	0.00099
367348.08	3799059.25	0.00118	367367.02	3799048.10	0.00108
367287.91	3799063.70	0.00146	367329.14	3799049.22	0.00122
367177.60	3799048.10	0.00209	367106.29	3799060.36	0.00297
367072.86	3799055.90	0.00339	367055.03	3799062.59	0.00386
367002.66	3799057.02	0.00495	366905.72	3799025.82	0.00435
367018.26	3798993.51	0.00273	366971.46	3798997.96	0.00314
367162.00	3799024.70	0.00201	366833.29	3798997.96	0.00242
366848.89	3798962.31	0.00185	366866.72	3798933.34	0.00154
366880.09	3798905.48	0.00131	366896.81	3798876.51	0.00113
366805.44	3799007.99	0.00241	366792.07	3799029.16	0.00276
366763.09	3799030.28	0.00247	366730.78	3799023.59	0.00209
366710.72	3799022.48	0.00194	366686.21	3799026.93	0.00183
366658.35	3799025.82	0.00163	366612.67	3799018.02	0.00130
366578.13	3799015.79	0.00112	366902.32	3799006.50	0.00331
366930.50	3798998.45	0.00319	366940.97	3798993.62	0.00305
366923.25	3798975.11	0.00247	366991.69	3798982.35	0.00265
367015.84	3799008.92	0.00309	366977.19	3798971.89	0.00247
367002.15	3798965.45	0.00229	366993.30	3798954.98	0.00214
366978.81	3798942.10	0.00196	366952.24	3798932.44	0.00180
366955.46	3798913.12	0.00157	366818.59	3798975.91	0.00192
366826.64	3798961.42	0.00175	366833.89	3798945.32	0.00158
366841.14	3798930.02	0.00144	366847.58	3798917.95	0.00134
366803.30	3798969.47	0.00177	366792.83	3798956.59	0.00157
366798.47	3798995.23	0.00212	366784.78	3798979.94	0.00182

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BUM ***
INCLUDING SOURCE(S): T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
366771.90	3798966.25	0.00160	366760.63	3798954.17	0.00144
366781.56	3798937.27	0.00136	366797.66	3798930.83	0.00134
366818.59	3798918.75	0.00128	366827.45	3798912.31	0.00125
366845.16	3798900.23	0.00119	366858.85	3798892.99	0.00116
366904.74	3798862.40	0.00106	366755.80	3799010.53	0.00207
366772.70	3799008.11	0.00215	366691.39	3799007.31	0.00165
366671.26	3799007.31	0.00154	366643.09	3799005.70	0.00137
366695.42	3798992.01	0.00152	366709.91	3798996.84	0.00164
366730.84	3798998.45	0.00176	366746.94	3798995.23	0.00181
366712.33	3798975.10	0.00145	366732.45	3798976.72	0.00155
366746.14	3798977.52	0.00161	367168.75	3799016.24	0.00189
367153.62	3799001.12	0.00187	367133.85	3799002.28	0.00201
367144.32	3798992.39	0.00185	367120.47	3798992.39	0.00200
367108.25	3798981.34	0.00197	367130.94	3798983.09	0.00185
367083.82	3798953.42	0.00182	367072.77	3798944.69	0.00178
367067.53	3798937.71	0.00173	367064.04	3798928.41	0.00165
367103.60	3798928.99	0.00154	367053.57	3798920.26	0.00160
367025.07	3798892.34	0.00141	367013.44	3798879.55	0.00131
367054.16	3798899.91	0.00144	367018.67	3798871.40	0.00125
367005.30	3798849.88	0.00111	366993.66	3798839.41	0.00105
367114.07	3798903.40	0.00134	367058.23	3798869.08	0.00122
367103.02	3798882.46	0.00124	367082.08	3798914.45	0.00149
367061.72	3798894.67	0.00139	367042.52	3798887.69	0.00136
367006.46	3798866.75	0.00122	367021.58	3798841.74	0.00107
367029.73	3798835.34	0.00104	367043.69	3798858.03	0.00116
367084.40	3798883.04	0.00127	367093.13	3798891.18	0.00131
367098.94	3798950.51	0.00173	366837.77	3798982.50	0.00213
367082.08	3798871.40	0.00121	367073.93	3798862.68	0.00117
367063.46	3799045.32	0.00331	366998.90	3799039.51	0.00428
367061.72	3798850.46	0.00111	367079.17	3798850.46	0.00110
367118.14	3798889.44	0.00125	367123.38	3798878.38	0.00118
367139.08	3798868.50	0.00111	367145.48	3798858.03	0.00105
367101.85	3798838.25	0.00102	367104.76	3798862.68	0.00113
367096.04	3798824.29	0.00097	367051.25	3798849.30	0.00111
367062.88	3798838.25	0.00105	367068.70	3798833.59	0.00102
367076.84	3798820.80	0.00096	367014.02	3798819.63	0.00096
367024.49	3798814.98	0.00094	367162.93	3798990.07	0.00173
367140.24	3798980.18	0.00178	367132.68	3798965.64	0.00170
367159.44	3798973.20	0.00163	367161.77	3798962.14	0.00155
367149.55	3798958.07	0.00157	367144.32	3798948.77	0.00153

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: TIER1BUM ***
INCLUDING SOURCE(S): T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367197.83	3798965.05	0.00141	367178.63	3798942.95	0.00137
367171.65	3798928.99	0.00132	367179.22	3798924.34	0.00127
367228.66	3798958.07	0.00126	367203.65	3798938.30	0.00126
367207.72	3798929.57	0.00121	367197.25	3798916.19	0.00118
367218.77	3798919.10	0.00114	367279.26	3798960.98	0.00111
367281.59	3799037.18	0.00138	367313.51	3799050.23	0.00129
367310.77	3799027.64	0.00122	367304.61	3799043.38	0.00130
367319.67	3799018.75	0.00116	367329.93	3799007.11	0.00109
367336.09	3798994.11	0.00103	367345.67	3798986.58	0.00098
367345.67	3798974.26	0.00095	367337.46	3798961.26	0.00094
367360.73	3798959.21	0.00088	367359.36	3798944.15	0.00085
367366.89	3799035.17	0.00104	367373.73	3799022.17	0.00099
367381.26	3799014.64	0.00095	367382.63	3799002.32	0.00092
367360.73	3799061.86	0.00114	367390.84	3798993.42	0.00088
367398.37	3798974.95	0.00083	367400.42	3799019.43	0.00091
367388.10	3799042.70	0.00100	367420.27	3799006.43	0.00084
367440.80	3799023.54	0.00082			

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 , T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 , T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367472.27	3799121.83	0.00186	367469.43	3799140.77	0.00197
367470.38	3799156.87	0.00206	367472.27	3799171.08	0.00212
367474.17	3799185.29	0.00219	367475.11	3799202.33	0.00228
367474.17	3799217.49	0.00239	367476.06	3799231.69	0.00246
367477.01	3799246.85	0.00255	367474.17	3799270.53	0.00274
367475.11	3799283.78	0.00283	367475.11	3799298.94	0.00293
367475.11	3799314.09	0.00304	367475.11	3799329.25	0.00315
367476.06	3799343.45	0.00323	367497.84	3799350.08	0.00295
367527.20	3799373.76	0.00269	367525.31	3799400.28	0.00281
367521.52	3799441.95	0.00298	367512.05	3799459.00	0.00314
367501.63	3799475.10	0.00332	367492.16	3799492.15	0.00349
367485.53	3799518.67	0.00359	367734.73	3799074.85	0.00083
367702.41	3799074.85	0.00089	367676.79	3799072.62	0.00095
367641.13	3799073.73	0.00103	367590.99	3799073.73	0.00118
367543.08	3799070.39	0.00133	367467.31	3799067.05	0.00163
367429.42	3799058.13	0.00177	367401.56	3799055.90	0.00190
367348.08	3799059.25	0.00223	367367.02	3799048.10	0.00204
367287.91	3799063.70	0.00265	367329.14	3799049.22	0.00226
367177.60	3799048.10	0.00318	367106.29	3799060.36	0.00409
367072.86	3799055.90	0.00444	367055.03	3799062.59	0.00494
367002.66	3799057.02	0.00595	366905.72	3799025.82	0.00506
367018.26	3798993.51	0.00342	366971.46	3798997.96	0.00381
367162.00	3799024.70	0.00295	366833.29	3798997.96	0.00294
366848.89	3798962.31	0.00231	366866.72	3798933.34	0.00196
366880.09	3798905.48	0.00169	366896.81	3798876.51	0.00147
366805.44	3799007.99	0.00292	366792.07	3799029.16	0.00329
366763.09	3799030.28	0.00296	366730.78	3799023.59	0.00252
366710.72	3799022.48	0.00233	366686.21	3799026.93	0.00219
366658.35	3799025.82	0.00196	366612.67	3799018.02	0.00157
366578.13	3799015.79	0.00136	366902.32	3799006.50	0.00394
366930.50	3798998.45	0.00382	366940.97	3798993.62	0.00368
366923.25	3798975.11	0.00302	366991.69	3798982.35	0.00328
367015.84	3799008.92	0.00384	366977.19	3798971.89	0.00305
367002.15	3798965.45	0.00287	366993.30	3798954.98	0.00268
366978.81	3798942.10	0.00246	366952.24	3798932.44	0.00226
366955.46	3798913.12	0.00199	366818.59	3798975.91	0.00238
366826.64	3798961.42	0.00219	366833.89	3798945.32	0.00199
366841.14	3798930.02	0.00183	366847.58	3798917.95	0.00172
366803.30	3798969.47	0.00220	366792.83	3798956.59	0.00198
366798.47	3798995.23	0.00259	366784.78	3798979.94	0.00225

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 , T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 , T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
366771.90	3798966.25	0.00200	366760.63	3798954.17	0.00182
366781.56	3798937.27	0.00172	366797.66	3798930.83	0.00171
366818.59	3798918.75	0.00165	366827.45	3798912.31	0.00161
366845.16	3798900.23	0.00155	366858.85	3798892.99	0.00152
366904.74	3798862.40	0.00138	366755.80	3799010.53	0.00251
366772.70	3799008.11	0.00262	366691.39	3799007.31	0.00200
366671.26	3799007.31	0.00186	366643.09	3799005.70	0.00167
366695.42	3798992.01	0.00187	366709.91	3798996.84	0.00200
366730.84	3798998.45	0.00216	366746.94	3798995.23	0.00222
366712.33	3798975.10	0.00180	366732.45	3798976.72	0.00192
366746.14	3798977.52	0.00200	367168.75	3799016.24	0.00279
367153.62	3799001.12	0.00268	367133.85	3799002.28	0.00281
367144.32	3798992.39	0.00262	367120.47	3798992.39	0.00275
367108.25	3798981.34	0.00266	367130.94	3798983.09	0.00257
367083.82	3798953.42	0.00240	367072.77	3798944.69	0.00233
367067.53	3798937.71	0.00226	367064.04	3798928.41	0.00216
367103.60	3798928.99	0.00207	367053.57	3798920.26	0.00209
367025.07	3798892.34	0.00182	367013.44	3798879.55	0.00170
367054.16	3798899.91	0.00187	367018.67	3798871.40	0.00163
367005.30	3798849.88	0.00145	366993.66	3798839.41	0.00137
367114.07	3798903.40	0.00182	367058.23	3798869.08	0.00160
367103.02	3798882.46	0.00167	367082.08	3798914.45	0.00198
367061.72	3798894.67	0.00182	367042.52	3798887.69	0.00177
367006.46	3798866.75	0.00158	367021.58	3798841.74	0.00140
367029.73	3798835.34	0.00136	367043.69	3798858.03	0.00152
367084.40	3798883.04	0.00169	367093.13	3798891.18	0.00175
367098.94	3798950.51	0.00232	366837.77	3798982.50	0.00262
367082.08	3798871.40	0.00161	367073.93	3798862.68	0.00155
367063.46	3799045.32	0.00429	366998.90	3799039.51	0.00517
367061.72	3798850.46	0.00147	367079.17	3798850.46	0.00146
367118.14	3798889.44	0.00170	367123.38	3798878.38	0.00161
367139.08	3798868.50	0.00153	367145.48	3798858.03	0.00145
367101.85	3798838.25	0.00137	367104.76	3798862.68	0.00153
367096.04	3798824.29	0.00130	367051.25	3798849.30	0.00146
367062.88	3798838.25	0.00139	367068.70	3798833.59	0.00136
367076.84	3798820.80	0.00128	367014.02	3798819.63	0.00126
367024.49	3798814.98	0.00124	367162.93	3798990.07	0.00250
367140.24	3798980.18	0.00249	367132.68	3798965.64	0.00236
367159.44	3798973.20	0.00233	367161.77	3798962.14	0.00221
367149.55	3798958.07	0.00222	367144.32	3798948.77	0.00214

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE PERIOD (43848 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): T1A_1 , T1A_2 , T1A_3 , T1A_4 , T1A_5 ,
T1A_6 , T1A_7 , T1A_8 , T1B_UM_1 , T1B_UM_2 , T1B_UM_3 , T1B_UM_4 , T1B_UM_5 ,
T1B_UM_6 , T1B_M_1 , T1B_M_2 , T1B_M_3 , T1B_M_4 , T1B_M_5 , T1B_M_6 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
367197.83	3798965.05	0.00211	367178.63	3798942.95	0.00199
367171.65	3798928.99	0.00189	367179.22	3798924.34	0.00184
367228.66	3798958.07	0.00195	367203.65	3798938.30	0.00188
367207.72	3798929.57	0.00180	367197.25	3798916.19	0.00174
367218.77	3798919.10	0.00171	367279.26	3798960.98	0.00181
367281.59	3799037.18	0.00241	367313.51	3799050.23	0.00235
367310.77	3799027.64	0.00218	367304.61	3799043.38	0.00234
367319.67	3799018.75	0.00206	367329.93	3799007.11	0.00193
367336.09	3798994.11	0.00182	367345.67	3798986.58	0.00174
367345.67	3798974.26	0.00167	367337.46	3798961.26	0.00163
367360.73	3798959.21	0.00154	367359.36	3798944.15	0.00148
367366.89	3799035.17	0.00195	367373.73	3799022.17	0.00184
367381.26	3799014.64	0.00176	367382.63	3799002.32	0.00169
367360.73	3799061.86	0.00217	367390.84	3798993.42	0.00161
367398.37	3798974.95	0.00150	367400.42	3799019.43	0.00170
367388.10	3799042.70	0.00189	367420.27	3799006.43	0.00156
367440.80	3799023.54	0.00156			

*** MODELOPTs: NonDFAULT CONC FLAT URBAN ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (43848 HRS) RESULTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
TIER1A	1ST HIGHEST VALUE IS	0.00220 AT	(367485.53, 3799518.67, 236.00, 236.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00212 AT	(367492.16, 3799492.15, 236.00, 236.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00201 AT	(367501.63, 3799475.10, 236.00, 236.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00190 AT	(367476.06, 3799343.45, 236.00, 236.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00188 AT	(367512.05, 3799459.00, 236.00, 236.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00183 AT	(367475.11, 3799329.25, 236.00, 236.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00176 AT	(367521.52, 3799441.95, 236.00, 236.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.00175 AT	(367475.11, 3799314.09, 236.00, 236.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.00171 AT	(367497.84, 3799350.08, 236.00, 236.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.00167 AT	(367475.11, 3799298.94, 236.00, 236.00, 0.00)	DC	
TIER1BM	1ST HIGHEST VALUE IS	0.00015 AT	(367002.66, 3799057.02, 236.00, 236.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00013 AT	(366905.72, 3799025.82, 236.00, 236.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00013 AT	(366998.90, 3799039.51, 236.00, 236.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00012 AT	(367055.03, 3799062.59, 236.00, 236.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00010 AT	(367072.86, 3799055.90, 236.00, 236.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00010 AT	(367063.46, 3799045.32, 236.00, 236.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00010 AT	(366902.32, 3799006.50, 236.00, 236.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.00010 AT	(366930.50, 3798998.45, 236.00, 236.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.00010 AT	(366971.46, 3798997.96, 236.00, 236.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.00009 AT	(367015.84, 3799008.92, 236.00, 236.00, 0.00)	DC	
TIER1BUM	1ST HIGHEST VALUE IS	0.00495 AT	(367002.66, 3799057.02, 236.00, 236.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00435 AT	(366905.72, 3799025.82, 236.00, 236.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00428 AT	(366998.90, 3799039.51, 236.00, 236.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00386 AT	(367055.03, 3799062.59, 236.00, 236.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00339 AT	(367072.86, 3799055.90, 236.00, 236.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00331 AT	(367063.46, 3799045.32, 236.00, 236.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00331 AT	(366902.32, 3799006.50, 236.00, 236.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.00319 AT	(366930.50, 3798998.45, 236.00, 236.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.00314 AT	(366971.46, 3798997.96, 236.00, 236.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.00309 AT	(367015.84, 3799008.92, 236.00, 236.00, 0.00)	DC	
ALL	1ST HIGHEST VALUE IS	0.00595 AT	(367002.66, 3799057.02, 236.00, 236.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00517 AT	(366998.90, 3799039.51, 236.00, 236.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00506 AT	(366905.72, 3799025.82, 236.00, 236.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00494 AT	(367055.03, 3799062.59, 236.00, 236.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00444 AT	(367072.86, 3799055.90, 236.00, 236.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00429 AT	(367063.46, 3799045.32, 236.00, 236.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00409 AT	(367106.29, 3799060.36, 236.00, 236.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.00394 AT	(366902.32, 3799006.50, 236.00, 236.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.00384 AT	(367015.84, 3799008.92, 236.00, 236.00, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.00382 AT	(366930.50, 3798998.45, 236.00, 236.00, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

```
*** MODELOPTs:    NonDFAULT  CONC  FLAT  URBAN  ADJ_U*

*** Message Summary : AERMOD Model Execution ***

 --------- Summary of Total Messages --------

A Total of            0 Fatal Error Message(s)
A Total of            2 Warning Message(s)
A Total of          713 Informational Message(s)

A Total of        43848 Hours Were Processed

A Total of          519 Calm Hours Identified

A Total of          194 Missing Hours Identified (  0.44 Percent)


   ******** FATAL ERROR MESSAGES ********
              ***  NONE  ***


   ********   WARNING MESSAGES   ********
ME W186     933       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
ME W187     933       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

   ************************************
   *** AERMOD Finishes Successfully ***
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Appendix D

Biology Reports

Appendix D1

CNDDB Survey

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (San Fernando (3411834) OR Oat Mountain (3411835) OR Canoga Park (3411825) OR Van Nuys (3411824) OR Burbank (3411823) OR Sunland (3411833) OR Newhall (3411845) OR Mint Canyon (3411844) OR Agua Dulce (3411843))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus brauntonii Braunton's milk-vetch	PDFAB0F1G0	Endangered	None	G2	S2	1B.1
Atriplex parishii Parish's brittlescale	PDCHE041D0	None	None	G1G2	S1	1B.1
Berberis nevinii Nevin's barberry	PDBER060A0	Endangered	Endangered	G1	S1	1B.1
California macrophylla round-leaved filaree	PDGER01070	None	None	G3?	S3?	1B.2
Calochortus clavatus var. gracilis slender mariposa-lily	PMLIL0D096	None	None	G4T2T3	S2S3	1B.2
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calystegia peirsonii Peirson's morning-glory	PDCON040A0	None	None	G4	S4	4.2
Centromadia parryi ssp. australis southern tarplant	PDAST4R0P4	None	None	G3T2	S2	1B.1
Chorizanthe parryi var. fernandina San Fernando Valley spineflower	PDPGN040J1	Proposed Threatened	Endangered	G2T1	S1	1B.1
Deinandra minthornii Santa Susana tarplant	PDAST4R0J0	None	Rare	G2	S2	1B.2
Dodecahema leptoceras slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Dudleya blochmaniae ssp. blochmaniae Blochman's dudleya	PDCRA04051	None	None	G3T2	S2	1B.1
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Harpagonella palmeri Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2
Helianthus inexpectatus Newhall sunflower	PDAST4N250	None	None	G1	S1	1B.1
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Malacothamnus davidsonii Davidson's bush-mallow	PDMAL0Q040	None	None	G2	S2	1B.2
Monardella hypoleuca ssp. hypoleuca white-veined monardella	PDLAM180A3	None	None	G4T3	S3	1B.3
Navarretia fossalis spreading navarretia	PDPLM0C080	Threatened	None	G2	S2	1B.1
Navarretia setiloba Piute Mountains navarretia	PDPLM0C0S0	None	None	G2	S2	1B.1
Opuntia basilaris var. brachyclada short-joint beavertail	PDCAC0D053	None	None	G5T3	S3	1B.2
Orcuttia californica California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Symphyotrichum greatae Greata's aster	PDASTE80U0	None	None	G2	S2	1B.3

Record Count: 27

Appendix D2

CNPS Survey

September 27, 2017

Hoda El Sokkary, P.E., MSc.
Senior Capital Projects Manager
Los Angeles County Public Works
900 S. Fremont Avenue
Alahambra, CA 91803

Subject: Special-Status Plant Survey Report – Survey Results for the Olive View-UCLA Medical Center Campus Master Plan Project located in Sylmar, Los Angeles County, California

Dear Ms. El Sokkary:

This report documents the results of focused special-status plant surveys conducted by ICF (consultant to the Los Angeles County Department of Public Works) between April 2017 and May 2017 in support of the proposed Olive View-UCLA Medical Center Campus Master Plan Project (Project).

Location

The Project site is located at 14445 Olive View Drive on several parcels of land owned by the County of Los Angeles. The campus is located within the community of Sylmar, at the north end of the San Fernando Valley, in the City of Los Angeles, California. Specifically, the site is bounded by the Angeles National Forest and Wilson Canyon Debris Basin on the north, Olive View Drive on the south, Los Angeles County Flood Control District facilities and Wilson Canyon Park on the east, and Bucher Avenue to the west. Kennedy Road and Cobalt Street intersect the Project site in a north to south orientation. The Project site is located east of the I-5 freeway and north of the I-210 freeway (Figure 1).

The Project site is depicted within Township 3 North, Range 15 West, Sections 21 and 22 of the San Fernando, California, U.S. Geological Survey 7.5-minute quadrangle map (Figure 2).

Existing Conditions

The 230-acre Project site is located at the Olive View-UCLA Medical Center campus and consists of 31 permanent buildings and 29 trailers and other modular structures. The Project abuts the foothills of the San Gabriel Mountains, which are a part of the Angeles National Forest. Horse trails and hiking trails run along the northern edge of the campus. Predominantly single-family residential neighborhoods are located to the east of the campus. A mix of single-family (including ranch style homes with equestrian facilities) residences, multi-family residences, and some commercial uses are located to the south of the campus across Olive View Drive. Residential uses are also located just west of the campus and north of I-210.

Developed areas make up a majority of the study area followed by disturbed habitat. These areas have been physically altered and include existing campus infrastructure, medium-density residential communities, roads and hardscape structures, other manmade features, and ornamental trees. Disturbed habitat includes areas permanently altered by previous human activity including grading, repeated clearing, and dirt roads. Disturbed habitat is typically characterized by more than 50 percent bare ground and absence of remnant native vegetation. Disturbed habitat within the study area surrounds existing development within the Project site, and is dominated by nonnative grasses and other species, including ripgut grass (*Bromus diandrus*), wild oat (*Avena barbata*), tocalote (*Centaurea melitensis*), shortpod mustard (*Hirschfeldia incana*), indian hedgemustard (*Sisymbrium oritentale*), and Russian thistle (*Salsola* tragus).

Additional habitat types within the study area include California sagebrush scrub dominated by California sagebrush (*Artemesia californica*), Eucalyptus groves consisting of several species of Eucalyptus (*Eucalyptus spp.*) and Coast live oak woodland dominated by coast live oaks (*Quercus agrifolia*) (Figure 3).

Methods

Literature Review

A literature review of the relevant regional databases for special-status plants in the vicinity of the Project site was performed prior to conducting the field surveys. Special-status plants include those federally listed as endangered, threatened, or proposed for listing; state-listed as endangered, threatened, rare, or proposed for listing, or having a California Rare Plant Rank (CRPR) of 1B, 2, 3, or 4. CRPR 1B plants are "plants rare, threatened, or endangered in California and elsewhere," CRPR 2 plants are "plants rare, threatened, or endangered in California but more common elsewhere"; CRPR 3 plants are "plants about which we need more information - a review list"; and CRPR 4 plants are "plants of limited distribution – a watch list." The literature review included the following:

- The California Natural Diversity Database (CNDDB;CDFW 2017) 9-quad search for the Project site centered on the San Fernando USGS 7.5' Quadrangle;
- The California Native Plant Society (CNPS;CNPS 2017) 9-quad search for the Project site centered on the San Fernando USGS 7.5' Quadrangle;
- Topographic maps for the study area (Google Earth 2017-dated July 28, 2017).

The results of the literature review were compiled into a list of potentially occurring special-status plant species (Appendix A) and each species was analyzed for its potential to occur within the Project site based on a variety of conditions including range, elevation, soils, and vegetation communities.

Focused Special-Status plant Survey

Focused special-status plant surveys were conducted during the growing and blooming season using two visits to the Project site. Special-status plant surveys were conducted within suitable habitat in the Project Study Area (PSA) which included the Project site plus a 100-ft buffer (Figure 3). Table 1 provides dates, times, personnel, and weather conditions at the time of the surveys.

Focused special-status plant surveys were floristic in nature and performed in accordance with survey protocols set forth by *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant*

Populations and Natural Communities (CDFG 2009). Focused surveys were conducted on foot and consisted of meandering transects so as to physically observe all portions of potentially suitable habitat within the PSA. During focused surveys, all plant species observed were recorded in field notes and any unknown plants encountered were collected and identified in the field or back in the laboratory using *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). All plant species observed were identified to the taxonomic level necessary (species, subspecies, or variety) to determine rarity. A comprehensive list of all plant species observed within the PSA is provided in Appendix B. Photographs were taken to document the conditions during the focused surveys (Appendix C).

Table 1. Survey Dates, Personnel, and Weather Conditions

Visit	Date	Time	Biologist	Conditions
1	4/19/2017	0830-1430	Phillip Richards	62 – 80°F, sunny, winds 2--6 mph
2	5/15/2017	0830-1445	Phillip Richards	56 – 60°F, cloudy, winds 2-5 mph

Results

Literature Review

Based on the CNDDB and CNPS 9-quad search, 30 special-status plant species were evaluated for potential to occur within the PSA:

- Braunton's milk-vetch (*Astragalus brauntonii*)
- Parish's brittlescale (*Atriplex parishii*)
- Nevin's barberry (*Berberis nevinii*)
- Round-leaved filaree (*California macrophylla*)
- Slender mariposa-lily (*Calochortus clavatus* var. *gracilis*)
- Plummer's mariposa-lily (*Calochortus plummerae*)
- Peirson's morning-glory (*Calystegia peirsonii*)
- Lewis' evening-primrose (*Camissoniopsis lewisii*)
- Southern tarplant (*Centromadia parryi* ssp. *australis*)
- San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*)
- Santa Susana tarplant (*Deinandra minthornii*)
- Slender-horned spineflower (*Dodecahema leptoceras*)
- Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)
- Many-stemmed dudleya (*Dudleya multicaulis*)
- Palmer's grapplinghook (*Harpagonella palmeri*)
- Newhall sunflower (*Helianthus inexpectatus*)
- Vernal barley (*Hordeum intercedens*)
- Mesa horkelia (*Horkelia cuneata* var. *puberula*)
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)
- Theodore Payne's bush lupine (*Lupinus paynei*)
- Davidson's bush-mallow (*Malacothamnus davidsonii*)

- White-veined monardella (*Monardella hypoleuca* ssp. hypoleuca)
- Spreading navarretia (*Navarretia fossalis*)
- Paiute Mountains navarretia (*Navarretia setiloba*)
- Short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)
- California Orcutt grass (*Orcuttia californica*)
- White rabbit-tobacco (*Pseudognaphalium leucocephalum*)
- Chaparral ragwort (*Senecio aphanactis*)
- Greata's aster (*Symphyotrichum greatae*)

Each species was evaluated for the potential to occur within the PSA based on a variety of factors such as range, elevation, soils, and vegetation communities (Appendix A). Of the 30 special-status plants identified, 15 were deemed to have a low to moderate potential to occur and included Braunton's milk-vetch, Nevin's barberry, Slender mariposa-lily, Plummer's mariposa-lily, Peirson's morning-glory, southern tarplant, San Fernando Valley spineflower, slender-horned spineflower, mesa horkelia, Robinson's pepper-grass, Theodore Payne's bush lupine, Davidson's bush-mallow, white-veined monardella, Paiute Mountains navarretia, and white rabbit-tobacco. The remaining 15 were not expected based on elevation range and/or lack of suitable conditions.

Results

General Floristics

A total of 111 plant species (Appendix B), representing 36 plant families were identified within the PSA. Of this total, 72 (65 percent) are native to southern California and 39 (35 percent) are nonnative, introduced species.

Special-Status Plants

No special-status plants were observed during the focused survey effort and are presumed to be absent from the PSA.

If you have questions or need clarifications regarding this report, please contact me at (949) 333-6643 or Phillip.Richards@icfi.com.

Sincerely,

Phillip Richards
ICF Biologist

Enclosed:
Figure 1: Regional Vicinity Map
Figure 2: Topographic Study Site Map
Figure 3: Habitat Map

Appendix A: Special-Status Plant Species with Potential to Occur in the Project Study Area
Appendix B: Plant Species Detected
Appendix C: Photolog

Literature Cited

Baldwin, B.G, D. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D. Wilken (Eds.) 2012. *The Jepson Manual: Vascular Plants of California*. Berkeley, CA: University of California Press. 1,568 pp.

California Department of Fish and Game (CDFG). 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Available: www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf.

California Department of Fish and Wildlife. 2017. California Natural Diversity Database. Element reports for the San Fernando 9-quad search, California 7.5-minute quadrangle maps. Sacramento, CA: Wildlife Habitat Data Analysis Branch, Habitat Conservation Division. Accessed: July 2017.

———. 2017. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Online: http://www.rareplants.cnps.org. Site visited on July 28, 2017.

Google Earth. 2017 Topographic Maps for the Project site. Accessed: July 2017.

U.S. Geological Survey. 1967a. San Fernando, 7.5-minute topographic map. Reston, VA. Color, revised 1988, scale 1:24,000.

Figures

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Figure 1
Regional Location
Olive View-UCLA Medical Center Master Plan

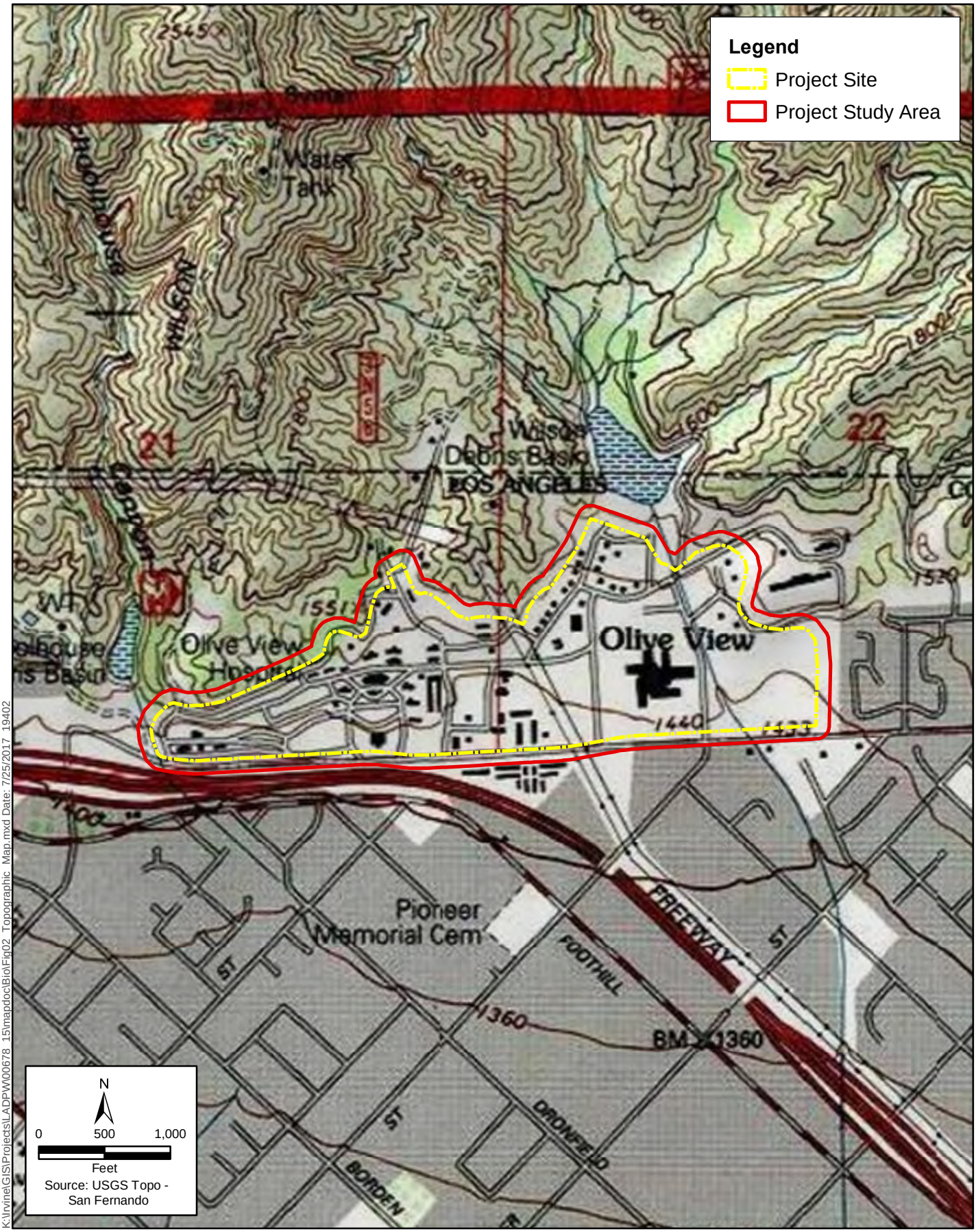

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Figure 2
Topographic Map
Olive View-UCLA Medical Center Master Plan

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Figure 3
Habitat Map
Olive View-UCLA Medical Center Master Plan

Appendix A

Special-Status Plant Species

Appendix A - Special-Status Plant Species with Potential to Occur in the Project Study Area

Species	Status	Habitat Requirements	Potential to Occur
Plants			
Braunton's milk-vetch (*Astragalus brauntonii*)	FE, CRPR 1B.1	Perennial herb. Occurs in recently burned and disturbed areas with sandstone and carbonite soils in chaparral, coastal scrub, and valley and foothill grasslands. Ranges 4-640 m (13– 2,099 ft) in elevation. Blooming period: January - August	Low Potential. Not expected based on the lack of suitable soils. Not observed during focused survey. Species considered absent.
Parish's brittlescale (*Atriplex parishii*)	CRPR 1B.1	Annual herb. Found in chenopod scrub, alkaline vernal pools and playas. Ranges from 25 – 1,900 m (82 – 6,232 ft) in elevation. Blooming period: June – October.	No Potential. Suitable alkaline conditions and associated vegetation communities are not present. Not observed during focused survey. Species considered absent.
Nevin's barberry (*Berberis nevinii*)	CRPR 1B.1, FE, SE	Evergreen shrub. Occurs in chaparral, cismontane woodland, coastal scrub, and riparian scrub with sandy or gravelly soils. Ranges 274 – 825 m (898 – 2,707 ft) in elevation. Blooming period: March-June.	Low Potential. North and east ends of Project site with low suitability; however, this conspicuous shrub was not observed during focused surveys. Species considered absent.
Round-leaved filaree (*California macrophylla*)	CRPR 1B.2	Annual herb. Found in clay soils in cismontane woodland and valley and foothill grassland. Ranges 15 – 1,200 m (50 – 3,936) ft in elevation. Blooming period: March–May.	No Potential. Not expected based on the lack of suitable soils. Not observed during focused survey. Species considered absent.
Slender mariposa-lily (*Calochortus clavatus* var. *gracilis*)	CRPR 1B.2	Perennial herb. Occurs in the Western Transverse Ranges and San Gabriel Mountains in shaded foothill canyons within chaparral, coastal scrub, and valley and foothill grasslands. Occurs at elevations less than 1,000 m (3,281 ft). Blooms from March to June.	Moderate Potential. North and east ends of Project site with moderate suitability; however, this species was not detected during focused surveys. Species considered absent.

Species	Status	Habitat Requirements	Potential to Occur
Plummer's mariposa-lily (*Calochortus plummerae*)	CRPR 4.2	Perennial bulbiferous herb. Found in granitic and rocky areas in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland. Ranges 100 – 1,700 m (328 – 5,576 ft) in elevation. Blooming period: May – July.	Moderate Potential. North and east ends of Project site with moderate suitability; however, this species was not detected during focused surveys. Species considered absent.
Peirson's morning-glory (*Calystegia peirsonii*)	CRPR 4.2	Perennial herb. Occurs in chaparral, chenopod scrub, cismontane woodlands, coastal scrubs, valley and foothill grassland, and even lower elevation conifer forests. Ranges 30 – 1,500 m (98 – 4,920 ft) in elevation. It is typically restricted to rocky slopes, and is known only from Los Angeles County. Blooming period: April – June.	Low Potential. North edge of Project site with low suitability; however, this species was not detected during focused surveys. Species considered absent.
Lewis' evening-primrose (*Camissoniopsis lewisii*)	CRPR 3	Annual herb. Occurs in sandy or clay soils in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland. Ranges 0-300 m (0-984 ft) in elevation. Blooming period: March - June	No Potential. Study area occurs outside elevation range for the species. Species considered absent.
Southern tarplant (*Centromadia parryi* ssp. *australis*)	CRPR 1B.1	Annual herb. Found within the margin of marshes and swamps, vernally mesic soils in valley and foothill grassland, and vernal pools. Elevation range is 0 – 480 m (0 – 1,574 ft). Blooming period: May –November.	Low Potential. Some suitability around basins and terraces; however, this species was not detected during focused surveys. Species considered absent.
San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*)	CRPR 1B.1, FC, SE	Annual herb. Found in sandy areas on foothills, mixed grassland and chaparral communities. Occurs at elevations ranging from 90 – 500 m (295 – 1,640 ft). Blooming period is from April to July. This species has a severely limited distribution and is only known in Los Angeles, Orange, and Ventura Counties. Blooming period: April – July.	Low Potential. North and east ends of Project site with low suitability; however, this species was not detected during focused surveys. Species considered absent.

Species	Status	Habitat Requirements	Potential to Occur
Santa Susana tarplant (*Deinandra minthornii*)	CRPR 1B.2	Deciduous shrub. Found in rocky chaparral, coastal scrub, sandstone outcrops and crevices. Ranges 280 – 760 m (919 – 2,493 ft) in elevation. Blooming period: July – November.	No Potential. Not expected based on the lack of suitable soils. Not observed during focused survey. Species considered absent.
Slender-horned spineflower (*Dodecahema leptoceras*)	CRPR 1B.1, FE, SE	Annual herb. Occurs in chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes in association with sandy soils. Ranges 200 –760 m (656 – 2,493 ft) in elevation. Blooming period: April – June.	Low Potential. North and east ends of Project site with low suitability; however, this species was not detected during focused surveys. Species considered absent.
Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)	CRPR 1B.1	Perennial herb. Found in Coastal scrub, coastal bluff scrub, chaparral, valley and foothill grassland. Often associated with open, shallow clays over serpentine or in rocky areas with little soil. At elevations of up to 450 m (1,476 ft). Blooming period: April – June.	No Potential. Not expected based on the lack of suitable soils. Not observed during focused survey. Species considered absent.
Many-stemmed dudleya (*Dudleya multicaulis*)	CRPR 1B.2	Perennial herb. Occurs in clay soils in chaparral, coastal scrub, and valley and foothill grassland; 15 – 790 m (49 – 2,591 ft). Blooming period: April-July.	No Potential. Not expected based on the lack of suitable soils. Not observed during focused survey. Species considered absent.
Palmer's grapplinghook (*Harpagonella palmeri*)	CRPR 4.2	Annual herb. Found in chaparral, coastal scrub, valley and foothill grassland. Associated with clay soils within scrub with open grassy areas. Ranges 20 – 955 m (65 – 3,133 ft) in elevation. Blooming period: March – May.	No Potential. Not expected based on the lack of suitable soils. Not observed during focused survey. Species considered absent.
Newhall sunflower (*Helianthus inexpectatus*)	CRPR 1B.1	Perennial herb. Occurs in marshes and swamps, and riparian woodlands. Ranges 305 m (1,000 ft) in elevation. Blooming period: August - October	No Potential. Not expected because study area occurs outside elevation range and lacks suitable mesic conditions. Species considered absent.

Species	Status	Habitat Requirements	Potential to Occur
Vernal barley (*Hordeum intercedens*)	CRPR 3.2	Annual herb. Found in coastal dunes, coastal scrub, saline flats and depressions in valley and foothill grassland, and vernal pools. Ranges 5-1,000 m (16-3,280 ft) in elevation. Blooming period: March - June	No Potential. Not expected based on the lack of suitable soils. Not observed during focused survey. Species considered absent.
Mesa horkelia (*Horkelia cuneata* var. *puberula*)	CRPR 1B.1	Perennial herb. Occurs in sandy and gravelly soils within maritime chaparral, cismontane woodland, and coastal scrub. Ranges 70 – 810 m (229 – 2,657 ft) in elevation. Blooming period: February-September.	Low Potential. North and east ends of Project site with low suitability; however, this species was not detected during focused surveys. Species considered absent.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	CRPR 1B.1	Annual herb. Found in coastal salt marsh, coastal salt swamps, playas, vernal pools. Ranges 1 – 1,220 m (3 – 4,001 ft) in elevation. Blooming period: February-June.	No Potential. Not expected based on the lack of suitable soils and vegetation communities. Not observed during focused survey. Species considered absent.
[1]Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	CRPR 4.3	Annual herb. Occurs in openings in chaparral and sage scrub Found below 885 m (2,900 ft) in elevation. Blooming period: January-July.	Low Potential. North and east ends of Project site with low suitability; however, this species was not detected during focused surveys. Species considered absent.
[1]Theodore Payne's Bush Lupine (*Lupinus paynei*)	CRPR 3.1	Perennial shrub. Found in openings in chaparral, cismontane coastal scrub, riparian scrub, valley and foothill grasslands. Ranges 220-420 m (722-1,378 ft) in elevation. Blooming period: March-May.	Low Potential. North and east ends of Project site with low suitability; however, this species was not detected during focused surveys. Species considered absent.
Davidson's bush-mallow (*Malacothamnus davidsonii*)	CRPR 1B.2	Perennial shrub. Occurs in coastal scrub, riparian woodland, chaparral, cismontane woodland. Associated with sandy washes. Ranges 607 – 2,805 ft (185 – 855 m) in	Moderate Potential. Some suitability around basins and terraces; however, this species was not detected during

[1] Species no longer recognized by Jepson Manual, but still recognized by California Native Plant Society.

Species	Status	Habitat Requirements	Potential to Occur
		elevation. Blooming period: June – January.	focused surveys. Species considered absent.
White-veined monardella (*Monardella hypoleuca* ssp. hypoleuca)	CRPR 1B.3	Perennial herb. Found in dry slopes within chaparral and cismontane woodlands. Ranges 50 – 1,525 m (165 – 5,000 ft) in elevation. Blooming period: June – August.	Low Potential. North and east ends of Project site with low suitability; however, this species was not detected during focused surveys. Species considered absent.
Spreading navarretia (*Navarretia fossalis*)	CRPR 1B.1, FT	Annual herb. Occurs in vernal pools, chenopod scrub, marshes and swamps, playas, San Diego hardpan & San Diego claypan vernal pools, swales, depressions, and vernal pools. Ranges 30 – 655 m (98 – 2,150 ft) in elevation. Blooming period: April – June.	No Potential. Not expected based on the lack of suitable soils and vegetation communities. Not observed during focused survey. Species considered absent.
Paiute Mountains navarretia (*Navarretia setiloba*)	CRPR 1B.1	Annual herb. Found in cismontane woodland, pinyon-juniper woodland, valley and foothill grassland. Associated with clay soils or gravelly loam. Ranges 285 – 2,100 m (935 – 6,890 ft) in elevation. Blooming period: April – July.	Low Potential. North edge of Project site with low suitability; however, this species was not detected during focused surveys. Species considered absent.
Short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)	CRPR 1B.2	Shrub. Occurs in sandy soil or coarse, granitic loam in chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon-juniper woodlands. . Ranges 425 – 1,800 m (1,395 – 5,905 ft) in elevation. Blooming period: April – June.	No Potential. Species not reported as occurring on the cismontane foothills of San Gabriel mountains. Species considered absent.
California Orcutt grass (*Orcuttia californica*)	CRPR 1B.1, FE, SE	Annual grass. Restricted to the deeper portions of undisturbed vernal pools. Ranges 197 – 2165 ft (60 – 660 m) in elevation. Blooming period: April – August.	No Potential. Not expected based on the lack of suitable vernal pool conditions. Not observed during focused survey. Species considered absent.
White rabbit-tobacco (*Pseudognaphalium leucocephalum*)	CRPR 2B.2	Perennial herb. Occurs in dry, sandy creek bottoms within chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats.	Low Potential. North and east ends of Project site with low suitability; however, this

Species	Status	Habitat Requirements	Potential to Occur
		Associated with sandy or gravelly soils. Ranges 46 – 4,593 ft (14 – 1400 m) in elevation. Blooming period: August – November.	species was not detected during focused surveys. Species considered absent.
Chaparral ragwort (*Senecio aphanactis*)	CRPR 2B.2	Annual herb. Found in chaparral, cismontane woodland, and coastal scrub. Associated with drying alkaline flats. Ranges 20 – 855 m (49 – 2,625 ft) in elevation.Blooming period: January – April.	No Potential. Not expected based on the lack of suitable alkaline conditions. Not observed during focused survey. Species considered absent.
Greata's aster (*Symphyotrichum greatae*)	CRPR 1B.3	Perennial herb. Occurs in mesic areas in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and riparian woodlands. Ranges 300 – 2,010 m (984 – 6,593 ft) in elevation. Blooming period: June – October.	No Potential. Not expected based on the lack of suitable mesic conditions. Not observed during focused survey. Species considered absent.

Appendix B

Plant Species Detected

Appendix B - Plant Species Detected

Scientific Name	Common Name	Special Status
GYMNOSPERMS		
Pinaceae - Pine family		
Pinus sp.	Pine	
EUDICOTS		
Adoxaceae - Muskroot family		
Sambucus nigra ssp. caerulea	Blue elderberry	
Anacardiaceae - Sumac Or Cashew family		
Malosma laurina	Laurel sumac	
Rhus integrifolia	Lemonade berry	
Rhus ovata	Sugar bush	
* *Schinus molle*	Peruvian pepper tree	
* *Schinus terebinthifolius*	Brazilian pepper tree	
Apocynaceae - Dogbane family		
Funastrum cynanchoides var. hartwegii	Hartweg's climbing milkweed	
* *Nerium oleander*	Oleander	
Asteraceae - Sunflower family		
Ambrosia acanthicarpa	Annual bur-sage	
Artemisia californica	California sagebrush	
Baccharis salicifolia ssp. salicifolia	Mule fat	
Brickellia californica	California brickellbush	
* *Carduus pycnocephalus ssp. pycnocephalus*	Italian thistle	
* *Centaurea melitensis*	Tocalote	
Cirsium occidentale	Cobwebby thistle	
Corethrogyne filaginifolia	Common sand aster	
Erigeron canadensis	Horseweed	
Eriophyllum confertiflorum	Golden woolly sunflower	
Hazardia squarrosa	Saw toothed goldenbush	
Helianthus annuus	Annual sunflower	
Heterotheca grandiflora	Telegraph weed	
* *Lactuca serriola*	Prickly lettuce	
Lepidospartum squamatum	California broomsage	
Leptosyne gigantea	Giant tickseed	
Malacothrix saxatilis	Cliff desert dandelion	

Scientific Name	Common Name	Special Status
* *Oncosiphon piluliferum*	Stinknet	
Pseudognaphalium biolettii	Bi-color everlasting	
Pseudognaphalium californicum	California everlasting	
Pseudognaphalium canescens	Hairy everlasting	
* *Pseudognaphalium luteoalbum*	White lamb everlasting	
* *Sonchus asper ssp. asper*	Prickly sow thistle	
* *Sonchus oleraceus*	Common sow thistle	
Taraxacum sp.	Dandelion	
Uropappus lindleyi	Silver puffs	
Boraginaceae - Borage family		
Cryptantha intermedia	Clearwater cryptantha	
Emmenanthe penduliflora	Whispering bells	
Eriodictyon crassifolium	Thickleaf yerba santa	
Phacelia distans	Wild heliotrope phacelia	
Phacelia minor	Wild canterbury bells	
Brassicaceae - Mustard family		
* *Brassica nigra*	Black mustard	
* *Hirschfeldia incana*	Shortpod mustard	
* *Sisymbrium orientale*	Indian hedgemustard	
Cactaceae - Cactus family		
Cylindropuntia californica var. parkeri	Cane cholla	
* *Opuntia ficus-indica*	Mission prickly pear	
Opuntia littoralis	Coastal prickly pear	
Chenopodiaceae - Goosefoot family		
* *Chenopodium album*	Lamb's quarters	
* *Salsola tragus*	Prickly russian thistle	
Cistaceae - Rock-rose family		
* *Cistus ladanifer*	Gum cistus	
* *Cistus sp.*	Cistus	
Convolvulaceae - Morning-glory family		
Calystegia macrostegia	Coast morning-glory	
Crassulaceae - Stonecrop family		
Dudleya lanceolata	Lance-leaved dudleya	
Dudleya pulverulenta	Chalk dudleya	

Scientific Name	Common Name	Special Status
Cucurbitaceae - Gourd family		
Marah macrocarpa	Large fruit wild cucumber	
Euphorbiaceae - Spurge family		
Croton californicus	California croton	
* *Ricinus communis*	Castorbean	
Fabaceae - Legume family		
Acmispon americanus var. americanus	Spanish-Clover	
Acmispon glaber	Deerweed	
Lupinus bicolor	Miniature lupine	
Lupinus hirsutissimus	Stinging lupine	
Lupinus truncatus	Cut leaf lupine	
* *Melilotus indicus*	Indian sweetclover	
* *Spartium junceum*	Spanish broom	
Fagaceae - Oak family		
Quercus agrifolia	Coast live oak	
Geraniaceae - Geranium family		
* *Erodium cicutarium*	Redstem filaree	
* *Erodium moschatum*	Whitestem filaree	
Lamiaceae - Mint family		
* *Marrubium vulgare*	Horehound	
Salvia mellifera	Black sage	
Malvaceae - Mallow family		
* *Malva parviflora*	Cheeseweed	
Meliaceae - Mahogany family		
* *Melia azedarach*	China berry	
Myrtaceae - Myrtle family		
* *Eucalyptus sp.*	Gum	
* *Myrtus communis*	Myrtle	
Nyctaginaceae - Four O'clock family		
Mirabilis laevis	Wishbone plant	
Oleaceae - Olive family		
Fraxinus sp.	Ash	
* *Olea europaea*	Olive	
Onagraceae - Evening Primrose family		
Camissoniopsis bistorta	California sun cup	
Clarkia rhomboidea	Diamond clarkia	

Scientific Name	Common Name	Special Status
Eulobus californicus	False-mustard	
Phrymaceae - Lopseed family		
Mimulus guttatus	Seep monkeyflower	
Plantaginaceae - Plantain family		
Keckiella cordifolia	Heartleaf bush penstemon	
Platanaceae - Plane Tree, Sycamore family		
Platanus racemosa	Western sycamore	
Polygonaceae - Buckwheat family		
Eriogonum fasciculatum	California buckwheat	
Rhamnaceae - Buckthorn family		
Rhamnus ilicifolia	Hollyleaf redberry	
Rosaceae - Rose family		
Adenostoma fasciculatum	Chamise	
Heteromeles arbutifolia	Toyon	
Prunus ilicifolia	Holly leaf cherry	
Salicaceae - Willow family		
Salix lasiolepis	Arroyo willow	
Solanaceae - Nightshade family		
Datura wrightii	Wright's jimsonweed	
* *Nicotiana glauca*	Tree tobacco	
Solanum xanti	Chaparral nightshade	
Ulmaceae - Elm family		
* *Ulmus parvifolia*	Chinese elm	
* *Ulmus pumila*	Siberian elm	
MONOCOTS		
Agavaceae - Century Plant family		
Hesperoyucca whipplei	Chaparral yucca	
Cyperaceae - Sedge family		
Cyperus eragrostis	Tall flatsedge	
Poaceae - Grass family		
* *Avena barbata*	Slender wild oat	
* *Bromus diandrus*	Ripgut brome	
* *Bromus madritensis*	Compact brome	
Elymus condensatus	Giant wildrye	
* *Hordeum murinum*	Wall barley	
* *Lamarckia aurea*	Goldentop grass	

Scientific Name	Common Name	Special Status
* *Pennisetum setaceum*	African fountain grass	
* *Stipa miliacea var. miliacea*	Smilo grass	
Stipa pulchra	Purple needle grass	
Themidaceae - Brodiaea family		
Bloomeria crocea	Common goldenstar	
Dichelostemma capitatum	Blue dicks	

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened

CRPR – California Rare Plant Rank
1A. Presumed extinct in California and elsewhere
1B. Rare or Endangered in California and elsewhere
2A. Presumed extinct in California, more common elsewhere
2B. Rare or Endangered in California, more common elsewhere
3. Plants for which we need more information - Review list
4. Plants of limited distribution - Watch list

Threat Ranks
.1 - Seriously endangered in California
.2 – Fairly endangered in California
.3 – Not very endangered in California

Appendix C

Site Photographs

Photograph: 1

Photo Date: January 26, 2017

Location: East end of study area, south of Saranac Ln.

Direction: View facing southeast.

Comment: Photo depicts native scrub habitat.

Photograph: 2

Photo Date: January 26, 2017

Location: East end of study area, south of Saranac Ln.

Direction: View facing northwest.

Comment: Photo depicts native scrub habitat.

Photograph: 3

Photo Date: January 26, 2017

Location: Northeast corner of the study area.

Direction: View facing southwest.

Comment: Photo provides overview of the east end of the study area showing a mix of development, ornamental plantings, and native scrub.

Photograph: 4

Photo Date: April 19, 2017

Location: North end of study area, north of Sycamore Avenue.

Direction: View facing east.

Comment: Photo depicts a mix of development, ornamental plantings, and native coast live oak trees. Dam of debris basin in background.

Photograph: 5

Photo Date: April 19, 2017

Location: North end of the study area, between Sycamore Ave and Hill Crest Ave.

Direction: View facing southwest.

Comment: Photo depicts edge of development adjacent to open space associated with adjacent foothills.

Photograph: 6

Photo Date: April 19, 2017

Location: North end of the study area, north of Cobalt St.

Direction: View facing north.

Comment: Photo depicts open space associated with adjacent foothills. Mix of non-native grasslands, ornamental plantings, and native scrub.

Photograph: 7

Photo Date: May 15, 2017

Location: North end of the study area, north of Hillside Dr.

Direction: View facing west.

Comment: Photo depicts open space associated with adjacent foothills. Mix of non-native grasslands, ornamental plantings, and native scrub.

Photograph: 8

Photo Date: May 15, 2017

Location: Near the center of the study area, between Hillside Dr. and Bucher Ave.

Direction: View facing southeast.

Comment: Photo depicts a mix of development, disturbed vacant lots, ornamental plantings, and native scrub.

Photograph: 9

Photo Date: May 15, 2017

Location: Near the center of the study area, between Bucher Ave. and Jacaranda Terrace.

Direction: View facing east.

Comment: Photo depicts a mix of development, disturbed vacant lots, ornamental plantings, and native oaks.

Appendix D3

Gnatcatcher Survey

June 2, 2017

Stacey Love
Recovery Permit Coordinator
Carlsbad Fish and Wildlife Office
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, CA 92008

Subject: 45-Day Report – Coastal California Gnatcatcher Presence/Absence Survey Results for the Olive View-UCLA Medical Center Campus Master Plan Project located in Sylmar, Los Angeles County, California

Dear Ms. Love:

This report documents the results of focused coastal California gnatcatcher (CAGN) (*Polioptila californica californica*) presence/absence surveys conducted by ICF (consultant to the Los Angeles County Department of Public Works) between November 2016 and March 2017 in support of the proposed Olive View-UCLA Medical Center Campus Master Plan Project (Project).

Location

The Project site is located at 14445 Olive View Drive on several parcels of land owned by the County of Los Angeles. The campus is located within the community of Sylmar, at the north end of the San Fernando Valley, in the City of Los Angeles, California. Specifically, the site is bounded by the Angeles National Forest and Wilson Canyon Debris Basin on the north, Olive View Drive on the south, Los Angeles County Flood Control District facilities and Wilson Canyon Park on the east, and Bucher Avenue to the west. Kennedy Road and Cobalt Street intersect the Project site. The site is located east of the I-5 freeway and north of the I-210 freeway (Figure 1).

The Project site is depicted within Township 3 North, Range 15 West, Sections 21 and 22 of the San Fernando, California, U.S. Geological Survey 7.5-minute quadrangle map (Figure 2).

Project Description

The master plan is intended to guide development of the campus over time and the delivery of health care services and health related community programs. The master plan provides alternate paths for that development and flexibility to allow the master plan to adapt to changes over time. The master plan also includes an analysis and assessment of existing campus infrastructure and buildings, future considerations and recommendations for the campus' land use, and a series of design guidelines that dictate building placement, form, and materiality.

Survey Area

The 230-acre Project site is located at the Olive View-UCLA Medical Center campus and consists of 31 permanent buildings and 29 trailers and other modular structures. The Project abuts the foothills of the San Gabriel Mountains, which are a part of the Angeles National Forest. Horse trails and hiking trails run

along the northern edge of the campus. Predominantly single-family residential neighborhoods are located to the east of the campus. A mix of single-family (including ranch style homes with equestrian facilities) residences, multi-family residences, and some commercial uses are located to the south of the campus across Olive View Drive. Residential uses are also located just west of the campus and north of I-210.

Developed areas make up a majority of the study area followed by disturbed habitat. These areas have been physically altered and include existing campus infrastructure, medium-density residential communities, roads and hardscape structures, other manmade features, and ornamental trees. Disturbed habitat is any land that has been permanently altered by previous human activity including grading, repeated clearing, and dirt roads. Disturbed land is typically characterized by more than 50 percent bare ground and absence of remnant native vegetation. Disturbed habitat within the study area surrounds existing development within the project site, and is dominated by nonnative grasses and other species, including ripgut grass (*Bromus diandrus*), wild oat (*Avena barbata*), tocalote (*Centaurea melitensis*), shortpod mustard (*Hirschfeldia incana*), indian hedgemustard (*Sisymbrium orientale*), and Russian thistle (*Salsola* tragus).

Coastal sage scrub that was considered to be suitable habitat for CAGN is located in the eastern portion of the study area (approximately 19.80 acres). This habitat is dominated by mature California sagebrush (*Artemesia californica*), California buckwheat (*Eriogonum fasciculatum*), black sage (*Salvia mellifera*), yerba santa (*Eriodictyon crassifolium*), laurel sumac (*Malosma laurina*), deerweed (*Acmispon glaber*), and toyon (*Heteromeles arbutifolia*).

Survey Methods

The survey protocol to determine presence/absence of CAGN requires a federal 10(A)1(a) permit. From November 3, 2016 through March 28, 2017, Phillip Richards (permit # TE-095896) and James Hickman (permit # TE-60218B-0) performed a focused survey for CAGN in all potentially suitable habitat. The survey area covered suitable habitat within the project limits. Figure 3 depicts the suitable CAGN habitat within the Project limits of disturbance plus a 500-foot buffer.

Nine surveys were conducted at least two weeks apart between 6:00 a.m. and 12:00 p.m. (Table 1). Surveys were not conducted during periods of excessive or abnormal heat, wind, rain, fog, or other inclement weather. Methods included slowly walking through the vegetation with frequent stops to listen and play taped CAGN vocalizations. During each visit, a taped vocalization was broadcast at least once in all potential habitat at distance intervals of approximately 23 to 30 meters (75 to 100 feet). All vertebrate species detected were recorded (Appendix B).

Table 1. Survey Dates, Personnel, and Weather Conditions

Visit	Date	Time	Biologist	Conditions
1	11/3/2016	0830-1100	James Hickman	75 – 80°F, sunny, winds 1-3 mph, good visibility
2	11/18/2016	0845-1100	James Hickman	57 – 65°F, sunny, winds 3-5 mph, good visibility
3	12/4/2016	0800-1100	James Hickman	60 – 65°F, sunny, winds 1-4 mph, good visibility
4	12/26/2016	0730-1030	James Hickman	52 – 56°F, partly cloudy, winds 0-3 mph, good visibility
5	1/26/2017	0800-1130	Phillip Richards	45 – 57°F, sunny, winds 0-8 mph, good visibility
6	2/9/2017	0800-1145	Phillip Richards	64 – 73°F, partly cloudy, winds 0-3 mph, good visibility
7	2/23/2017	0805-1135	Phillip Richards	51 – 54°F, sunny, winds 1-5 mph, good visibility
8	3/14/2017	0800-1150	Phillip Richards	68– 85°F, sunny, winds 0-3 mph, good visibility
9	3/28/2017	0800-1155	Phillip Richards	55 – 70°F, sunny, winds 1-10 mph, good visibility
USFWS Permit: Phillip Richards TE – 095896, James Hickman TE-60218B-0				

Results

No CAGN was detected on or adjacent to the Project site during any of the nine visits.

If you have questions or need clarifications regarding this report, please contact me at (949) 333-6643 or Phillip.Richards@icfi.com.

Sincerely,

Phillip Richards
ICF Biologist

Enclosed:
Figure 1: Regional Vicinity Map
Figure 2: Topographic Study Site Map
Figure 3: Study Area and Results Map

Appendix A: Site Photographs
Appendix B: Wildlife Species Detected
Appendix C: Certification Statement

Figures

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Figure 1
Regional Location
Olive View-UCLA Medical Center Master Plan

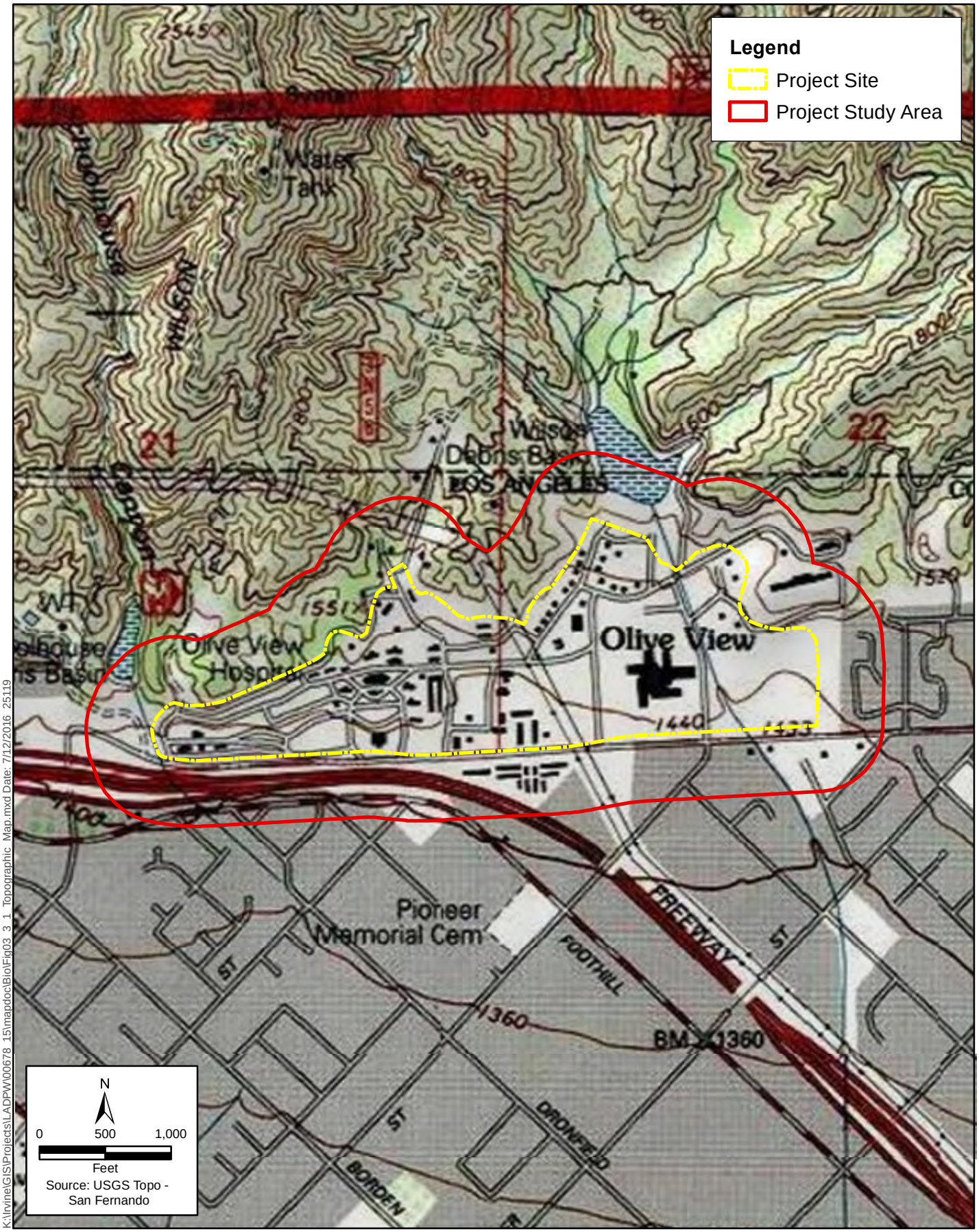

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Figure 2
Topographic Map
Olive View-UCLA Medical Center Master Plan

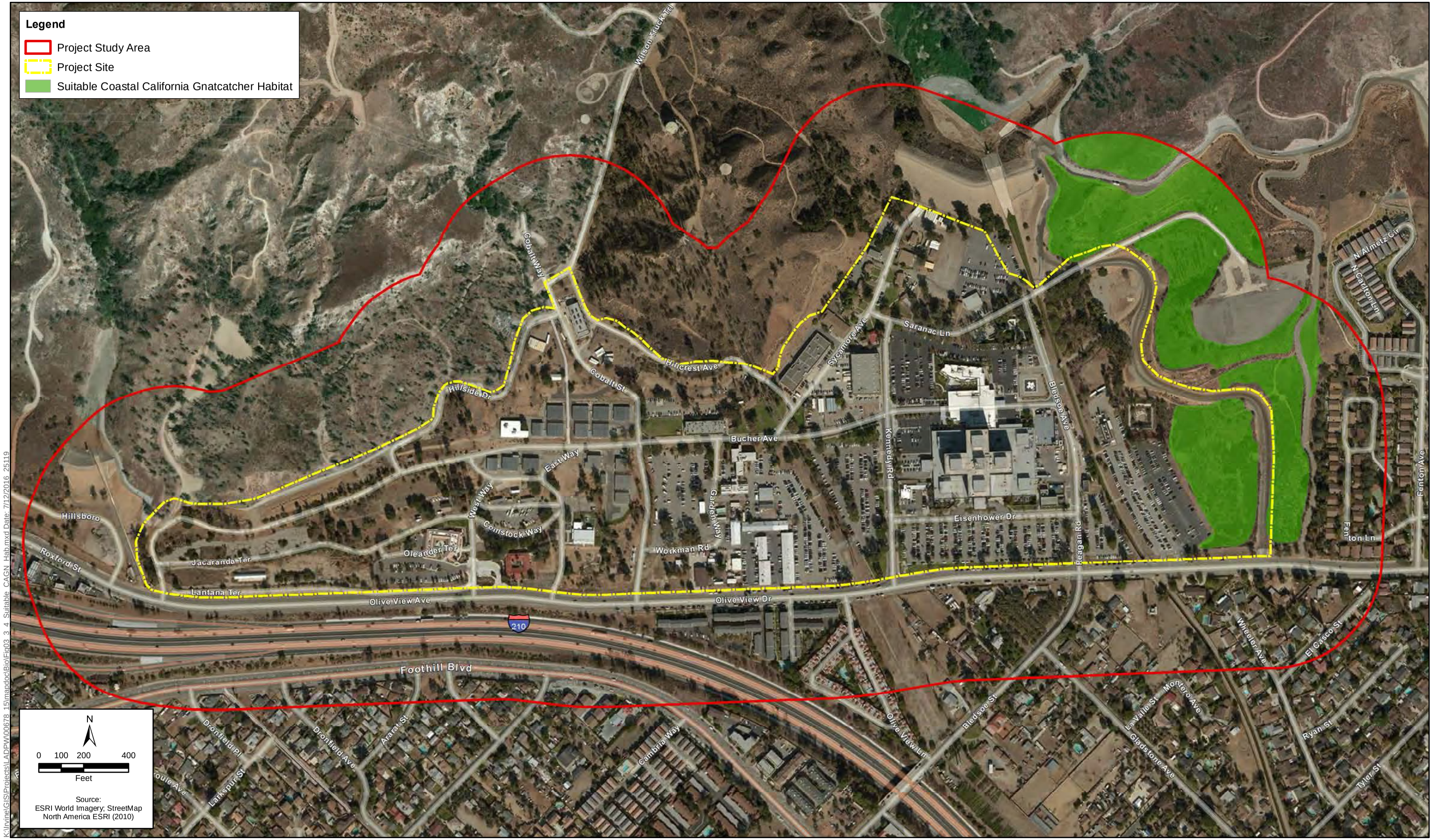

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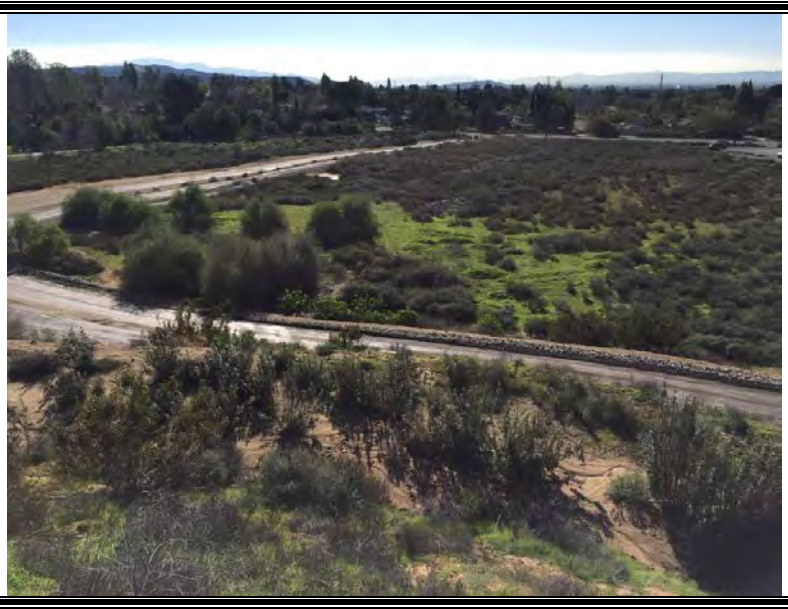
Figure 3
Suitable Coastal California Gnatcatcher Habitat
Olive View-UCLA Medical Center Master Plan

Appendix A

Site Photographs



Photograph: 1

Photo Date: January 26, 2017

Location: Center of survey area, south of large paved pad/Saranac Ln.

Direction: View facing south.

Comment: Photo depicts dense sage scrub habitat along the south end of the survey area.

Photograph: 2

Photo Date: January 26, 2017

Location: Center of survey area, south of large paved pad/Saranac Ln.

Direction: View facing west.

Comment: Photo depicts dense sage scrub habitat along the south end of the survey area.

Photograph: 3

Photo Date: January 26, 2017

Location: South end of survey area, north of Olive View Drive.

Direction: View facing northwest.

Comment: Photo depicts dense sage scrub habitat along the southern and central portions of the survey area.

Photograph: 4

Photo Date: January 26, 2017

Location: North end of survey area, north of paved pad/Saranac Ln.

Direction: View facing south.

Comment: Photo depicts mix of existing development and dense sage scrub habitat along the north end of the survey area.

Photograph: 5

Photo Date: January 26, 2017

Location: North end of survey area, north of paved pad/Saranac Ln.

Direction: View facing southwest.

Comment: Photo depicts mix of existing development and dense sage scrub habitat along the north end of the survey area.

Photograph: 6

Photo Date: January 26, 2017

Location: North end of survey area, north of paved pad/Saranac Ln.

Direction: View facing west.

Comment: Photo depicts dense sage scrub habitat along the north end of the survey area.

Appendix B

Wildlife Species Detected

Appendix B. Wildlife Species Detected

Scientific Name	Common Name	Special Status
VERTEBRATES		
Reptiles		
Phrynosomatidae - Spiny Lizard Family		
Sceloporus occidentalis	Western Fence Lizard	
Uta stansburiana elegans	Western Side-blotched Lizard	
Birds		
Odontophoridae - New World Quail Family		
Callipepla californica	California Quail	
Accipitridae - Hawk Family		
Accipiter cooperii	Cooper's Hawk	
Buteo jamaicensis	Red-tailed Hawk	
Columbidae - Pigeon and Dove Family		
**Columba livia*	Rock Pigeon	
Patagioenas fasciata	Band-tailed Pigeon	
**Streptopelia decaocto*	Eurasian Collared-Dove	
Zenaida macroura	Mourning Dove	
Trochilidae - Hummingbird Family		
Calypte anna	Anna's Hummingbird	
Selasphorus sasin	Allen's Hummingbird	
Picidae - Woodpecker Family		
Melanerpes formicivorus	Acorn Woodpecker	
Sphyrapicus ruber	Red-breasted Sapsucker	
Picoides nuttallii	Nuttall's Woodpecker	
Colaptes auratus	Northern Flicker	
Tyrannidae - Tyrant Flycatcher Family		
Sayornis nigricans	Black Phoebe	
Sayornis saya	Say's Phoebe	
Tyrannus vociferans	Cassin's Kingbird	
Tyrannus verticalis	Western Kingbird	
Corvidae - Jay and Crow Family		
Aphelocoma californica	California Scrub-Jay	
Corvus brachyrhynchos	American Crow	
Corvus corax	Common Raven	

Scientific Name	Common Name	Special Status
Hirundinidae - Swallow Family		
Stelgidopteryx serripennis	Northern Rough-winged Swallow	
Petrochelidon pyrrhonota	Cliff Swallow	
Hirundo rustica	Barn Swallow	
Paridae - Titmouse Family		
Baeolophus inornatus	Oak Titmouse	
Aegithalidae - Bushtit Family		
Psaltriparus minimus	Bushtit	
Troglodytidae - Wren Family		
Troglodytes aedon	House Wren	
Thryomanes bewickii	Bewick's Wren	
Mimidae - Thrasher Family		
Toxostoma redivivum	California Thrasher	
Mimus polyglottos	Northern Mockingbird	
Sturnidae - Starling Family		
**Sturnus vulgaris*	European Starling	
Ptilogonatidae - Silky-flycatcher Family		
Phainopepla nitens	Phainopepla	
Parulidae - Wood-Warbler Family		
Setophaga coronata	Yellow-rumped Warbler	
Emberizidae - Sparrow Family		
Pipilo maculatus	Spotted Towhee	
Aimophila ruficeps canescens	Southern California Rufous-crowned Sparrow	
Melozone crissalis	California Towhee	
Melospiza melodia	Song Sparrow	
Zonotrichia leucophrys	White-crowned Sparrow	
Junco hyemalis	Dark-eyed Junco	
Fringillidae - Finch Family		
Haemorhous mexicanus	House Finch	
Carduelis psaltria	Lesser Goldfinch	
Passeridae - Old World Sparrow Family		
**Passer domesticus*	House Sparrow	
Mammals		
Leporidae - Hare and Rabbit Family		
Sylvilagus audubonii	Desert Cottontail	

Scientific Name	Common Name	Special Status
Geomyidae - Pocket Gopher Family		
Thomomys bottae	Botta's Pocket Gopher	
Canidae - Canid Family		
Canis latrans	Coyote	

Legend

*= Non-native or invasive species

Special Status:

Federal:
FE = Endangered
FT = Threatened

State:
SE = Endangered
ST =Threatened
CSC = California Species of Special Concern
CFP = California Fully Protected Species

Appendix C

Certification Statement

I certify that the information contained in this survey report and attached exhibits fully and accurately represents my work. Should you have any questions regarding the methodology or findings in this report, please do not hesitate to contact James Hickman by email (James.Hickman@icfi.com) or call (909) 255-7161.

Sincerely,

James Hickman
Permit# TE-60218B-0

I certify that the information contained in this survey report and attached exhibits fully and accurately represents my work. Should you have any questions regarding the methodology or findings in this report, please do not hesitate to contact Phillip C. Richards by email (Phillip.Richards@icfi.com) or call (949) 333-6643.

Sincerely,

Phillip C. Richards
Permit# TE-095896

Appendix E

Archaeology Report

Appendix E1

Archaeological Resource Assessment for the Olive View-UCLA Medical Center Master Plan EIR

cogstone

PALEONTOLOGY - ARCHAEOLOGY - HISTORY

ARCHAEOLOGICAL RESOURCES ASSESSMENT FOR THE OLIVE VIEW-UCLA MEDICAL CENTER MASTER PLAN EIR, LOS ANGELES COUNTY, CALIFORNIA

Prepared for:
ICF International
601 W. Fifth St., Ste. 900
Los Angeles, CA 90071

Authors:
Justin Lev-Tov and Molly Valasik

Principal Investigator:
Justin Lev-Tov, Ph.D.
Registered Professional Archaeologist

August 2016

Cogstone Project Number: 3293
Type of Study: Phase I Archaeological Study
Cultural Resources: P-19-003794, P-19-175294, P-19-187900
USGS Quadrangle: San Fernando 7.5 minute
Area: 138.6 acres
Key Words: Los Angeles County, Sylmar, Olive View tuberculosis sanatorium

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Federal Certifications 8(a), SDB, EDWOSB
State Certifications DBE, WBE, SBE, UDBE

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MANAGEMENT SUMMARY

Cogstone Resource Management, Inc. (Cogstone) was contracted by ICF Jones & Stokes Inc. (ICF) to provide an archaeological assessment of the Olive View UCLA Medical Center Campus located at 14445 Olive View Drive in the City of Sylmar, Los Angeles County, California in support of the facility's Master Plan Environmental Impact Report (EIR). The Master Plan will guide future development of the campus and the delivery of health care services and health related community programs. For the purposes of the EIR, two tiers of development will be analyzed. Tier I entails near-term projects constructed before 2035, including an Ambulatory Care Center, research and development buildings, a Community Center, improvements to the existing hospital, appurtenant parking facilities, and other medical center campus improvements that would be located predominantly in the eastern third of the current campus. Tier II development would occur beyond 2035, and would include the construction of a new inpatient hospital, support services building, mental health outpatient care facility, long-term care and recuperative housing, retail space, County department buildings, and the reuse and renovation of the existing inpatient hospital for other purposes.

A search for archaeological and historical records was completed by Cogstone at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton on January 28th, 2016. The record search determined that two historic built environment resources and one historic district were recorded within the Project Area. The historic district for the Olive View-UCLA Medical Center, P-19-175294 is located within both Tier I and Tier II Project Areas. Also located within Tier I is P-19-187900 consisting of foundations for the Laundry and Linen Buildings within the Olive View Tuberculosis Sanitarium Complex. Within Tier II is P-19-003794 which consists of a concrete foundation and sidewalk associated with the Men's Solarium Wards 121 & 124 as well as a concrete subterranean transformer vault.

The Los Angeles Department of Public Works conducted Tribal Consultation. No Tribal Cultural Resources were identified in the project area.

Cogstone conducted an intensive pedestrian survey of the 138.6 acre project area on February 15th, 2016. Approximately 35.4 acres were inaccessible due to fencing with lock gates. Ground visibility outside of the hardscaped environment was poor at less than 10 percent due to the ornamental landscaping and vegetation cover, specifically grasses from the recent winter rains. Portions of the three previously recorded cultural resources were observed during the survey. No archaeological resources were previously recorded or observed during the survey.

Based on the results of the record search and land use history, both Tier I and Tier II Project Areas demonstrate moderate sensitivity for historical archaeological deposits associated with the

hospital complex and preexisting farmhouses. Tier I and Tier II Project Areas exhibit a low sensitivity for prehistoric archaeological resources. In the event of an unanticipated discovery, all work must be suspended within 50 feet of the find until it is evaluated by a qualified archaeologist.

Further, if human remains are unearthed during excavation, State Health and Safety Code Section 7050.5 states "there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered... [has made the appropriate assessment, and] …recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code."

INTRODUCTION

PURPOSE OF STUDY

The purpose of this study is to determine the potential adverse impacts to archaeological resources located within the Olive View-UCLA Medical Center Master Plan Project. This technical study provides environmental documentation as required by the California Environmental Quality Act (CEQA). The Olive View-UCLA Medical Center campus comprises 235 acres and is located at 14445 Olive View Drive in the neighborhood of Sylmar, Los Angeles County, California (Figure 1).

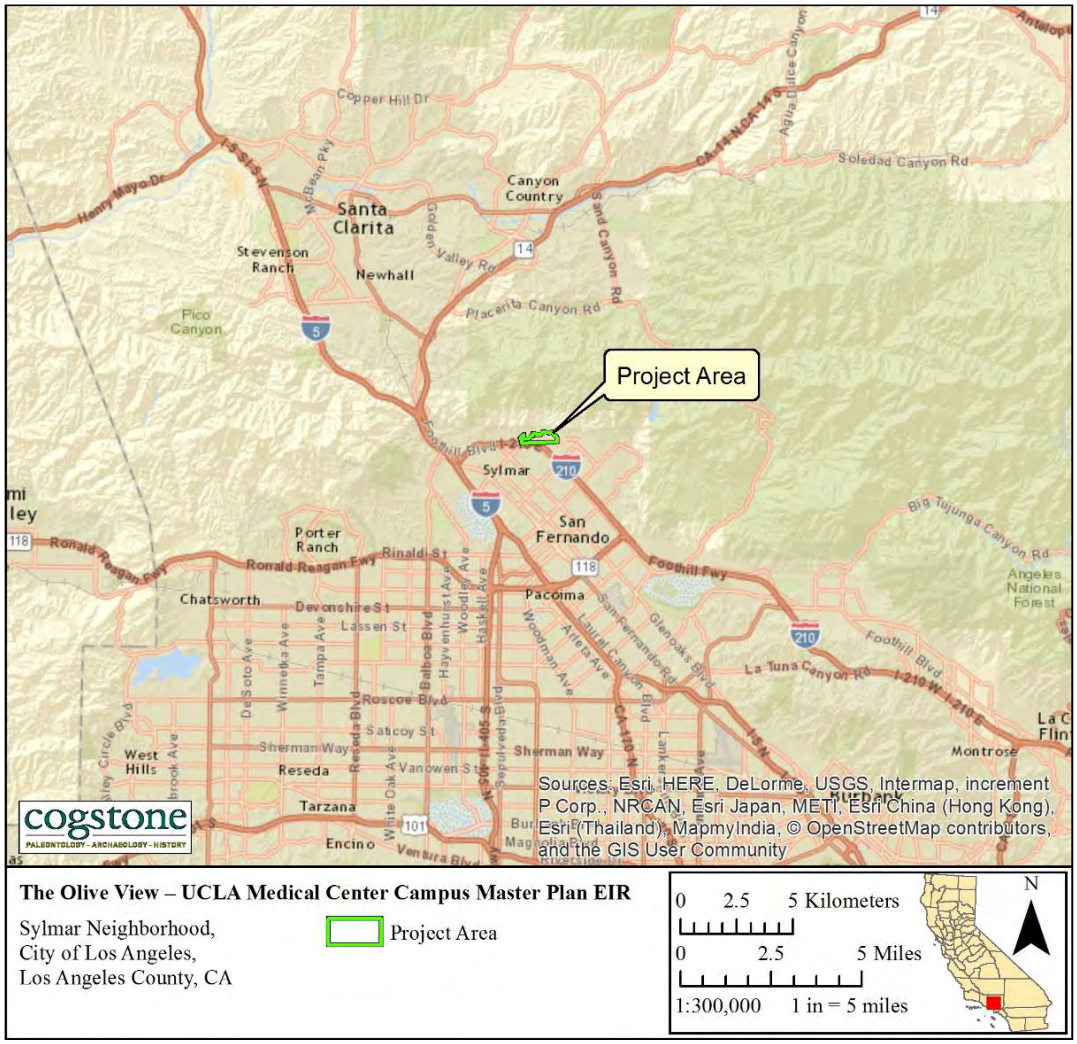

Figure 1. Project Vicinity

PROJECT LOCATION

The campus is bounded by the Angeles National Forest on the north, Olive View Drive on the south, Wilson Canyon Channel on the east, and Bucher Avenue on the west. Specifically, the Project is located on the San Fernando 7.5-minute United State Geological Survey (USGS) topographic map within sections 21 and 22 of Township 3 North, Range 15 West the San Bernardino Base Meridian (Figure 2 and Figure 3).

PROJECT DESCRIPTION

An Environmental Impact Report (EIR) will be prepared for the proposed Olive View-UCLA Medical Center Campus Master Plan Project. The Master Plan will guide future development of the campus and the delivery of health care services and health related community programs. For the purposes of the EIR, two tiers of development will be analyzed. Tier I entails near-term projects constructed before 2035, including an Ambulatory Care Center, research and development buildings, a Community Center, improvements to the existing hospital, appurtenant parking facilities, and other medical center campus improvements that would be located predominantly in the eastern third of the current campus. Tier II development would occur beyond 2035, and would include the construction of a new inpatient hospital, support services building, mental health outpatient care facility, long-term care and recuperative housing, retail space, County department buildings, and the reuse and renovation of the existing inpatient hospital for other purposes. Full build-out of the Master Plan could result in a total of approximately 1,965,300 square feet of development throughout the campus (Figure 4).

Ground disturbance for full build-out of the Master Plan could result in approximately 251,000 cubic yards of cut work and 70,000 cubic yards of fill to construct new campus buildings and structures. Additional earth disturbance for the proposed landscaping improvements on campus is anticipated to be shallow and proportionately insignificant.

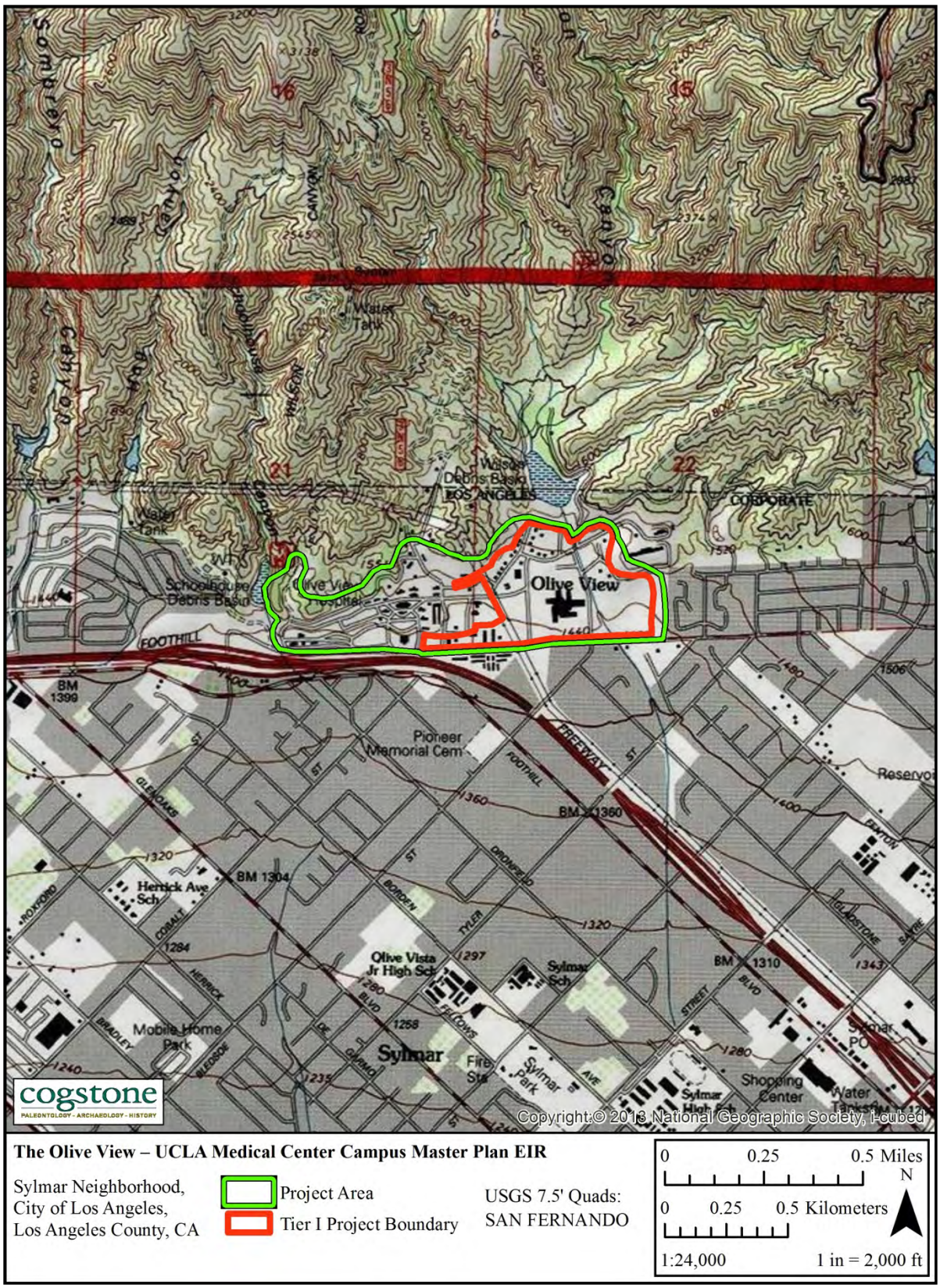

Figure 2. Project location map

The Olive View – UCLA Medical Center Campus Master Plan EIR

Sylmar Neighborhood,
City of Los Angeles,
Los Angeles County, CA

Project Area
Tier I Project Boundary

Figure 3. Project Aerial

Figure 4. Olive View-UCLA Medical Center Master Plan.

PROJECT PERSONNEL

Cogstone Resource Management, Inc. (Cogstone) conducted the cultural resources studies for this report. Sherri Gust, M.A. served as Quality Control and wrote the prehistoric setting section of this report. Ms. Gust has over 35 years of experience in California Archaeology. Molly Valasik served as Project Manager for the project and wrote portions of this report. Ms. Valasik is a Registered Professional Archaeologist. She has a M.A. in Anthropology from Kent State University in Ohio and over seven years of experience in California archaeology.

Justin Lev-Tov served as Principal Investigator. Dr. Lev-Tov received his Ph.D. in Anthropology from the University of Tennessee Knoxville, and is a member of the Register of Professional Archaeologists. Dr. Lev-Tov has over seven years of experience in southern California archaeology.

Alyson Caine conducted the cultural resources records search at the South Central Coastal Information Center (SCCIC) in Fullerton. Ms. Caine holds a Master of Science in Paleopathology/Archaeology from Durham University, Durham, United Kingdom. Ms. Caine has three years of professional and academic training in prehistoric bioarchaeology and osteology and one year in California archaeology. Sarah Nava conducted the field survey and prepared the survey and records search portions of the report. Ms. Nava earned a B.A. in Anthropology in 2008 from California State University, Long Beach and has six years of field experience in southern California. Andre Simmons drafted the maps used in this report. Mr. Simmons has a M.A. in Anthropology from California State University, Fullerton, as well as a certificate in Geographic Information Systems (GIS) from the same institution. He has six years of field experience in southern California. Short resumes of all Cogstone staff involved in this Project are provided in Appendix A.

REGULATORY ENVIRONMENT

STATE LAWS AND REGULATIONS

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA requires studies that analyze the environmental effects of a proposed project. In the event that a project is determined to have a potential significant environmental effect, a definition that includes historic resources, the act requires that alternative plans and mitigation measures be considered.

TRIBAL CULTURAL RESOURCES

As of 2015, CEQA established that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (Pub. Resources Code, § 21084.2.). In order to be considered a "tribal cultural resource," a resource must be either:

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or
(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource.

To help determine whether a project may have such an effect, the lead agency must consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project (Pub. Resources Code, § 21080.3.1.).

In applying those criteria, a lead agency must consider the value of the resource to the tribe. For example, in considering the criterion that a resource is "associated with the lives of persons important in our past," a lead agency would ask whether the resource is associated with the lives of persons important to the relevant tribe's past. That determination must be supported with substantial evidence.

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code §20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

PRC § 5024.1, which is applicable to this Project, establishes the California Register of Historical Resources. Historic resources encountered during the Project other than the sewer may be eligible for inclusion on the CRHR since the undertaking is subject to PRC 5024.1. The register is a listing of all properties considered to be significant historical resources in the state. The California Register includes all properties listed or determined eligible for listing on the National Register, including properties evaluated under Section 106, and State Historical Landmarks from No. 770 on. The criteria for listing are the same as those of the National Register. The California Register statute specifically provides that historical resources listed, determined eligible for listing on the California Register by the State Historical Resources Commission, or resources that meet the California Register criteria are resources which must be given consideration under CEQA (see above). Other resources, such as resources listed on local

registers of historic registers or in local surveys, may be listed if they are determined by the State Historic Resources Commission to be significant in accordance with criteria and procedures to be adopted by the Commission and are nominated; their listing in the California Register, is not automatic.

Resources eligible for listing include buildings, sites, structures, objects, or historic districts that retain historic integrity and are historically significant at the local, state or national level under one or more of the following four criteria:

1) It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
2) It is associated with the lives of persons important to local, California, or national history;
3) It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or
4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired, or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may have historical, cultural, or architectural significance. Simply, resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the California Register, if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data. No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof. Consequently local project proponents as well as state entities are required to comply with PRC 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others.

NATIVE AMERICAN HUMAN REMAINS

Sites that may contain human remains important to Native Americans must be identified and treated in a sensitive manner, consistent with state law (i.e., Health and Safety Code §7050.5 and Public Resources Code §5097.98), as reviewed below:

> In the event that human remains are encountered during project development and in accordance with the Health and Safety Code Section 7050.5, the County Coroner must be notified if potentially human bone is discovered. The Coroner will then determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native American, he or she shall contact the Native American Heritage Commission (NAHC) by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The NAHC will then designate a Most Likely Descendant (MLD) with respect to the human remains. The MLD then has the opportunity to recommend to the property owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods.

LOS ANGELES COUNTY

The Los Angeles County General Plan has the following policies regarding cultural resource protection (2015):

- Policy C/NR 14.1: Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.
- Policy C/NR 14.2: Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.
- Policy C/NR 14.3: Support the preservation and rehabilitation of historic buildings.
- Policy C/NR 14.4: Ensure proper notification procedures to Native American tribes in accordance with Senate Bill 18 (2004).
- Policy C/NR 14.5: Promote public awareness of historic, cultural, and paleontological resources.
- Policy C/NR 14.6: Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

BACKGROUND

ENVIRONMENTAL SETTING

GEOLOGY, HYDROLOGY, AND SOILS

The Project Area is located in the San Fernando Valley within the Transverse Ranges physiographic province. The Transverse Ranges is composed of parallel, east-west trending mountain ranges and sediment-filled valleys (USGS 1996). The San Fernando Valley is a structurally complex, sedimentologically diverse, and tectonically evolving late Tertiary-Quaternary basin that contains the headwaters of the Los Angeles River and its tributaries. Prior to the advent of flood control, the valley floor was composed of active alluvial fans and floodplains. Seasonal streams emanating from Pacoima and Big Tujunga Canyons drain the complex western San Gabriel Mountains and deposit coarse, highly permeable alluvium that contains generally high-quality ground water. The San Fernando Valley is a structural trough that has been filled from the sides, with the major source of sediment being large drainages in the San Gabriel Mountains. Deposition on the major alluvial fan of Tujunga Wash and Pacoima Wash, which issues from the San Gabriel Mountains, and on smaller fans, has been influenced by ongoing compressional tectonics in the valley. Late Pleistocene deposits have been cut by active faults and warped over growing folds. Holocene alluvial fans are locally ponded behind active uplifts (Yerkes 1997).

The Project Area is located at the base of the San Gabriel Mountains with elevation ranges from 1433 to 1551 feet above sea level. The Project Area is covered by fluvial and fan deposits that originated in the mountains to the north. A majority of the Project Area is underlain by recent Holocene alluvium and gravel (Dibblee 1991). The slopes in the northern Project Area are comprised of the Pacoima Formation which is a Pleistocene alluvial gravel and sand derived from the adjacent mountains (Dibble 1991). A small portion of the Project Area in the northeast corner is underlain by Quaternary older alluvium and gravel (Dibblee 1991)

Two intermittent streams are located in the Project vicinity. The first stream is located just west of the Project Area and originates in the Schoolhouse Canyon. The second stream is in the eastern portion of the Project site just east of Reagan Road and originates in the Wilson Canyon.

A majority of the present-day soil horizons in the Project area formed on alluvial fans and flood plains (Soil Survey Staff 2014). The Capistrano-Urban land complex is located in the western half of the Project Area and consists of very deep, well drained soils that formed in alluvium from sedimentary or granitic sources. The Soboba series is gravelly loamy sand located in the eastern half of the Project Area. It consists of deep, excessively drained soils that formed in recent alluvium from predominately granitic rock sources. Soboba soils represent very gravelly, cobbly, or stony soils. The Tujunga-Urban land complex is located within the undeveloped land

at the eastern edge of the Project area. It consists of very deep, somewhat excessively drained soils that formed in alluvium from granitic sources.

A smaller portion of the soils in the Project Area formed on dissected terraces and foothills (Soil Survey Staff 2014). The Saugus series is a loam located on the slopes at the north end of the Project Area. Saugus loam is deep, well drained soils that formed from weakly consolidated sediments. Depth to a paralithic contact is 40 to 56 inches. Soper gravelly loamy sand also located on the slopes at the north end of the Project Area consist of moderately deep, well drained soils that formed in material weathered from conglomerate and sandstone. The soils are on hills and uplands. The depth to a paralithic contact is 24 to 40 inches.

CLIMATE, FLORA/FAUNA, AND CURRENT LAND USE

Today's Mediterranean-like climate is characterized by warm, dry summers and cool, moist winters, with rainfall predominantly falling between November and May. Climatic conditions in this region varied substantially during prehistoric times. Paleoclimatic research indicates that pine forests were present in the Santa Barbara coastal regions between 12,000 and 8,000 years ago (Heusser 1978). As the climate became warmer and drier, the pine forests were replaced approximately 5,700 years ago by Holocene-type grassland and oak woodland communities. Today's coastal sage scrub and chaparral communities became more pronounced by approximately 2,000 years ago

Current land use in the Project vicinity is mainly urban in character with medical buildings, parking lots, and landscaping. Native vegetation is present just outside the boundaries of the Project Area to the north. Low lying areas and gentler slopes are dominated by nonnative grasses with scattered coast live oak and valley oak. Higher elevations transition to chaparral. Areas between the nonnative grasses and chaparral are dominated by coastal sage scrub species such as yucca and buckwheat. This setting hosts a variety of animal resources including mule deer, brush rabbits, and black-tailed jackrabbits. In recent history, large mammals and many other terrestrial species have been driven from the Project Area due to human activity. Along the nearby intermittent streams, riparian vegetation exists. Willows, cottonwoods, a variety of shrubs and some grasses were among the plants present.

PREHISTORIC SETTING

Approaches to prehistoric frameworks have changed over the past half century from being based on material attributes to radiocarbon chronologies to association with cultural traditions. Archaeologists defined a material complex consisting of an abundance of milling stones (for grinding food items) with few projectile points or vertebrate faunal remains dating from about 7 to 3 thousand years before the present as the "Millingstone Horizon" (Wallace 1955). Later, the "Millingstone Horizon" was redefined as a cultural tradition named the Encinitas Tradition

(Warren 1968) with various regional expressions including Topanga and La Jolla. Use by archaeologists varied as some adopted a generalized Encinitas Tradition without regional variations, some continued to use "Millingstone Horizon" and some used Middle Holocene (the time period) to indicate this observed pattern (Sutton and Gardner 2010:1-2).

Recently, it was recognized that generalized terminology is suppressing the identification of cultural, spatial, and temporal variation and the movement of peoples throughout space and time. These factors are critical to understanding adaptation and change (Sutton and Gardner 2010:1-2).

The Encinitas Tradition characteristics are abundant metates and manos, crudely made core and flake tools, bone tools, shell ornaments, very few projectile points with subsistence focusing on collecting (plants, shellfish, etc.) (Sutton and Gardner 2010:7). Faunal remains vary by location but include shellfish, land animals, marine mammals, and fish.

The Encinitas Tradition is currently redefined as comprising four geographical patterns (Sutton and Gardner 2010:8-25). These are (1) Topanga in coastal Los Angeles and Orange counties; (2) La Jolla in coastal San Diego County; (3) Greven Knoll in inland San Bernardino, Riverside, Orange, and Los Angeles counties; and (4) Pauma in inland San Diego County.

About 3,500 years before present, the Encinitas Tradition was replaced in the greater Los Angeles Basin by the Del Rey Tradition (Sutton 2010). This tradition has been generally assigned to the Intermediate and Late Prehistoric periods. The changes that initiated the beginning of the Intermediate Period include new settlement patterns, economic foci, and artifact types that coincided with the arrival of a biologically distinctive population. The Intermediate and Late Prehistoric periods have not been well-defined. Many archaeologists have proposed, however, that the beginning of the Intermediate marked the arrival of Takic-speaking groups (from the Mojave Desert, southern Sierra Nevada, and San Joaquin Valley) and that the Late Prehistoric Period reflected Shoshonean groups (from the Great Basin). Related cultural and biological changes occurred on the southern Channel Islands about 300 years later.

As defined by Sutton (2010), the Del Rey Tradition replaces usage of the Intermediate and Late Prehistoric designations for both the southern California mainland and the southern Channel Islands. Within the Del Rey Tradition are two regional patterns named Angeles and Island. The Del Rey Tradition represents the arrival, divergence, and development of the Gabrielino in southern California.

PREHISTORIC CHRONOLOGY

The latest cultural revisions for the Project Area define traits for time phases of the Greven Knoll pattern of the Encinitas Tradition applicable to inland Los Angeles County (Sutton and Gardner 2010; Table 2). This pattern is replaced in the Project Area by the Angeles pattern of the Del Rey

Tradition later in time (Sutton 2010; Table 1). Each pattern has subdivisions as identified by specific changes in cultural assemblages through time. Phases are identified by their archaeological signatures in components within sites.

Greven Knoll sites tend to be in valleys such as the Project Area. These inland peoples did not switch from manos/metates to pestles/mortars like coastal peoples (c. 5,000 years before present); this may reflect their closer relationship with desert groups who did not exploit acorns. The Greven Knoll toolkit is dominated by manos and metates throughout its extent. In Phase I, other typical characteristics were pinto dart points for atlatls or spears, charmstones, cogged stones, absence of shell artifacts and flexed position burials (Table 1). In Phase II, Elko dart points for atlatls or spears and core tools are observed along with increased indications of gathering (Table 4). In addition, the Greven Knoll populations are biologically Yuman (based on skeletal remains), while the later Angeles populations are biologically Shoshonean (Sutton and Gardner 2010; Sutton 2010).

The Angeles pattern generally is restricted to the mainland and appears to have been less technologically conservative and more ecologically diverse, with a largely terrestrial focus and greater emphases on hunting and nearshore fishing. In Angeles Phase I, Elko points for atlatls or darts appear, small steatite objects such as pipes and effigies from Catalina are found, shell beads and ornaments increase, fishing technologies increase including bone harpoons/fishhooks and shell fishhooks, donut stones appear, and hafted micro blades for cutting/graving wood or stone appear. In addition, several Encinitas (Topanga) traits, such as discoidals, cogged stones, plummet-like charmstones, and cairn burials (see Sutton and Gardner 2010: Table 1) virtually disappear from the record. Mortuary practices changed to consist of primarily flexed primary inhumations, with extended inhumations becoming less common. Settlement patterns made a shift from general use sites being common to habitation areas separate from functional work areas. Subsistence shifted from mostly collecting to increased hunting and fishing. [Sutton 2010]

Angeles Phase II is identified primarily by the appearance of a new funerary complex, with other characteristics similar to Angeles I. The complex features killed (broken) artifacts, including manos, metates, bowls, mortars, pestles, points, and others, plus highly-fragmented cremated human bones and a variety of faunal remains. In addition to the cremains, the other material also often burned. None of the burning was performed in the burial feature. [Sutton 2010]

The Angeles Phase III is the beginning of what has been known as the Late Period and is marked by several changes from Angeles I and II. These include the appearance of small projectile points, steatite shaft straighteners and increased use of asphaltum all reflecting adoption of bow and arrow technology. In addition, obsidian sources changed from mostly Coso to Obsidian Butte, and shell beads derived from Gulf of California species began to appear. Subsistence

practices continued as before and the geographic extent of the Angeles Pattern increased. [Sutton 2010]

Angeles Phase IV is marked by new material items including Cottonwood points for arrows, Olivella cupped beads and Mytilus shell disks, birdstones (zoomorphic effigies with magico-religious properties) and trade items from the Southwest including pottery. It appears that populations increased and there was a change in the settlement pattern to fewer but larger permanent villages. Presence and utility of steatite vessels may have impeded the diffusion of pottery into the Los Angeles Basin. Smaller, special-purpose sites continued to be used. [Sutton 2010]

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Angeles Phase V components contain more and larger steatite artifacts, including larger vessels, more elaborate effigies, and comals. Settlement locations shifted from woodland to open grasslands. The exploitation of marine resources seems to have declined and use of small seeds increased. Many Gabrielino inhumations contained grave goods while cremations did not. [Sutton 2010]

The Angeles Phase VI reflects the ethnographic mainland Gabrielino of the post-contact (i.e., post-A.D. 1542) period. One of the first changes in Gabrielino culture after contact was undoubtedly population loss due to disease, coupled with resulting social and political disruption. Angeles Phase VI material culture is essentially Angeles Phase V, augmented by a number of Euro-Aamerican tools and materials, including glass beads and metal tools such as knives and needles (used in bead manufacture). The frequency of Euro-American material culture increased through time until it constituted the vast majority of materials used. Locally produced brownware pottery appears along with metal needle-drilled Olivella disk beads. [Sutton 2010]
The ethnographic mainland Gabrielino subsistence system was based primarily on terrestrial hunting and gathering; although nearshore fish and shellfish played important roles. Sea mammals, especially whales (likely from beached carcasses), were prized. In addition, a number of European plant and animal domesticates were obtained and exploited. Ethnographically, the mainland Gabrielino practiced interment and some cremation. [Sutton 2010]

Table 1. Cultural Patterns and Phases

Pattern	Phase	Dates (BP)	Material Traits	Other Traits
Encinitas	Greven Knoll I	8,500 to 4,000	Abundant manos and metates, Pinto dart points for atlatls or spears, charmstones, cogged stones and discoidals rare, no mortars or pestles, general absence of shell artifacts	No shellfish, hunting important, flexed inhumations, cremations rare
	Greven Knoll II	4,000 to 3,000	Abundant manos and metates, Elko dart points for atlatls or spears, core tools, late discoidals, few mortars and pestles, general absence of shell artifacts	No shellfish, hunting and gathering important, flexed inhumations, cremations rare
Angeles	Angeles I	3,500 to 2,600	Appearance of Elko dart points and an increase in the overall number of projectile points from Encinitas components; beginning of large-scale trade in small steatite artifacts (effigies, pipes, and beads) and *Olivella* shell beads from the southern Channel Islands; appearance of single-piece shell fishhooks and bone harpoon points; Coso obsidian becomes important; appearance of donut stones	appearance of a new biological population (Takic proto-Gab/Supan language), apparent population increase; fewer and larger sites along the coast; collector strategy; less overall dependence on shellfish but fishing and terrestrial hunting more important; appearance of flexed and extended inhumations without cairns, cremations uncommon
	Angeles II	2,600 to 1,600	Continuation of basic Angeles I material culture with the addition of mortuary features containing broken tools and fragmented cremated human bone; fishhooks become more common	continuation of basic Angeles I settlement and subsistence systems; appearance of a new funerary complex
	Angeles III	1,600 to 1,250	Appearance of bow and arrow technology (e.g., Marymount or Rose Spring points); changes in *Olivella* beads; asphaltum becomes important; reduction in obsidian use; Obsidian Butte obsidian largely replaces Coso	larger seasonal villages; flexed primary inhumations but no extended inhumations and an increase in cremations; appearance of obsidian grave goods; possible expansion into eastern Santa Monica Mountains, replacing Topanga III groups
	Angeles IV	1,250 to 800	Cottonwood points appear; some imported pottery appears; birdstone effigies at the beginning of the phase and “spike” effigies dropped by the end of the phase; possible appearance of ceramic pipes	change in settlement pattern to fewer but larger permanent villages; flexed primary inhumations continue, cremations uncommon; expansion into the San Gabriel Mountains, displacing Greven Knoll III groups

Pattern	Phase	Dates (BP)	Material Traits	Other Traits
	Angeles V	800 to 450	Trade of steatite artifacts from the southern Channel Islands becomes more intensive and extensive, with the addition or increase in more and larger artifacts, such as vessels and comals; larger and more elaborate effigies	strengthening of ties, especially trade, with southern Channel Islands; expansion into the northern Santa Ana Mountains and San Joaquin Hills; development of mainland dialects of Gabrielino
	Angeles VI	450 to 150	Addition of Euroamerican material culture (e.g., glass beads and metal tools), locally made pottery, metal needle-drilled *Olivella* beads	change of settlement pattern, movement close to missions and ranches; use of domesticated species obtained from Euroamericans; flexed primary inhumations continue, cremations uncommon to the north (nearer the Chumash) but somewhat more common to the south (nearer the Luiseño); apparent adoption of Chingichngish religion

ETHNOGRAPHY

The Project Area is within the traditional tribal territory of the Fernandeño, a subgroup of the Gabrielino/Tongva (Figure 5). The Tongva occupied Los Angeles County south of the Sierra Madre and portions of Orange County, as well as San Clemente and Santa Catalina (Kroeber 1976; McCawley 1996). Populations of the Tongva associated with Mission San Fernando were known as Fernandeño Indians, historically. However, both were populations of the Tongva Nation and the distinction is primarily geographical (McCawley 1996).

Two groups of Native Americans were present prehistorically in the San Fernando Valley, the Tataviam (Fernandeño) and the Tongva (Gabrielino). Tataviam territory stretched from Antelope Valley, through the Tejon Ranch area and into the San Fernando Valley. The Tongva territory encompassed a vast area stretching from Topanga Canyon in the northwest, to the base of Mount Wilson in the north, to San Bernardino in the east, Aliso Creek in the southeast and the Southern Channel Islands, in all an area of more than 2,500 square miles (McCawly 1996: 3).

These semi-sedentary hunting and gathering tribes consisted of more than 5,000 people living in various settlements throughout the area. Some of the villages could be quite large, housing up to 150 people. They thrived by exploiting the abundant and rich animal and plant resources available in the area. Marine resources, such as fish, marine mammals and shellfish, were especially important and items were often traded between coastal and inland groups.

Acorns were one of the most important food resources utilized by Native American groups across California. The acorns were ground into a fine powder in order to make an acorn mush or

gruel. A dietary staple, acorns provided a large number of calories and nutrients. The ability to store and create stockpiles in case of lean times also contributed to the importance of acorns as a vital natural resource. Much of the material evidence available to archaeologists concerning the Tataviam and Tongva is a result of tools and technologies related to their subsistence activities. Acorns contain tannic acid, which is poisonous. Acorns must be ground and the tannic acid leached out before they are edible. Manos, metates, mortars and pestles used for processing acorns and other nuts and seeds are often found at archaeological sites.

In addition to plant resources, the tribes also hunted animals such as deer, rabbits and other small game. A wide variety of plants were also exploited not only for food, but also medicine, clothing, building materials etc. Lithic debitage from the manufacture of stone tools such as arrowheads is also frequently found.

After the advent of the Missions in California, the Tataviam were called the Fernandeño and the Tongva were called the Gabrielino. Many modern day descendants are active members of current tribes of Tataviam and Tongva.

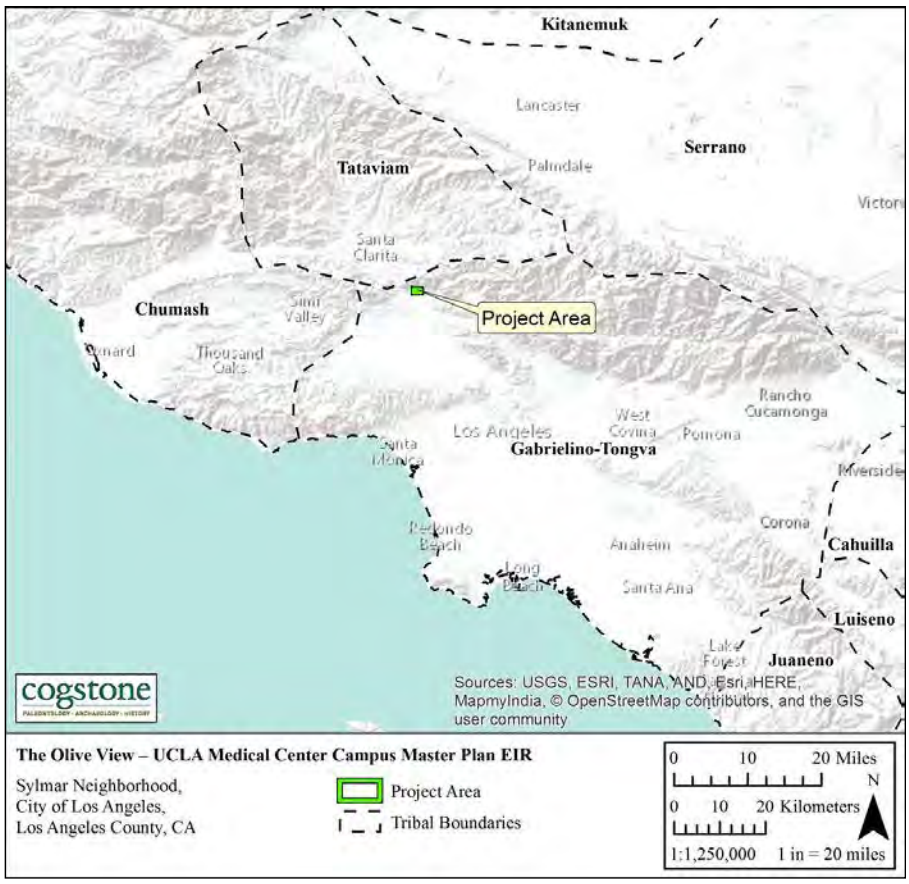

Figure 5. Southern California Tribal Boundaries

HISTORIC SETTING

SPANISH AND MEXICAN ERA SETTING

Juan Cabrillo was the first European to sail along the coast of California in 1542 and was followed in 1602 by Sebastian Vizcaino (Bean and Rawls 1993). Between 1769 and 1822, the Spanish had colonized California and established missions, presidios and pueblos (Bean and Rawls 1993).

The Project Area is located on a portion of land that was managed by the San Fernando Mission (Figure 6). Mission San Fernando Rey de España founded was on September 8, 1797. In the 1820's a Mission father by the name of Iballa, planted young olive trees from Spain and is credited for initiating the olive growing industry in Sylmar.

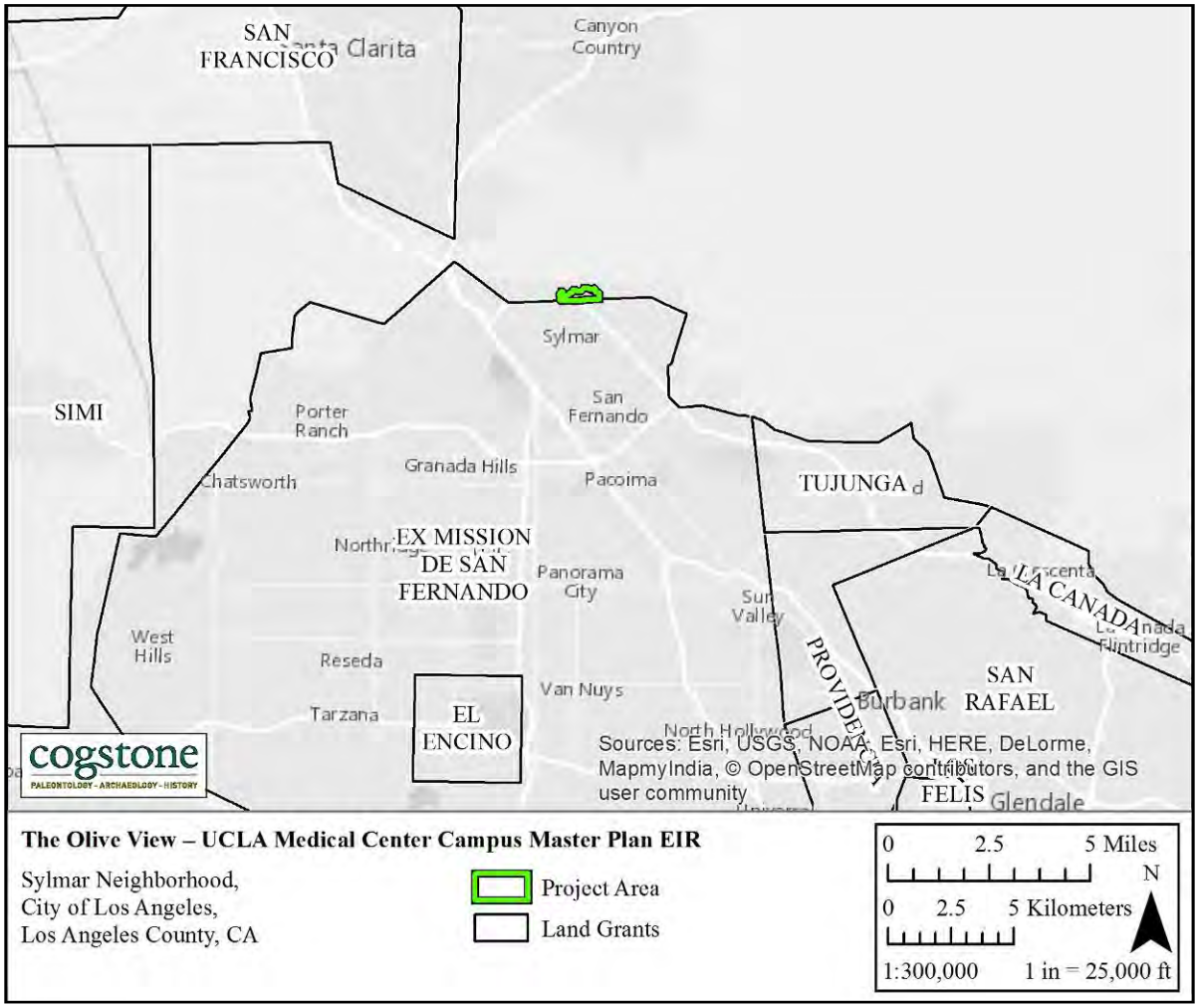

Figure 6. Mexican land grants surrounding the Project Area

In 1821, Mexico won its independence from Spain and worked to lessen the wealth and power held by the missions. The Secularization Act was passed in 1833, giving the vast mission lands to the Mexican governor and downgrading the missions' status to that of parish churches. The governor then redistributed the former mission lands, in the form of grants, to private owners. Ranchos in California numbered over 500 by 1846, all but approximately 30 of which resulted from land grants (Bean and Rawls 1993; Robinson 1948).

AMERICAN ERA SETTING (1848-1896)

Settled in the mid nineteenth century, the City of Sylmar was originally part of an unincorporated portion of San Fernando known as "Morningside". When the City of San Fernando incorporated the City in September 16, 1874, it was renamed Sylmar, meaning "city of trees".
A businessman by the name of Robert Wideny published a pamphlet exalting the Sylmar's ideal climate for growing olives. Enticed by Widney's description, a group of Illinois businessmen, who later called themselves the Los Angles Olive Growers Association, purchased 2,000 acres south of Roxford Street and by 1890 they had planted 1,100 acres of olives. The olives were originally sold under the Tyler Olives label which was later changed to the Sylmar Packing Label. Sylmar olives became famous throughout California for high quality (Sylmar Chamber of Commerce 2016).

20TH CENTURY SETTING (1900- PRESENT)

The Project Area is located on the former Olive View Sanatorium property, which first opened in 1921 and consisted of 590 acres. Prior to the establishment of the Sanatorium, the area was used for agricultural practices. A review of the 1900 USGS topographic map depicts very few houses in the area and only one within the future Sanatorium's grounds (Figure 7). At that time, the Project Area was relatively isolated, connected indirectly to the Los Angeles metropolitan area only by means of the Pacific Electric "Red Car" lines and the Southern Pacific Railroad. The Olive View Sanatorium was primarily used for the treatment of tuberculosis because the warm, dry air and Mediterranean climate was considered therapeutic (McAvoy 1994). Patients were often brought to the sanatorium forcefully, and, prior to finding and employing chemotherapy and sulfonamide drugs in the from the mid-1940s, the sick were subjected to a variety of harsh and at best mildly effective treatments (Leovy 1995; Rutgers Global Tuberculosis Institute 2015).

By 1945, the topographic map depicts the Sanatorium as extensively developed with medical and supporting buildings (Figure 8). An extensive road network was built to suit the needs of the Olive View Sanatorium and a number of houses and other buildings were constructed close to the house depicted on the 1900 topographic map. A few buildings were destroyed by a 1962 wildfire, but more extensive alterations to the campus were caused by a change in its mission. The Olive View Sanatorium underwent extensive physical and organizational changes in 1970, when it transitioned from a tuberculosis hospital to a teaching hospital for UCLA (Figure 9). In

addition, buildings on the campus were severely damaged a year later during the 1971 San Fernando-Sylmar Earthquake (scvhistory.com n.d.).

Additional records provided by Environmental Data Resources (EDR), including aerial images (2016a), Sanborn Fire Insurance Maps (2016b), city directories (2016c) and topographic maps (2016d) were reviewed. The historic aerial images dated between 1928 and 2012 show the sanatorium's transformation from isolated campus to suburban medical center. The Sanborn maps, dating from 1923 and 1927, show details of many sanatorium buildings, many no longer extant. Finally, although the directories date between 1920 and 2013, no names are associated with the Project Area prior to 1975.

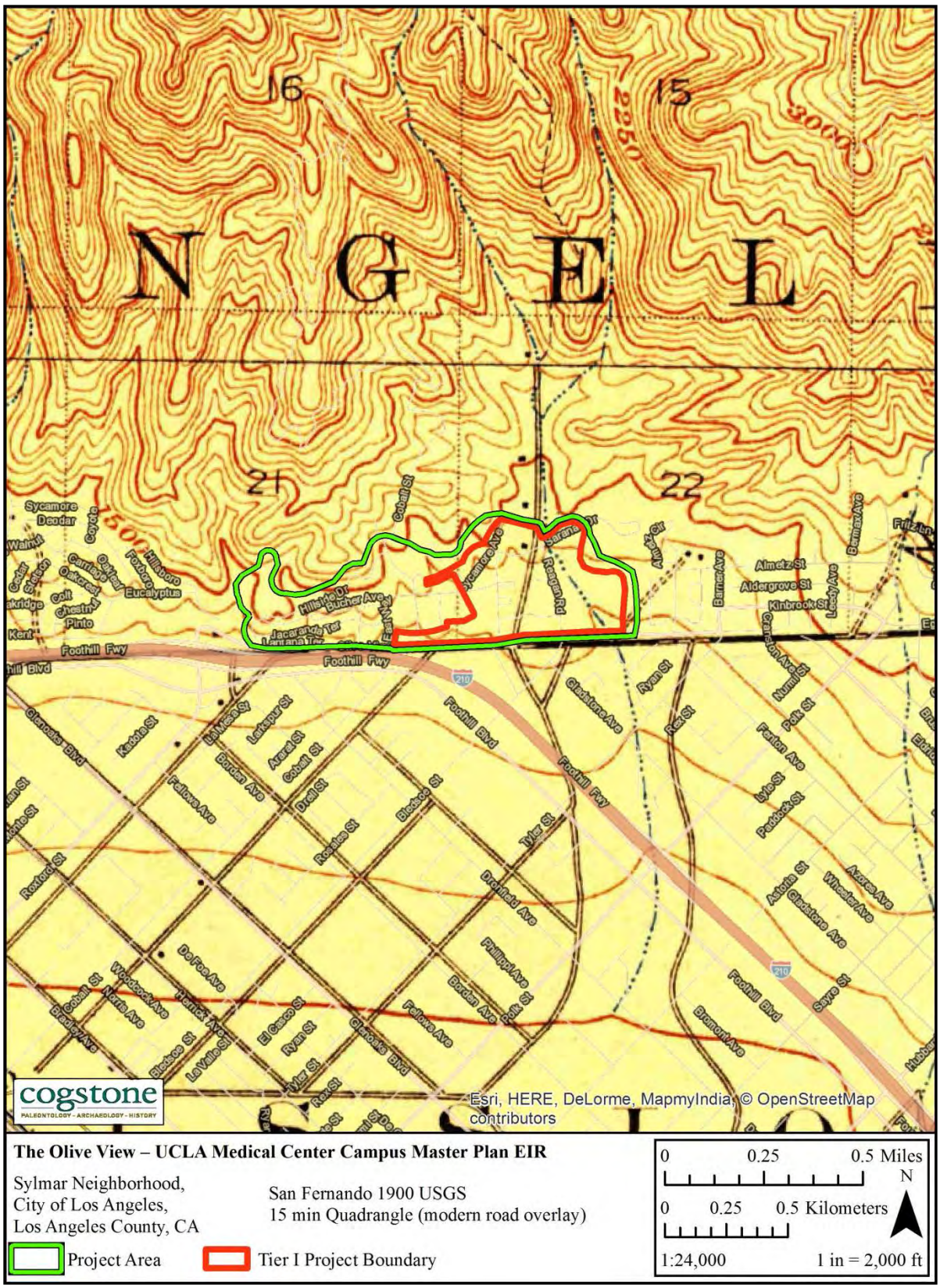

Figure 5. 1900 Map Showing House in Project Area along Main N-S Road

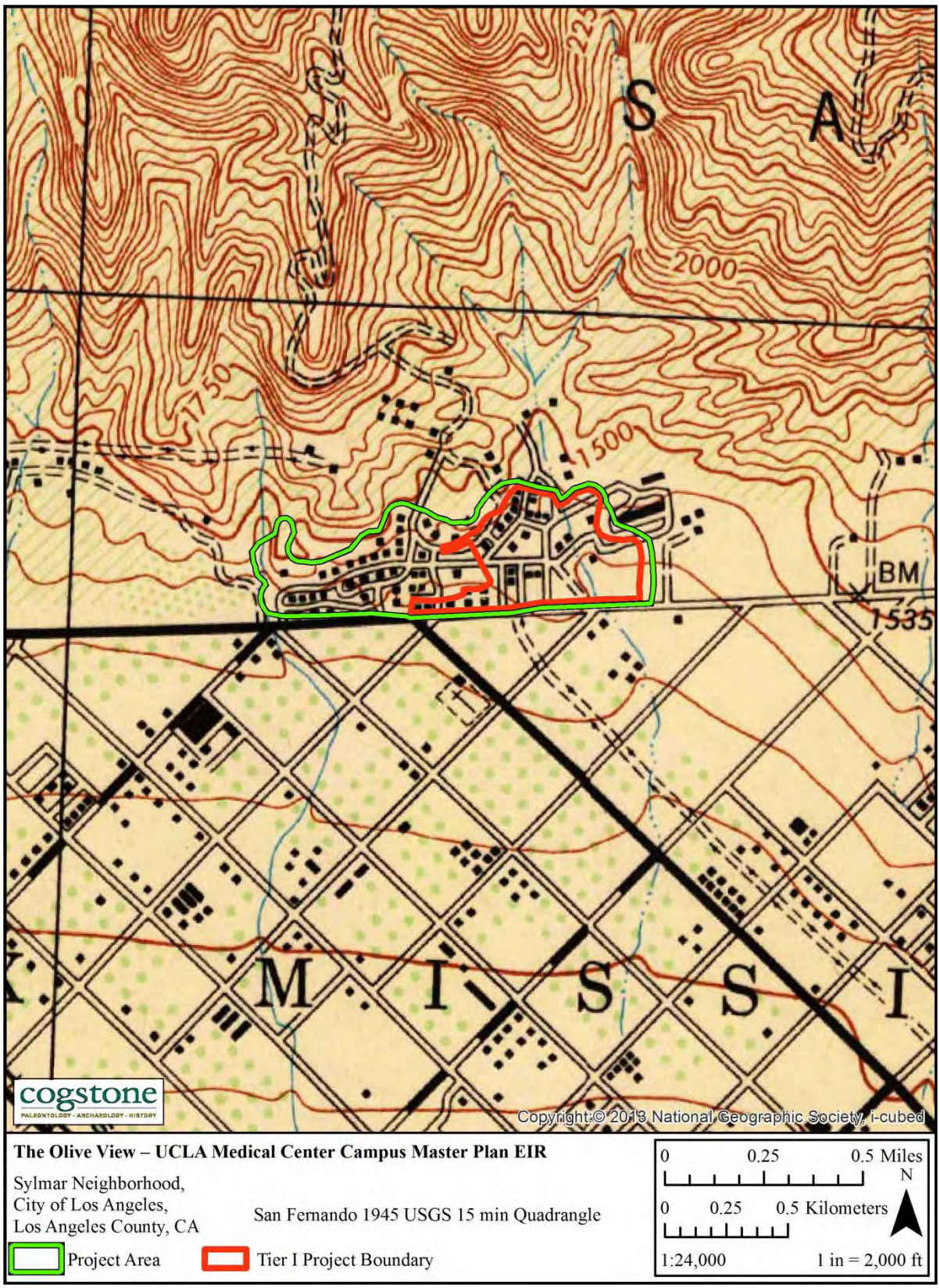

Figure 6. 1945 Map of the Project Area, Showing Sanatorium Fully Developed

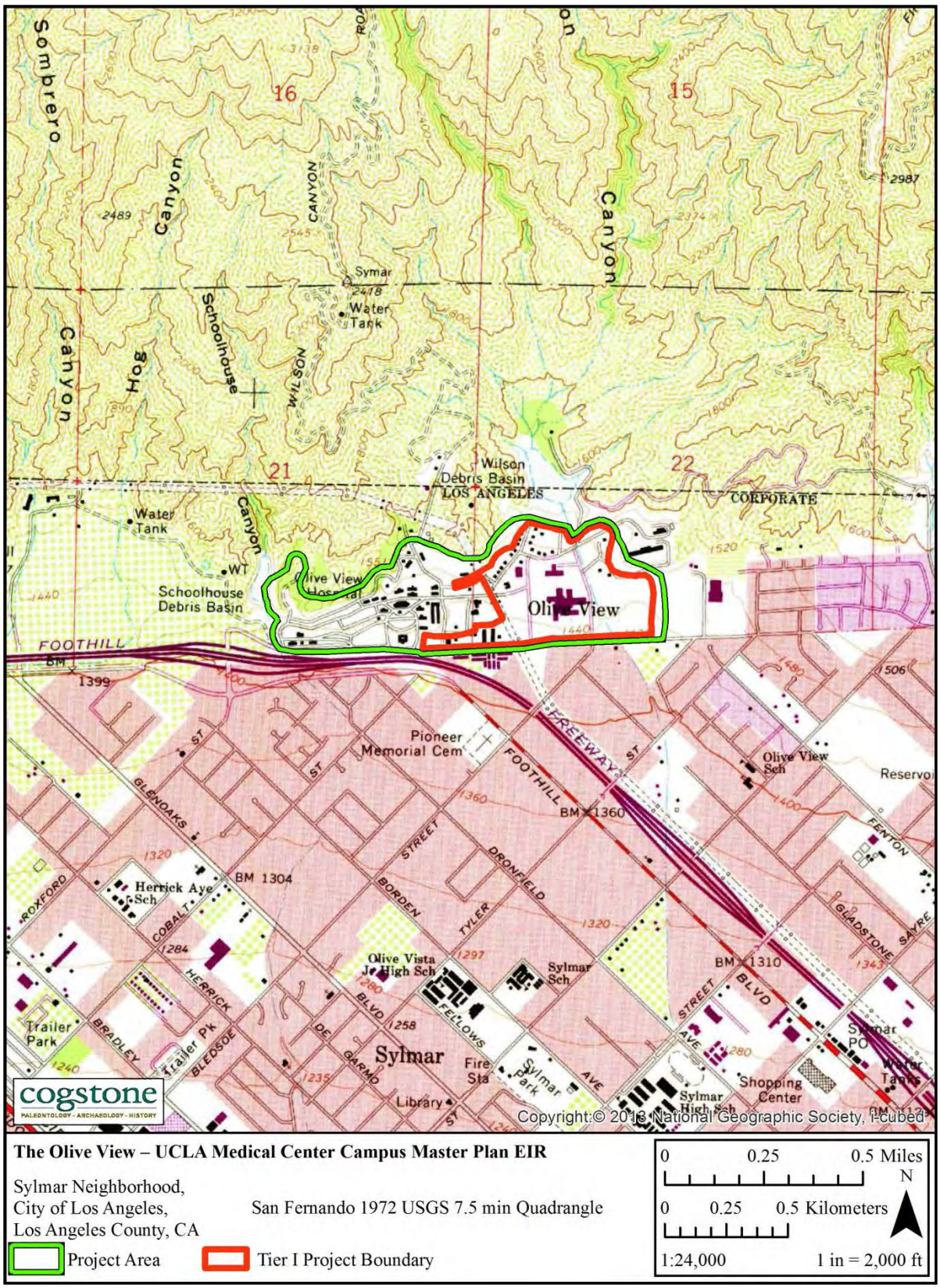

Figure 7. 1972 Map of the Project Area, Showing Olive View-UCLA Medical Center

SOURCES CONSULTED

CALIFORNIA HISTORIC RESOURCES INVENTORY SYSTEM

A search for archeological and historical records was completed by Alyson Caine, Cogstone on January 28th, 2016 at the South Central Coast Information Center (SCCIC), California State University at Fullerton. The search included a 1 mile-radius around the approximately 138.6-acre Project Area. Results indicate that 27 cultural resources investigations have been completed previously within a one mile radius of the Project Area (Appendix B). Five of these studies intersect the 138.6-acre Project Area.

The results of these studies indicate that three cultural resources have been previously recorded within the Project Area. Outside of the Project Area but within the one mile search radius are an additional three cultural resources consisting of a historic built environment resource and two California Historical Landmarks; the Angeles National Forest and San Fernando Pioneer Memorial Cemetery (Table 2).

TIER I

Within Tier I are two previously recorded cultural resources, P-19-175294 and P-19-187900. P-19-175294 is the Historic District Record for the Olive View-UCLA Medical Center and includes an inventory of 67 built environment resources (Table 3). The district record contains a 1994 letter from a representative of the State Historic Preservation Officer, concluding that the Olive View-UCLA Medical Center was eligible for the National Register of Historic Places (NRHP). However, the application was reassessed in 1995 the application and it was determined that the district lacked sufficient integrity to be eligible for listing on the NRHP.

P-19-187900 is a historic built environment resource for the Laundry and Linen Buildings within the Olive View Tuberculosis Sanitarium Complex. The structure consists of two concrete foundations.

TIER II

Within Tier II are two previously recorded cultural resources, is the previously described P-19-175294, Olive View-UCLA Medical Center Historic District as well as P-19-003794, a historic built environment resource associated with the Olive View Tuberculosis Sanitarium complex. Specifically, P-19-003794 consists of a concrete foundation and sidewalk associated with the Men's Solarium Wards 121 & 124 as well as a concrete subterranean transformer vault.

Table 2. Previously Recorded Resources Within a One-Mile Radius of the Project Area

Primary Number (P-19-)	Site Type	Year	Distance from the PA
3794	Historic medical building	2008	Within PA, Tier II
175294	Historic District, Olive View-UCLA Medical Center	1994	Within, Tier I & Tier II
186535	California Historical Landmark Angeles National Park	1979	1 mile
186537	California Historical Landmark San Fernando Pioneer Memorial Cemetery	1980	0.25 mile
187900	Historic medical building	2006	Within PA, Tier I
188089	Historic medical building	2007	0.25 miles

Table 3. Historic Resources Index for the Olive View UCLA Medical Center Historic District

Primary Number (P-19-)	Common Name	Year Constructed	HRI Number	NRS Code
175293	Warehouse	1926	097809	2S2
175292	Building 110	1923	097808	2S2
175291	Building 106	1923	097807	2S2
175294	UCLA Medical Center	1920	097810	2S2
175906	Garage	1962	099563	6Y
175590	Building 33, LACO 2519	1925	100286	6Y
175912	Storage Building	Unknown	099573	6Y
175910	Nursing Education	1993	099568	6Y
175909	Doctor’s Office	1991	099567	6Y
175908	Material Management	1984	099566	6Y
175905	Weed Abatement	1955	099562	6Y
175907	Can Sterilizer	1962	099564	6Y
175911	Cubicle	Unknown	099570	6Y
175865	Bungalow F	1926	099519	2S2
175872	Convalescent Cottage	1927	099526	2S2
175882	Double Garage	1929	099536	2S2
175864	Bungalow E	1926	099518	2S2
175866	Building 114	1927	099520	2S2
175863	Bungalow D	1926	099514	2S2
175862	Building 307	1926	099513	2S2
175867	Bungalow C	1927	099521	2S2
175904	Canteen/Post Office	1953	099561	6Y
175861	Personnel Payroll	1925	099510	2S2
175903	Incinerator Building	1952	099560	6Y
175902	3-Car Garage	1932	099558	6Y
175860	Medical Transcription	1925	099509	2S2

Primary Number (P-19-)	Common Name	Year Constructed	HRI Number	NRS Code
175901	Trans Vault/Dist System	1931	099557	6Y
175900	Film Storage Vault	1930	099556	6Y
175868	Bungalow G	1927	099522	2S2
175899	Rec Park Toilets	1929	099555	6Y
175859	Garbage and Can House	1925	099507	2S2
175898	Double Garage	1929	099554	6Y
175897	Convalescent	1927	099553	6Y
175896	Toilet Building	1925	099552	6Y
175858	Cottage #1	1925	099505	2S2
175895	Transportation Garage	1924	099550	6Y
175894	Conference Center	1920	099549	6Y
175857	Barber Shop	1925	099503	2S2
175893	Coroner's Office	1935	099548	2S2
175892	Morgue	1931	099547	2S2
175891	Bungalow T	1931	099545	2S2
175890	Guest Cottage	1930	099544	2S2
175889	Bungalow S	1930	099543	2S2
175888	Bungalow R	1930	099542	2S2
175887	Bungalow Q	1930	099541	2S2
175886	Bungalow P	1930	099540	2S2
175885	Building #403	1930	099539	2S2
175884	Women Doctor's Cottage	1929	099538	2S2
175851	Cottage #4	1921	099495	2S2
175883	Film Storage Vault	1929	099537	2S2
175881	Bungalow O	1929	099535	2S2
175869	Building H	1927	099523	2S2
175870	Building I	1927	099524	2S2
175876	Building 303	1929	099530	2S2
175874	Garage/Lumber Storage	1928	099528	2S2
175871	Bungalow J	1927	099525	2S2
175877	Building 305	1929	099531	2S2
175873	Buildings #401 and #402	1928	099527	2S2
175875	Building 301	1929	099529	2S2
175878	Bungalow L	1929	099532	2S2
175855	Building 108	1923	099500	2S2
175879	Bungalow M	1929	099533	2S2
175854	Ward 103/Stationary	1921	099498	2S2
175853	Garage	1921	099497	2S2
175852	Cottage U	1921	099496	2S2
175856	Cottage #3	1923	099502	2S2
175880	Bungalow N	1929	099534	2S2

OTHER SOURCES

In addition to the records at the SCCIC, a variety of sources were consulted in June 2016 to obtain information regarding the Project Area. Sources included the National Register of Historic Places (NRHP), the California Register of Historic Resources (CRHR), California Historical Resources Inventory (CHRI), California Historical Landmarks (CHL), and California Points of Historical Interest (CPHI). Checks of the CHRI and CHL returned positive results (Table 4). In addition materials obtained from EDR including aerials, Sanborn Fire Insurance Maps, and City directories were reviewed.

Table 4. Other Sources Consulted

Source	Results
National Register of Historic Places (1979-2002 & supplements)	Negative
Historic United States Geological Survey topographic maps	Historic Topographic maps indicate that the Project Area was undeveloped prior to 1930. Between 1930 and 1945 Project Area experienced substantial development.
Historic Aerials NETR Online; Environmental Data Resources, Inc. (EDR)	Historic aerials show that prior to 1947, the Project Area consisted of agricultural fields. Between 1959 and 1969, Interstate Highway 210 and the Olive View Medical Center were constructed as well as a housing development to the east of the Project Area. Aerial photos from EDR dated between 1928 and 2012 provide 19 images of the Olive View Sanatorium/Olive View-UCLA Medical Center and the surrounding area. The photos show the sanatorium as developed and its transformation by 1976 into the medical center that exists today.
California Register of Historical Resources (1992-2010)	Negative
California Inventory of Historic Resources (1976-2010)	Negative
California Historical Landmarks (1995 & supplements to 2010)	Positive: The Angeles National Forest (#717) and The San Fernando Pioneer Memorial Cemetery (#753)
California Points of Historical Interest (1992 to 2010)	Negative
Office of Historic Preservation (OHP) Historic Resources Index (HRI)	Positive: See Table 3
Local Historical Register Listings	Negative
Bureau of Land Management General Land Office Records	Positive: 8 land patents, see Table 5
Sanborn Fire Insurance Maps (EDR)	Positive: 1923 and 1927 maps of portions of the Olive View Sanatorium show numerous hospital and related buildings.
Phone and City Directories (EDR)	Positive: A compilation of various phone company and Los Angeles directories dating between 1920 and 2013 revealed the names of medical departments and companies servicing the Olive View-UCLA Medical Center between 1975 and 2013. No earlier information was listed.

A search of the Bureau of Land Management's General Land Office (GLO) records available online revealed that seven individuals as well as the Southern Pacific Railroad obtained land patents for portions of the Project Area between 1873 and 1926 (Table 5).

Table 5. Land Patents

Name	Year	Aliquots	Section	Township	Range
Eulogio De Celis	1873		21, 22	3N	15W
Christopher N. Wilson and William Helm	1877	N ½ SW ½	22	3N	15W
George Lundie	1884	NE ¼ SE ¼; NW ¼ SE ¼	22	3N	15W
Southern Pacific Railroad	1883		21	3N	15W
Christopher N. Wilson	1900	N ½ SE ½	21	3N	15W
John S. Hendrickson	1901	N ½ NW ¼	22	3N	15W
Harry Heath	1919	N ½ SE ½	22	3N	15W
George W. Fite	1926	N ½ SE ½	22	3N	15W

The earliest land patent issued for the Project Area was to Eulogio De Celis, Jr. De Celis' father held title to nearly the entire San Fernando Valley. Eulogio De Celis inherited his father's lands and sold them when they faced foreclosure (O'Neil 1997).

California National Guard records from 1886 list a person named Christopher N. Wilson as a First Lieutenant, Commissary from Los Angeles. Los Angeles city directories between 1892 and 1910 list an attorney by that name at various downtown addresses, but sometimes give him a San Fernando affiliation in addition.

Individuals named John S. Hendrickson and George W. Fite could be linked to the San Fernando Valley in the period during which the land patents were granted. John S. Hendrickson was born in 1867 or 1868 in Germany, having come to California from Illinois within four years of his U.S. arrival. By 1900 he had settled in San Fernando but his profession was not recorded. He died in 1916 and is buried in Glendale. George W. Fite was born in 1887 and died in 1958, being buried in Sylmar. A 1930 directory listing in Los Angeles shows this man living on Park Drive and working as the president of a trust company. The San Fernando Valley Directory of 1939-1940 lists the same man living by that time at a San Fernando address and working as a clerk.

Three of the other land patent holders listed in Table 5, William Helm, George Lundie and Harry Heath, could not be definitively linked to the Project Area, although individuals with all those names do occur in various historical records in the City of Los Angeles.

NATIVE AMERICAN CONSULTATION

The Los Angeles County Department of Public Works (LADPW) conducted the tribal consultation that is summarized below. A Sacred Lands File search request was submitted to the Native American Heritage Council (NAHC) on April 6, 2016. The NAHC replied on July 5, 2016 that a search of their records returned negative results for sacred lands located within the Project Area. The NAHC requested that nine tribes be consulted about the Project. LADPW mailed letters on April 11, 2016 to one tribe, the Fernandeño Tataviam Band of Mission Indians (Tataviam), which was the only tribe to request formal notification of LADPW projects occurring in the Project vicinity. The letter provided project information and requested any information related to tribal cultural resources within or adjacent to the Project Area.

Sedna Villavicencio of the Fernandeño Tataviam Band of Mission Indians Tribal Historic and Cultural Preservation Department responded by letter on April 21, 2016 requesting the estimated cubic yards of soil disturbance. On June 9, 2016, LADPW responded by letter with the cubic yardage as well as additionally information. On July 14, 2016 the Tataviam responded that the Project Area is located within the sensitivity zone of two villages, Passenga and Achoicominga and requested that LADPW undertake consultation with the Tataviam during the planning stages, and that all ground disturbing activities be monitored by professional Native American monitors.

Based on the information provided by the Tataviam, the LADPW has determined that there are no known Tribal Cultural Resources, as defined by PRC 21074, within the Project Area and therefore will not include the recommended mitigation measure for inclusion in the environmental document. The LADPW has concluded that a mutual agreement cannot be reached and has decided to close consultation, PRC 21080.3.2(b). All consultation correspondence is provided as Appendix C to this report.

FIELD SURVEY METHODS AND RESULTS

The cultural resources survey stage is important in a project's environmental assessment phase to verify the exact location of each identified cultural resource, the condition or integrity of the resource, and the proximity of the resource to areas of other areas of cultural resources sensitivity. The survey area ran east-to-west and extended from the northwestern part of Bucher Avenue to the Wilson Canyon Park road located at 118°26'27.371"W, 34°19'34.668"N. The north-to-south oriented portion of survey area ran parallel to Olive View Drive and extended to foothills running along Hillside Drive. The survey consisted of walking parallel transects in open areas, spaced at 10-meter intervals within the Project Area, while closely inspecting the ground

surface. Existing disturbances (e.g., rodent burrows, ditches) were examined for artifacts or buried cultural deposits. Areas with built environments and modern features were excluded from the survey area.

Sarah Nava, Cogstone Staff Archaeologist, completed an intensive-level pedestrian survey of the 138.6-acre Project Area on February 15, 2016 (Figure 10). Approximately 35.2 acres of the Project Areas was not surveyed due to restricted access at the western end and the eastern end of the Project Area. These restricted areas included fenced off construction zones (Figure 11), steep slopes and hills fenced off in the northern part of the Project area, and county restricted areas (Figure 12). No construction crews were present during the day the Project Area was surveyed; therefore Cogstone staff was not able to access those portions of the Project Area. The inaccessible fenced off areas included the locations of the historic period morgue and incinerator which was used to cremate bodies (Bob Ross, personal communication 2016).

The Project Area consists of a medical complex and is therefore a built environment, limiting ground visibility due to buildings and paved streets and parking lots (hardscape). In areas without hardscape, visibility was limited due to recent grass growth from winter rains. In general, ground visibility within the Project Area was poor and limited to 10 percent.

TIER I

P-19-175294

The survey within Tier I observed portions of the Olive View-UCLA Medical Center Historic District, P-19-175294, while other previously recorded buildings appeared to have been demolished, leaving only foundations.

P-19-187900

The survey within Tier I also identified the two concrete foundations that comprise P-19-187900 All previously recorded features were still present.

TIER II

P-19-175294

Similar to the survey for Tier I, the Tier II survey also observed portions of the Olive View-UCLA Medical Center Historic District, P-19-175294, while other previously recorded buildings appeared to have been demolished, leaving only foundations.

P-19-003794

The concrete foundation and sidewalk associated with the Men’s Solarium Wards 121 & 124 and the concrete subterranean transformer vault were identified during the Tier II survey. The concrete foundation and sidewalk previously recorded are no longer present however, the subsurface transformer vault is still present and appears to be in use.

No archaeological resources were identified within the Tier I or Tier II Project Areas. Historic built environment resources encountered, possibly relating to the previously recorded sites, are discussed and evaluated in a separate architectural history assessment.

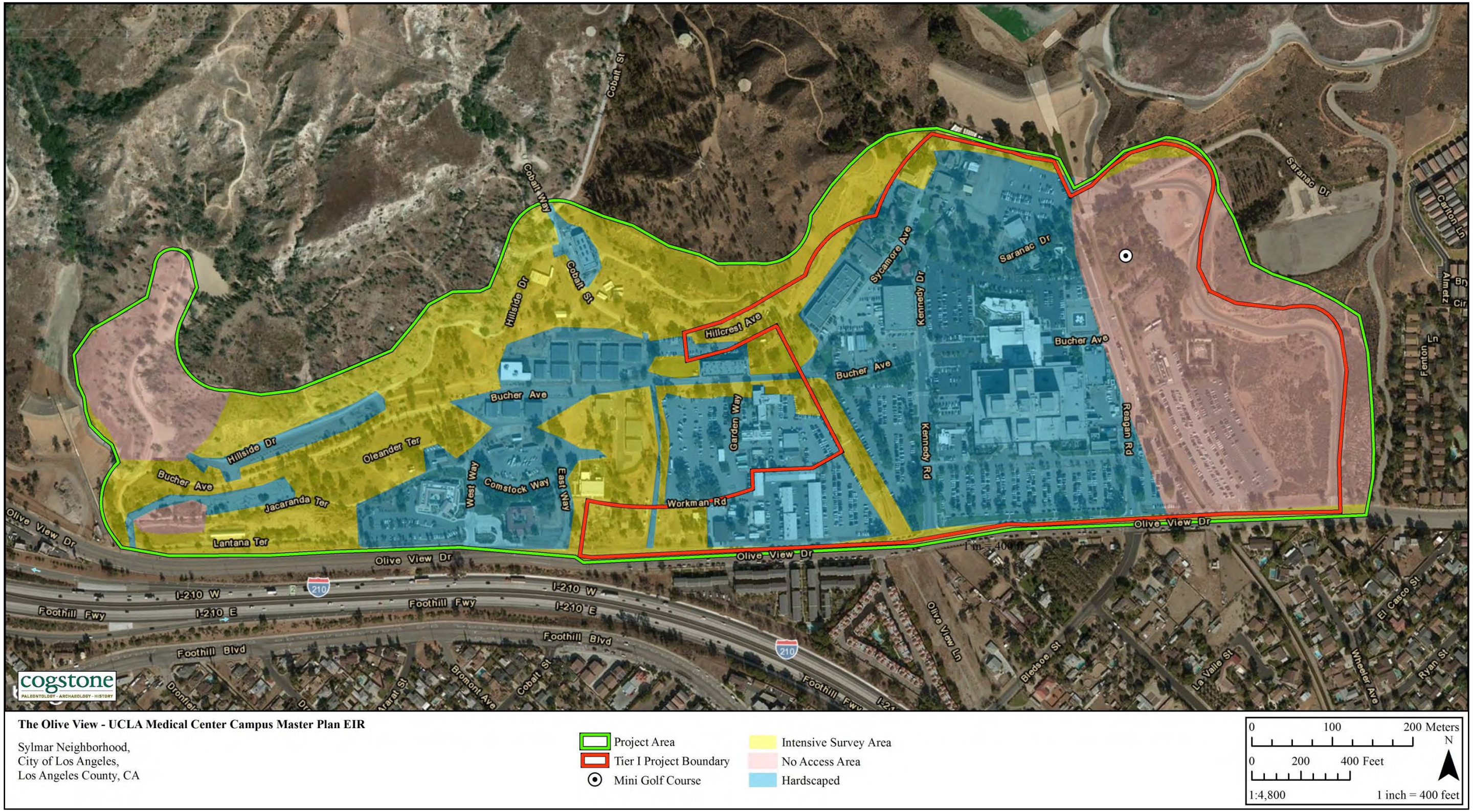

Figure 10. Map Showing Surveyed Area

Figure 11. Construction Zone and Fenced Area at Northeast Corner of Survey Area

Figure 12. One of Many "No Trespassing" Signs around the Survey Area

CONCLUSIONS

Identification efforts by Cogstone for this report included a review of existing literature and historic maps, review of a record search conducted at the South Central Coastal Information Center, and pedestrian survey. Native American consultation was conducted by LADPW. No archaeological resources have been previously recorded or were observed during the survey of Tier I and Tier II Project Areas. However, a total of two historic built environment resources and one historic district record all associated with the Olive View Tuberculosis Sanitarium Complex have been recorded with Tier I and Tier Project Areas. Based on the results of the record search and land use history, both Tier I and Tier II Project Areas demonstrate moderate sensitivity for historical archaeological deposits associated with the hospital complex and preexisting farmhouses. Tier I and Tier II Project Areas exhibit a low sensitivity for prehistoric archaeological resources.

None of the archival sources consulted mentioned or showed the existence of a cemetery for Olive View Sanatorium patients. Yet cemeteries, some not well marked, were common features of nineteenth and early twentieth century institutions for the "unwanted", including indigent tuberculosis patients, of which Olive View had many (Molina 2006). There is documentary evidence suggesting that many patients at Olive View were poor and came there with an advanced stage of the disease. Deaths at the facility were noted in contemporary discussions of treatment programs there (Molina 2006: 135-136). Abel (2013: 64) suggests that tuberculosis sanatoriums "attempted to conceal fatalities from patients as well as the public" and documented the large number of terminal stage patients received at Olive View, along with the harsh treatment regimen.

The historic district record for P-19-175294 contains a map of the Olive View medical campus showing a historic period morgue located just north of a parking lot and square-shaped reservoir and east of the modern hospital, along Reagan Road in the eastern third of the medical campus within Tier I (Figure 9). In addition, the same site record and map shows an incinerator located adjacent to the morgue (McAvoy 1994). The district record also shows a coroner's office, located in the western central part of the campus. Modern aerial images (see Figure 3) show that these buildings have all been demolished and that the eastern end of the campus surrounding the former morgue has been altered via the construction of a parking lot, support facilities, and a concrete drainage channel. We do not know whether patients who died were cremated at Olive View Sanatorium, buried in an informal "potter's field" on the sanatorium grounds, or elsewhere. The incinerator, alternatively, may have been used to destroy contaminated medical materials and clothing. An undocumented cemetery and/or a historic period dump may exist on the grounds of the Olive View-UCLA Medical Center. The most likely location for these would be the formerly isolated eastern third of the campus within Tier I.

RECOMMENDATIONS

In the event of an unanticipated discovery, all work must be suspended within 50 feet of the find until it is evaluated by a qualified archaeologist. If prehistoric cultural resources are discovered, all consulting tribes will be notified. We recommend that construction personal will be required to participate in cultural sensitivity training prior to the commencement of work.

Procedures of conduct following the discovery of human remains have been mandated by Health and Safety Code §7050.5, PRC §5097.98 and the California Code of Regulations (CCR) §15064.5(e). According to the provisions in CEQA, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The remains shall be left in place and free from disturbance until a final decision as to the treatment and their disposition has been made. The County Coroner will be immediately notified. The Coroner must then determine whether the remains are Native American, historic or modern.

If the Coroner determines the remains are Native American, the Coroner has 24 hours to notify the Native American Heritage Commission (NAHC), who will, in turn, notify the person they identify as the most likely descendent (MLD) of any human remains. Further actions will be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.

REFERENCES

Abel, Emily K.
2013 *The Inevitable Hour: A History of Curing for Dying Patients in America.* The Johns Hopkins University Press, Baltimore.

Bean, L.J. and C.R. Smith
1978 "Gabrielino." In *Handbook of North American Indians*, Volume 8. *California*, edited by Robert F. Heizer, pp. 538-549 (W. T. Sturtevant, general editor). The Smithsonian Institution, Washington, D.C.

Bean, W. and J.J. Rawls
1993 *California: An Interpretive History*. 4th Edition. McGraw Hill, New York.

BLM GLO (Bureau of Land Management Government Land Office)
2016 Land Grant Records Search Tool. Available online at http://www.glorecords.blm.gov/PatentSearch/Default.asp, last accessed March 18, 2016.

Dibblee, Thomas W. Jr.
1991. Geologic Map of the San Fernando and Van Nuys (north ½) Quadrangles, Los Angeles County, California. Ed. by H.M. Ehrenspeck. Dibblee Geological Foundation Map DF-33.

Environmental Data Resources
2016a The EDR Aerial Photo Decade Package, Olive View-UCLA Med Center, Inquiry Number 4518850.9. EDR, Shelton, Connecticut.
2016b Certified Sanborn® Map Report, Olive View-UCLA Med Center, Inquiry Number 4518850.3. EDR, Shelton, Connecticut.
2016c The EDR-City Directory Abstract, Olive View-UCLA Med Center, Inquiry Number 4518850.5. EDR, Shelton, Connecticut.

Leovy, Jill
1995 Breathing New Life: Olive: Opened as a TB Sanitarium in 1920, the hospital, now a modern facility, turned 75 this week. *Los Angeles Times*. Available online at http://articles.latimes.com/1995-10-28/local/me-62120_1_olive-view. Last accessed April 7, 2016.

McAvoy, Christy J.
1994 Olive View Sanatorium District Record (P-19-175294). Department of Parks and Recreation. Document available at the South Central Coastal Information Center, California State University, Fullerton.

McCawley, W.
1996 *The First Angelinos: The Gabrielino Indians of Los Angeles*. Malki Museum Press/Ballena Press, Banning, California.

Molina, Natalia
2006 *Fit to Be Citizens? Public Health and Race in Los Angeles 1879-1939.* University of California Press, Berkeley, California.

National Environmental Title Research
2016 Historic Aerials. NETR Online. Electronic resource available at http://www.historicaerials.com/. Last accessed April 6, 2016.

O'Neil, Rob
1997 In 1800s, De Celis Owned Most of the Valley. *Los Angeles Times* July 9. Available online at http://articles.latimes.com/1997/jul/09/local/me-11129. Last accessed April 6, 2016.

Rutgers Global Tuberculosis Institute
2015 History of Tuberculosis. The New Jersey Medical School Global Tuberculosis Institute at Rutgers. Electronic resource available at http://web.njms.rutgers.edu/ntbcweb/aboutus/gtbi.html. Last accessed April 7, 2016.

scvhistory.com
n.d. Olive View Sanitarium Burns, Sylmar, California. A Service of SCVTV / Local Television for Santa Clarita. Available online at http://www.scvhistory.com/scvhistory/lw2588.htm

Soil Survey Staff
2014a Official Soil Series Descriptions. Natural Resources Conservation Service, United States Department of Agriculture. Available online at http://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/soils/home/?cid=nrcs142p2_053587, accessed March 30, 2016.
2014b Web Soil Survey. Natural Resources Conservation Service, United States Department of Agriculture. Available online at http://websoilsurvey.nrcs.usda.gov/, accessed March 30, 2016.

Sutton, M.
2010 The Del Rey Tradition and its Place in the Prehistory of Southern California. *Pacific Coast Archaeological Society Quarterly* 44(2):1-54.

Sutton, M. and J. Gardner
2010 Reconceptualizing the Encinitas Tradition of Southern California. *Pacific Coast Archaeological Society Quarterly* 42(4):1-64.

Sylmar Chamber of Commerce
2016 Sylmar Area History. Electronic Document http://www.sylmarchamber.com/history.html, last accessed March 18, 2016.

USGS (United States Geological Survey).
1996 USGS Response to an Urban Earthquake: Northridge '94. U.S. Geological Survey Open-File Report 96-263. Available: http://pubs.usgs.gov/of/1996/ofr-96-0263/index.html.

Accessed February 19, 2013.

Yerkes, Robert F.
1997 Preliminary Geologic Map of the San Fernando 7.5' Quadrangle, Southern California: A Digital Database. U.S. Geological Survey Open-File Report 97-163. Available: http://pubs.usgs.gov/of/1997/of97-163/. Accessed February 19, 2013.

APPENDIX A: QUALIFICATIONS

MOLLY VALASIK
Principal Investigator for Archaeology

EDUCATION

2009 M.A., Anthropology, Kent State University, Kent, Ohio

2006 B.A., Anthropology, Ohio State University, Columbus, Ohio

SUMMARY QUALIFICATIONS

Ms. Valasik is a Registered Professional Archaeologist (RPA) with seven years of professional and academic archaeological field and research experience. She meets the qualifications required by the Secretary of the Interior's *Standards for Archaeology*, and is a skilled professional who is well-versed in the compliance procedures of CEQA and Section 106 of the NHPA and in working with a variety of federal, state, and local agencies throughout California. Ms. Valasik has managed a variety of projects at Cogstone in the water, transportation, energy, development and federal sectors. Her role at Cogstone has ranged from GIS Manager, Field Director, Archaeology Supervisor, and beginning in 2014 Principal Investigator for Archaeology.

SELECTED PROJECTS

Park Place Extension and Grade Separation EIR EA, Caltrans District 7, El Segundo, Los Angeles County, CA. Managed a pedestrian survey to record and evaluate cultural resources within the archaeological and architectural APEs for a ~0.5-mile project along NBSF and UPRR rail lines and spur tracks on behalf of the City of El Segundo. Cogstone's services included records search, NAHC consultation, Historic Properties Survey Report (HPSR) with appended Archaeological Survey Report (ASR) and a Historic Resources Evaluation Report (HRER). Seven built-environment resources were identified, evaluated, and DPR 523 forms were prepared. Sub to Michael Baker. Principal Investigator. 2015-ongoing

SR-138 Palmdale Boulevard PA/ED (Sierra Highway), Caltrans District 7, Palmdale, Los Angeles County, CA. Managed cultural resource assessment including records search, Sacred Lands search, NAHC consultation, field survey, mapping. Prepared an Archaeological Survey Report (ASR) and Historic Property Survey Report (HPSR) to Caltrans standards for PA/ED environmental documents. Sub to Parsons. Task Manager/Principal Investigator. 2015-ongoing

Arlington Avenue Widening Project, Caltrans District 8, Riverside, Riverside County, CA. Cogstone completed the record search, sacred lands search, NAHC consultation, intensive-level pedestrian archaeological survey, and coordination and approval by District 8 of the APE map for the widening of Arlington Avenue. Prepared a Historic Property Survey Report (HPSR) and Archaeological Survey Report (ASR). Sub to Michael Baker. Principal Investigator. 2015

Rose Creek Bike Trail, Caltrans District 11, San Diego, San Diego County, CA. Cogstone completed the record search, sacred lands search, NAHC consultation, intensive-level pedestrian archaeological survey, in-depth background research, and approval by District 11 of the APE map for a two mile long bike trail. Prepared a Historic Property Survey Report (HPSR) and Archaeological Survey Report (ASR). Sub to Nasland Engineering. Principal Investigator. 2015

I-5 Jeffrey Open Space Trail (JOST) Segments 1 & 2, Caltrans District 12, Irvine, Orange County, CA. For the construction of a recreational trail and bridge, coordinated record search, Sacred Lands search, NAHC consultation; preparation of Area of Potential Effects (APE) maps for archaeological and architectural resources with RBF and Caltrans; intensive pedestrian survey and mapping; preparation of ASR, HPSR, PIR technical reports on behalf of the City of Irvine in compliance with CEQA. Sub to Michael Baker. Task Manager/ Principal Archaeologist. 2015-ongoing

cogstone
PALEONTOLOGY - ARCHAEOLOGY - HISTORY

JUSTIN LEV-TOV
Project Manager and Principal Investigator

EDUCATION

2000	Ph.D., Anthropology, University of Tennessee, Knoxville
1994	M.A., Anthropology, University of Tennessee, Knoxville
1990	B.A., Anthropology, University of Maryland, College Park

SUMMARY QUALIFICATIONS

Dr. Lev-Tov is a Qualified Principal Investigator and Registered Professional Archaeologist with over 7 years of experience in California and neighboring states. In addition, he has over 10 years of experience in the eastern and southeastern U.S., and has participated in archaeological projects in Greece, Israel, and Jordan. He is accepted as a principal investigator for prehistoric and historical archaeology by the California Historic Resources Information System (chris.org). He has conducted technical studies and prepared cultural resources chapters for CEQA/EIR compliance documents for public and commercial developments. He has expertise in the archaeology of the western and southeastern United States including research, survey, assessment of impacts/effects, and significance criteria and determinations. He also possesses 30 years of experience in faunal analysis and is widely published.

CALIFORNIA AND SOUTHWEST PROJECTS

High Desert Corridor/ SR-138 Widening Project, Caltrans District 7 On-Call (07A3145)/LA Metro, Los Angeles and San Bernardino Counties, CA. This project proposed by Caltrans and Metro involves construction of a new, approximately 63-mile long, east-west freeway/expressway and rail line between SR-14 in Los Angeles County and SR-18 in San Bernardino County. Phase II/III testing and data recovery at the three sites that will be directly impacted by the project. Analyzed lithic material. Compliance with Section 106 of the NHPA and CEQA are required. Sub to Parsons Transportation Group. Principal Archaeologist. 2015-ongoing

Property One, LLC, Demolition, Redlands. Monitored the demolition of three non-historic buildings and several pavements/foundations of previously demolished buildings located within Redlands' Santa Fe Depot/Chinatown National Register Historic District. Directed mechanical trenching on several of the parcels to check for buried remnants of historic buildings. Analyzed recovered artifacts and applied both the National Register of Historic Places and California Register of Historical Resources criteria of significance to resources discovered within the project area. Authored the letter report of findings sent to the client. Project Director. 2015

U.S. Navy Southwest Facilities and Engineering. Contract to conduct cultural resources investigations on all U.S. Navy Southwest region bases, for a period of five years beginning in Fiscal Year 2015. Participated in the project as author of background chapters on historic and prehistoric contexts of various naval and marine bases, drafted field safety plans for each military base, and analyzed faunal remains, including shell beads, from Naval Weapons Station Seal Beach and Naval Weapons Station Seal Beach Detachment Fallbrook. Senior Faunal Analyst/Project Director. 2015

Blythe Solar, Blythe. An approximately 5,000-acre survey for a solar photovoltaic electrical array on BLM and private lands. Participated briefly as a crew member on the Phase I cultural resources survey. Project Director. 2014

Line 235, Sempra Energy, Inc., Barstow. Survey for a natural gas pipeline replacement route between Daggett and Barstow. Participated in the Phase I cultural resources survey on BLM lands as a crew member, then led a crew recording newly discovered or previously recorded sites in the right of way. Researched historical background for historic period sites and authored DPR forms for all sites. Project Director. 2014

ANDRE-JUSTIN C. SIMMONS
Archaeologist and Cross-trained Paleontologist/GIS Supervisor

EDUCATION

2014 M.A., Anthropology: Specializing in Anthropological Archaeology, California State University, Fullerton
2012 Certificate in Geographic Information Systems, California State University, Fullerton
2010 B.A., Anthropology and History, California State University, Fullerton, graduated *cum laude*

SUMMARY QUALIFICATIONS

Mr. Simmons is a Registered Professional Archaeologist (RPA) and cross-trained paleontologist with extensive field experience in survey, monitoring, faunal analysis, laboratory analysis, and excavation. He exceeds the qualifications required by the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation*. Further, he is certified in Geographic Information Systems (GIS) and specializes in ESRI's ArcGIS software. Mr. Simmons is responsible for supervising GIS data collection and management and supervises production of GIS maps. Mr. Simmons is well versed in CEQA and NHPA Section 106 compliance procedures and reporting. He has over six years of experience in California Archaeology and paleontological monitoring along with more than 24 hours of paleontology training and over four years of GIS experience.

SELECTED PROJECTS

Bodie Hills FY14-15 Cultural Resources Survey, Desert Restoration Project, Bureau of Land Management, Bishop Field Office, Mono County, CA. Class III Cultural Resources Inventory survey of 2,721 acres of BLM land identified for vegetation management. Work includes records search, intensive pedestrian survey, archaeological resource inventory and NRHP site evaluations, and a technical report. The survey area is located between the Town of Bridgeport and Lee Vining. GIS Specialist. 2014-2015

WECC Path 42, Southern California Edison, Riverside County, CA. Conducted a cultural resources records search and field survey (2011-2012); monitoring and compliance reporting (2014) for a 14.5 mile transmission line segment near Thousand Palms. Archaeological/ Paleontological Technician/ GIS Specialist.

High Desert Corridor/ SR 138 Widening Project, FHWA/Caltrans District 7, Los Angeles and San Bernardino Counties, CA. Records search, pedestrian survey, GIS mapping and site recording for Extended Phase I (XPI) Testing, subsurface testing of four archaeological sites in the Area of Potential Effects (APE). Sub to Parsons. Archaeologist/GIS Supervisor. 2014-2015

Exposition Light Rail Phase 2, Culver City to Santa Monica, Los Angeles County, CA. Conducted monitoring, site recording and GIS mapping along a 6.6-mile segment of the historic electric easement that is being replaced with a new light rail line. Sub to URS. Archaeological/Paleontological Monitor. 2012-2014

OC-44 Pipeline Rehabilitation/Replacement, Mesa Water District, Newport Beach, Orange County, CA. Conducted a Phase I Cultural Resources Assessment to determine the potential for adverse effects to historic properties during rehabilitation and replacement of the pipeline beneath San Diego Creek, between Jamboree Road and MacArthur Blvd. Records search, Sacred Lands search, NAHC consultation, intensive-level pedestrian survey and GIS mapping of the ~15.75 APE with negative results. Sub to Michael Baker/RBF Consulting. Archaeologist/GIS Technician. 2014

Blossom Plaza Mixed-Use Development, Forest City Development, Los Angeles, Los Angeles County, CA. The project involves development of 360,071 sf of residential and commercial space, intermodal parking, and a cultural plaza adjacent to the Chinatown Gold Line Metro station. Tasks included records search, archaeological resources monitoring and artifact recovery of construction excavation on block containing portions of the Zanja Madre, historic Chinese businesses and residences and a 19th Century hotel. GIS mapping, field data recording and artifact mapping. GIS Technician. 2014

SARAH NAVA
Archaeologist/Cross-Trained Paleontologist
and GIS Technician

EDUCATION

2013	Archaeology Field Program, Pimu Catalina Island Archaeology Project, California State University, Northridge, RPA Scholarship Recipient
2013	GIS Certification Program, Southwestern Community College
2008	B.A., Anthropology, California State University, Long Beach

SUMMARY QUALIFICATIONS

Ms. Nava is a dual-qualified archaeologist/paleontologist with six years of cultural resource management experience. As a field technician, crew chief, and geospatial technician, she has conducted monitoring, survey, site recording, and excavation. Her laboratory activities include artifact sorting, data entry, and generating site location maps. She specializes in using geographical information systems in cultural resource management and archaeology. She uses data collected in the field to analyze through GIS and software technologies. She has completed over 120 hours of cultural resource management workshops. She has presented research data and conclusions at professional conferences. Her professional memberships include the Society for American Archaeology and Society for California Archaeology.

SELECTED PROJECTS

Caltrans District 6, On-Call Paleontology (06A1786), Merced, Madera, Tulare, Kings, and Kern Counties, CA. Contributor to User Guide Book for the Fossil Sensitivity Inventory Link (FOSIL) Geospatial Database, responsible for producing a GIS training guide Sub to Parsons. Geospatial Technician. 2014

Caltrans District 6, On-Call Paleontology (06A1320), Merced, Madera, Tulare, Kings, and Kern Counties, CA. SR 99 Arboleda Drive Interchange widening: sorted and documented collection of 1,667 late Pleistocene fossils, including a mammoth, recovered from 128 localities. SR 41 Kettleman City widening: conducted paleontological monitoring during construction. Assisted with preparation and identification of the 800 vertebrate, invertebrate and plant fossils recovered during paleontological monitoring for the widening and rehabilitation of an 8.5 mile segment of the highway. Sub to URS Corporation. Paleontology Monitor/Laboratory Technician. 2013

Exposition Light Rail Phase 2, Exposition Transit Authority, Los Angeles County Metropolitan Transportation Authority, Culver City to Santa Monica, Los Angeles County, CA. Conducted archaeological/paleontological monitoring during construction of multiple stations, tracks and utility relocations. Field Technician. Sub to URS. 2013

Perris Valley Line Project, Metrolink, Riverside County Transportation Commission, Riverside County, CA. The project involved a 24-mile extension of the Metrolink 91 Line extending the connection from Riverside through Moreno Valley to Perris. Provided paleontological monitoring for construction of four new stations, upgrading associated track and utility relocations. Sub to HDR Engineering. 2013

Metropole Vault Replacements, Southern California Edison, Avalon, Catalina Island, Los Angeles County, CA. Conducted archaeological monitoring and coordinated with Native American monitors during ground disturbing activities of a 30,000 s.f. APE that resulted in an excavation. The site is located in proximity to the original Tongva tribal village on the island. Archaeological Field Technician. 2014

Fort Irwin National Training Center, San Bernardino, CA. Cultural Resources Inventory Survey of 14,316 Acres and National Register Evaluation of Archaeology Sites. Archaeological Field Technician. 2013

NAVFAC Atlantic Division, Naval Air Weapons Station China Lake, Kern County, CA. Section 110 Intensive Archaeological Inventory on Ranges. Conduct Section 110 archaeological inventory and site recording; Primary Client: Cultural Resource Analysts. Crew Chief. 2015

ALYSON CAINE
Osteologist and Archeologist

EDUCATION

2013 M.Sc., Palaeopathology, Archaeology, Durham University, Durham, United Kingdom
2012 B.A., Anthropology (Human Biology Track), Sociology Minor, Temple University, Philadelphia, Pennsylvania

SUMMARY QUALIFICATIONS

Ms. Caine is a qualified osteologist and archaeologist, with five years of professional and academic training in prehistoric bioarchaeology and osteology. She has experience with analysis, identification of human skeletal remains, survey, and monitoring. She has excavated and analyzed prehistoric human remains on Bronze Age sites in Oman and the UAE as well as experience working on projects in California. Ms. Caine belongs to professional societies including Society for American Archaeologists, American Association of Physical Anthropologists, and Paleopathology Association. Her research interests focus on Bioarchaeology, Forensic Anthropology, Skeletal and Dental Biology, Near East Studies (Bronze and Iron Age), Paleopathology, Isotopic Analysis, and Migration Studies.

SELECTED PROJECTS

Metropole Vault Replacements, Southern California Edison, Avalon, Catalina Island, Los Angeles County, CA. Archaeological monitoring during ground disturbing activities of a 30,000 s.f. APE for replacement of two underground electrical vaults. The site is located in proximity to the original Tongva tribal village on the island. Coordinated with the Most-Likely Descendant (MLD) and Native American monitor during the excavation of unanticipated discovery of human remains. Cogstone was responsible for the collections management of all artifacts and human remains during excavation. Wrote the report summarizing the osteological analysis and cataloguing. Osteologist and Report Author. 2015

Bodie Hills FY14-15 Cultural Resources Survey, Desert Restoration Project, Bureau of Land Management, Bishop Field Office, Mono County, CA. Class III Cultural Resources Inventory survey of 2,721 acres of BLM land identified for vegetation management. Work includes records search, intensive pedestrian survey, archaeological resource inventory and NRHP site evaluations, and a technical report. Prepared site records and revisions and lab work for final report. The survey area is located between the Town of Bridgeport and Lee Vining. Archaeology Technician. 2015

Fort Irwin, U.S. Army National Training Center/GSA Region 9, San Bernardino County, CA. Class III Cultural Resources Inventory Survey of 9,309 acres and National Register Evaluation of Archaeology Sites. Conducted cultural and paleontological survey, site recording and site evalution to Section 106 standards. The contract also involves biological surveys of the area which will be conducted by Louis Berger Group in Spring
2015. Archaeology Technician. 2014-ongoing

FBI Sonnet Ring, MCB Quantico, Prince William County, VA. Joint project with Louis Berger Group. Phase I and Phase II Archaeological Survey of land areas that could be adversely affected by projects proposed in the Marine Corps Base Quantico (MCBQ) Master Plan. Specifically, evaluated impact of construction activities associated with installation of a fiber optic line including surveys and National Register eligibility evaluations. Organized lab material and created illustrations for report. Archaeology Technician. 2015

High Desert Corridor/ SR 138 Widening Project, FHWA/Caltrans District 7, Los Angeles and San Bernardino Counties, CA. The project involves construction of a new, approximately 63-mile long, east-west freeway/expressway between SR 14 in Los Angeles County and SR 18 in San Bernardino County. Cogstone conducted a field pedestrian survey for Extended Phase I (XPI) Testing, subsurface testing of four archaeological sites in the Area of Potential Effects (APE), and lab work. Conducted archaeological excavation to identify cultural materials. Caltrans is the lead federal and state agency; compliance with Section 106 and CEQA required. Sub to Parsons Transportation Group. Archaeology Technician. 2015

APPENDIX B: PREVIOUSLY RECORDED CULTURAL STUDIES

Previous Cultural Resources Studies within a One-Mile Radius of the Project Area

Report No. LA-	Title	Year	Distance from Project
620	Cultural Resource Survey of Tentative Tract No. 38876, Sylmar, Calif.	1979	1 mile
622	Cultural Resource Survey and Impact Assessment for Tentative Tract No. 35525 in Sylmar, Los Angeles County, Calif.	1979	1 mile
710	Cultural Resource Survey and Impact Assessment for Tract No. 29707 in the Community of Sylmar, City and County of Los Angeles, California (EIR No. 39-80-cuz, Lot at 14042 Astoria Street)	1980	1 mile
824	Letter of Tentative Tract 39052	1980	1 mile
1073	Cultural Resources Survey and Impact Assessment for Tentative Tract 42400 in the City of Los Angeles	1981	.25 mile
1362	Archaeological Reconnaissance Report: Los Pinetos Grazing Allotment ARR.	1978	1 mile
1378	An Archaeological Survey and Impact Assessment of Tt 36453, a Parcel at 14363 Bledsoe Street, Sylmar, Los Angeles	1984	.25 mile
1692	Archaeological Reconnaissance Report: Divide Fire Rehab	1988	.25 mile
1746	Cultural Resource Survey and Impact Assessment for the City of Los Angeles Department of Water and Power Proposed Maclay Water Storage Tanks, Los Angeles, California	1989	1 mile
2317	A Class I Cultural Resources Investigation for the Proposed Elsmere Canyon Solid Waste Management Facility, Newhall, Los Angeles County, California	1991	1 mile
2517	A Phase 1 Archaeological Study for Eight Areas Proposed for the New Los Angeles Police Training Academy, and Driver Training Facility, City of Los Angeles County, California	1991	In PA
2683	Draft Environmental Impact Report for the Police Bond Program Police Driver Training Facility	1992	In PA
3806	Assessment of the Archaeological Impact of the Proposed Development of Tentative Tract No. 26179 City of Los Angeles	1976	.25 mile
4361	Cultural Resource Inventory West End Fuels Management Project, Tujunga Ranger District, Angeles National Forest, Los Angeles County, California	1993	1 mile
4658	Archaeological Monitoring Report for Tentative Tract 52473 Located at 13775 Glenoaks Boulevard, Sylmar, Los Angeles County, California	1999	1 mile
5176	A Cultural Resources Site Survey of Herrick Avenue From Monte Street to Olden Street, Sylmar, California	1997	1 mile
5541	Cultural Resource Assessment: Cingular Wireless Facility No. Vy 098-01 Los Angeles County, California	2001	.25 mile
5926	Cultural Resources Assessment AT&T Wireless Services Facility No. 14012 Los Angeles County, California	2002	1 mile

Report No. LA-	Title	Year	Distance from Project
7894	Archaeological Resources Assessment for the Proposed Olive View Medical Center Emergency Services Expansion, City of Los Angeles, California	2006	In PA
9137	Archaeological Resources Assessment For The Proposed Olive View Medical Center Emergency Services Expansion City of Los Angeles, California	2006	In PA
9191	Cultural Resources Records Search and Site Visit Results for T-Mobile Candidate SV11413A (MacLay Tanks), 13601 West Astoria Street, Sylmar, Los Angeles County, California	2007	1 mile
9990	Sayre Fire: Emergency Fire Damaged Pole Replacements, Gavin 16Kv Distribution Circuit, Los Angeles County, CA	2009	1 mile
10263	Cultural Resource Records Search and Site Visit Results for Clearwire Candidate CA- LOS0048B (RMA TAX), 14110 Polk Street, Sylmar, Los Angeles County, California	2009	1 mile
10756	A Cultural Resources Overview and Preliminary Assessment of the Pacoima/Panorama City Redevelopment Plan Amendment/Expansion Project Area, Los Angeles County, California	2010	1 mile
11379	Verizon Wireless - Olive View- 10370 - Trileaf Project #315884 13665 Polk Street, Sylmar, California 91342 Los Angeles County, San Fernando Quadrangle (Delorme)	2011	1 mile
11896	Archaeological Survey Report Olive View Medical Center Replacement Construction Sylmar, Los Angeles County	2012	In PA
11962	Seismically Retrofit the existing Physical Education Building at the Olive Vista Middle School in Sylmar, CA	2012	1 mile

APPENDIX C: NATIVE AMERICAN CONSULTATION

Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

☒ **CEQA Tribal Consultation List (AB 52)** – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2*

☐ **General Plan (SB 18)** - *Per Government Code § 65352.3.*

Local Action Type:

___ **General Plan** ___ **General Plan Element** ___ **General Plan Amendment**

___ **Specific Plan** ___ **Specific Plan Amendment** ___ **Pre-planning Outreach Activity**

Required Information

Project Title: Olive View - UCLA Medical Center Campus Master Plan

Local Government/Lead Agency: County of Los Angeles

Contact Person: Andrew Moey

Street Address: P.O. Box 1460

City: Alhambra **Zip:** 91802-1460

Phone: 626-300-2333 **Fax:**

Email: AMOEY@dpw.lacounty.gov

Specific Area Subject to Proposed Action

County: Los Angeles **City/Community:** Sylmar

Project Description:

An Environmental Impact Report (EIR) will be prepared for the proposed Olive View - UCLA Medical Center Campus Master Plan Project. The Master Plan will guide future development of the campus and the delivery of health care services and health related community programs. For the purposes of the EIR, two tiers of development will be analyzed. Tier I entails near-term projects constructed before 2035, including an Ambulatory Care Center, research and development buildings, a Community Center, improvements to the existing hospital, appurtenant parking facilities, and other medical center campus improvements that would be located predominantly in the eastern third of the campus. Tier II development would occur beyond 2035, and would include the construction of a new inpatient hospital, support services building, mental health outpatient care facility, long-term care and recuperative housing, retail space, County department buildings, and the renovation and reuse of the existing inpatient hospital for other purposes. Full build-out of the Master Plan could result in a total of approximately 1,382,000 square feet of development throughout the campus.

Additional Request

☒ **Sacred Lands File Search** - ***Required Information:***

USGS Quadrangle Name(s): San Fernando

Township: 3N **Range:** 15W **Section(s):** 21 & 22

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX

July 5, 2016

Andrew Moey
County of Los Angeles

Sent via e-mail: Amoey@dpw.lacounty.gov
Number of Pages: 3

RE: Proposed Olive View – UCLA Medical Center Campus Master Plan Project, Community of Sylmar; San Fernando USGS Quadrangle, Los Angeles County, California

Dear Mr. Moey:

Attached is a consultation list of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. Please note that the intent of the reference codes below is to avoid or mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects under AB-52.

As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 **require public agencies** to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

> **Within 14 days** of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
   - If the probability is low, moderate, or high that cultural resources are located in the APE.
   - Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
   - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measurers.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission. A search of the SFL was completed for the USGS quadrangle information provided with negative results.

4. Any ethnographic studies conducted for any area including all or part of the potential APE: and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand well help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

Native American Heritage Commission
Tribal Consultation List
Los Angeles County
June 30, 2016

Santa Ynez Band of Mission Indians
Kenneth Kahn, Chairperson
P.O. Box 517 Chumash
Santa Ynez , CA 93460
kkahn@santaynezchumash.org
(805) 688-7997
(805) 686-9578 Fax

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Fernandeno Tataviam Band of Mission Indians
Rudy Ortega Jr., President
1019 2nd Street Fernandeno
San Fernando , CA 91340 Tataviam
(818) 837-0794 Office

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100
Los Angeles , CA 90067
Gabrielino
(626) 676-1184 Cell

Barbareno/Ventureno Band of Mission Indians
Julie Lynn Tumamait-Stennslie, Chair
365 North Poli Ave Chumash
Ojai , CA 93023
jtumamait@hotmail.com
(805) 646-6214

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Luiseno
San Jacinto , CA 92581 Cahuilla
jontiveros@soboba-nsn.gov
(951) 663-5279
(951) 654-5544, ext 4137

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina , CA 91723
gabrielenoindians@yahoo.com Gabrielino
(626) 926-4131

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list applicable only for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Olive View - UCLA Medical Center Campus Master Plan Project, Community of Sylmar; San Fernando USGS Quadrangle, Los Angeles County, California.

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

IN REPLY PLEASE
REFER TO FILE: PJ-2

April 11, 2016

Ms. Caitlin B. Gulley
Tribal Historic and Cultural Preservation Officer
Fernandeño Tataviam Band of Mission Indians
1019 Second Street
San Fernando, CA 91340

Dear Ms. Gulley:

COUNTY OF LOS ANGELES ASSEMBLY BILL 52
FORMAL NOTIFICATION OF DEADLINE
REQUEST CONSULTATION ON TRIBAL CULTURAL RESOURCES
FOR OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN

Public Works is contacting you in compliance with California Assembly Bill (AB) 52 (including California Public Resources Code Section 21080.3.1) because you are listed as the tribal contact person in a tribal request for notice of proposed projects in this geographic area for which the County is the lead agency for compliance with the California Environmental Quality Act. In compliance with formal notification requirements we are issuing the following proposed project notification:

Project Name: Olive View-UCLA Medical Center Campus Master Plan

Proposed Project: The Olive View-UCLA Campus Master Plan (Master Plan) will guide future campus development and health care services. Proposed development over the next 20 years, under the Master Plan, could include a new ambulatory care center, research and development buildings, community center, parking facilities, and improvements to the existing hospital and campus infrastructure. Long-term development (beyond the year 2035), could include a new inpatient hospital, support services building, mental health outpatient care facility, long-term care and recuperative housing, retail space, and renovation and reuse of the existing inpatient hospital for other purposes. Build-out of the Master Plan could result in approximately 1,382,000 square feet of development throughout the campus.

Location: 14445 Olive View Drive, Sylmar, California 91342. The campus is generally bounded by the Angeles National Forest on the north, Olive View Drive on the south, Wilson Canyon Park on the east, and Bucher Avenue to the west.

Ms. Caitlin B. Gulley
April 11, 2016
Page 2

If you wish to begin processing a formal consultation under AB 52, your deadline to request consultation with the County is set by State law (California Public Resources Code Section 21080.3.1(d)) and requires that you send a written request for consultation to the address below within 30 days of the receipt of this notice.

If you do not wish to initiate formal consultation on this proposed project, no response to this notice is needed. If you do not wish to formally consult under AB 52 on this proposed project, you may participate in the California Environmental Quality Act process for this project on any issue of concern as an interested California Native American tribe, person, citizen, or member of the public.

Please send written responses for the proposed project to:

Mr. Andrew K. Moey
County of Los Angeles
Department of Public Works
Project Management Division I
P.O. Box 1460
Alhambra, CA 91802-1460

If you have any questions, please contact me at (626) 300-2333 or amoey@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works

ANDREW K. MOEY
Interim Assistant Deputy Director
Programs Development Division

AM:ms
U:\pmd\\health\OVUCLA MP\Admin\Corres\Letter\AB52 Notidication docx

cc: Chief Executive Office (Carrie Voong)
County Counsel (Lauren Dods)
Department of Health Services (Carolyn Rhee)
ICF International (Mario Anayo, Brittany Hoedemaker, Lee Lisecki)

Fernandeño Tataviam Band of Mission Indians
Tribal Historic & Cultural Preservation

Rudy Ortega Jr.
Tribal President

Tribal Historic & Cultural Preservation Committee
Steve Ortega
Chairman
Arturo Paredes Jr.
David Ortega

April 21, 2016

County of Los Angeles
Department of Public Works
Project Management Division I
P.O Box 1460
Alhambra, CA 91802-1460

RE: Formal Request for Tribal Consultation Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code section 21080.3.1, subdivision (b), (d) and (e) for Olive View-UCLA Medical Center Campus Master Plan

Dear Mr. Moey,

This letter constitutes a formal request for tribal consultation under the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)) for the mitigation of potential impacts to tribal cultural resources for the above referenced project (Project).

The Fernandeño Tataviam Band of Mission Indians requests that the lead agency forward to the contact below the estimated cubic yards of soil disturbance for the Project. Additional data may be requested from your agency. Please contact Caitlin Gulley with any questions or for additional information:

Caitlin Gulley, Director
Tribal Historic and Cultural Preservation Department
1019 Second St.
San Fernando, CA 91340

Sincerely,

Sedna Villavicencio
Tribal Historic and Cultural Preservation Department

1019 Second Street, Suite 1 | San Fernando | California, 91340 | (818) 837-0794 | Fax (818) 837-0796

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

June 9, 2016

IN REPLY PLEASE
REFER TO FILE: PJ-2

Ms. Caitlin B. Gulley
Tribal Historic and Cultural Preservation Department
1019 Second Street
San Fernando, CA 91340

Dear Ms. Gulley:

SUBJECT: REQUEST FOR CONSULTATION PURSUANT TO ASSEMBLY BILL 52 (AB 52) FOR PROPOSED OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN PROJECT

Thank you for responding to our recent letter regarding the Olive View-UCLA Medical Center Campus Master Plan (proposed Project). The proposed Project is located at 14445 Olive View Drive, Sylmar, California (see enclosed Figures 1 and 2). An Environmental Impact Report (EIR) will be prepared by the lead agency, the County of Los Angeles (COUNTY), for the proposed Project in compliance with the California Environmental Quality Act (CEQA).

We understand that the Fernandeño Tataviam Band of Mission Indians is formally requesting consultation with the County of Los Angeles under the provisions of AB 52 which is found at 21080.3.1 of the Public Resources Code and related sections for the mitigation of potential impacts to tribal cultural resources for the proposed Project.

In your letter, you requested an estimation of cubic yards of soil disturbance for the proposed Project. Please be aware that development under the Master Plan would proceed sequentially and occur over a number of years. Buildout of the campus, which is expected to occur sometime after the year 2035, could result in approximately 251,000 cubic yards of cut work and 70,000 cubic yards of fill to construct new campus buildings and structures. Additional earth disturbance for the proposed landscaping improvements on campus is currently anticipated to be shallow and proportionately insignificant.

The EIR for the proposed Project will analyze the impacts to the environment due to the proposed development and related campus improvements that could occur under the Master Plan. For the purposes of the analysis in the EIR, proposed Master Plan

Ms. Caitlin B. Gulley
June 9, 2016
Page 2

development is described as occurring in two phases or tiers. Tier I would include near-term projects, such as a proposed new ambulatory care center and an administration building, as well as other development that could occur over the next 20 years (up to the year 2035). Tier I development would occur primarily within the eastern third of the campus in the vicinity of the existing hospital building and could total approximately 619,500 square feet of new buildings and facilities. Tier II would include proposed development beyond the year 2035. The impacts of Tier I development will be quantified to the extent possible in the EIR. Since Tier II development would occur much further in the future, the EIR will include a qualitative discussion of potential Tier II impacts.

I would also like to take this opportunity to provide you with the preliminary results of the cultural resources records search and survey conducted on behalf of the County by Cogstone Resource Management. A search for cultural resources was completed at the South Central Coastal Information Center of the California Historical Resources Inventory System by Ms. Alyson Caine, on January 28, 2016. The search included a 1-mile radius around the approximately 138.6 acre proposed Project area. No archaeological sites have been previously recorded within the proposed Project area or within the 1-mile radius. However, multiple built environment resources associated with the Historic Olive View Tuberculosis Sanatorium have been recorded within the proposed Project area (P-19-3794, P-19-18700, and P-19-1745294). In addition, two California Historical Landmarks, the Angeles National Forest and San Fernando Pioneer Memorial Cemetery, are located within a 1-mile radius.

An intensive-level pedestrian survey of the proposed Project area was conducted on February 15, 2016, by Archeologist and Paleontologist, Ms. Sarah Nava. The survey consisted of walking parallel 10-meter wide transects in open areas while closely inspecting the ground surface. Existing disturbances (e.g., rodent burrows, and ditches) were examined for artifacts or buried cultural deposits. No archaeological resources were identified within the proposed Project area.

Through the AB 52 consultation process, the County will gain information to determine if the proposed Project may cause a substantial adverse change to a tribal cultural resource and if so, consider feasible measures to avoid or minimize significant adverse impacts. As defined in the statute (Public Resource Code Section 20174), tribal cultural resources are sites, features, places, a cultural landscape, sacred places or objects, which are of cultural value to the Tribe and are either eligible for the California Historic Register or a local historic register, or identified as a tribal cultural resource at the County of Los Angeles' discretion. Please assist us by specifically identifying tribal cultural resources within the proposed Project boundaries. AB 52 contains provision for

Ms. Caitlin B. Gulley
June 9, 2016
Page 3

information provided by a California Native American tribe through the consultation process to be maintained confidential. Please provide any available information known to the Fernandeno Tatavium Band of Mission Indians about the proposed Project area, as well as any comments, issues and/or concerns relating to the potential for impacts to tribal cultural resources at the proposed Project site. I would appreciate your response by June 9, 2016, to facilitate the consultation process.

Information may be addressed to:

Mr. Andrew K. Moey
County of Los Angeles
Department of Public Works
Project Management Division I
P.O. Box 1460
Alhambra, CA 91802-1460

If you have any questions, please contact me at (626) 300-2333 or amoey@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works

ANDREW K. MOEY
Interim Assistant Deputy Director
Project Management Division I

AM:ms
U:\pmdl\health\OVUCLAMP\Admin\Corr\Letter\AB52 Response

Enc.

cc: Chief Executive Office (Carrie Voong)
Department of Health Services (Carolyn Rhee)
ICF International (Mario Anaya, Brittany Hoedemaker, Lee Lisecki)

Fernandeño Tataviam Band of Mission Indians
Tribal Historic & Cultural Preservation

Rudy Ortega Jr.
Tribal President

Tribal Historic & Cultural Preservation Committee
Steve Ortega
Chairman
Arturo Paredes Jr.
David Ortega

July 14, 2016

Andrew Moey
County of Los Angeles
Department of Public Works
P.O Box 1460
Alhambra, CA 91802

RE: Tribal Consultation Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code section 21080.3.1, subdivision (b), (d) and (e) for Olive View-UCLA Medical Center Campus Master Plan Project (Project)

Dear Mr. Moey,

This letter constitutes formal mitigation recommendations from the Fernandeño Tataviam Band of Mission Indians (Tataviam) for the Project. Due to the facts that the Project property is located within the sensitivity zone of 2 villages, Passenga and Achoicominga, contains open space, superficial development and development prior to the current protections of CEQA, Tataviam recommends that the Project implement the language below:

- All ground disturbing activities performed on the Project property shall be monitored by professional Native American monitors.
- The applicant shall retain one professional Native American monitor per excavation team to monitor all ground disturbing activities performed on the Project property.
- The applicant, or their agent, shall enter into an agreement with the Fernandeño Tataviam Band of Mission Indians (Tataviam), as a condition of project approval by the lead agency, in which Tataviam shall be identified to provide the following professional services:
    - Consultation and project support during the project planning stages related to cultural resources and mitigation under the California Environmental Quality Act (CEQA), Public Resources Code section 21080.3.1, subdivision (b), (d) and (e).
    - Professional Native American monitoring procurement
    - Management of Native American monitoring activities and related project oversight

Should the applicant desire a review of alternative mitigation measures by Tataviam, they may request a Consultation Form from the Tribal Historic and Cultural Preservation Department.

1019 Second Street, Suite 1 | San Fernando | California, 91340 | (818) 837-0794 | Fax (818) 837-0796

Sincerely,

Caitlin B. Gulley, Director
Tribal Historic and Cultural Preservation Department
cgulley@tataviam-nsn.us

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Appendix F

Geotechnical Evaluation and Paleontological Report

Appendix F1

Geotechnical Evaluation

PRELIMINARY GEOTECHNICAL EVALUATION
OLIVE VIEW – UCLA MEDICAL CENTER MASTER PLAN
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

PREPARED FOR:
ICF International
601 W. Fifth Street, Suite 900
Los Angeles, California 90071

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

March 18, 2016
Project No. 209600002

March 18, 2016
Project No. 209600002

Mr. Lee Lisecki
ICF International
601 W. Fifth Street, Suite 900
Los Angeles, California 90071

Subject: Preliminary Geotechnical Evaluation
Olive View – UCLA Medical Center Master Plan
Los Angeles County Department of Public Works
14445 Olive View Drive
Sylmar, California

Dear Mr. Lisecki:

In accordance with your request and authorization, Ninyo & Moore has performed a preliminary geotechnical evaluation for the Olive View – UCLA Medical Center Master Plan project located at 14445 Olive View Drive in Sylmar, California. Our evaluation was conducted in general accordance with the scope of services presented in our proposal dated February 2, 2015. This report presents our findings and conclusions regarding the subject site. We understand that the results of this evaluation will be utilized in the preparation of an Environmental Impact Report for the project.

We appreciate the opportunity to provide geotechnical consulting services for this project.

Sincerely,
NINYO & MOORE

PROFESSIONAL GEOLOGIST
MICHAEL E. ROGERS
No. 2364
CERTIFIED
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Distribution: (1) Addressee (via e-mail)

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1. INTRODUCTION

In accordance with your request and authorization, we have performed a preliminary geotechnical evaluation for the Olive View – UCLA Medical Center Master Plan project (project) located at 14445 Olive View Drive in Sylmar, California (Figure 1). This Los Angeles County Department of Public Works (LACDPW) project involves development of a master plan that includes renovation of existing buildings and construction of a new hospital building, administrative building, central utility plant and other structures. We have performed a geotechnical evaluation of the site geologic conditions and the impacts associated with potential geologic and seismic hazards for inclusion in the Environmental Impact Report (EIR) for the project.

The purpose of our evaluation was to assess the geologic conditions at the site and develop preliminary conclusions regarding potential geologic and seismic impacts associated with the project in accordance with the California Environmental Quality Act (CEQA). Where appropriate, recommendations to mitigate potential geologic hazards, as noted in this report, have been provided. Our evaluation was based on review of readily available geologic and seismic data, geotechnical literature and reports, and site reconnaissance. Subsurface exploration was not conducted as part of our evaluation.

The Olive View – UCLA Medical Center site is located in a State of California (1979) Earthquake Fault Zone (EFZ, formerly Alquist-Priolo Special Studies Zone) related to surface ruptures caused by the 1971 San Fernando (Sylmar) Earthquake. Significant damage occurred to the buildings at the site in 1971 due to ground shaking from the San Fernando Earthquake. The potential for surface rupture to occur at the site due to future earthquakes is a potentially significant hazard to existing and planned structures. Fault trenching studies to evaluate the presence and relative activity of faulting at the site have been conducted by other geotechnical consultants. We understand that additional trenching studies will be needed in the future to evaluate buildable zones for the master planning scheme.

2. SCOPE OF SERVICES

Ninyo & Moore's scope of services has included review of geotechnical background materials, geologic reconnaissance of the project area, and geotechnical analysis. Specifically, we have performed the following tasks:

- Review of readily available topographic and geologic maps, published geotechnical literature, geologic and seismic data, groundwater data, and aerial photographs.
- Review of the referenced fault rupture hazard reports provided by ICF International that were obtained from the LACDPW.
- Review of the geotechnical aspects of LACDPW project planning documents, including a description of the master plan elements and brief overview of the fault rupture hazard investigations that have been conducted at the site.
- Geotechnical reconnaissance by a representative from Ninyo & Moore conducted on February 4, 2016, to observe and document the existing surface conditions at the project site.
- Compilation and analysis of existing geotechnical data pertaining to the site.
- Assessment of the general geologic conditions and seismic hazards affecting the area and evaluation of their potential impacts on the project.
- Preparation of this report presenting the results of our study, as well as our conclusions regarding the geologic and seismic impacts on the project, and preliminary recommendations to address the impacts to be included in the EIR.

3. PROJECT DESCRIPTION

Based on our review of the preliminary plans (SmithGroup JJR, 2015), we understand that the proposed project involves the development of a new long-term master plan to guide future medical campus development and delivery of health care services and health-related community programs. Future development under the master plan would include a new ambulatory care center, a replacement central utility plant, renovation of the existing inpatient hospital, outpatient clinics, research and development, education facilities, as well as community/public service areas. The master plan includes eventual replacement of the main hospital building. Other planned improvements include site utilities, hardscape, pavements, landscaping, and low impact development (LID) practices for on-site stormwater management/infiltration.

4. SITE DESCRIPTION

The Olive View – UCLA Medical Center is located north of Interstate 210 and east of Interstate 5 in the Sylmar community of the City of Los Angeles (Figure 1). The medical center campus is situated on the northern edge of the San Fernando Valley at the base of the San Gabriel Mountains (Figures 1 and 2). The campus is approximately 235 acres and is bounded by the Angeles National Forest and the Wilson Debris Basin to the north, Olive View Drive on the south, Wilson Canyon Channel on the east, and Bucher Avenue on the west (Figure 2). The project site is currently improved with an inpatient hospital, outpatient clinics, research/development and education facilities, and community/public service areas. The site is also improved with paved roads and parking areas, landscaped areas, retaining walls, developed pedestrian open space, and undeveloped hillside and canyon areas, unpaved roads and trails.

The project site includes both developed and undeveloped areas. The developed portion of the campus is located in the southern, low-lying portion of the site and west of the Wilson Canyon Channel. The undeveloped portion of the site is located in the elevated northern portion of the site and to the east of the Wilson Canyon Channel. Topography and surface gradients are variable across the site. The topography of the developed portion of the campus slopes gently down toward the west and south, varying from an approximate elevation of 1,500 feet above mean sea level (MSL) near the northeast part of the project area to an approximate elevation of 1,430 feet above MSL along the south part of the project area. The elevations in the hillside areas in the northern portion of the site range from approximately 1,850 feet above MSL to approximately 1,500 feet above MSL.

5. GEOLOGY

5.1. Regional Geology

The project site is located on the northern edge of the San Fernando Valley, a Tertiary-Quaternary period sediment-filled basin within the Transverse Ranges geomorphic province of southern California (Norris and Webb, 1990). Rock units in the province include older Precambrian-era and Jurassic-period metavolcanic, metasedimentary and igneous rocks.

Cretaceous-age marine and non-marine sedimentary and metasedimentary rocks and younger Tertiary-age rocks comprised of volcanic, marine, and non-marine sediments overlie the older rocks (Norris and Webb, 1990). More recent Quaternary sediments, primarily of alluvial origin, comprise the low-lying valley and drainage areas within the region, including the area where the Olive View – UCLA Medical Center Campus project site is located.

The rock formations in the province have been folded and uplifted due to compression and rotation associated with a restraining bend on the San Andreas Fault. The folding and uplifting of the region led to characteristic east-to-west trending structural troughs and mountain ranges. The San Fernando Valley formed as sediment infilled a subsiding basin between the San Gabriel Mountains to the north and the Santa Monica Mountains to the south (Norris and Webb, 1990).

5.2. Site Geology

The medical center is situated on a gently sloping alluvial fan and rock formations at the margin between the northern San Fernando Valley and western end of the San Gabriel Mountains. Regional geologic maps indicate that the upper, elevated northwestern portion of the site is underlain by Tertiary-age Towsley Formation generally comprised of cobble conglomerate and coarse-grained sandstone, and Cretaceous-age metamorphic rocks (Dibblee, 1991). Other elevated hillside areas in the western, northern and eastern portions of the site are mapped as being underlain by Pacoima Formation and older alluvium comprised of weakly consolidated sand and gravel. The lower southern portion of the site, where the existing improvements are located, and the eastern portions of the site at the base of Wilson Canyon are mapped as being underlain by young (Holocene) alluvial deposits generally comprised of gravel, sand and clay sediments. A regional geologic map of the site vicinity is shown on Figure 3.

5.3. Santa Susana (Olive View) Fault

Previous geologic mapping and references indicate the presence of a roughly east-west trending fault (the Olive View Fault) across the northwestern portion of the site (Figure 3).

Although not labeled on the referenced map (Dibblee, 1991) used for Figure 3, the fault has been named as the Olive View fault by others (California Department of Conservation, Division of Mines and Geology [CDMG], 1975; URS, 2010). The United States Geological Survey (USGS) has designated the fault as the eastern extension of the active Santa Susana Fault Zone (USGS, 2014a). This active fault was associated with surface ruptures at the project site caused by the 1971 San Fernando (Sylmar) Earthquake (CDMG, 1975; State of California, 1979).

5.4. Groundwater

The site is located within the San Fernando Valley Groundwater Basin (State of California, 2016). Historic groundwater monitoring well data from the State of California Water Resources Control Board's GeoTracker website (State of California, 2016) were reviewed for our evaluation. Monitoring well data were not available for the medical center site, but were reviewed for commercial properties located in the Sylmar community south of the site. These properties were involved in environmental clean-up activities where monitoring wells were installed and groundwater data from LACDPW wells were utilized. Based on the groundwater information reviewed from the GeoTracker website, groundwater levels from 1993 to 2013 in the Sylmar community approximately 1½ miles south of the project site have ranged from approximately 125 to 200 feet below the ground surface. The historic high groundwater mapped by the California Geological Survey (CGS) near the southern portion of the medical center site is approximately 120 feet deep (CDMG, 1998).

Groundwater levels may be influenced by seasonal variations, precipitation, subsurface stratification, groundwater pumping, irrigation practices, and other factors and are subject to fluctuations. Shallow perched conditions may be present.

6. FAULTING AND SEISMICITY

6.1. Regional Fault Setting

The Olive View-UCLA medical center project site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion at the site

is considered significant. Table 1 lists selected principal known active faults within approximately 50 kilometers of the project area and the maximum moment magnitude (M_{max}) as published by the USGS (2008 and 2014a) in general accordance with the Uniform California Earthquake Rupture Forecast, version 3 (UCERF) (Field, et al., 2013). The approximate fault-to-site distances listed in Table 1, measured from the existing hospital building, were calculated using the USGS web-based program (USGS, 2008).

Table 1 – Principal Regional Active Faults

Fault	Approximate Fault-to-Site Distance [1] miles (kilometers)	Maximum Moment Magnitude [1] (M_{max})
Santa Susana [2]	<0.1 (<0.1)	6.9
Northridge Blind Thrust	0.5 (0.8)	6.9
Sierra Madre (San Fernando)	1.7 (2.8)	7.3
San Gabriel	3.2 (5.2)	7.3
Verdugo	4.7 (7.5)	6.9
Holser	8.6 (13.9)	6.8
Simi-Santa Rosa	14.4 (23.2)	6.9
Hollywood	16.2 (26.0)	6.7
Oak Ridge	16.6 (26.8)	7.4
Upper Elysian Park Blind Thrust	17.0 (27.3)	6.7
Santa Monica	17.3 (27.9)	7.4
Raymond	19.0 (30.5)	6.8
San Cayetano	19.6 (31.6)	7.2
Newport-Inglewood (Los Angeles Basin)	19.7 (31.8)	7.5
Malibu Coast	21.0 (33.8)	7.0
Puente Hills Blind Thrust (LA)	21.2 (34.1)	7.0
Anacapa-Dume	21.9 (35.3)	7.2
San Andreas	22.0 (35.3)	8.2
Palos Verdes	25.3 (40.8)	7.7
Clamshell-Sawpit Canyon	27.5 (44.3)	6.7

Notes:
[1] USGS, 2008
[2] USGS, 2014a

The fault-to-site distance web-based calculator for faults in California is not available as part of the 2014 National Seismic Hazard Map database. However, the 2014 National Seismic

Hazard Map itself shows the Santa Susana fault crossing through the northern portion of the site (USGS, 2014a). Accordingly, the Santa Susana fault is considered to be in the immediate vicinity of the campus site and the fault-to-site distance in Table 1 is shown as less than 0.1 mile. The active Santa Susana fault was not mapped as crossing the project site as part of the USGS 2008 National Seismic Hazard Map (USGS, 2008) database, and is shown to be located approximately 2.9 miles west of the site.

The numerous faults in southern California include active, potentially active, and inactive faults. As defined by the CGS, active faults are faults that have ruptured within Holocene time, or within approximately the last 11,000 years. Potentially active faults are those that show evidence of movement during Quaternary time (approximately the last 1.6 million years) but for which evidence of Holocene movement has not been established. Inactive faults have not ruptured in the last approximately 1.6 million years. Figure 4 shows the approximate site location relative to the principal faults in the region based on the Fault Activity Map of California (Jennings, C.W., and Bryant, W.A., 2010).

The active Northridge Blind Thrust Fault (source of the 1994 Northridge Earthquake) is located approximately 0.5 mile southwest of the project site. Blind thrust faults are low-angle faults at depths that do not break the surface and are, therefore, not shown on Figure 4. Although blind thrust faults do not have a surface trace, they can be capable of generating damaging earthquakes and are included in Table 1.

6.2. 1971 San Fernando (Sylmar) Earthquake

The Olive View-UCLA Medical Center site was previously subjected to substantial ground shaking, surface rupture and earthquake-related damages resulting from the 1971 San Fernando Earthquake (also known as the Sylmar Earthquake). The Magnitude 6.5 earthquake included roughly 12 miles of surface rupture in the site vicinity and produced a maximum slip of 6 feet. The approximate locations of faults associated with major surface ruptures that were mapped at the project site are shown on Figure 5. Other surface ruptures and landslides that occurred at the site as a result of the 1971 earthquake are shown on references reviewed for this evaluation (CDMG, 1975). Damage to the medical center site

included the collapse of stair towers adjacent to buildings, the partial collapse of medical buildings, and the collapse of parking structures. Some structures damaged in the earthquake were later demolished (Southern California Earthquake Data Center, 2016).

The extensive urban damages and loss of life that resulted from the 1971 San Fernando Earthquake led to the enactment of the Alquist-Priolo Act, signed into California law on December 22, 1972.

6.3. 1972 Alquist-Priolo Earthquake Fault Zoning Act

As presented in the CDMG, Special Publication 42 (Hart, E.W., and Bryant, W.A., 1997), the 1972 Alquist-Priolo Earthquake Fault Zoning Act (AP Act) requires the State Geologist to delineate EFZs along known active faults in California. The AP Act also requires building setbacks to be established from the trace of an active fault. EFZs must meet the requirements of being "sufficiently active" (evidence of movement within the last approximate 11,000 years) and "well-defined" (detectable by a trained geologist). It is known that faults often rupture along a complex zone that may include the movement of multiple splays/strands rather than of a single strand. The EFZs are intended to be sufficiently wide enough on both sides of a known active fault to include these known or unknown splays/strands of the fault. The purpose of the AP Act was to prohibit the location of most structures for human occupancy across the traces of active faults, thus mitigating the hazard of fault rupture.

The project site is located in a State of California (1979) EFZ related to surface ruptures caused by the 1971 San Fernando (Sylmar) Earthquake. Figure 5 shows the site location relative to the mapped EFZ.

7. METHODOLOGY FOR GEOLOGIC IMPACT AND HAZARD ANALYSES

As outlined by the CEQA, the proposed project has been evaluated with respect to potential geologic and seismic impacts associated with the project. Evaluation of impacts due to potential geologic and seismic hazards is based on our review of readily available published geotechnical literature and geologic and seismic data pertinent to the proposed project, and site reconnaissance. The references and data reviewed include, but are not limited to, the following:

- Geologic maps and fault maps from the CDMG, CGS and USGS.
- Topographic maps from the USGS.
- Seismic data from the CGS and USGS.
- Geotechnical publications by the CDMG, CGS and USGS.
- State of California EFZ Maps (formerly Alquist-Priolo Special Studies Zones Maps).
- State of California Seismic Hazards Zones Reports and Maps.
- Fault rupture studies by URS Corporation (URS) and AMEC Environment & Infrastructure, Inc. (AMEC).
- Aerial photographs.
- Safety Element of the Los Angeles City General Plan.

8. THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA guidelines (California Environmental Resources Evaluation System [CERES], 2005a, 2005b), a project is considered to have a geologic impact if its implementation would result in or expose people/structures to potential substantial adverse effects, including the risk of loss, injury, or death from hazards involving one or more of the geologic conditions presented in Table 2. Table 2 also presents the impact potential as defined by CEQA associated with each of the geologic conditions discussed in the following sections.

Table 2 – Summary of Potential Geologic Impacts/Hazards

Geologic Condition	Impact Potential[1]			
	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Earthquake Fault Rupture	x			
Strong Seismic Ground Shaking		x		
Seismically Related Ground Failure, Including Liquefaction		x		
Landslides		x		
Substantial Soil Erosion		x		
Subsidence			x	
Compressible/Collapsible Soils		x		
Expansive Soils		x		
Groundwater and Excavations		x		

Note:
[1]Reference: CERES, 2005, Appendix G – Environmental Checklist Form, Final Text, dated October 26. Website: http://ceres.ca.gov/topic/envlaw/ceqa/guidelines/appendices.html

9. CONCLUSIONS AND RECOMMENDATIONS FOR POTENTIAL GEOLOGIC AND SEISMIC IMPACTS/HAZARDS

Based on our review of geologic and seismic background information, and geotechnical reconnaissance, implementation of the proposed master plan project is not anticipated to have a significant impact on the geologic environment. However, future development at the project site may be subjected to potential impacts from geologic and seismic hazards. Potential impacts on the proposed project based on our preliminary evaluation are provided in the following sections.

The potential geologic and seismic hazards described below may be addressed by employing sound engineering practice in the design and construction of the proposed project elements. This practice includes the implementation of appropriate geotechnical recommendations prior to the design and construction of the facilities at the project site. Typical methods to reduce potential hazards that may be encountered during the construction of improvements are described in the following sections. Where appropriate, recommendations to mitigate potential geologic hazards are provided. Prior to design of the planned improvements, detailed subsurface geotechnical evaluation should be performed to address the site-specific conditions at the locations of the planned improvements and to provide detailed recommendations for design and construction.

9.1. Surface Fault Rupture

Surface fault rupture is the offset or rupturing of the ground surface by relative displacement across a fault during an earthquake. There could be potentially significant impacts associated with siting project improvements across the trace of an active fault. Damage due to fault rupture may include offset/damage to foundations and structural elements. As previously discussed, the medical center site was subjected to surface rupture and damage to structures resulting from the 1971 San Fernando Earthquake. Surface ruptures related to faulting were mapped along the trace of the Olive View fault in the northwestern part of the site. In addition, other ground surface ruptures were mapped at various locations within the project site (CDMG, 1975; State of California, 1979). Due to the surface ruptures along the active Olive View fault (Santa Susana Fault Zone) from the 1971 earthquake, an EFZ was established along the fault. Much of the project site is located within the EFZ (Figure 5).

Fault trenching studies to evaluate the presence and relative activity of faulting at portions of the site have been conducted by other geotechnical consultants on behalf of the LACDPW (URS, 2008; URS, 2010; AMEC, 2013). URS conducted a fault trenching study in 2008 for the proposed Psychiatric Urgent Care Facility in the southern part of the site, and conducted a fault trenching study in 2010 for the proposed Day Care Facility in the southern part of the site. Their studies generally involved performance of subsurface trenches and test pits adjacent to the facilities to explore for the presence of active faulting. URS generally concluded that the trenches exposed older (Pleistocene) alluvium that was not cut by active (Holocene epoch [last 11,000 years]) faulting. Based on their conclusions, URS established a "trench shadow corridor" area for the investigated sites that is free of active faulting and feasible for permitting structures intended for human occupancy in accordance with the provisions of the AP Act.

Based on a figure included in the preliminary project plans (SmithGroup JJR, 2015), AMEC prepared a map in 2013 titled "Preliminary Planning Map for Subsurface Fault Rupture Hazards" as part of the master planning study for the medical center site. The map shows a summary of fault trench locations performed by AMEC and other geotechnical consultants at the site. The map illustrates color-coded areas of the project site where fault trenching has "cleared" areas of active faulting for "potential building sites"; and areas where additional fault trenching can be performed and is "required." The map also illustrates many areas of the site located within the EFZ where fault trenching may not be feasible, including the location of the existing hospital building.

The preliminary project plans indicate that additional fault trenching will be needed in the future to evaluate buildable zones for the master planning scheme (SmithGroup JJR, 2015). Future geologic investigations to evaluate the location and relative activity of potentially active fault splays at the site and the feasibility of locating future site improvements should be conducted by geologic consultants for the LACDPW prior to design of structure locations. The fault investigations should be conducted by a California State Certified Engineering Geologist and should typically involve participation by experts in the field of

paleoseismology, geomorphology and soil stratigraphy. The fault investigations should be reviewed by the CGS. Other methods to explore for the presence of active faulting might include geophysical studies such as high resolution seismic reflection, seismic refraction, ground penetrating radar, and gravity and/or magnetic profiling.

Where the fault investigations find that no active fault splays are present at building sites, proposed structures intended for human occupancy may be feasible for permitting in accordance with the provisions of the AP Act. Where active fault splays are found at the project site, the locations may be deemed not feasible for construction of occupied structures, and appropriate building setback zones will need to be established.

The impacts related to surface rupture at the project site are potentially significant, but can be reduced with methods such as detailed fault investigations to clear sites of active faulting, including review by the CGS, and/or development of structural setback zones.

9.2. Seismic Ground Shaking

Earthquake events from one of the regional active or potentially active faults near the project area could result in strong ground shaking which could affect the project site. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking.

The 2013 California Building Code (CBC) recommends that the design of structures be based on spectral response accelerations in the direction of maximum horizontal response (5 percent damped) having a 1 percent probability of collapse in 50 years. Such spectral response accelerations represent the Risk-Targeted Maximum Considered Earthquake (MCE_R) ground motion. The horizontal peak ground acceleration (PGA) that corresponds to the MCE_R for the site was calculated as 1.20g using the USGS (2014b) seismic design tool (web-based). The mapped PGA (PGA_M) which is defined as the Maximum Considered Earthquake Geometric Mean (MCE_G) PGA with adjustment for site class effects in

accordance with the American Society of Civil Engineers (ASCE) 7-10 Standard was estimated to be 1.14g using the USGS (2014b) seismic design tool in accordance with the ASCE 7-10 Standard. These estimates of ground motion do not include near-source factors that may be applicable to the design of structures on site.

This potential level of ground shaking could have high impacts on project improvements without appropriate design mitigation, and should be considered during the detailed design phase of the project. Mitigation of the potential impacts of seismic ground shaking can be achieved through project structural design. Structural elements of planned improvements can be designed to resist or accommodate appropriate site-specific ground motions and to conform to the current seismic design standards, including CBC and County of Los Angeles building regulations. Appropriate structural design and mitigation techniques would reduce the impacts related to seismic ground shaking.

9.3. Liquefaction

Liquefaction is the phenomenon in which loosely deposited granular soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact due to rapid rise in pore water pressure causing the soil to behave as a fluid for a short period of time. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking. The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of slabs due to sand boiling, buckling of deep foundations due to liquefaction-induced ground settlement.

According to Seismic Hazard Zones Maps published by the State of California (CDMG, 1999), a portion of the project area in the northeastern part of the site near the mouth of Wilson Canyon is located within an area considered susceptible to liquefaction (Figure 6).

This portion of the site within the lower-lying canyon bottom area was mapped as potentially liquefiable due to the tendency for shallower groundwater and loose, younger alluvial sediments to accumulate in canyon bottoms. However, the overall historic high groundwater levels at the site are deep, on the order of 120 feet or more below the ground surface, and much of the project site is not considered susceptible to liquefaction. Areas of the project site mapped as being underlain by rock formations are not susceptible to liquefaction.

Assessment of the liquefaction potential at the project site should be evaluated by subsurface geotechnical exploration prior to detailed design and construction of project improvements and incorporated into the design, as appropriate. Structural design and mitigation techniques should be developed to reduce the potential impacts of liquefaction. Therefore, the potential impacts due to liquefaction are considered to be less than significant with incorporation of techniques such as structural design, in-situ ground modification, or supporting foundations with piles at depths designed specifically for seismically induced settlement.

9.4. Landslides

Landslides, slope failures, and mudflows of earth materials generally occur where slopes are steep and/or the earth materials are too weak to support themselves. Earthquake-induced landslides may also occur due to seismic ground shaking. Landslides can consist of rockfalls, shallow slumps, mudflows and erosional failures, or deeper-seated rotational and block failures. Shallow failures are typically caused by high incident rainfall or concentrated surface runoff conditions that weaken surficial materials. Rotational slides and block-type slides form deeper within the ground, and are generally related to discontinuities in the rock that manifest into a sliding surface. Rainfall and other water infiltration into the ground can exacerbate and initiate these deeper sliding conditions. Landslides can also be caused by construction activities, such as grading that undercuts the toe of a slope or induces loading at the top of a slope.

Existing landslides are not shown on the northern hillside areas of the site on the geologic maps reviewed. However, the northern portion of the project site contains steep, natural

slopes that have been subjected to fires. In addition, portions of the slopes on the northern part of the site have been designated on the State Seismic Hazard Zones Map (Figure 6) as having potential for earthquake–induced landslides (CDMG, 1999). Furthermore, landslides that were caused by earthquake ground shaking were mapped at the site following the 1971 San Fernando Earthquake (CDMG, 1975).

The southern portion of the project site has shallower slope gradients and has been extensively developed and is primarily covered with pavements, hardscape and structures. The developed southern portion of the site includes some graded slopes at shallow gradients associated with landscaping and open space areas.

Due to the presence of steep hillside areas and previously mapped earthquake–induced landslides in the northern portion of the site, there is a potential for landslides, mudflows or seismic slope instability to impact the proposed project site. Detailed assessment of the landslide and mudflow potential in areas of project improvements should be performed prior to design and construction of improvements and incorporated into the design, as appropriate, to reduce the construction and operational impacts related to landslides. Therefore, the potential impacts due to landslides are considered to be low with incorporation of recommendations discussed below.

To evaluate the potential for landslides, surficial slope failures and/or mudflows to affect future planned improvements, evaluation may include review of geologic maps showing the locations of previous mapped landslides and potential earthquake-induced landslide zones relative to these project components. Where appropriate in close proximity to potential landslide areas, surface reconnaissance to map the locations of landslides and/or subsurface evaluation could be performed. Evaluation of the landslide and surficial slope failure hazard would be performed during design and prior to construction so that, in the event the hazard exists, common design and construction practices can be implemented.

Common construction practices for potentially unstable slope conditions and for areas with the potential for landslides and surficial slope failures include: excavating potentially

unstable material resulting in a flatter and more stable slope configuration; reduction of landslide driving forces by removal of earth materials at the top of the landslide; construction of buttress and/or stabilization fills; construction of retaining walls, installation of rock bolts on the face of the slope, or installation of protective wire mesh on the slope face; and/or the construction of debris impact walls at the toe of the slope to contain rock fall debris. Graded slopes created for future developments within the project site should also be designed to reduce the potential for landslides or mudflows.

9.5. Soil Erosion

Erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur at the project site where soil or rock is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses. Review of geologic maps and site reconnaissance indicate that surface exposures at the site are comprised of variable types of soil and rock materials. In addition, the site comprises varied topographic terrain ranging from gentle to steep gradients. In a general sense, steeper slope gradients, such as in the northern portion of the site, provide a higher erosion potential for similar soil types.

Sandy soils typically have low cohesion, and have a relatively higher potential for erosion from surface runoff when exposed in slopes or utilized near the face of fill embankments. Surface soils with higher amounts of clay tend to be less erodible as the clay acts as a binder to hold the soil particles together. Additionally, large portions of the site, including the eastern and northern portions, are currently undeveloped and subject to potential water- and wind-related soil erosion. Soil erosion and soil runoff from natural drainages and non-vegetated areas on the adjacent slopes has the potential to impact the site.

Future construction at the project site would result in ground surface disruption during excavation, grading, and trenching that would create the potential for erosion to occur. However, the erosion potential during construction can be minimized with prudent site

management practices during construction. A Storm Water Pollution Prevention Program (SWPPP) incorporating Best Management Practices (BMPs) for erosion control should be prepared prior to the start of construction in accordance with governing agencies. Following development of site improvements, erosion can be minimized by long-term erosion management practices and drainage provisions incorporated into the design and maintenance of the project. Potential soil erosion related to project site development is considered to have a low impact with incorporation of appropriate design and construction practices.

With the implementation of BMPs incorporated in the project SWPPP during planned construction, water- and wind-related soil erosion can be limited and managed within construction site boundaries. Examples of these procedures could include surface drainage measures for erosion due to water, such as the use of erosion prevention mats or geofabrics, silt fencing, sandbags and plastic sheeting, and temporary drainage devices. Positive surface drainage should be accommodated at project construction sites to allow surface runoff to flow away from site improvements or areas susceptible to erosion. To reduce wind-related erosion, wetting of soil surfaces and/or covering exposed ground areas and soil stockpiles could be considered during construction operations, as appropriate.

During long-term operation of future developments at the project site, soil erosion can be mitigated through site drainage design and maintenance practices. Design procedures can be performed to reduce soil erosion such as appropriate surface drainage design of roadways and facilities to provide for positive surface runoff. Design should address reducing concentrated run-off conditions that could cause erosion and affect the stability of project improvements.

9.6. Subsidence

Subsidence is characterized as a sinking of the ground surface relative to surrounding areas, and can generally occur where deep soil deposits are present. Subsidence in areas of deep soil deposits is typically associated with regional groundwater withdrawal or other fluid withdrawal from the ground such as oil and natural gas. Subsidence can result in the development of ground cracks and damage to site improvements.

The City of Los Angeles and County of Los Angeles references do not indicate mapped areas of subsidence. Historic subsidence is not known to have occurred or been reported in the site region. The Safety Element of the Los Angeles City General Plan (1996) includes information regarding the City's program to preclude potential subsidence within the City. Subsurface extraction activities within the City of Los Angeles are regulated by the Oil Drilling District procedures, which contain provisions for monitoring and imposing measures to preclude subsidence related to oil and gas extraction. Therefore, the potential for subsidence in the Project area is relatively low.

9.7. Compressible/Collapsible Soils

Compressible soils are generally comprised of soils that undergo decrease in volume when exposed to new loading, such as fill or foundation loads. Soil collapse is a phenomenon where the soils undergo a significant decrease in volume upon increase in moisture content, with or without an increase in external loads. Buildings, structures and other improvements may be subject to excessive settlement-related distress when compressible soils or collapsible soils are present.

Based on our background review, the project area is underlain by fill soils, alluvial sediments, and sedimentary rock formations. The alluvial deposits underlying the site are generally unconsolidated to weakly consolidated, based on the young nature of the deposits, reflecting a depositional history without substantial loading, and may be subject to collapse. Older, undocumented fill soils related to previous site development are considered potentially compressible/collapsible. Due to the presence of potentially compressible/collapsible soils at the site, there is a potential for differential settlement to cause damage to project improvements. The potential impacts of settlement are significant without appropriate mitigation during detailed project design and construction.

Since future development within the project area will involve construction of new improvements that would load the existing soils, potential settlement and/or collapsible soils will be a consideration in the detailed design and construction of project improvements. Assessment of soil settlement should be performed prior to detailed design and construction

of project improvements and mitigation techniques should be developed, as appropriate, to reduce the impacts related to settlement.

To evaluate the potential for settlement to affect future project components, surface reconnaissance and subsurface evaluation should be performed. During the detailed design phase of the project, site-specific geotechnical evaluations should be performed to assess the settlement potential of the on-site natural soils and undocumented fill. This may include detailed surface reconnaissance to evaluate site conditions, and drilling of exploratory borings or test pits and laboratory testing of soils, where appropriate, to evaluate site conditions.

Examples of possible mitigation measures for soils with the potential for settlement include removal of the compressible/collapsible soil layers and replacement with compacted fill, surcharging to induce settlement prior to construction of improvements, allowing for a settlement period after or during construction of new fills, and specialized foundation design, including the use of deep foundation systems to support structures. Various in-situ soil improvement techniques are also available, such as dynamic compaction (heavy tamping) or compaction grouting.

9.8. Expansive Soils

Expansive soils include clay minerals that are characterized by their ability to undergo significant volume change (shrink or swell) due to variations in moisture content. Sandy soils are generally not expansive. Changes in soil moisture content can result from rainfall, irrigation, pipeline leakage, surface drainage, perched groundwater, drought, or other factors. Volumetric change of expansive soil may cause excessive cracking and heaving of structures with shallow foundations, concrete slabs-on-grade, or pavements supported on these materials.

Based on our background review and site reconnaissance, the near-surface soils in the project site are predominantly comprised of sandy, coarse-grained materials. These soils typically have a low expansion potential. However, clayey soils may be present in areas of

the project site. Constructing project improvements on expansive soils could have a significant impact on future improvements.

Assessment of the potential for expansive soils should be performed during the design phase of the project through subsurface exploration and mitigation techniques should be developed, as appropriate, to reduce the impacts related to expansive soils. The potential impacts due to expansive soils would be reduced with incorporation of techniques such as over-excavation and replacement with non-expansive soil, soil treatment, moisture management, and/or specific structural design for expansive soil conditions developed during design of the project.

9.9. Groundwater and Excavations

The depth of historic high groundwater at the project site is on the order of 120 feet below the ground surface (CDMG, 1998). Based on the groundwater information reviewed from the GeoTracker website, groundwater levels from 1993 to 2013 in the Sylmar community approximately 1½ miles south of the project site have ranged from approximately 125 to 200 feet below the ground surface (State of California, 2016).

Proposed future improvements at the project site are anticipated to consist of excavations and site grading for new structures. Based on the deep groundwater levels reported in the site region and the anticipated depth of construction activities, groundwater may not have a significant impact on excavations for the planned project improvements. However, areas of shallower perched groundwater may be encountered during excavations, and, if encountered, could have an impact on the construction activities at the sites.

Wet or saturated soil conditions encountered in excavations during construction for the project can cause instability of the excavations, and present a constraint to construction activities. Excavations in areas with shallow perched groundwater may need to be cased/shored and/or dewatered to maintain stability of the excavations and adjacent improvements and provide access for construction.

Groundwater levels may be influenced by seasonal variations, precipitation, irrigation, soil/rock types, groundwater pumping, and other factors and are subject to fluctuations. On-site infiltration of storm water related to LID guidelines may have an impact on existing and planned site improvements and should be evaluated during the detailed design phase of the project.

Further study, including subsurface exploration, should be performed during the detailed design phase of planned improvements to evaluate the presence of seepage and/or perched groundwater, and to evaluate the potential for stormwater infiltration at the site, and the potential impacts on design and construction of project improvements. Mitigation techniques should be developed, as appropriate, to reduce the impacts related to groundwater. The potential impacts due to groundwater would be reduced with incorporation of techniques such as casing, shoring and/or construction dewatering.

10. LIMITATIONS

The purpose of this study was to evaluate geotechnical conditions and potential geologic and seismic hazards at the site using readily available geotechnical data, site reconnaissance, and to provide a preliminary geotechnical report which can be utilized in the preparation of an EIR for the project.

The geotechnical analyses presented in this report have been conducted in general accordance with current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No other warranty, implied or expressed, is made regarding the conclusions, recommendations, and professional opinions expressed in this report. Our preliminary conclusions and recommendations are based on a review of readily available geotechnical literature, geologic and seismic data, and an analysis of the observed conditions. Variations may exist and conditions not observed or described in this report may be encountered.

11. REFERENCES

AMEC Environment & Infrastructure, Inc., 2013, Preliminary Planning Map for Surface Fault Rupture Hazards, Figure 3, Master Planning Study, Olive View-UCLA Medical Center, 14445 Olive View Drive, Sylmar District, Los Angeles, California, dated July 15.

California Building Standards Commission, 2013, California Building Code (CBC): California Code of Regulations, Title 24, Part 2, Volumes 1 and 2.

California Department of Conservation, Division of Mines and Geology (CDMG), State of California, 1975, San Fernando Earthquake of 9 February, 1971, Bulletin.

California Department of Conservation, Division of Mines and Geology, State of California, 1998, Seismic Hazard Evaluation of the San Fernando 7.5-Minute Quadrangle, Los Angeles County, California: Open-File Report 98-06.

California Department of Conservation, Division of Mines and Geology, State of California, 1999, Seismic Hazard Zones Official Map, San Fernando Quadrangle, 7.5-Minute Series: Scale 1:24,000, Open-File Report 98-06, dated March 25.

California Environmental Resources Evaluation System (CERES), 2005a, The California Environmental Quality Act, Title 14; California Code of Regulations, Chapter 3; Guidelines for Implementation of the California Environmental Quality Act, Article 9; Contents of Environmental Impact Reports, Final Text dated May 25, Website: http://ceres.ca.gov/ topic/env_law/ceqa/guidelines/art9.html.

California Environmental Resources Evaluation System (CERES), 2005b, The California Environmental Quality Act, CEQA Guidelines Appendices, Appendix G – Environmental Checklist Form, Final Text dated May 25, Website: http://ceres.ca.gov/topic/env_law/ceqa/guidelines/appendices.html.

Campbell, R.H., Willis, C.J., Irvine, P.J., and Swanson, B.J., 2014, Preliminary Geologic Map of the Los Angeles 30' x 60' Quadrangle, Southern California, Version 2.0: United States Geological Survey, Scale 1:100,000.

County of Los Angeles Department of Regional Planning, 1990, Los Angeles County Safety Element.

County of Los Angeles, Department of Public Works, 2015, Requests for Proposals, Environmental Documentation Services for the Olive View – UCLA Medical Center Campus Master Plan, dated January 15.

Dibblee, T.W., Jr., 1991, Geologic Map of the San Fernando and Van Nuys (North ½) Quadrangles, Los Angeles County, California: Dibblee Foundation, DF-33, Scale 1:24,000.

Field, E.H., Biasi, G.P., Bird, P., Dawson, T.E., Felzer, K.R., Jackson, D.D., Johnson, K.M., Jordan, T.H., Madden, C., Michael, A.J., Milner, K.R., Page, M.T., Parsons, T., Powers, P.M., Shaw, B.E., Thatcher, W.R., Weldon, R.J., II, and Zeng, Y., 2013, Uniform California Earthquake Rupture Forecast, Version 3 (UCERF3) — The time-independent

model: U.S. Geological Survey Open-File Report 2013–1165, California Geological Survey Special Report 228, and Southern California Earthquake Center Publication 1792, http://pubs.usgs.gov/of/2013/1165/.

Google Earth, 2016, Website: http://earth.google.com.

Hart, E.W., and Bryant, W.A., 1997, Fault-Rupture Hazard Zones in California, Alquist-Priolo Special Studies Zone Act of 1972 with Index to Special Studies Zones Maps: California Division of Mines and Geology, Special Publication 42.

Jennings, C.W., and Bryant, W.A., 2010, Fault Activity Map of California: California Division of Mines and Geology, California Geologic Data Map Series, Map No. 6, Scale 1:750,000.

Los Angeles Department of City Planning, 1996, Safety Element of the Los Angeles City General Plan, dated November 26.

Moore, G.L., 2002, Methane and Methane Buffer Zones, City of Los Angeles, City of Los Angeles Bureau of Engineering.

Ninyo & Moore, 2015, Letter of Interest and Qualifications to Provide Environmental Documentation Services for the Olive View – UCLA Medical Center Campus Master Plan, County of Los Angeles, Proposal No. S04-00135, dated February 2.

Norris, R.M., and Webb, R.W., 1990, Geology of California: John Wiley & Sons, 541 pp.

SmithGroup JJR, 2015, Olive View – UCLA Medical Center Campus Master Plan, Appendix, Prepared for the County of Los Angeles, Draft Print dated August 26.

Southern California Earthquake Data Center, 2016, Significant Earthquakes and Faults, San Fernando Earthquake, http://scedc.caltech.edu/significant/sanfernando1971.html.

State of California, 1979, Special Studies Zones, San Fernando Quadrangle, 7.5 Minute Series: Scale 1:24,000, dated January 1.

State of California, State Water Resources Control Board, 2016, GeoTracker Database System, http://geotracker.swrcb.ca.gov/, accessed February 17.

United States Geological Survey, 1966 (Photorevised 1988), San Fernando, California Quadrangle Map, 7.5 Minute Series: Scale 1:24,000.

United States Geological Survey, 2008 National Seismic Hazard Maps – Fault Parameters; http://geohazards.usgs.gov/efusion/hazardfaults_search/hf_search_main.efm.

United States Geological Survey, 2014a, National Seismic Hazard Maps – Interactive Fault Map, http://earthquake.usgs.gov/hazards/qfaults/map/hazfault2014.html.

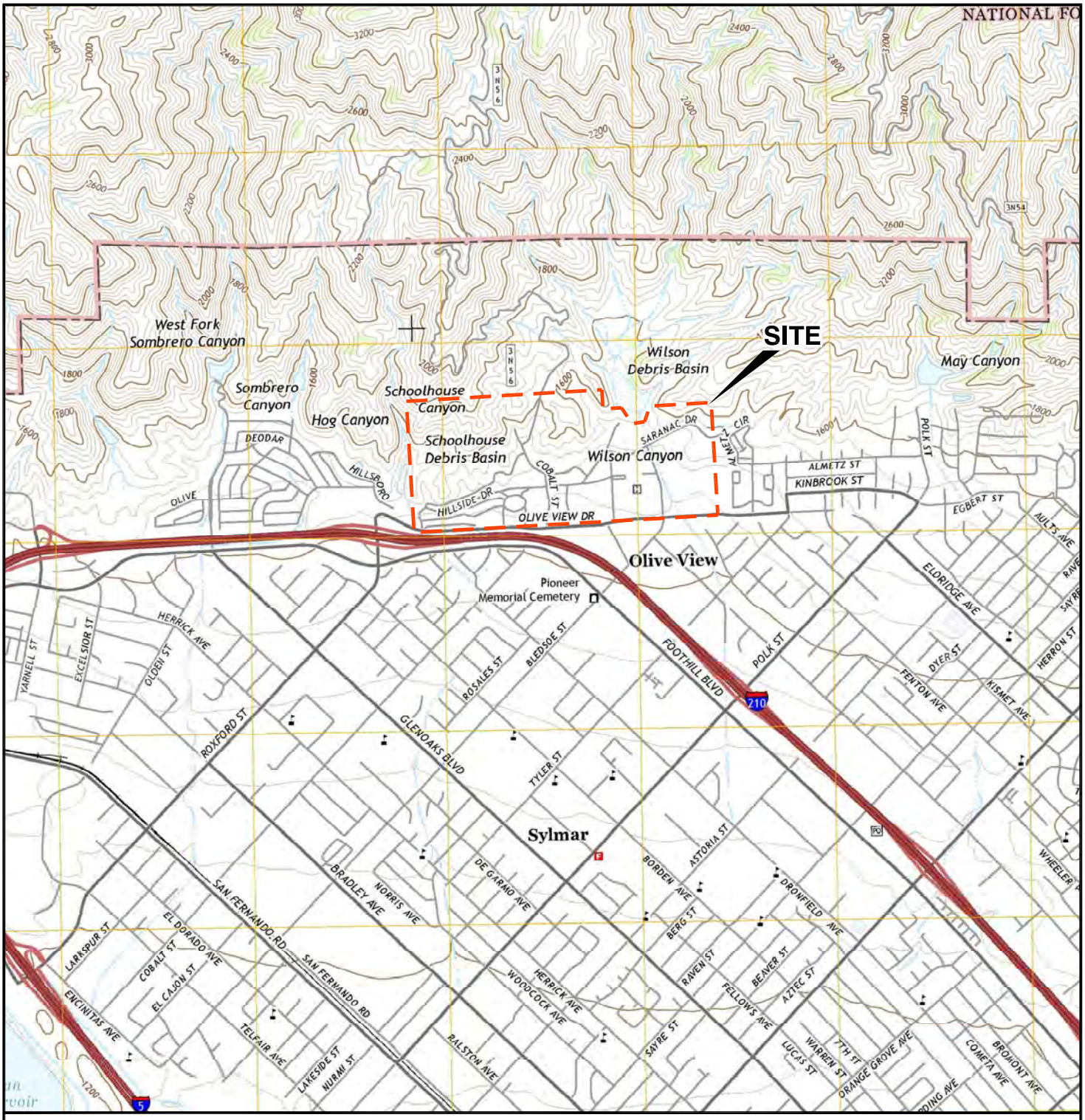
United States Geological Survey, 2014b, US Seismic Design Maps, US Seismic Design Maps Ground Motion Calculator – Version 3.1.0; http://earthquake.usgs.gov/designmaps/us/application.php.

United States Geological Survey, 2015, San Fernando Quadrangle, California, 7.5 Minute Series: Scale 1:24,000

United States Geological Survey, 2016, Earthquakes Hazards Program, Historic Earthquakes, San Fernando, California, http://earthquake.usgs.gov/earthquakes/states/events/1971_02_09.php.

URS Corporation, 2008, Fault Rupture Hazard Investigation for the Proposed Psychiatric Urgent Care Facility, Olive View-UCLA Medical Center, Southwest Corner of West Way and Jacaranda Terrace, Sylmar, California, dated May 5.

URS Corporation, 2010, Fault Rupture Hazard Investigation for the Proposed Day Care Facility, Olive View-UCLA Medical Center, East of East Way and Comstock Way, Sylmar, California, dated April 28.



REFERENCE: 7.5 MINUTE USGS TOPOGRAPHIC MAP OF SAN FERNANDO, CALIFORNIA QUADRANGLE, DATED 2015, SCALE 1:24000.

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SCALE IN FEET

0 2,400 4,800

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore		SITE LOCATION	FIGURE
PROJECT NO.	DATE	OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN 14445 OLIVE VIEW DRIVE SYLMAR, CALIFORNIA	1
209600002	3/16		

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REFERENCE: SMITH GROUP JJR, 2015, OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN, APPENDIX, PREPARED FOR COUNTY OF LOS ANGELES, DRAFT PRINT DATED AUGUST 26.

LEGEND	
— — · — — · —	SITE BOUNDARY

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SCALE IN FEET

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NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore		SITE AERIAL VIEW	FIGURE
PROJECT NO.	DATE	OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN 14445 OLIVE VIEW DRIVE SYLMAR, CALIFORNIA	2
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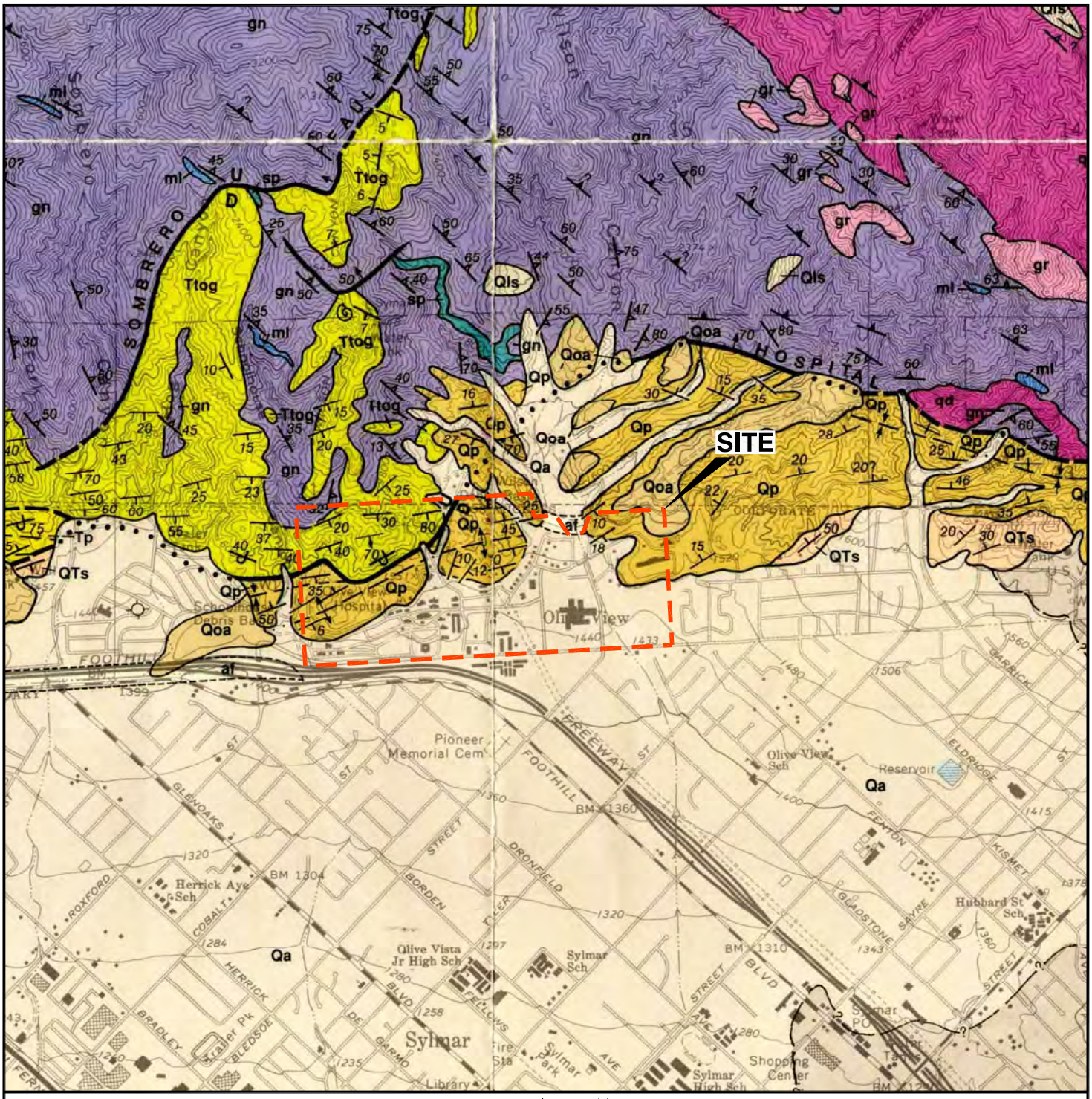

REFERENCE: DIBBLEE, T.W., JR., 1991, GEOLOGIC MAP OF THE SAN FERNANDO AND VAN NUYS (NORTH 1/2) QUADRANGLES, LOS ANGELES COUNTY, CALIFORNIA: DIBBLEE FOUNDATION, DF-33.

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NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

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Af	ARTIFICIAL FILL	Ttog	TOWSLEY FORMATION CONGLOMERATE AND SANDSTONE
Qa	ALLUVIUM	gn	MENDENHALL GNEISS
Qoa	OLDER ALLUVIUM		GEOLOGIC CONTACT
Qp	PACOIMA FORMATION GRAVEL AND SAND		FAULT; DOTTED WHERE CONCEALED
		80	STRIKE AND DIP OF BEDDING
			ANTICLINE

Ninyo & Moore

PROJECT NO.	DATE
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REGIONAL GEOLOGY

OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

FIGURE

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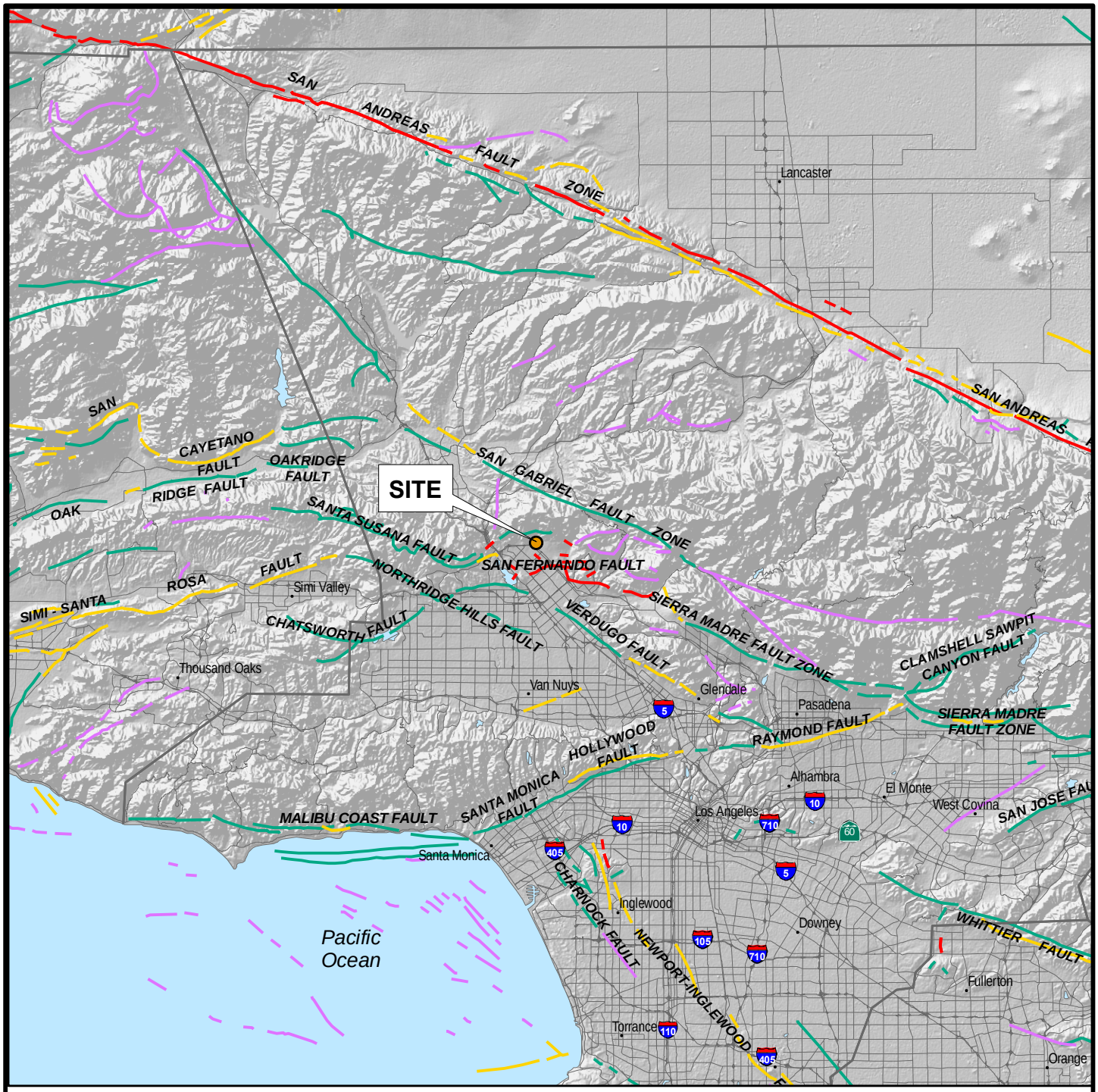

GIS DATA SOURCE: CALIFORNIA GEOLOGICAL SURVEY (CGS); ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE (ESRI)
REFERENCE: JENNINGS, C.W. AND BRYANT, W.A., 2010, FAULT ACTIVITY MAP OF CALIFORNIA.

LEGEND

FAULT ACTIVITY:

- HISTORICALLY ACTIVE
- HOLOCENE ACTIVE
- COUNTY BOUNDARIES
- LATE QUATERNARY
- QUATERNARY

N

10 0 10
Miles

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore		FAULT LOCATIONS	FIGURE
PROJECT NO.	DATE	OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN 14445 OLIVE VIEW DRIVE SYLMAR, CALIFORNIA	4
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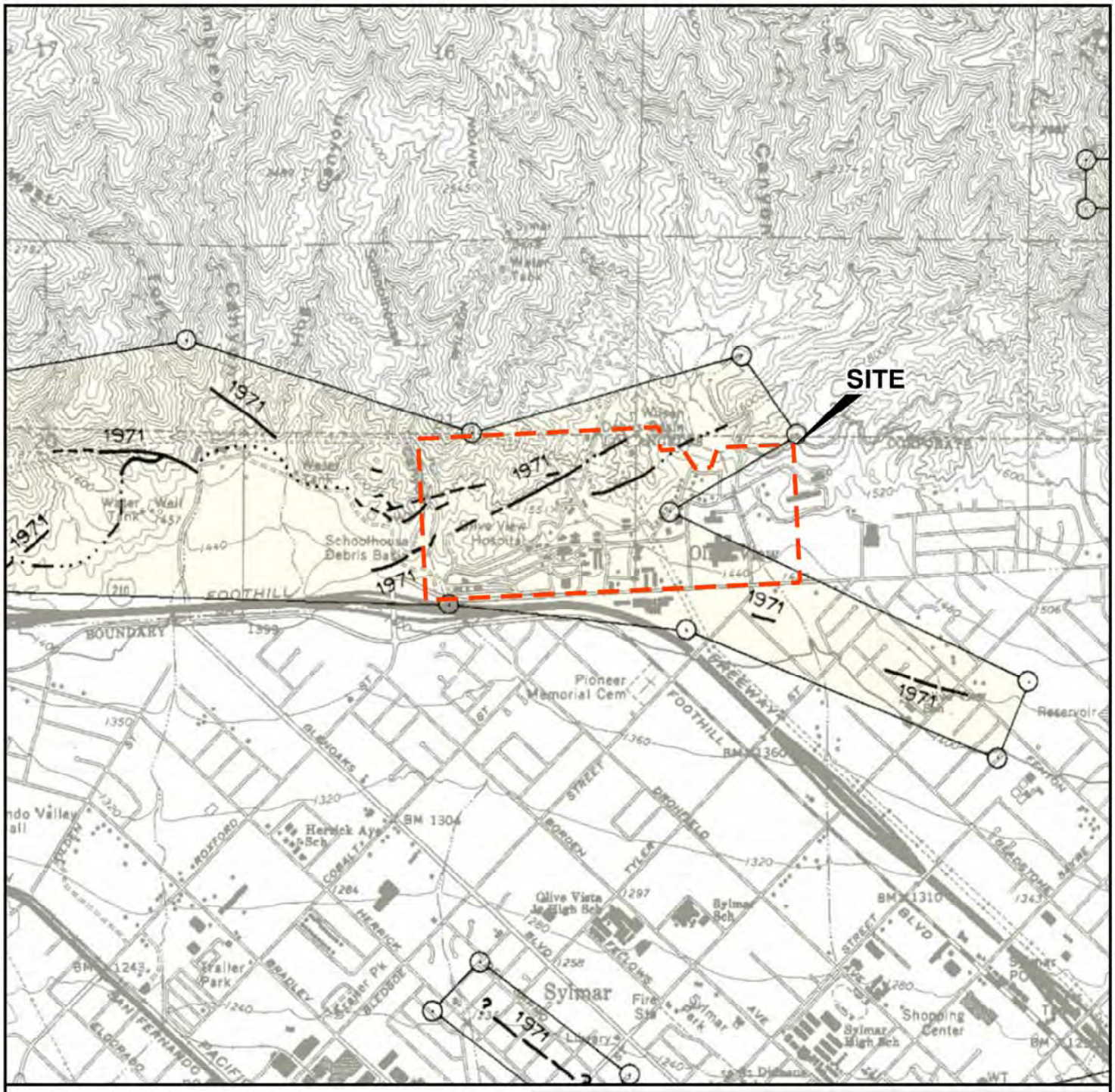

REFERENCE: STATE OF CALIFORNIA SPECIAL STUDIES ZONES, 1976
SAN FERNANDO QUADRANGLE, DATED JANUARY 1,

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NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

Potentially Active Faults

1906 C

Faults considered to have been active during Holocene time and to have a relatively high potential for surface rupture, solid line where accurately located, long dash where approximately located, short dash where inferred, dotted where concealed; query (?) indicates additional uncertainty. Evidence of historic offset indicated by year of earthquake-associated event or C for displacement caused by creep or possible creep.

Special Studies Zone Boundaries

These are delineated as straight-line segments that connect encircled turning points so as to define special studies zone segments.

Seaward projection of zone boundary.

Ninyo & Moore

PROJECT NO.	DATE
209600002	3/16

EARTHQUAKE FAULT ZONES

OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

FIGURE

5

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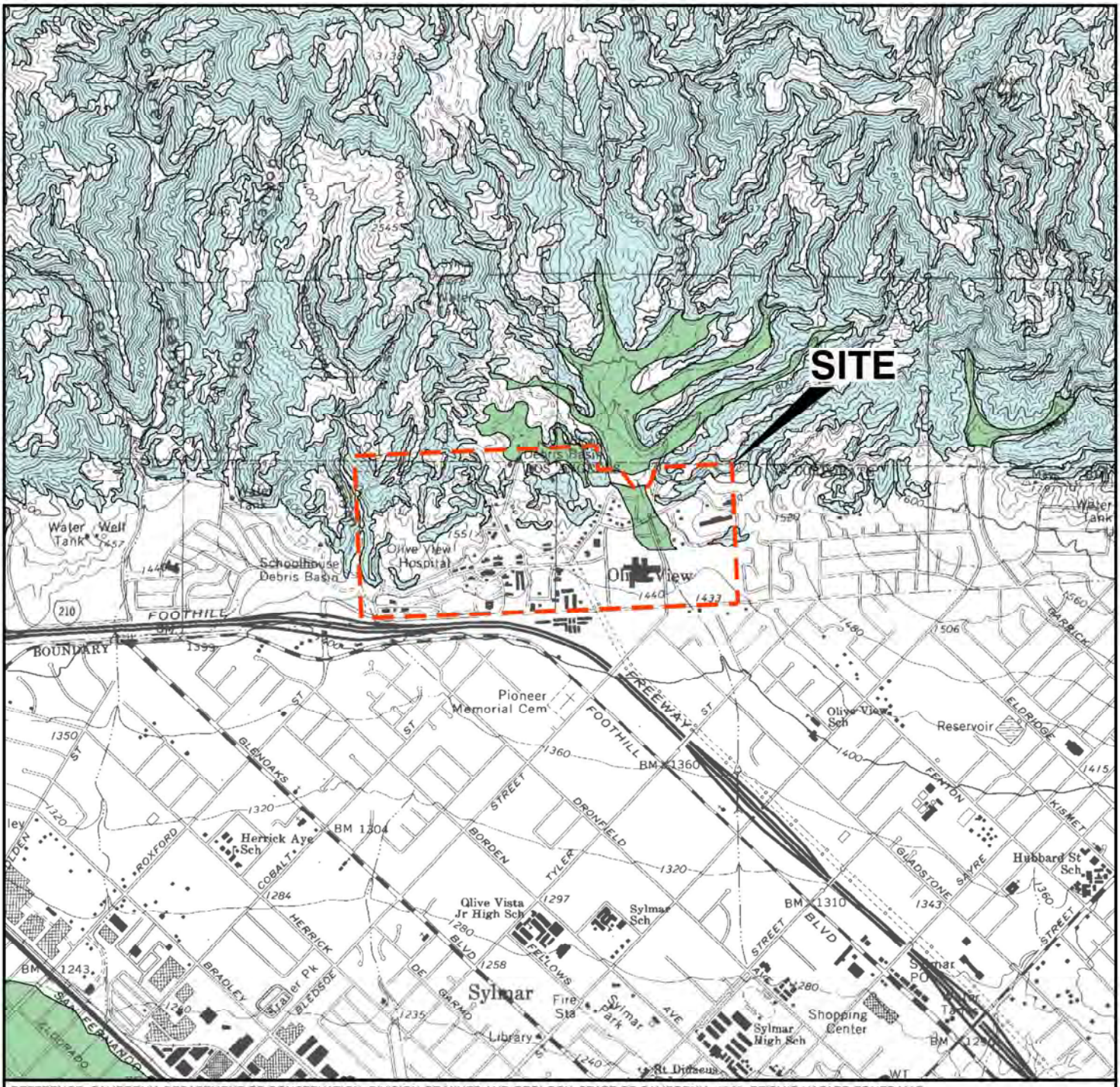

REFERENCE: CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF MINES AND GEOLOGY, STATE OF CALIFORNIA, 1999, SEISMIC HAZARD ZONES MAP SAN FERNANDO QUADRANGLE, 7.5-MINUTE SERIES: SCALE 1:24,000.

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SCALE IN FEET

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NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

EARTHQUAKE-INDUCED LANDSLIDES

Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

LIQUEFACTION:

Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Ninyo & Moore

PROJECT NO.	DATE
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SEISMIC HAZARD ZONES

OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

FIGURE

6

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Appendix F2

Paleontological Report

PALEO SOLUTIONS
Paleontological and Archaeological Compliance and Consulting Services

PALEONTOLOGICAL TECHNICAL STUDY: OLIVE VIEW – UCLA MEDICAL CENTER CAMPUS MASTER PLAN PROJECT COMMUNITY OF SYLMAR, LOS ANGELES COUNTY, CALIFORNIA

Prepared for:

ICF INTERNATIONAL

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PSI Report#: CA16LosAngelesICF01R-P

JUNE 2016

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1.0 EXECUTIVE SUMMARY

This report presents the results of the paleontological technical study conducted by Paleo Solutions, Inc. (Paleo Solutions) under contract to ICF International (ICF) in support of the Olive View – University of California, Los Angeles (UCLA) Medical Center Campus Master Plan (Project or Master Plan) being proposed by the Olive View – UCLA Medical Center (Applicant). This work was required by the County of Los Angeles to meet their requirements as the lead agency under the California Environmental Quality Act (CEQA). All paleontological work was completed in compliance with CEQA and Los Angeles County guidelines.

The Olive View-UCLA Medical Center Campus is located at 14445 Olive View Drive within the community of Sylmar, at the north end of the San Fernando Valley, in the City of Los Angeles, California. Full build-out of the Master Plan could result in approximately 1,386,000 square feet of development throughout the campus, which would occur in two tiers. Tier I entails near-term projects constructed before 2035, including an Ambulatory Care Center, research and development buildings, a Community Center, improvements to the existing hospital, appurtenant parking facilities, and other medical center campus improvements that would be located predominantly in the eastern third of the current campus. Tier II development would occur beyond 2035, and would include the construction of a new inpatient hospital, support services building, mental health outpatient care facility, long-term care and recuperative housing, retail space, County department buildings, and the reuse and renovation of the existing inpatient hospital for other purposes.

The paleontological study for the Project included a geologic map review, literature search, institutional records search, reconnaissance survey, and analysis of the paleontological potential of geologic units within the Project site. Geologic mapping of the Project area indicates that the site is primarily underlain by Quaternary (Holocene) alluvium and Pleistocene Pacoima Formation. According to the records searches, there are no previously recorded fossil localities from within the Project site, but older Quaternary deposits similar to the Pleistocene Pacoima Formation have produced significant fossil vertebrate remains nearby. Recovered fossils include specimens of mastodon (*Mammut*), horse (*Equus*), bison (*Bison*), and mammoth (*Mammuthus*). No fossils were discovered during the reconnaissance survey, however, the fine to medium grained Pacoima Formation outcrops observed during the survey appear conducive to fossil preservation. Based on the results of the records search and survey, the Pacoima Formation is considered to have moderate sensitivity (PFYC 3a). Quaternary alluvium has a low potential (PFYC 2) to contain paleontological resources at the surface due to its young age, but may be underlain by sensitive deposits at depth.

Due to the moderate paleontological potential of geologic units within the Project site, mitigation of potential adverse impacts resulting from construction-related ground disturbance is recommended. Prior to the start of construction, a paleontological resources monitoring plan should be prepared and implemented. Monitoring is recommended during earthmoving activities impacting native sediments of the Pacoima Formation. Additionally, periodic paleontological spot checks are recommended during excavations in areas mapped as Quaternary alluvium to determine if older, paleontologically sensitive sediments are present. If present, monitoring should be implemented.

TABLE 1. OLIVE VIEW – UCLA MEDICAL CENTER CAMPUS MASTER PLAN PROJECT SUMMARY

Project Name	Olive View – UCLA Medical Center Campus Master Plan Project				
Project Description	Olive View – UCLA Medical Center is proposing to make improvements to the existing hospital building as well as build many new buildings, parking structures, and open recreational areas. Construction would involve grading, landscaping, and infrastructure improvements such as storm drains, water, sewer, and streets.				
Project Area	The Project site is located in the Community of Sylmar within the mid-western portion of Los Angeles County. Specifically, it is located on the UCLA Medical Center on 14445 Olive View Drive, which is bounded by the Angeles National Forest and Wilson Canyon Debris Basin on the north, Olive View Drive on the south, Los Angeles County Flood Control District facilities and Wilson Canyon Park on the east, and Bucher Avenue to the west. The terrain comprises low to low-moderate relief flat and developed areas and moderate relief hills along the northern and eastern margins.				
Total Acreage	~230 acres				
Location (PLSS) and Land Owner	**Quarter-Quarter**	**Section**	**Township**	**Range**	**Land Ownership**
	NESE, L3, L4	21	T3N	R15W	Undetermined
	NWSW, NESW, L1, L2	22			Undetermined
Topographic Map(s)	USGS San Fernando, California 7.5’ Quadrangle				
Geologic Map(s)	Geologic map of the San Fernando and Van Nuys (north ½) Quadrangles, Los Angeles County, CA (Dibblee and Ehrenspeck, 1991)				
Mapped Geologic Formation(s) and Age	**Formation & Map Symbol**	**Age**	**Paleontological Sensitivity**		
	Quaternary alluvium (Qa)	Holocene	Low		
	Pacoima Formation (Qp)	Pleistocene	Moderate		
Surveyor(s)	Joey Raum				
Date Surveyed	June 1, 2016				
Formations Surveyed	Quaternary alluvium, Pacoima Formation				
Previously Documented Fossil Localities within the Project area	None				
Paleontological Results	No paleontological resources were observed or collected during the survey.				
Disposition of Fossils	Not applicable; No fossils observed or collected during survey.				
Recommendation(s)	It is recommended that monitoring be performed during all earthmoving activities impacting native sediments of the Pacoima Formation. Additionally, periodic paleontological spot checks should be conducted when excavation exceeds depths of five feet into areas mapped as Quaternary alluvium to determine if older, paleontologically sensitive sediments are present. If present, monitoring should be implemented. Prior to the start of construction a paleontological resources monitoring plan should be prepared and implemented. The plan should include specific locations and construction activities requiring monitoring, procedures to follow for monitoring and fossil discovery, and a curation agreement with the Natural History Museum of Los Angeles County.				

2.0 INTRODUCTION

This report presents the results of the paleontological technical study conducted by Paleo Solutions for ICF in support of the Olive View – UCLA Medical Center Master Plan Project being proposed by the Olive View – UCLA Medical Center. This work was required by the County of Los Angeles to meet their requirements as the lead agency under CEQA. All work was completed in compliance with CEQA and Los Angeles County guidelines.

2.1 PROJECT LOCATION

The Project site is located in the community of Sylmar within the mid-western portion of Los Angeles County (Figure 1). The City of San Fernando is located to the south and the City of Santa Clarita is located to the north. Specifically, the Project site is located north of Olive View Drive and Interstate 210, west of Reagan Road, east of Cobalt Street, and south of Bucher Avenue. The street address for the Olive View - UCLA Medical Center is 14445 Olive View Drive, Sylmar, CA 91342. Direct access to UCLA Medical Center is from Olive View Drive (Figure 2).

2.2 PROJECT BACKGROUND

This Project site is part of the existing Olive View - UCLA Medical Center on 230 acres of land. The proposed site is within the Sylmar Community Plan, a part of the General Plan of the City of Los Angeles. The properties that compose the Olive View-UCLA Medical Center Campus are zoned for public facilities (PF), with the portion that is Wilson Canyon Channel zoned for open space (OS) by the City of Los Angeles. The area surrounding the campus is further defined by the City of Los Angeles as being for residential use.

The Olive View-UCLA Medical Center, which is the largest public facility in Sylmar, was historically established as a tuberculosis sanitarium in October 1920, and was later converted to an acute care hospital in 1970. The Sylmar Earthquake of 1971 damaged the hospital beyond repair, prompting the construction of the current hospital in the 1980s. In 1992, the medical center incorporated UCLA into its name, representing the collaboration with the UCLA David Geffen School of Medicine. The medical center became a part of the Valley Care system in 1997, which serves residents in the San Fernando and Santa Clarita valleys. In 2008, the Sayre fire damaged more than 40 buildings on the campus and the childcare center was totally destroyed.

The campus currently consists of 31 permanent buildings and 29 trailers and other modular structures. The buildings range in age from 5 to 80 years old, and therefore exhibit a wide range of architectural styles. The oldest buildings, particularly the bungalows in the north of campus, have been repurposed for campus support uses. The modular structures and trailers provide space and additional storage for the campus and are scattered throughout the campus. The majority of buildings on the campus were identified by the master plan as candidates for eventual demolition. The exception is the existing hospital, which is to remain, and if a new hospital is built, it is to be repurposed.

The existing hospital's main six-story tower houses the inpatient and outpatient services and is located in the eastern third of the campus. The hospital was completed in 1987 and is the dominant structure on the campus. Emergency Services is housed directly north of the main tower, and the imaging center is to the west. Directly attached to the Emergency Services Building is the Isolation Unit, which serves as a regional treatment center for tuberculosis. These buildings are connected to facilitate collaboration between the related programs. The aforementioned cluster of buildings are all located east of Kennedy Road, and are surrounded by surface parking lots.

Buildings west of Kennedy Road house mostly campus support, administration, storage, and materials management services. There are also various parking lots and trailers in the western portion of campus. A new Child Care Center has been built on East Way. The Community Mental Health building, constructed in 2011, is at the far west end of the site, adjacent to West Way. This one-story building serves as a psychiatric urgent care center.

As evidenced by the medical center's name, the Olive View-UCLA Medical Center is a major affiliate of the David Geffen School of Medicine at UCLA. The hospital operates post-graduate residency training programs sponsored either directly or by UCLA in 22 medical specialties. The medical center also operates an on campus School of Nursing.

2.3 Project Description

Olive View - UCLA Medical Center is requesting approval of several discretionary actions, including the approval of a Regional Water Quality Control Board (National Pollutant Discharge Elimination System [NPDES] Construction General Permit), Haul Route Permit, Grading, excavation, and building permits, approvals from the City of Los Angeles for off-site intersection improvements, certification of the Environmental Impact Report (EIR) and approval of the master plan by the County Board of Supervisors, and any other permits or approvals that may be required. The Applicant proposes to construct on the approximately 230-acre Olive View - UCLA Medical Center property in the community of Sylmar, an Inpatient Hospital, Ambulatory Care Center, Research and Development, Community Center, Administration, Retail, Mental Health, Long Term Care Residential, Materials Management, Central Utility Plant, Support Services Buildings, and Parking Facilities throughout the grounds.

2.3.1 Site Plan

The proposed Project is intended to guide development of the campus over time and the delivery of health care services and health related community programs. The master plan provides alternate paths for that development and flexibility to allow the master plan to adapt to changes over time. The master plan also includes an analysis and assessment of existing campus infrastructure and buildings, future considerations and recommendations for the campus' land use, and a series of design guidelines that dictate building placement, form, and materiality. The elements of the Master Plan consist of Tier I and Tier I development. Tier I development consists of a 276,000 square foot Ambulatory Care Center, renovation or new construction of 530,000 square feet for Inpatient Services, 20,000 square feet for a Community Center, 120,000 square feet for UCLA Faculty Offices and Medical Office Building, Educational Facilities, and Research Facilities, 77,000 square feet for Central Utility Expansion, 30,500 square feet for a Materials Management Building, 96,000 square feet for Administrative Services, Community

Open Space and Landscaping throughout the campus, Parking, Vehicle Circulation, and Pedestrian Circulation consisting of 1,674 new parking spaces, and 482,400 square feet for Utility Infrastructure. Tier II development consists of approximately 600,000 square feet for Inpatient Services, 68,100 square feet for a Supply Services Building, 15,000-40,000 square feet for a Mental Health Outpatient care facility, 135,000 square feet for Long-Term Care/Residential with 69 units for Recuperative Housing, a Senior Center, Fitness Center, and Child Care Center, 40,000 square feet for Retail Space, Community Open Space and Landscaping throughout the Campus, two additional parking structures, and relocation of the County Fire Department, Agricultural Commissioner, and Sheriff's Building.

2.3.2 Master Plan Objectives

1. Provide for development opportunities that are consistent with the goals and policies of the County's General Plan.
2. Reorganize, expand, and integrate outpatient services with the specific goal of being more community based and patient centered.
3. Locate inpatient and outpatient services into dedicated buildings to optimize the quality of care and operational effectiveness, while reducing administrative, operational, and maintenance costs.
4. Ensure that operative costs are reduced in accordance with the prescriptions of the federal injunction.
5. Comply with the seismic safety regulations developed by the Office of Statewide Health Planning and Development.
6. Identify feasible opportunities to exceed state energy requirements and pursue green building sustainable design to the maximum extent possible.
7. Develop resources that are consistent with the needs of the 2035 planning horizon.

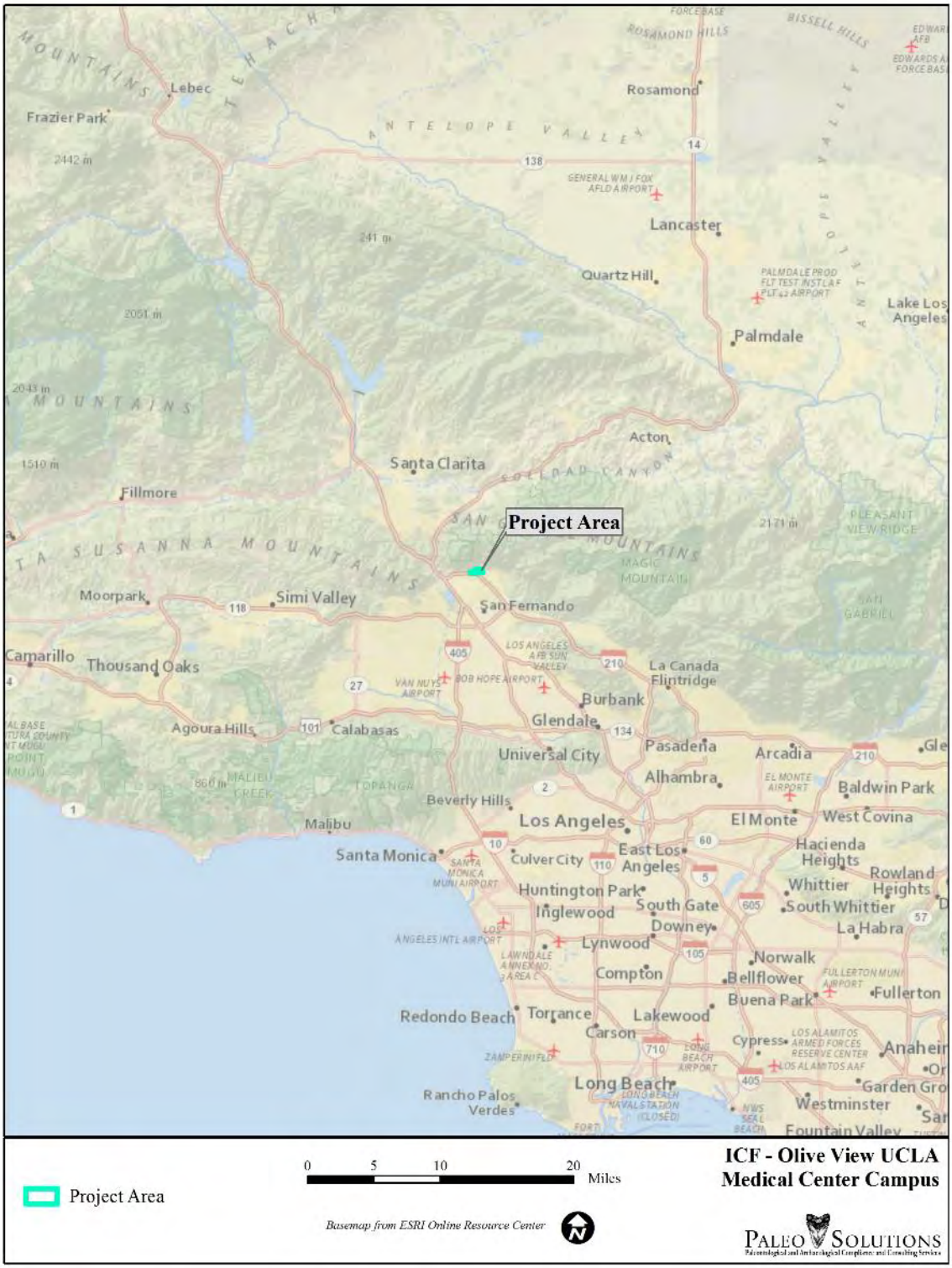

Figure 1. Project location map.

Figure 2. Project Site Plan (by Smithgroup JJR).

3.0 DEFINITION AND SIGNIFICANCE OF PALEONTOLOGICAL RESOURCES

As defined by Murphey and Daitch (2007): "Paleontology is a multidisciplinary science that combines elements of geology, biology, chemistry, and physics in an effort to understand the history of life on earth. Paleontological resources, or fossils, are the remains, imprints, or traces of once-living organisms preserved in rocks and sediments. These include mineralized, partially mineralized, or unmineralized bones and teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains. Paleontological resources include not only fossils themselves, but also the associated rocks or organic matter and the physical characteristics of the fossils' associated sedimentary matrix.

The fossil record is the only evidence that life on earth has existed for more than 3.6 billion years. Fossils are considered non-renewable resources because the organisms they represent no longer exist. Thus, once destroyed, a fossil can never be replaced. Fossils are important scientific and educational resources because they are used to:

- Study the phylogenetic relationships amongst extinct organisms, as well as their relationships to modern groups;
- Elucidate the taphonomic, behavioral, temporal, and diagenetic pathways responsible for fossil preservation, including the biases inherent in the fossil record;
- Reconstruct ancient environments, climate change, and paleoecological relationships;
- Provide a measure of relative geologic dating that forms the basis for biochronology and biostratigraphy, and which is an independent and corroborating line of evidence for isotopic dating;
- Study the geographic distribution of organisms and tectonic movements of land masses and ocean basins through time;
- Study patterns and processes of evolution, extinction, and speciation; and
- Identify past and potential future human-caused effects to global environments and climates."

Fossil resources vary widely in their relative abundance and distribution and not all are regarded as significant. Vertebrate fossils, whether preserved remains or track ways, are classed as significant by most state and federal agencies and professional groups (and are specifically protected under the California Public Resources Code). In some cases, fossils of plants or invertebrate animals are also considered significant and can provide important information about ancient local environments. According to Bureau of Land Management (BLM) Instructional Memorandum (IM) 2009-011 a "Significant Paleontological Resource" is defined as: Any paleontological resource that is considered to be of scientific interest, including most vertebrate fossil remains and traces, and certain rare or unusual invertebrate and plant fossils. Assessment of significance is also subject to the CEQA criterion that the resource constitutes a "unique paleontological resource or site." A significant paleontological resource is considered to be of scientific interest if it is a rare or previously unknown species, it is of high quality and well-preserved, it preserves a previously unknown anatomical or other characteristic, provides

new information about the history of life on earth, or has an identified educational or recreational value. Paleontological resources that may be considered not to have scientific significance include those that lack provenience or context, lack physical integrity due to decay or natural erosion, or that are overly redundant or are otherwise not useful for research. Vertebrate fossil remains and traces include bone, scales, scutes, skin impressions, burrows, tracks, tail drag marks, vertebrate coprolites (feces), gastroliths (stomach stones), or other physical evidence of past vertebrate life or activities (BLM, 2008).

The full significance of fossil specimens or fossil assemblages cannot be accurately predicted before they are collected, and in many cases, before they are prepared in the laboratory and compared with previously collected material. Pre-construction assessment of significance associated with an area or formation must be made based on previous finds, characteristics of the sediments, and other methods that can be used to determine paleoenvironmental conditions.

A separate issue is the potential of a given geographic area or geologic unit to preserve fossils. Information that can contribute to assessment of this potential includes:

- The existence of known fossil localities or documented absence of fossils nearby and in the same geologic unit (e.g. "Formation" or one of its subunits);
- Observation of fossils within the project vicinity;
- The nature of sedimentary deposits in the area of interest, compared with those of similar deposits known elsewhere (size of particles, clasts and sedimentary structures conducive or non-conducive to fossil inclusion) that may favor or disfavor inclusion of fossils; and
- Sedimentology details, and known geologic history, of the sedimentary unit of interest in terms of the environments in which the sediments were deposited, and assessment of the favorability of those environments for the probable preservation of fossils.

4.0 LAWS, ORDINANCES, REGULATIONS AND STANDARDS

This section of the report presents the state and local regulatory requirements pertaining to paleontological resources that will apply to this Project.

4.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The procedures, types of activities, persons, and public agencies required to comply with CEQA are defined in the Guidelines for Implementation of CEQA (State CEQA Guidelines), as amended on March 18, 2010 (Title 14, Section 15000 et seq. of the California Code of Regulations [i.e., 14 CCR Section 15000 et seq.) and further amended January 4th, 2013. One of the questions listed in the CEQA Environmental Checklist is: "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (State CEQA Guidelines Section 15064.5 and Appendix G, Section V, Part C).

4.2 STATE OF CALIFORNIA PUBLIC RESOURCES CODE

The State of California Public Resources Code (Chapter 1.7), Sections 5097 and 30244, includes additional state level requirements for the assessment and management of paleontological resources. These statutes require reasonable mitigation of adverse impacts to paleontological resources resulting from development on state lands, and define the excavation, destruction, or removal of paleontological "sites" or "features" from public lands without the express permission of the jurisdictional agency as a misdemeanor. As used in Section 5097, "state lands" refers to lands owned by, or under the jurisdiction of, the state or any state agency. "Public lands" is defined as lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.

4.3 LOS ANGELES COUNTY GUIDELINES

The County of Los Angeles General Plan Conservation and Open Space Element (1980) contains goals and policies regarding paleontological resources. This general Plan is currently under revision and is expected to have more specific guidance regarding paleontological resources in the updated version. The Conservation and Open Space Element establishes the goals of preserving and protecting sites of historical, archaeological, and scientific values, and defines the following policies relative to paleontological resources:

- Protect cultural heritage resources, including historical, archaeological, paleontological, and geological sites;
- Encourage public use of cultural heritage sites consistent with the protection of these resources;
- Promote public awareness of cultural resources; and
- Encourage private owners to protect cultural resources.

4.4 CITY OF LOS ANGELES GUIDELINES

The City of Los Angeles (City of Los Angeles, 2001), in Section 3 of the Conservation Element of the General Plan, requires that measures be taken to protect the City's archaeological and paleontological resources for historical, cultural, research and/or educational purposes. One policy and one program support this requirement. This policy requires that the City continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition or property modification activities.

5.0 METHODS

This paleontological study included a geologic map review, literature search, institutional records search, and reconnaissance survey. The goal of this report is to identify the level of paleontological potential of the Project site, and make recommendations for the mitigation of adverse impacts on paleontological resources that may occur as a result of the proposed construction. Joey Raum, B.S. conducted the paleontological reconnaissance survey. Marianne Grillo, B.S. performed the background research and co-authored this report with Joey Raum, B.S. Geraldine Aron, M.S. oversaw all aspects of the Project as the Paleontological Principal

Investigator. Courtney Richards, M.S. performed technical review of the report. GIS maps were prepared by Paul Nesbit.

Paleo Solutions reviewed geologic mapping of the Project area by T.W. Dibblee, Jr. and H. E. Ehrenspeck (1991). The literature reviewed included published and unpublished scientific papers. A paleontological records search was conducted at the Natural History Museum of Los Angeles County (LACM). Dr. Samuel McLeod performed the search. The results of the records search (dated May 16, 2016) are attached as Appendix A. Additional searches of available online databases, including the PaleoBiology Database (PBDB) and University of California Museum of Paleontology database (UCMP), were conducted by Paleo Solutions staff.

The survey was conducted by Paleo Solutions staff member Joey Raum on June 1, 2016. The paleontological survey was performed in order to search for paleontological resources that may be impacted during construction. The survey also sought to determine the paleontological sensitivity of the geologic deposits underlying the survey areas.

The survey was conducted after a review of aerial photographs indicated the survey sections were within areas of native sediment and vegetation. The pedestrian survey included transects of the survey area with the majority of focus occurring along the northwestern and easternmost margins of the survey area, where Pacoima Formation (Qp) is mapped (see Figure 3). These areas comprise moderate to high relief slopes and relatively minimal disturbances to native sediments compared to the remaining survey area. The remaining survey area is mapped as Quaternary alluvium (Qa). In addition to searching for paleontological resources, one of the primary goals of this reconnaissance was to confirm the presence of Pleistocene age sediments in areas mapped as Pacoima Formation (Qp). Areas mapped as Quaternary alluvium (Qa) were visually inspected through windshield surveying, unless sediments were exposed, in which case they were more closely inspected. Methodologies included close inspection of sediment and bedrock outcrops. Rock exposures as well as the surrounding areas were photographed and documented. Reference points were acquired using a Trimble GPS unit. Sediment and bedrock lithologies were recorded and analyzed and used to better interpret the Project's paleontological sensitivity, and thus better understand the Project's potential impact.

6.0 GEOLOGY AND PALEONTOLOGY

The Project site is situated in the Transverse Ranges Geomorphic Province, which is comprised of east west trending mountain ranges and valleys (Wagner, 2002). Specifically, it is located in the northern portion of the San Fernando Valley and abuts against the San Gabriel Mountains. The San Fernando Valley encompasses approximately 226 square miles bounded by the Santa Susana Mountains on the north and northwest, the San Gabriel Mountains on the north and northeast, San Rafael Hills to the east, and Santa Monica Mountains and Chalk Hills to the south (California's Groundwater Bulletin 118, 2004).

6.1 MAPPED GEOLOGY

High resolution (1:24,000 scale) geologic mapping of the Project site by Dibblee and Ehrenspeck (1991) indicates that the site is primarily underlain by Quaternary (Holocene) alluvium with minor exposures of Pleistocene Pacoima Formation. The geographic distributions

of the geologic units in the Project site, as mapped by Dibblee and Ehrenspeck (1991), are illustrated in Figure 3.

6.1.1 Quaternary Alluvium (Qa)

Quaternary alluvial deposits are Holocene in age (11,700 years old or less). These deposits are composed of undissected alluvial gravel, sand and silt (Dibblee and Ehrenspeck, 1991) derived from alluvial fan deposits from the San Gabriel Mountains adjacent to the north (McLeod, 2016).

6.1.2 Pacoima Formation (Qp)

The Pacoima Formation was deposited in the Pleistocene age (2.59 million to 11.7 thousand years ago). The Formation is terrestrial and is composed of weakly consolidated brown alluvial gravel and sand derived from adjacent mountains (Dibblee and Ehrenspeck, 1991).

6.2 Paleontological Records Search Results

Paleo Solutions requested a paleontological search of records maintained by LACM (Appendix A). Searches of the University of California Museum of Paleontology (UCMP) online database and PaleoBiology Database (PBDB) and literature were also conducted. The records and literature reviews indicate that there are four recorded localities (LACM 5745, LACM 3387, LACM 7152, LACM 1733) in older Quaternary alluvial deposits, similar to the Pacoima Formation, southwest of the proposed Project area (McLeod, 2016). No other paleontological resources have been recorded in the immediate area in Quaternary alluvium or Pacoima Formation (UCMP, 2016; Jefferson, 1991; PBDB, 2016).

LACM 5745, southwest of the proposed Project area just east of the Golden State Freeway (I-5) and south of the Foothill Freeway (I-210), produced fossil specimens of mastodon (*Mammut*), and horse (*Equus*), in fill dirt. Southwest of the proposed Project area, LACM 3397 produced fossil bison (*Bison*) at a 75 foot depth; LACM 7152 produced fossil mammoth (*Mammuthus*) and bison (*Bison*) in terrace deposits; and LACM 1733 produced fossil horse (*Equus*) at unknown depth (McLeod, 2016).

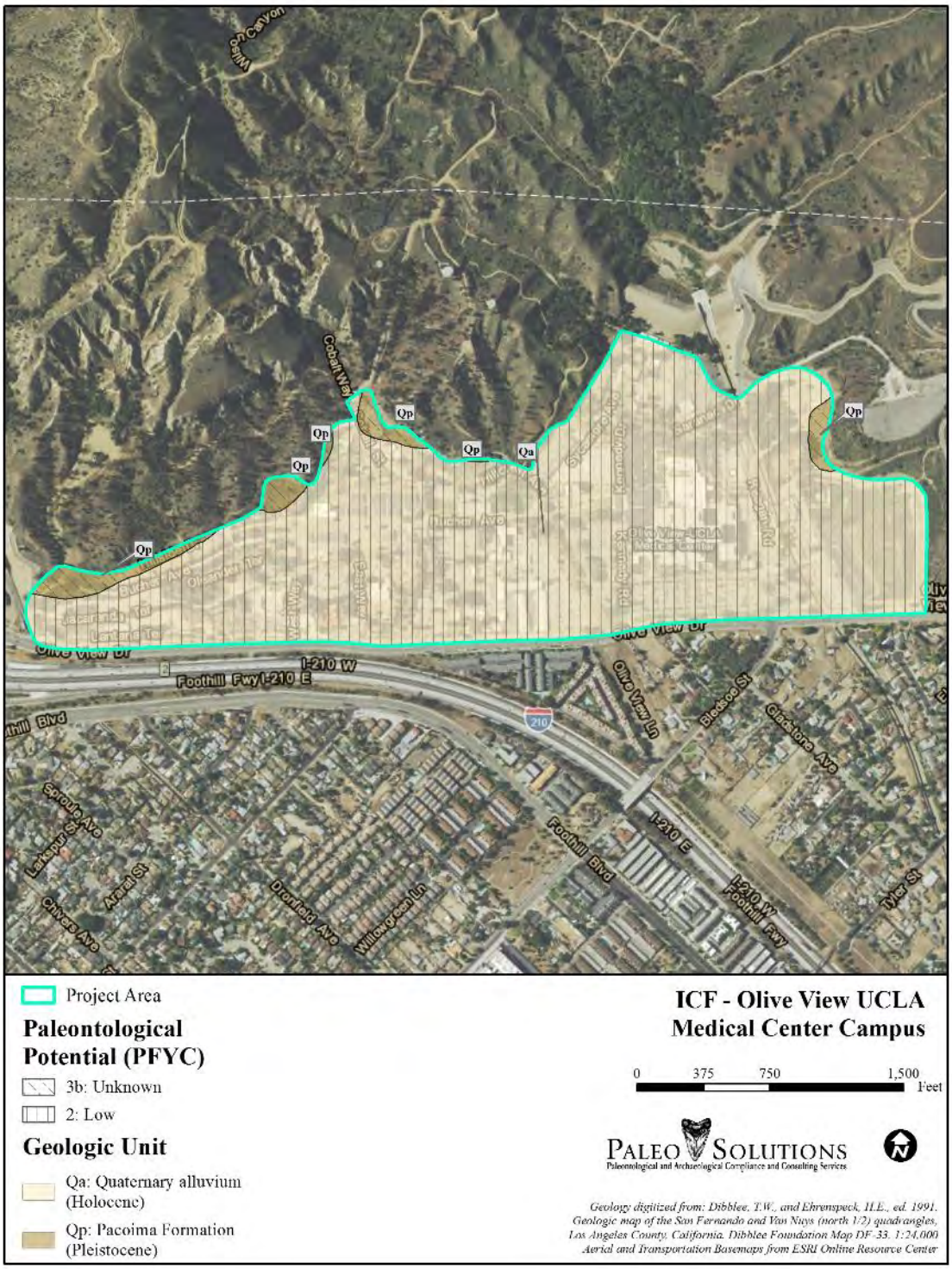

Figure 3. Geologic map.

7.0 RECONNAISSANCE SURVEY RESULTS

The survey area has a gentle southward slope and comprises relatively flat and low to low-moderate relief terrain with more moderate to high relief hills located along the northern margin. Vegetation cover on the ground and along slopes is moderate and comprises mostly dry tall grasses with some shrubs and larger trees. The majority of the survey area is moderately to well developed with disturbances such as grading, paved roads, fences, and buildings (see Figures 4, 5 and 9). Disturbances to the survey corridor along the northern margin of the survey area are more minimal but include grading, paved roads and lots, fences, and numerous old foundations, drainages, and structures (see Figures 6, 7, 8, 9, 11 and 12).

7.1 GEOLOGY

Pacoima Formation (Qp) sediments comprise moderately lithified siltstone and fine to medium grained sandstone with variable amounts of subangular to subrounded plutonic small pebble to cobble sized clasts. The matrix color is grey brown to red brown, and it weathers to light grey brown. Sediments appear massive, and no bedding or sedimentary structures were observed (see Figures 10-24). Material sorting varies from moderately sorted to poorly sorted. Coarser and more poorly sorted sediments were observed towards the western end of the survey area, while moderately sorted sections were observed throughout most of the other outcrops. Sediment outcrops occur along the slopes of the moderate to steep relief northern hills and in some low relief drainages (see Figures 10-18, 21-24, 26 and 27). Nearly vertical exposures range from ten to 50+ feet thick, with the largest exposures occurring near the western end of the survey area.

Quaternary alluvium (Qa) sediments comprise poorly compacted silt with subrounded to rounded plutonic granule to pebble sized clasts. These younger looser sediments cover the majority of the survey area surface, and thin layers less than one foot thick cover the top of the exposed Pacoima Formation sediments (see Figures 24 and 25).

Areas mapped as Pacoima Formation (Qp) were confirmed to comprise older sediments than the lower lying areas mapped as Quaternary alluvium (Qa). One area mapped as Quaternary alluvium (Qa) appears to comprise Pacoima Formation (Qp) sediments, based on the moderate relief and similarities of lithologies to Qp sediments observed in the northwestern and eastern margins of the survey area (see Figures 26 and 27). This area is located near the site entrance along Cobalt Street and is shown circled in Figure 28.

7.2 PALEONTOLOGY

No paleontological resources were observed during the survey. Although sediments conducive to fossil preservation were observed.

Figure 4. South-central end of the survey area, located north of Olive Drive Road. Area is mapped as Qa and is relatively flat, low lying and has disturbances including grading, paved roads and lots, fences, and buildings. View west.

Figure 5. Flat and relatively low lying interior survey area, mapped as Quaternary alluvium (Qa). This area is moderately to highly developed including disturbances such as paved roads, fences, lights, and buildings. View west.

Figure 6. Disturbed Qp area, including grading, fencing, a paved road and remnants of a stone structure. View north.

Figure 7. Area mapped as Pacoima Formation (Qp) showing grading disturbances and an installed artificial drainage.

Figure 8. Northern margin of the survey area, mapped as Pacoima Formation (Qp), showing disturbances such as grading, paved roads, and fences. View west.

Figure 9. Northern margin of survey area, showing transition from major disturbances and minor disturbances (right and left sides, respectively). View east.

Figure 10. Exposed Pacoima Formation (Qp) sediments along slopes at the eastern margin of the survey area. View north.

Figure 11. Exposed Pacoima Formation (Qp) sediments along slopes adjacent to the survey area. Lower lying flat and paved area is mapped as Quaternary alluvium (Qa). View north.

Figure 12. Graded area mapped as Pacoima Formation (Qp), showing Quaternary alluvium (Qa) in the lower flat area (bottom of photo) and partially exposed Qp sediments along the hillside (center of photo). View north.

Figure 13. Vertical exposure of Pacoima Formation (Qp) sediments. Sparse to moderate vegetation coverage along slope exposures. View west.

Figure 14. Located near the western end of the survey area, this is the largest (~50+ feet thick) exposure of Pacoima Formation (Qp) observed. View northwest.

Figure 15. Exposed Pacoima Formation (Qp) sediments, comprising reddish brown colored moderately to poorly sorted siltstone to medium grained sandstone with subangular to subrounded plutonic pebble to cobble sized clasts. View southwest.

Figure 16. Exposed Pacoima Formation (Qp) sediments, comprising reddish brown colored moderately to poorly sorted siltstone to medium grained sandstone with subangular to subrounded plutonic pebble to cobble sized clasts. View northeast.

Figure 17. Graded area mapped as Pacoima Formation (Qp) with exposed Qp sediments along the upper hillside. View north.

Figure 18. Exposed Pacoima Formation (Qp) sediments comprising massive poorly sorted silt to medium sandstone with subangular to subrounded plutonic pebble to cobble sized clasts. View north.

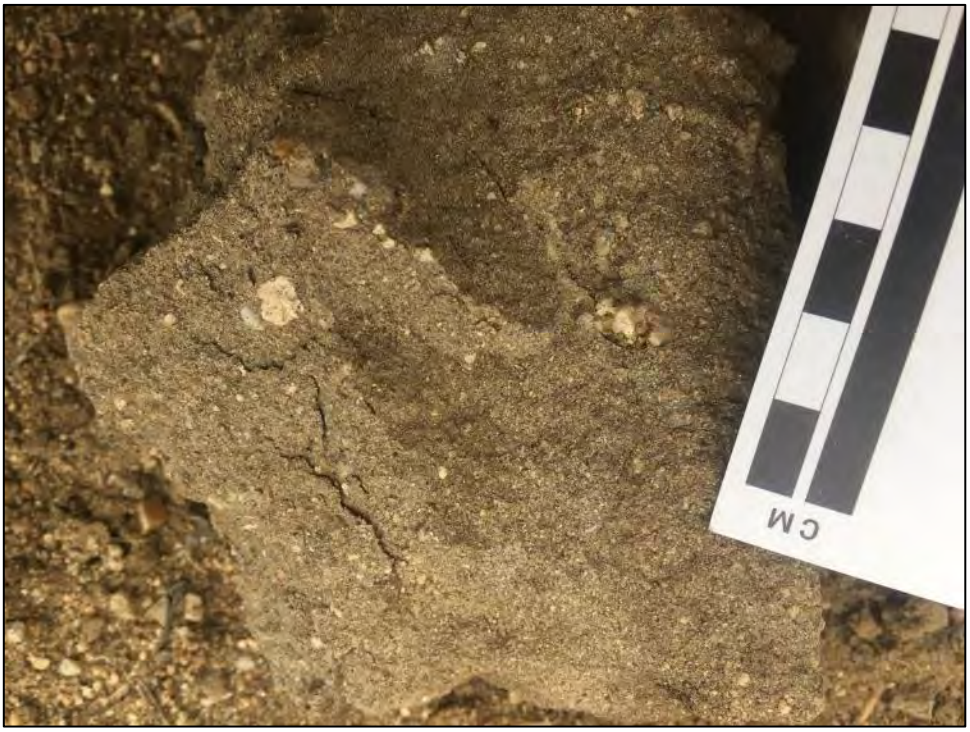

Figure 19. A clasts of Pacoima Formation (Qp) comprising moderately lithified and moderately sorted siltstone and medium grained sandstone with subangular to subrounded plutonic granule to pebble sized clasts. View down.

Figure 20. A clasts of Pacoima Formation (Qp) comprising moderately lithified and moderately sorted siltstone and medium grained sandstone with subangular to subrounded plutonic granule to pebble sized clasts. View down.

Figure 21. Exposed Pacoima Formation (Qp) sediments comprising massive poorly sorted silt to medium sandstone with subangular to subrounded plutonic pebble to cobble sized clasts. View west.

Figure 22. Exposed Pacoima Formation (Qp) sediments comprising massive moderately sorted silt to medium sandstone with subangular to subrounded plutonic granule to pebble sized clasts. View northeast.

Figure 23. Low relief wash exposing Pacoima Formation (Qp) sediments. View north.

Figure 24. Pacoima Formation (Qp) sediments exposed shallowly below Quaternary alluvium (Qa). View north.

Figure 25. Quaternary alluvium (Qa) comprising silt with subrounded to rounded granule to pebble sized plutonic clasts. Qa is mapped across the majority of the survey area and also covers much of the Qp sediments. View down.

Figure 26. Mapped as Quaternary alluvium (Qa), the moderate relief and exposed moderately lithified sediments indicates that this may be Pacoima Formation (Qp). View south.

Figure 27. Mapped as Quaternary alluvium (Qa), the moderate relief and exposed moderately lithified sediments indicates that this may be Pacoima Formation (Qp).

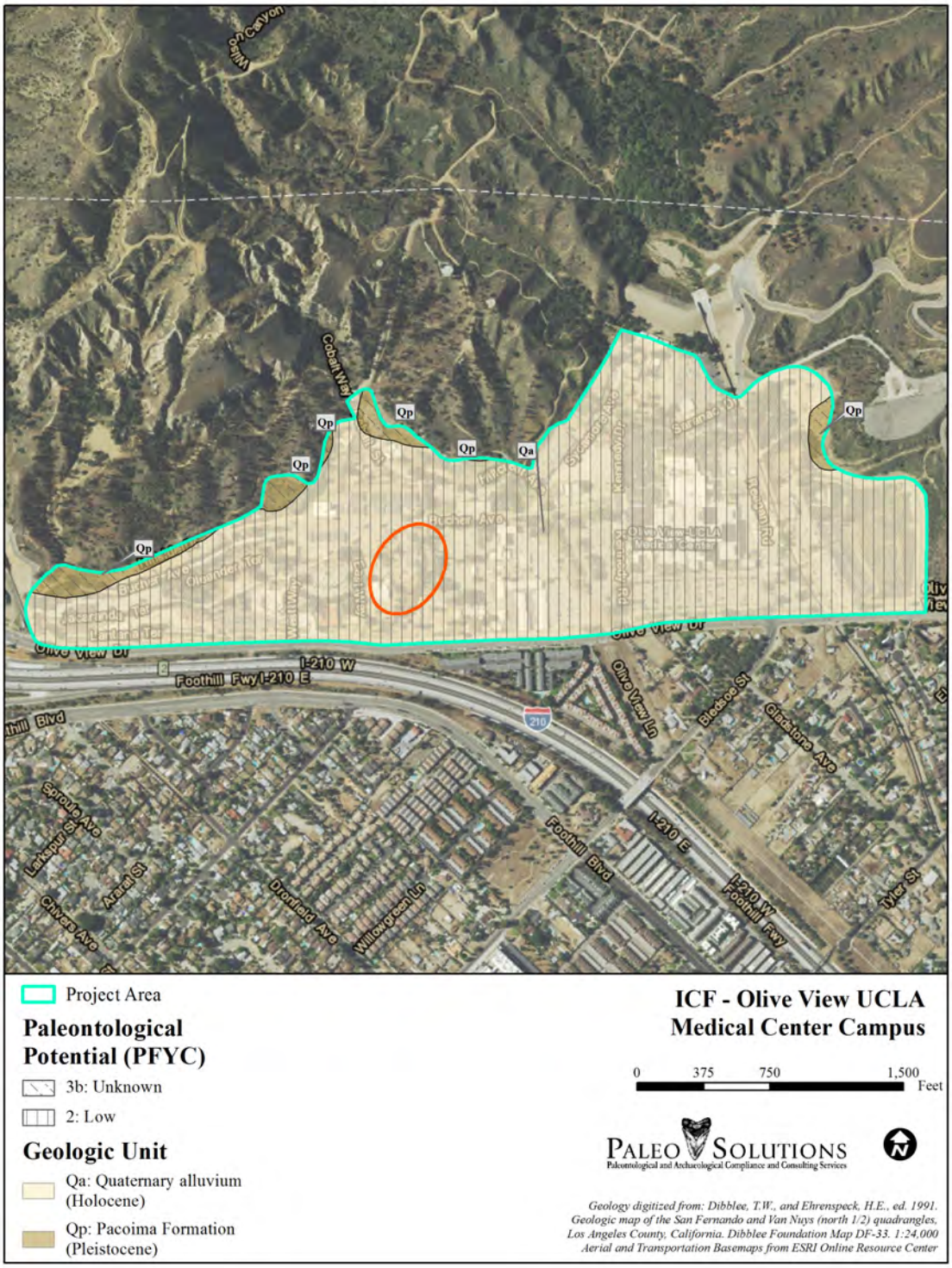

Figure 28. Olive View Medical Center Survey map. The orange circle is where Pacoima Formation (Qp) sediments were observed in the area mapped as Quaternary alluvium (Qa).

8.0 RESOURCE ASSESSMENT

Based on the results of the geologic map review, literature and museum records searches, and reconnaissance survey, the paleontological potential of the geologic units within the Project site were ranked using the Potential Fossil Yield Classification (PFYC) System.

8.1 PALEONTOLOGICAL POTENTIAL CLASSIFICATION CRITERIA

The PFYC system was developed by the BLM (BLM, 2007). It is a predictive resource management tool that classifies geologic units on their likelihood to contain paleontological resources on a scale of 1 (very low potential) to 5 (very high potential). This system is intended to aid in predicting, assessing, and mitigating paleontological resources.

Class 1 – Very Low
Potential to find paleontological resources is highly unlikely and mitigation is usually unnecessary. Units are typically igneous, metamorphic, or at least Precambrian in age.

Class 2 – Low
Low likelihood of finding vertebrate or significant invertebrate or plant fossils, and mitigation is usually unnecessary. Units are sedimentary and usually younger than 10,000 years old.

Class 3b – Unknown
Includes sedimentary units that have unknown potential, but exhibit conditions in which significant fossils could be preserved. Mitigation concerns are moderate, and surface disturbing activities may need to be assessed due to their potential to impact paleontological resources.

Class 3a – Moderate
Includes sedimentary geologic units that are known to have vertebrate fossils and scientifically significant invertebrate or plant fossils, but occurrences are widely scattered. Mitigation concerns are moderate, and surface disturbing activities may need to be assessed due to their potential to impact paleontological resources.

Class 4 – High
Significant fossils occur often and potential to adversely impact paleontological resources is high. A field survey is usually required to assess the impact of the proposed action, and planning of resource preservation and conservation should be considered. Construction activities may require onsite monitoring or spot-checking.

Class 5 – Very High
Geologic units are highly fossiliferous with vertebrate or scientifically significant invertebrate or plant fossils. The potential to impact significant fossils is high, and a field survey by a qualified paleontologist is typically required before the proposed ground disturbance occurs. On-site monitoring of construction activities is usually necessary.

8.2 SENSITIVITY OF GEOLOGICAL UNITS

According to the records searches conducted by LACM and Paleo Solutions staff, there are four previously recorded fossil localities from older Quaternary (Pleistocene) alluvium, similar in both age and composition to the Pacioma Formation, in the vicinity of the Project site. Additional fossil resources have not been recorded from the surrounding Pacoima Formation or Quaternary (Holocene) alluvium (McLeod, 2016; UCMP, 2016; PBDB, 2016).

Based on PFYC guidelines applied to the results of the literature review, records search, and survey completed for this study, the Pacoima Formation has moderate potential (PFYC 3a) for paleontological resources in the vicinity of the Project site based on the generally fine to medium grained nature of the sediments observed during the survey (see Section 7), and the report of significant Pleistocene fossils from similar alluvial deposits in the vicinity (McLeod, 2016). Previously disturbed areas and areas mapped as Quaternary alluvium have low potential (PFYC 2) for paleontological resources at the surface due to their young age, but may shallowly overlie older paleontologically sensitive deposits.

9.0 IMPACTS TO PALEONTOLOGICAL RESOURCES

Ground disturbance in geologic units and geographic areas known to contain scientifically significant fossils may produce adverse impacts to nonrenewable paleontological resources (State CEQA Guidelines, 14 CCR Sections 15064.5[3] and 15023; State CEQA Guidelines Appendix G, Section V, Part C).

Direct impacts to paleontological resources concern the physical destruction of fossils, usually by human-caused ground disturbance. Indirect impacts to paleontological resources typically concern the loss of resources to theft and vandalism resulting from increased public access to paleontologically sensitive areas. Cumulative impacts to paleontological resources concern the incremental loss of these nonrenewable resources to society as a whole.

Surface grading or shallow excavations in the uppermost few feet of the younger Quaternary alluvium in the proposed Project area are unlikely to uncover significant fossil vertebrate remains. However, deeper excavations in the proposed Project area that extend down into older sedimentary deposits, as well as any excavations in the Pacoima Formation in the northern margin of the proposed Project area, may well encounter significant vertebrate fossils (McLeod, 2016). Therefore, grading and other earthmoving activities may potentially result in significant direct impacts to paleontological resources throughout the entirety of the Project site.

10.0 RECOMMENDATIONS

Due to the moderate paleontological potential of the Pacoima Formation, and the potential for Quaternary alluvium to produce significant paleontological resources at depth, mitigation of potential adverse impacts resulting from construction-related ground disturbance is recommended. It is recommended that monitoring be performed during earthmoving activities impacting native sediments of the Pacoima Formation to reduce potential impacts to a less than significant level. Additionally, periodic paleontological spot checks should initially be

conducted when excavation exceeds depths of five feet into areas mapped as Quaternary alluvium to determine if older, paleontologically sensitive sediments are present. If present, monitoring should be implemented. Prior to the start of construction a paleontological resources monitoring plan should be prepared and implemented by a qualified paleontologist. The plan should include specific locations and construction activities requiring monitoring, procedures to follow for monitoring and fossil discovery, and a curation agreement with LACM.

11.0 REFERENCES

Bureau of Land Management (BLM)
2007 Potential Fossil Yield Classification system: BLM Instruction Memorandum No. 2008-009 (PFYC revised from USFS, 1996).
2008 Assessment and Mitigation of Potential Impacts to Paleontological Resources: BLM Instruction Memorandum No. 2009-011.

California's Groundwater Bulletin 118
2004 South Coast Hydrologic Region: San Fernando Valley Groundwater Basin, last updated February 27, 2004.

City of Los Angeles
2001 City of Los Angeles Conservation Element of the General Plan, available at: http://planning.lacity.org/cwd/gnlpln/ConsvElt.pdf

County of Los Angeles
1980 Los Angeles County General Plan, available at: http://planning.lacounty.gov/generalplan/existing

Dibblee, T.W. Jr. and H.E. Ehrenspeck
1991 Geologic Map of the San Fernando and Van Nuys (north ½) Quadrangles, Los Angeles County, CA. Dibblee Geological Foundation Map; DF-33. Scale 1:24,000.

Jefferson, G.T.
1991 A catalog of late Quaternary vertebrates from California: Natural History Museum of Los Angeles County, Technical Reports 7:1-129.

McLeod, S.A.
2016 Paleontological resources for the proposed Olive View – UCLA Medical Center Campus Master Plan Project, in the Sylmar, Los Angeles County, project area. Record search conducted at the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County. Letter on file at Paleo Solutions, Inc., Monrovia.

Murphey, P.C. and D. Daitch
2007 Paleontological overview of oil shale and tar sands areas in Colorado, Utah and Wyoming: U.S. Department of Energy, Argonne National Laboratory Report Prepared for the U.S. Department of Interior Bureau of Land Management, 468 p. and 6 maps (scale 1:500,000).

PaleoBiology Database (PBDB)
2016 Online search of the PaleoBiology Database, accessed May 25-26, 2016.

University of California Museum of Paleontology (UCMP)
2016 Online search of the University of California Museum of Paleontology database, accessed May 25-26, 2016.

U.S. Geological Survey (USGS) Geologic Names Committee
2007 Divisions of geologic time – Major chronostratigraphic and geochronologic units: U.S. Geological Survey Fact Sheet 2007-3015, 2 p.

Wagner, D.L.
2002 California Geomorphic Provinces. *California Geologic Survey Note 36*, online at: http://www.conservation.ca.gov/cgs/information/publications/cgs_notes/note_36/Documents/note_36.pdf

12.0 APPENDIX A

NATURAL HISTORY MUSEUM OF LOS ANGELES COUNTY RECORDS SEARCH RESULTS

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007
tel 213.763.DINO
www.nhm.org

Vertebrate Paleontology Section
Telephone: (213) 763-3325
Fax: (213) 746-7431
e-mail: smcleod@nhm.org

16 May 2016

Paleo Solutions, Inc.
911 South Primrose Avenue, Unit N
Monrovia, CA 91016

Attn: Paul Nesbit, GIS specialist

re: Paleontological resources for the proposed ICF Olive View - UCLA Medical Center Project, in the Community of Sylmar, Los Angeles County, project area

Dear Paul:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for the proposed ICF Olive View - UCLA Medical Center Project, in the Community of Sylmar, Los Angeles County, project area as outlined on the portion of the San Fernando USGS topographic quadrangle map that you sent to me via e-mail on 2 May 2016. We do not have any vertebrate fossil localities that lie directly within the proposed project area, but we do have localities nearby from the same sedimentary deposits that occur as subsurface deposits in the proposed project area.

Surface deposits in the almost all of the proposed project area consist of younger Quaternary Alluvium, derived as alluvial fan deposits from the San Gabriel Mountains adjacent to the north. These younger Quaternary surface deposits typically do not contain significant vertebrate fossils in the uppermost layers, but older Quaternary deposits found at depth may well contain significant vertebrate fossil remains. In the northern margin of the proposed project area there are older Quaternary deposits derived from the San Gabriel Mountains that may be referred to as the Pacoima Formation in this area. We have no vertebrate fossil localities identified as coming from the Pacoima Formation, but similar older Quaternary deposits nearby have produced significant fossil vertebrate remains.

Inspiring wonder, discovery and responsibility for our natural and cultural worlds.

Our closest vertebrate fossil locality from these deposits is LACM 5745, south of west of the proposed project area just east of the Golden State Freeway (I-5) and south of the Foothill Freeway (I-210), that produced fossil specimens of mastodon, *Mammut*, and horse, *Equus*, in fill dirt. Our next closest fossil vertebrate localities in these Quaternary deposits occur at or near the Van Norman Reservoir, southwest of the proposed project area. These localities include LACM 3397 that produced fossil bison, *Bison*, at a seventy-five foot depth, LACM 7152 that produced fossil mammoth, *Mammuthus*, and bison, *Bison*, in terrace deposits and LACM 1733 that produced fossil horse, *Equus*, at unknown depth.

Surface grading or shallow excavations in the uppermost few feet of the younger Quaternary Alluvium in the proposed project area are unlikely to uncover significant fossil vertebrate remains. Deeper excavations in the proposed project area that extend down into older sedimentary deposits, however, as well as any excavations in the older Quaternary deposits in the northern margin of the proposed project area, may well encounter significant vertebrate fossils. Any substantial excavations in the proposed project area, therefore, should be closely monitored to quickly and professionally collect any specimens without impeding development. Also, sediment samples should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

Appendix G

Hazardous Material Assessment

PHASE I
HAZARDOUS MATERIALS ASSESSMENT
OLIVE VIEW-UCLA MEDICAL CENTER
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

DRAFT

PREPARED FOR:
ICF International
601 West Fifth Street, Suite 900
Los Angeles, California 90071

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

March 11, 2016
Project No. 209600001

March 11, 2016
Project No. 209600001

Mr. Lee Lisecki, Project Manager
ICF International
601 West Fifth Street, Suite 900
Los Angeles, California 90071

Subject: Phase I Hazardous Materials Assessment
Olive View-UCLA Medical Center
14445 Olive View Drive
Sylmar, California

DRAFT

Dear Mr. Lisecki:

In accordance with our proposal dated February 2, 2015, Ninyo & Moore has performed a Phase I Hazardous Materials Assessment of the above-referenced property (site). The attached report presents our methodology, findings, opinions, and conclusions regarding the environmental conditions at the site.

We appreciate the opportunity to be of service to you on this project.

Sincerely,
NINYO & MOORE

Dennis Fee
Staff Environmental Engineer

Patrick Cullip
Project Engineer

Anthony Lizzi, PG, CHG
Principal Geologist

DWF/PJC/AJL/sc

Distribution: (1) Addressee (via e-mail)

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1. INTRODUCTION

ICF International (ICF) authorized Ninyo & Moore to perform a Phase I Hazardous Materials Assessment (HMA) of the Olive View-UCLA Medical Center at 14445 Olive View Drive in the city of Sylmar, California (site; Figure 1). The HMA was conducted in general accordance with Ninyo & Moore's proposal dated February 2, 2015. The following sections identify the purpose, involved parties, scope of services, and limitations and exceptions associated with the HMA.

1.1. Purpose

The purpose of this HMA was to evaluate, in general accordance with the process described in ASTM International (ASTM) Practice E1527-13, recognized environmental conditions (RECs), which are defined by ASTM as "the presence or likely presence of any hazardous substance or petroleum products in, on, or at a property: (1) due to a release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment."

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As defined in ASTM E1527-13, de minimis conditions are not considered RECs. A de minimis condition is defined as "a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

Identification of RECs fall into three categories: existing RECs (as defined above); Historical RECs (HRECs); or Controlled RECs (CRECs).

- HREC – A HREC is defined as "a past release of any hazardous substance or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations [AULs], institutional controls, or engineering controls)."

- CREC – A CREC is defined as "recognized environmental conditions resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for

example, property use restrictions, AULs, institutional controls, or engineering controls)."

Information herein is intended to aid ICF during their preparation of environmental documents for the Olive View-UCLA Medical Center project.

1.2. Involved Parties

Mr. Dennis Fee of Ninyo & Moore conducted the site reconnaissance on February 16, 2016. Mr. Fee also performed historical research, document review, and prepared this report. Mr. Patrick Cullip and Mr. Anthony Lizzi of Ninyo & Moore performed project oversight and quality review.

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1.3. Scope of Services

Ninyo & Moore's scope of services for this HMA includes the activities listed below.

- Perform a site reconnaissance to visually identify areas of possibly contaminated surficial soil or surface water, improperly stored hazardous materials, possible sources of polychlorinated biphenyls (PCBs), and possible risks of contamination from activities at the site and adjacent properties.

- A site vicinity reconnaissance to evaluate characteristics of adjacent properties for possible environmental influences on the site. Properties adjoining the project site were visually evaluated from public rights-of-way only.

- Review available regulatory agency databases for the site and for properties located within a specified radius of the site. The purpose of this review was to evaluate the possible environmental impact to the site. These databases list locations of known hazardous waste sites, landfills, leaking underground storage tanks (LUSTs), permitted facilities that utilize underground storage tanks (USTs), and facilities that use, store, or dispose of hazardous materials.

- Review readily available environmental documents dealing with previous hazardous waste investigations conducted at the site, if provided by the client.

- Evaluate the potential for the presence of methane in soil gas beneath the site through research of governmental maps.

- Evaluate the potential for the presence of impacted groundwater through review of readily available State Water Resources Control Board's GeoTracker (GeoTracker) and EnviroStor websites for existing reports of impacted groundwater in the site vicinity.

- Perform a review of the historical land use of the proposed Project to provide an overview of past uses that likely involved the use or storage of hazardous materials.
- Develop preliminary mitigation alternatives for hazardous materials issues which may impact the project site.
- Prepare this HMA report documenting findings and providing opinions and conclusions regarding possible environmental impacts at the site.

1.4. Limitations and Exceptions

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard of care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Please note that this study did not include an evaluation of geotechnical conditions or potential geologic hazards. In addition, it should be noted that this HMA does not include analysis of the following: asbestos-containing materials (ACMs), radon, lead-based paint (LBP), lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, and high voltage power lines.

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This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information or has questions regarding the content, interpretations presented, or completeness of this document.

Our findings, opinions, and conclusions are based on an analysis of the observed site conditions and the referenced literature. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control. Ninyo & Moore cannot warrant or

guarantee that not finding indicators of any particular hazardous material means that this particular hazardous material or any other hazardous materials do not exist on the site. Additional research, including invasive testing, can reduce the uncertainty, but no techniques now commonly employed can eliminate the uncertainty altogether.

1.5. User Reliance

This report may be relied upon and is intended exclusively for use by the client. Any use or reuse of the findings, opinions, and/or conclusions of this report by parties other than the client is undertaken at said parties' sole risk.

1.6. Physical Limitations

Major physical limitations were not encountered during the site reconnaissance. Areas inspected during the site reconnaissance were limited to locations with hazardous materials. Individual office buildings were not inspected during the site reconnaissance unless they contained hazardous materials, as reported by the site contact above (Section 3). Certain areas were locked and not accessible at the time of site reconnaissance, such as the Los Angeles Department of Water and Power (LADWP) substation located along Reagan Road, and a crate for storing universal waste. These are considered physical limitations.

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1.7. Data Gaps

Data gaps were not encountered during this HMA.

2. GENERAL SITE CHARACTERISTICS

The following sections describe the location and the current uses of the site. The uses of adjacent properties are also described.

2.1. Location

The site is an approximately 235-acre, irregularly-shaped property at 14445 Olive View Drive in the city of Sylmar, California (Figure 1). The site is occupied by the Olive View-UCLA Medical Center.

2.2. Current Title Information

A Title Report was not provided to Ninyo & Moore for review.

2.3. Adjacent Properties

Table 1 lists the properties adjoining the site and associated land use. The general site surrounding includes residential properties to the east, west, and south of the site, and vacant hills to the north.

Table 1 – Adjacent Properties

Location	Current Occupant(s)
North	Foothills of the San Gabriel Mountains, vacant land
South	Olive View Drive, beyond which mostly residential, some commercial properties, and the 210 Freeway.
East	Residential properties
West	

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2.4. Site Description and Current Site Uses/Operations

The following paragraphs present a description of the structures present at the site, the tenants currently occupying the site, if any, the activities being conducted on-site, the heating and cooling systems utilized in the site buildings, the sewage disposal system, and the potable water provider for the site.

2.4.1. Site Description

The Olive View-UCLA Medical Center property is an approximately 235-acre parcel of land (Figure 2), occupied with the Olive View-UCLA Medical Center (hospital), community mental health center, office and administrative buildings, residential structures (office use), storage buildings, a hazardous waste storage area, a helipad, a power plant, police and fire department, parking lots, and multiple roads.

2.4.2. Occupants

The site is currently occupied by the Olive View-UCLA Medical Center and its associated facilities described above.

2.4.3. Heating and Cooling Systems

Heating and cooling systems are powered by electricity and natural gas. LADWP provides electricity to the site. Natural gas is provided to the site by the Southern California Gas Company. Cooling towers (see Figures 2 and 3) provide water for cooling the equipment of the Central Utility Plant.

2.4.4. Sewage Disposal/Septic Systems

The Los Angeles Department of Public Works (LADPW) provides sewage disposal to the site.

2.4.5. Potable Water

The LADWP provides potable water to the site.

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3. SITE RECONNAISSANCE

On February 16, 2016, Mr. Dennis Fee of Ninyo & Moore conducted a site reconnaissance. The reconnaissance involved a visit to the site and visual observations of adjoining properties (from public thoroughfares). Weather conditions were sunny and clear at the time of the site reconnaissance. Selected photographs taken during the site reconnaissance are included in Appendix A. Mr. Frank Colbert, the Safety and Security Director of the Office of Environmental Health and Safety, provided information on hazardous waste storage throughout the hospital and associated facility grounds.

3.1. Physical Limitations

Major physical limitations were not encountered during the site reconnaissance. Areas inspected during the site reconnaissance were limited to locations with hazardous materials. Individual office buildings were not inspected during the site reconnaissance unless they contained hazardous materials, as reported by the site contact above (Section 3). Certain areas were locked and not accessible at the time of site reconnaissance, such as the LADWP substation located along Reagan Road, and a crate for storing universal waste. These are considered physical limitations.

3.2. Use and Storage of Hazardous Substances and Petroleum Products

Hazardous materials were observed in and around the loading dock area of the site. Detailed information can be found in Table 2. Significant evidence of releases or spills was not observed at these areas and is therefore not considered an environmental concern.

Table 2 – Hazardous Materials Storage

Building	Location	Storage	Quantity	Contents	Comments
Hospital	Loading Dock	USTs	Two 20,000 gallon tanks	Diesel	See Section 3.5
		Outside, with secondary containment	Six 55-gallon drums	Jet Fuel	Used for turbines
			One 55-gallon drum	Cleaner/degreaser	
			Four 55-gallon drums	Waste oil	
		Inside gated enclosure	24 cylinders (each ~150 ft^3)	Compressed nitrogen	Used to maintain a nitrogen blanket in water tanks
		Inside storage container	Eight 55-gallon drums	Motor oil	
			12 5-gallon buckets	Turbine oil	
		Biohazard room	Variable	Sharps, chemotherapy waste, and other unidentifiable biohazard waste	Temporary storage area before waste is transported off site
		Medical gas storage room	Variable number and size of tanks	Carbon dioxide, oxygen, nitrogen, helium, argon, nitrous oxide,	Primarily used for patient care
	Central Utility Plant	Emergency Generator Room	Two 100-gallon tanks	Engine oil	
			One 55-gallon drum	Diesel oil	
		Turbine Room, with secondary containment	Two 55-gallon drums	Jet fuel	
			One 55-gallon drum	Waste oil	
		Turbine Room	13 55-lb cylinders	Compressed refrigerant	Used for evaporator
	Pathology Lab, 1st floor of hospital	Locked closet	~ 10 1-gallon containers	Paraffin Waste	Provided on hospital waste manifest
			~70 1-gallon containers, 2 55-gallon drums	Xylene	
			Four 55-gallon drums	Ethyl alcohol	
			Two 55-gallon drums	Formaldehyde	
			~25 1-gallon containers	Methanol	
Cooling Towers	Outside, within fenced enclosure	ASTs	Two tanks (one ~400 gallons, one ~5,000 gallons)	Liquid oxygen	See section 3.5
		Outside, within fence	30 150 ft^3 cylinders	Nitrous oxide	
			12 cylinders, 3 drums	Nalco Water Treatment Products	Treats water at the cooling tower, prevents corrosion

Notes:
UST – underground storage tank
AST – above-ground storage tank
ft^3 – cubic feet
lb – pound

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3.3. Storage and Disposal of Hazardous Wastes

Oils and lubricants used for the turbine and generator of the hospital are stored under secondary containment at the loading dock of the hospital. Hazardous biomedical waste generated by the hospital is stored at the biomedical waste storage room at the loading dock of the hospital. The biomedical waste is stored in an autoclave before transportation off-site. The Pathology Department, on the first floor of the hospital, uses hazardous waste in its lab. The waste, such as xylenes, alcohols, and paraffin waste, is stored in a closet with restricted access. When there is an overflow of hazardous waste at the hospital, the waste is stored at a hazardous waste storage area in the front of the vivarium (Figure 2). Staining or signs of release were not observed in or adjacent to the hazardous waste storage areas. Hazardous waste is transported off-site and disposed of by a licensed facility.

Copies of the hazardous waste manifests for the hospital from 2015 are provided in Appendix B. A total of 104 manifests of hospital derived waste are presented. The hazardous wastes on the manifests include chemicals such as soda lime, flammable liquids (xylene, alcohol, ethanol, phenol), flammable solids (paraffin wax, carbon filters), acids, and waste oxidizing liquids. The final manifest page contained in Appendix B is hazardous waste derived from the Central Utility Plant for 2015. In 2015, 165 gallons of used motor, transmission, and hydraulic oils were transported off-site according to the manifest.

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3.4. Unidentified Substance Containers

Unidentified substance containers were not observed during our site reconnaissance.

3.5. Aboveground and Underground Storage Tanks (ASTs and USTs)

Two 100-gallon ASTs containing engine oil were observed at the emergency generator room of the Central Utility Plant. Two liquid oxygen ASTs, 5,000- and 400 gallon-capacities, were observed at the cooling towers of the site.

Two 20,000-gallon diesel USTs were observed at the loading dock of the hospital. The diesel fuel is used to power much of the machinery operating in the Central Utility Plant. Other USTs were not observed during the site reconnaissance.

3.6. Evidence of Releases

Evidence of chemical releases on site (i.e., odors, stressed vegetation, stains, leaks, pools of liquids, and spills) was not observed during our site reconnaissance.

3.7. Polychlorinated Biphenyls (PCBs)

Electrical transformers can be a source of PCBs. The main electrical feed to the hospital, a LADWP substation located along Reagan Road, contains electrical transformers according to Mr. Frank Colbert. The building was inaccessible at the time of site reconnaissance. The station directs electricity to the Central Utility Plant, where it is diverted across different sections of the hospital to electrical substations. During site reconnaissance, Substation B in the hospital was inspected. Transformers were in good working condition and stains or other signs of release were not observed on the ground surface.

Pad-mounted transformers were observed along Cobalt Street at the western section of the site. These transformers provide the electrical feed to the site grounds west of the main hospital building. Staining or signs of release were not observed.

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3.8. Suspect Asbestos-Containing Materials (ACMs) and Lead-Based Paint (LBP)

Based on the construction date of many of the site buildings (prior to 1980), ACMs and LBP may be present on building materials at the site. A Hazardous Building Materials Survey (HBMS) should be conducted for buildings that are planned to be demolished.

3.9. Wastewater Systems

One four-stage clarifier of unknown capacity was observed at the loading dock of the site. According to the site contact, Mr. Frank Colbert, the clarifier treats wastewater created from the sorption unit of the central utility plant. Other wastewater systems were not observed at the site during the site reconnaissance.

3.10. Storm Water Systems

Storm water catch basins and drains were observed throughout the site during the site reconnaissance. Storm water channels trending north-south were observed at the western and eastern ends of the site. Staining was not observed at the catch basins, drains, or channels.

3.11. Wells

Wells were not observed on the site during the site reconnaissance.

3.12. Signs of Previous Environmental Investigations

Signs of previous environmental investigations were not observed during the site reconnaissance.

3.13. Other On-Site and Off-Site Potential Environmental Concerns (PECs)

On or off-site PECs were not observed.

4. PHYSICAL SETTING

The following sections discuss the topography, geology, and hydrology at the site.

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4.1. Site Topography

Based on the review of the United States Geological Survey (USGS) 7.5 Minute Series, San Fernando, California, Topographic Quadrangle Map, dated 2012, the site is situated at an approximate surface elevation of between 1,400 and 1,500 feet above mean sea level. The northern section of the site slopes steeply towards the south because of its proximity to the San Gabriel Mountains to the north. The general site vicinity slopes towards the south.

4.2. Geology

The site is located within the Transverse Ranges Geomorphic Province (Norris & Webb, 1977). Locally, the site is situated within the northern portion of the San Fernando Valley (SFV). The SFV is bounded by the San Gabriel Mountains to the northeast; the Santa Susana Mountains to the northwest; the Verdugo Mountains to the east; the Santa Monica Mountains to the south; and the Simi Hills to the west. The site vicinity is generally underlain by Holocene alluvial fan deposits consisting of sand and silty sand with moderate clay, as well as Late-Pleistocene poorly-consolidated conglomerate and sandstone in the San Gabriel foothills (Hitchcock, 2000).

4.3. Site Hydrology

The following sections discuss the site hydrology in terms of both surface waters and groundwater.

4.3.1. Surface Waters

Natural surface waters are not located on the site. The Upper Van Norman Lake is located approximately 2.7 miles southwest of the site.

4.3.2. Groundwater

Recent groundwater information for the site was not immediately available. Ninyo & Moore reviewed the GeoTracker website for groundwater information in the site vicinity. According to the First Semiannual Groundwater Monitoring Report, 2015 (Geo-Logic Associates, 2015), groundwater was measured at the Sunshine Canyon/County Landfill approximately 3.5 miles west and crossgradient of the site in June 2015. Depth to water beneath the site ranged between 5.57 to 151.25 feet below top of casing, with groundwater generally flowing to the southeast consistent with the surrounding topography.

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5. HISTORICAL LAND USE

Historical aerial photographs, fire insurance rate maps, historical topographic maps, and oil and gas maps were reviewed as part of Ninyo & Moore's HMA for the site.

5.1. Historical Aerial Photographs

Historical aerial photographs for selected years between 1928 and 2012 were provided by Environmental Data Resources, Inc. (EDR). A summary of the aerial photograph review is presented in following table.

Table 3 – Aerial Photo Review

Year	Site	Adjacent Areas
1928	The site is developed with structures potentially related to the hospital. Roadways traverse across the site. The southeastern portion of the aerial photograph is washed out and illegible.	Undeveloped land to the north, agricultural land, likely olive groves, to the south.
1938	The site appeared similar to that observed in the 1928 aerial photograph.	The site vicinity appeared similar to that observed in the 1928 aerial photograph.
1947 1952 1965		More residential structures appear to the south.
1976	A large portion of land on the eastern end of the site appeared to be graded. Several structures on the western end of the site appeared to be demolished	Additional residential properties appeared to the south.
1981	Hospital appeared under development.	
1989	Parking lots, additional structures, and the cooling towers appeared around the hospital	
1994	The site appeared similar to that observed in the 1989 aerial photograph.	Area to the west and east of the site viewable; channel, beyond which was residential properties. Adjacent areas to the north, south, and east appeared similar to that observed in the 1989 aerial photograph.
2002		The site vicinity appeared similar to that observed during the site reconnaissance.
2005		
2009	Signs of construction appeared to the north of the hospital.	
2010		
2012	Emergency services center appeared directly north of the hospital.	

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The 1928 photograph showed the site as developed with multiple structures connected by roadways, likely related to the hospital. This remained relatively unchanged up to at least 1976. The hospital appeared under development in the 1981 aerial photograph. Parking lots, additional structures, and the cooling towers appeared adjacent to the hospital in the 1989 aerial photograph. The surrounding properties to the south were developed with agricultural land from at least 1928 until 1976. Residential structures began appearing to the south in the 1947 aerial photograph and continued to overtake the agricultural land until 1976. From 1976 to the present the adjacent land to the south was predominantly residential. The land to the north was unoccupied from at least 1928 to the present. Land to the east and west was viewable in the 1994 aerial photograph, which showed mainly residential structures. A copy of the aerial photographs is provided in Appendix C.

5.2. Fire Insurance Rate Maps

Sanborn Fire Insurance maps for the years 1940 and 1954 were provided by EDR. The maps include illustrations and descriptions of streets, structures such as dormitories and offices, athletic facilities, and storm drains. The information provided in the Sanborn Fire Insurance Maps does not indicate a REC for the site. A copy of the Sanborn Fire Insurance Rate Map Report is provided in Appendix C.

5.3. City Directories

Ninyo & Moore reviewed the EDR Historical City Directory Abstract which included information from select historical city directories for the years 1920 through 2013. Table 6 presents the listings found under the site addresses. City directories are provided in Appendix C.

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Table 4 – Historical City Directory Listings

Year	Site Address	Listing
1975	14445 Olive View Drive	Children's Outpatient Mental Health Day Treatment Center Olive View Community Mental Health Center Olive View Medical Center Los Angeles County Psychiatric Outpatient Clinic
1980	14445 Olive View Drive	Los Angeles County of Hospitals Olive View Credit Union
1991	14445 Olive View Drive	Olive View Credit Union Olive View Medical Center LA County
1995	14445 Olive View Drive	Olive View Credit Union Olive View UCLA Medical Center
2004	14445 Olive View Drive	Olive UCLA Med Olive View Credit Union
2008	14445 Olive View Drive	UCLA MC Olive View UCLA Medical Center Peds Department UCLA SCH Medical Valley Care Olive View UCLA Child Development Consortium of Los Angeles Community Health Center County of Los Angeles David Talan MD Dem North Annex Building Health Science Library Insight Health Corporation LAC Olive View UCLA Medical Center Los Angeles County Hospitals Olive View Los Angeles Olive View Medical Center

Table 4 – Historical City Directory Listings

Year	Site Address	Listing
2008	14445 Olive View Drive	Morristown South Custom Management Neurological Department North Annex Olikhi Center for MRI Olive View Employees Federal Credit Olive View Hospital Olive View UCLA Education Olive View UCLA Medical Center Foundation Olive View UCLA Medical Center Rad Scis Regents of the University of California Servicon
2013	14445 Olive View Drive	County of Los Angeles Olive View Credit Union Olive View UCLA Medical Center

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Based on our historical city directory review, the site was occupied by a hospital and medical research facilities from at least 1975 to 2013 and a credit union from at least 1980. Adjoining properties included commercial properties, health clinics, and residential properties. The site information is not indicative of a REC.

5.4. Historical Topographic Maps

Historical topographic maps were provided by EDR and dated 1900, 1925, 1928, 1929, 1935, 1940, 1942, 1945, 1953, 1966, 1972, 1988, 1995, and 2012. The site appeared as undeveloped land in 1900. From at least 1925 through 1953, the site appeared developed with Olive View Sanatorium. The site was identified as the Olive View Hospital from at least 1966 to 2012. A copy of the EDR Historical Topographic Map Report is included in Appendix C.

5.5. Oil and Gas Maps

According to the State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), Well Finder website, the site does not lie within the administrative boundaries of an oil field. The site is not located within an oil field. According to DOGGR, the nearest oil well, operated by Oryx Energy Company,

approximately 1.20 miles west and cross-gradient of the site, was listed as a plugged and inactive well. This information is not indicative of a REC for the site.

6. ENVIRONMENTAL DATABASE SEARCH

A computerized, environmental information database search was performed by EDR on January 22, 2016. A copy of the EDR report is included in Appendix D.

The following paragraphs describe the databases that contain noted properties of environmental concern, and include a discussion of the regulatory status of the facilities and potential environmental impact to the subject site. Based on our review of the GeoTracker website operated by the Los Angeles Regional Water Quality Control Board (RWQCB) and hydrologic information contained on that website, discussed in Section 4.3.2 of this report, groundwater flow direction in the site vicinity is generally to the southeast.

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6.1. National Priorities List (NPL): Distance Searched – 1 mile

The NPL is the United States Environmental Protection Agency (EPA) database of uncontrolled or abandoned hazardous waste properties listed for priority remedial actions under the Superfund program.

Neither the site nor properties located within the searched distance were listed on this database.

6.2. Proposed and Delisted National Priorities List (NPL): Distance Searched – ¼ mile

The Proposed NPL database lists properties that are currently being evaluated for priority remedial actions for the Superfund program. The Delisted NPL database includes properties that are deleted from the NPL database based upon the National Oil and Hazardous Substances Pollution Contingency Plan. This deletion takes place after no further response to the NPL is appropriate.

Neither the site nor properties located within the searched distance were listed on either database.

6.3. Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) List: Distance Searched – ¼ mile

The CERCLIS database contains properties which are either proposed or on the NPL and properties which are in the screening and assessment phase for possible inclusion on the NPL.

Neither the site nor properties located within the searched distance were listed on this database.

6.4. CERCLIS/No Further Remedial Action Planned (NFRAP) List: Distance Searched – ¼ mile

CERCLIS sites designated as NFRAP have been removed from the CERCLIS database following an initial investigation where no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.

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Neither the site nor properties located within the searched distance were listed on this database.

6.5. Corrective Action Report (CORRACTS): Distance Searched – ¼ mile

The EPA maintains this database of Resource Conservation and Recovery Act (RCRA) facilities that are undergoing corrective action. A corrective action order is issued when a release of hazardous waste or constituents into the environment from a RCRA facility has occurred.

Neither the site nor properties located within the searched distance were listed on this database.

6.6. Resource Conservation and Recovery Act (RCRA) Treatment, Storage and Disposal (TSD) Facilities List: Distance Searched – ½ mile

The RCRA TSD database is a compilation by the EPA of facilities that report generation, storage, transportation, treatment, or disposal of hazardous waste.

Neither the site nor properties located within the searched distance were listed on this database.

6.7. Resource Conservation and Recovery Act (RCRA) Generators List: Distance Searched – Site and Adjacent

This list identifies sites that generate hazardous waste as defined by RCRA. Inclusion on this list is for permitting purposes and is not indicative of a release.

The site was listed on this database as a large quantity generator. Wastes stored on site include ignitable waste corrosive waste, and mercury. No violations were reported. Adjacent properties were not listed on this database.

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6.8. Emergency Response Notification System (ERNS) List: Distance Searched – Site

The ERNS database contains information of reported releases of oil and hazardous substances and is maintained by the EPA.

The site was not listed on this database.

6.9. United States Engineering Controls: Distance Searched – ¼ mile

This database is an EPA listing of facilities with engineering controls in place, such as various forms of caps, building foundations, liners, and treatment methods intended to eliminate pathways for regulated substances to enter environmental media or affect human health.

Neither the site nor properties located within the searched distance were listed on this database.

6.10. United States Institutional Controls: Distance Searched – ¼ mile

This database is an EPA listing of facilities with institutional controls in place, such as administrative measures, groundwater use restrictions, construction restrictions, property use

restrictions, and post remediation care requirements, intended to prevent exposure to contaminants remaining on site.

Neither the site nor properties located within the searched distance were listed on this database.

6.11. State Sites: Distance Searched – ¼ mile

The State Sites database consists of potential or confirmed hazardous substance release properties. Ninyo & Moore reviewed the State Response Sites database for this information.

The site was not listed on this database. One facility, Castle Precision Industries at 14148 Bledsoe Street, adjacent southeast and downgradient to the site was listed on this database. The facility is listed with a status of "refer: 1248 local agency" as of September 1, 2004. Other information was not provided.

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6.12. State CERCLIS: Distance Searched – ¼ mile

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's EnviroStor database identifies facilities that have known contamination of sites for which there may be reasons to investigate further.

Neither the site nor properties located within the searched distance were listed on this database.

6.13. Solid Waste Landfill Sites (SWL): Distance Searched – ¼ mile

The SWL database consists of open and closed solid waste disposal facilities and transfer stations. The data comes from the Integrated Waste Management Department's Solid Waste Information System database.

Neither the site nor properties located within the searched distance were listed on this database.

6.14. State Leaking Underground Storage Tank (LUST) Lists: Distance Searched – ¼ mile

Databases of the LUST information system are maintained by the California State RWQCBs.

The site address was not listed on this database. One facility, Los Angeles County Fire Station #04 at 14425 Olive View Drive was listed on this database. This facility is located in the south-central portion of the site (Figure 2).The facility status is currently listed as "leak being confirmed" affecting soil in 1995. Ninyo & Moore reviewed the GeoTracker website for additional information on the LUST case (Section 7.2). The LUST case was not listed on GeoTracker. The presence of a LUST case on the site is considered a PEC for the site.

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6.15. Underground Storage Tank (UST) Registration List: Distance Searched – Site and Adjacent

According to EDR, UST records are provided by the Department of Building and Fire Safety. Inclusion of facilities on this list does not necessarily indicate a release.

The site was listed on this database. Information regarding the capacity or contents of USTs was not provided. A listing on this database is not indicative of a release. Adjacent properties were not listed on this database.

6.16. Permitted Aboveground Storage Tank (AST) List: Distance Searched – Site and Adjacent

According to EDR, AST records are provided by the Department of Building and Fire Safety. Inclusion of facilities on this list does not necessarily indicate a release.

The site and adjacent properties were not listed on this database.

6.17. State Engineering Controls: Distance Searched – ¼ mile

This database is a California Environmental Protection Agency (Cal-EPA) listing of facilities with engineering controls in place, such as various forms of caps, building

foundations, liners, and treatment methods intended to eliminate pathways for regulated substances to enter environmental media or affect human health.

Neither the site nor properties located within the searched distance were listed on this database.

6.18. State Institutional Controls: Distance Searched – ¼ mile

This database is a Cal-EPA listing of facilities with institutional controls in place, such as administrative measures, groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements, intended on preventing exposure to contaminants remaining on site.

Neither the site nor properties located within the searched distance were listed on this database.

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6.19. Brownfields: Distance Searched – ¼ mile

This database is a DTSC tracking system of California Brownfields sites.

Neither the site nor properties located within the searched distance were listed on this database.

6.20. Voluntary Cleanup Program Sites: Distance Searched – ¼ mile

This database is a Cal-EPA listing of properties involved in the voluntary remediation program.

Neither the site nor properties located within the searched distance were listed on this database.

6.21. Indian Reservation: Distance Searched – ¼ mile

USGS map layer portrays Indian administered land within the United States with an area equal to or greater than 640 acres.

Indian reservation land was not found to be within the searched distance.

6.22. Indian Leaking Underground Storage Tank (LUST): Distance Searched – ½ mile

This database is maintained by the EPA of LUSTs on Indian land in the states of Arizona, California, New Mexico, and Nevada.

Neither the site nor properties located within the searched distance were listed on this database.

6.23. Indian Underground Storage Tank (UST): Distance Searched – ¼ mile

This database is a database maintained by the EPA of USTs on Indian land.

Neither the site nor properties located within the searched distance were listed on this database.

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6.24. Additional Databases: Distance Searched – Various

EDR searches several additional databases of potentially important information. These databases are outside the scope of the ASTM E1527-13 standard. The site was listed on the following non-ASTM databases: Statewide Environmental Evaluation and Planning System (SWEEPS) UST, California Hazardous Material Incident Report System (CHMIRS), US Aerometric Information Retrieval System (AIRS) Facility Subsystem (AFS), Facility Index System/Facility Registry System (FINDS), Emissions Inventory Data (EMI), Facility and Manifest Data (HAZNET), Los Angeles County Hazardous Waste Materials (HMS), and National Pollutant Discharge Elimination System (NPDES). The following is a summary of the information provided in the databases:

- SWEEPS UST – status listed as active on April 21, 1993.
- CHMIRS – Due to an employee error, 15 pounds of mercury was spilled into a drain at the Olive View Medical Center in 2005. The spill was cleaned up by a contractor
- AFS – the facility is listed on the state implementation plan for National Primary and Secondary Ambient Air Quality Standards. Compliance monitoring was conducted at the site from 1992 to 2015. Violations were not reported.
- FINDS – See Section 7.3.

- EMI – the site is listed from 2002 – 2013 under the South Coast Air Quality Management District (SCAQMD) for air emissions.
- HAZNET – the site has multiple listings from 1999, 2008, 2009, 2010, 2012, 2013, and 2014 of various materials, such as inorganic solid waste, organic solids, asbestos containing waste, waste oil, and pesticide waste being removed from the site under hazardous waste manifests.
- HMS – the site has an open listing and a closed listing. Additional information was not provided.
- NPDES – the site is listed from 2012 – 2015 for construction projects.

7. ONLINE ENVIRONMENTAL RECORDS REVIEW

Ninyo & Moore reviewed records from the DTSC EnviroStor website (EnviroStor), GeoTracker, the SCAQMD, and reports provided by the County of Los Angeles.

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7.1. Department of Toxic Substances Control (DTSC) EnviroStor website

Ninyo & Moore reviewed the DTSC EnviroStor website for information regarding the site address. According to the database, records were not available for the site address.

7.2. State Water Resources Control Board GeoTracker Website

Ninyo & Moore reviewed the SWRCB GeoTracker website for information regarding the site address. According to the database, records were not available for the site address.

7.3. South Coast Air Quality Management District

Ninyo & Moore reviewed the SCAQMD's Facility Information Detail Search website for permits regarding the site address. The following is a summary of our review.

The site address is listed as LA Co Engineer Facilities 003093 with a duplicate status and a description as a water supply. No equipment is listed for the facility and no notice of violations or notices to comply were reported. No emissions have been reported for the facility between the years 2000 and 2013.

The site address is also listed as LA Co., Olive View/UCLA Medical Center with an active status and is listed as office/clinics of medical doctors. Active permits for equipment

included: two turbine engine permits issued in 2012; two diesel electric generator permits issued in 1999; a paint and solvent spray booth application dated 1990; and an additional diesel electric generator permit issued in 1993. Inactive permits include those for turbine engines, ethylene oxide (ETO) sterilization hospitals, control ETO sterilization hospitals, gasoline storage tanks, fuel oil storage tanks, 51-100 pound an hour pathological incinerator, combination gas distil boiler, diesel engines, cogeneration plants, natural gas/ no. 2 oil fired heaters-furnace, and a service station storage and dispensing for gasoline (1969). The facility received 3 notices of violation between 2003 and 2011 and 12 notices to comply from 2000 through 2013. All notices of violation and notices to comply are in compliance.

The County of Los Angeles, Fire Station #46 at 14425 Olive View was listed for a 1,000-gallon diesel UST, with one dispenser nozzle.

The presence of gasoline storage tanks, fuel oil storage tanks, a gasoline service station, and a spray paint booth represent PECs.

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7.4. County of Los Angeles Documents

Several documents were provided by the County of Los Angeles. Documents included geotechnical reports, topographic maps, AutoCAD drawings, and master plans for the future development of the site. Reports pertaining to the environmental aspects of the site were not included.

8. CONCLUSIONS

Ninyo & Moore completed an HMA for the Olive View UCLA Medical Center at 14445 Olive View Drive in Sylmar, California. The HMA revealed the following potential issues of concern:

- **Building Materials** – Based on the construction date of many of the site buildings (prior to 1980), ACMs and LBP may be present on building materials at the site. If buildings built prior to 1980 are planned for demolition, an HBMS should be conducted to evaluate the presence of ACMs and LBP on building materials.

- **Hazardous Materials** – Hazardous materials and hazardous waste were observed at the loading dock of the hospital. Jet fuel, turbine oil, diesel fuel, and other petroleum products were observed in storage areas at the loading dock (including two 20,000-gallon diesel USTs), as well as at the turbine room of the central utility plant. Biomedical waste and

medical gas are also stored in storage rooms at the loading dock. The biomedical waste is stored in an autoclave before being transported off-site. The hazardous waste manifests provided to Ninyo & Moore show that the majority of hazardous waste disposed off-site is generated from the pathology lab of the hospital as well as sharps generated throughout the hospital. This waste is stored at the site grounds to the west of the hospital when there is an overflow of waste. Two liquid oxygen ASTs were observed at the cooling towers of the hospital. One four-stage clarifier of unknown capacity was observed at the loading dock of the site. The clarifier treats wastewater created from the sorption unit of the Central Utility Plant. According to the AQMD, an active permit for a spray paint booth was issued for the site in 1990. Evidences of releases or spills were not observed during site reconnaissance and are therefore not considered environmental concerns. The presence of USTs at the loading dock and an active permit for a spray paint booth represent PECs for the site.

- **Environmental Database Report** – The site was listed on several environmental databases searched by EDR, primarily for USTs and hazardous waste. The Los Angeles County Fire Station #04 (located within the site boundaries) was listed on the LUST database with a status of "leak being confirmed" as of 1995 and affecting soil. Additional information was not provided. This is considered a PEC for the site.

- **Off-Site Issues –** Off-site properties that could affect the environmental integrity of the site were not observed during the preparation of this HMA.

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9. PROJECT IMPACTS AND MITIGATION MEASURES

The following paragraphs discuss the Potential Significant Project Impacts, Feasible Mitigation Measures, and Potential Project Impacts not Fully Mitigated to Less than Significant.

9.1. Potential Significant Project Impacts

Potential Significant Project Impacts include the known or probable presence of soil contamination where remediation has not been performed, is incomplete, or is not documented. Potential Significant Project Impacts also include asbestos and LBP in buildings that may be demolished or renovated. The following direct Potential Significant Project Impacts have been identified:

- **Building Materials** – Demolition of structures built prior to 1980 may result in the exposure of the public and/or the environment to LBP and/or ACMs in buildings.

- **Hazardous Materials** – The presence of an active permit for a spray paint booth represents a PEC for the site.

- **USTs** – The presence of diesel fuel USTs at the loading dock represents a PEC for the site.
- **LUST** – The presence of a LUST case on the site represents a PEC for the site.

9.2. Feasible Mitigation Measures

Feasible mitigation measures may reduce each of the listed project impacts to less than significant. The following are the feasible mitigation measures for each of the listed project impacts:

- An HBMS should be conducted to evaluate the presence of ACMs and LBP on building materials at the site.
- Prior to start of construction, we recommend additional investigation of the on-site spray paint booth, USTs, and LUST case to evaluate their potential impact to the site.

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9.3. Potential Project Impacts Not Fully Mitigated to Less Than Significant

Based on the information evaluated to date, there are no direct Potential Significant Project Impacts that cannot be mitigated to less than significant.

10. QUALIFICATIONS STATEMENT AND SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

Mr. Anthony Lizzi states that the HMA was performed under his direct supervision and that he has reviewed and approved the report and the methods and procedures employed in the development of the report confirm to the minimum industry standards. Mr. Lizzi certifies that Ninyo & Moore project personnel and subcontractors are properly licensed and/or certified to do the work described herein.

Anthony Lizzi, PG, CHG
Principal Geologist

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11. REFERENCES

Environmental Data Resources, Inc., 2016a, The EDR Aerial Photo Decade Package, Olive View-UCLA Med Center, 14445 Olive View Drive, Sylmar, California 91342, dated January 26.

Environmental Data Resources, Inc., 2016b, Certified Sanborn Map Report, Olive View-UCLA Med Center, 14445 Olive View Drive, Sylmar, California 91342, dated January 25.

Environmental Data Resources, Inc., 2016c, The EDR-City Directory Abstract, Olive View-UCLA Med Center, 14445 Olive View Drive, Sylmar, California 91342, dated January 22.

Environmental Data Resources, Inc., 2016d, EDR Historical Topo Map Report, Olive View-UCLA Med Center, 14445 Olive View Drive, Sylmar, California 91342, dated January 22.

Environmental Data Resources, Inc., 2016e, The EDR Radius Map Report with GeoCheck®, Olive View-UCLA Med Center, 14445 Olive View Drive, Sylmar, California 91342, dated January 22.

Geo-Logic Associates, 2015, Semi-Annual Monitoring Report, First Semi-Annual 2015, Sunshine Canyon Landfill, Facility WDID #L10006014618, dated July

Hitchcock, C.S., Wills, C.J., 2000, Quaternary Geology of the San Fernando Valley, Los Angeles County, California

Norris, R.M., and Webb, R.W., 1977, Geology of California: John Wiley & Sons.

State of California, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) Well Finder, 2016, http://maps.conservation.ca gov/doggr/#close.

State of California's State Water Resources Control Board, 2016, GeoTracker Database System at http://geotracker.waterboards.ca.gov/.

United States Geological Survey, 2012, 7.5-minute Series, Topographic Quadrangle Map Series, San Fernando, California:

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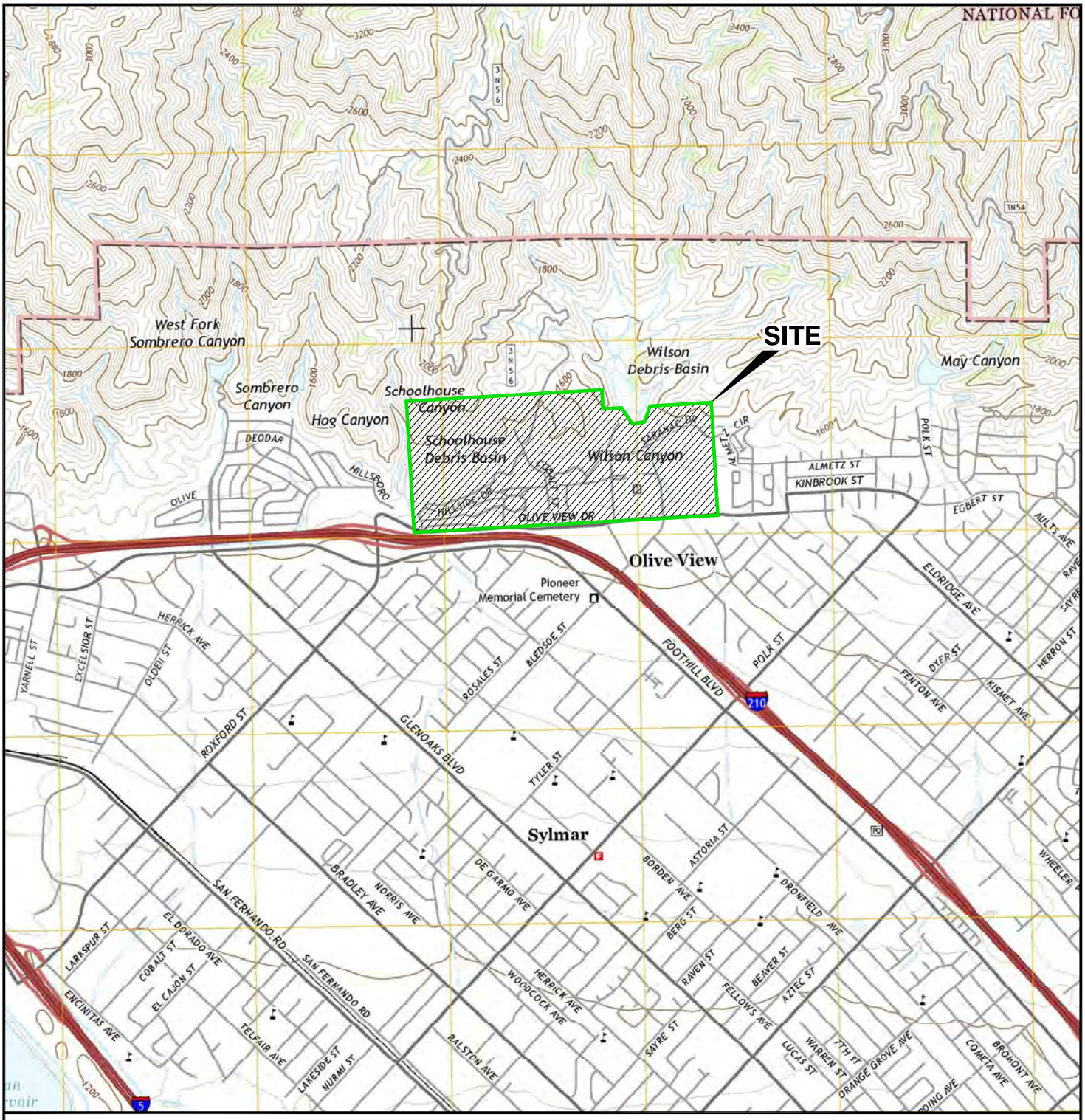


REFERENCE: 7.5 MINUTE USGS TOPOGRAPHIC MAP OF SAN FERNANDO, CALIFORNIA QUADRANGLE, DATED 2015, SCALE 1:24000.

N

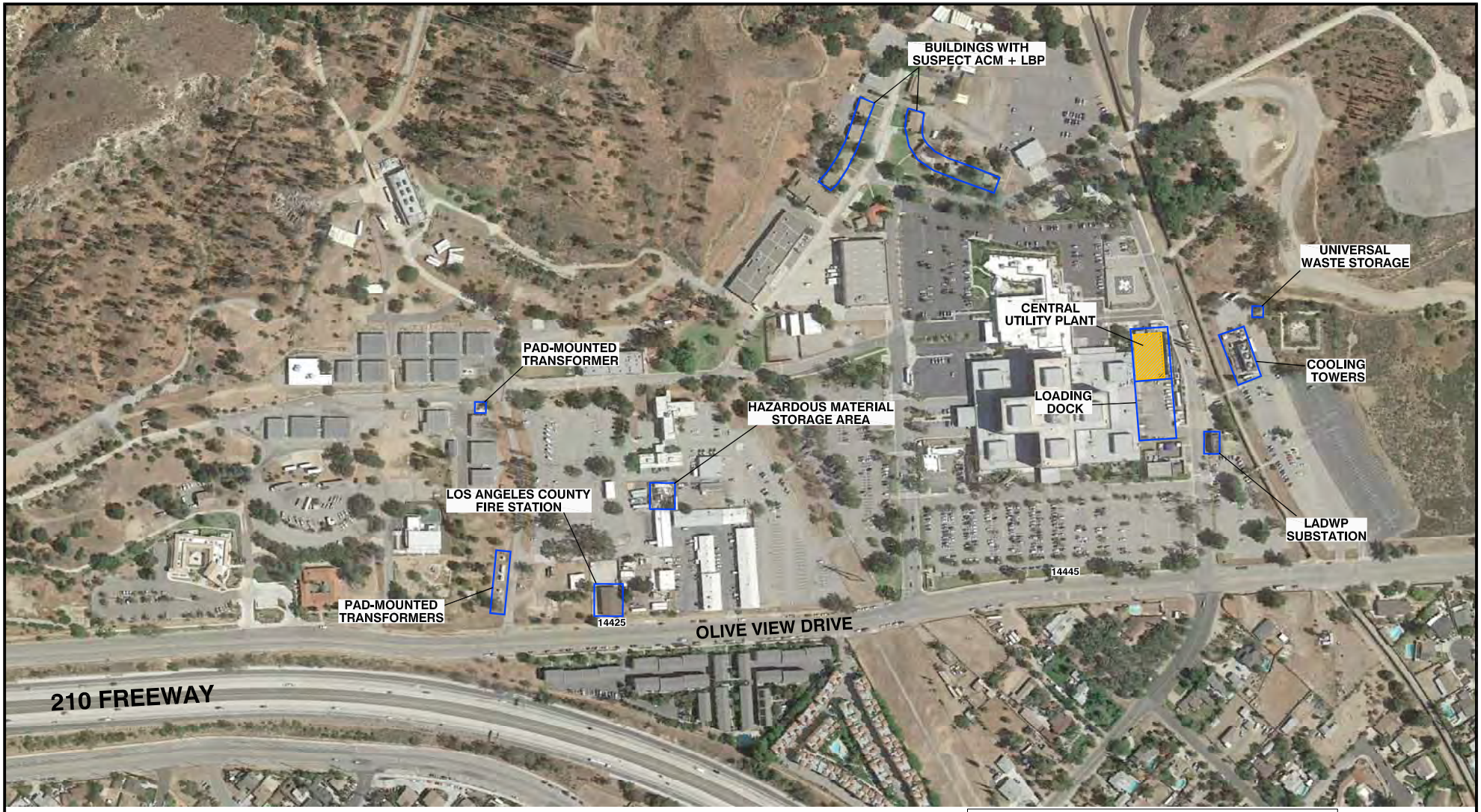
SCALE IN FEET

0 2,400 4,800

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

209600001_SL.dwg 15:39:19 02/19/2016 GK

Ninyo & Moore		SITE LOCATION	FIGURE
PROJECT NO.	DATE	OLIVE VIEW - UCLA MEDICAL CENTER 14445 OLIVE VIEW DRIVE SYLMAR, CALIFORNIA	1
209600001	3/16		



REFERENCE: GOOGLE EARTH AERIAL PHOTO, 2016.

LEGEND	
ACM	ASBESTOS CONTAINING MATERIAL
LBP	LEAD BASED PAINT
LADWP	LOS ANGELES DEPARTMENT OF WATER AND POWER
14445	STREET ADDRESS

N

SCALE IN FEET

0 400 800

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore

PROJECT NO.	DATE
209600001	3/16

SITE PLAN

OLIVE VIEW - UCLA MEDICAL CENTER
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

FIGURE

2

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N

SCALE IN FEET

0 100 200

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

REFERENCE: GOOGLE EARTH AERIAL PHOTO, 2016.

LEGEND	
LADWP	LOS ANGELES DEPARTMENT OF WATER AND POWER

Ninyo & Moore		LOADING DOCK	FIGURE
PROJECT NO.	DATE	OLIVE VIEW - UCLA MEDICAL CENTER 14445 OLIVE VIEW DRIVE SYLMAR, CALIFORNIA	3
209600001	3/16		

209600001_LD.dwg 10:01:22 02/22/2016 GK

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APPENDIX A

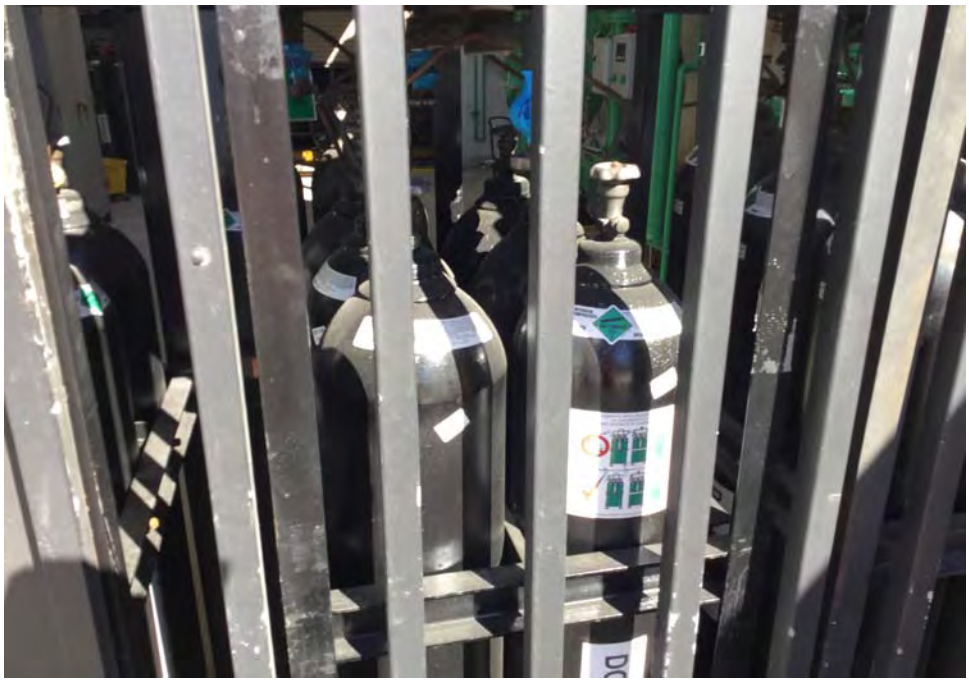
PHOTOGRAPHIC DOCUMENTATION

Photograph 1: **View of manhole for a 20,000-gallon diesel UST (tank no. 1).**

Photograph 2: **View of a manhole for a 20,000-gallon diesel UST (tank no. 2).**

Photograph 3: **View of hazardous materials (jet oil) stored over secondary containment vessels at the loading dock of the hospital.**

Photograph 4: **View of hazardous materials (jet oil, waste oil) stored over secondary containment vessels at the loading dock of the hospital.**



Photograph 5: **View of compressed nitrogen cylinders inside a gated enclosure at the loading dock of the hospital. The nitrogen is used to maintain a nitrogen blanket on water tanks.**

Photograph 6: **View of four-stage clarifier at the loading dock of the facility. The clarifier treats wastewater produced by the sorption unit of the central plant.**

Photograph 7: **View of storage container for hazardous material storage at the loading dock of the hospital.**

Photograph 8: **View of hazardous materials (motor oil, turbine oil) inside a storage container at the loading dock of the hospital.**

Photograph 9: **View of engine oil tank in the emergency generator room of the Central Utility Plant.**

Photograph 10: **View of 55-gallon drum of diesel oil in the emergency generator room of the Central Utility Plant.**

Photograph 11: **View of 55-gallon drums of jet oil and waste oil, used for the turbines**

Photograph 12: **View of 13 55-lb cylinders of compressed refrigerant, used as a water coolant for an evaporator.**

Photograph 13: **View of the door to the biohazard storage room at the loading dock of the hospital.**

Photograph 14: **View of biohazard waste, mainly sharps, stored within the biohazard storage room before being transported off site.**

Photograph 15: **View of an autoclave, where biohazard waste is placed before being transported off site.**

Photograph 16: **View of oxygen cylinders used for patient care at the hospital.**

Photograph 17: **View of medical gas storage area (helium, air, carbon dioxide, anaerobic gas, lung diffusion gas, etc.).**

Photograph 18: **View of door to the electrical station, which supplies power to the hospital. The station is likely to contain transformers which may contain PCBs.**

Photograph 19: **View of Nalco product storage tanks at the cooling tower. The Nalco products are used to treat water and prevent corrosion.**

Photograph 20: **View of first liquid oxygen tank (approximately 5,000 gallons) at the cooling tower.**

Photograph 21: **View of second liquid oxygen tank (approximately 400 gallons) at the cooling tower.**

Photograph 22: **View of 30 cylinders of nitrous oxide at the cooling tower, used to maintain a nitrogen blanket on the water tanks.**

Photograph 23: **View of paraffin waste containers inside the hazardous material storage closet of the pathology lab.**

Photograph 24: **View of xylene and ethyl alcohol containers inside the hazardous materials storage closet of the pathology lab.**

Photograph 25: **View of 55-gallon drums of xylene, formaldehyde, and ethyl alcohol inside the hazardous materials storage closet of the pathology lab.**

Photograph 26: **View of one-gallon containers of methanol inside the hazardous materials storage closet of the pathology lab.**

Photograph 27: **View of a channel running along the eastern section of the site. Stains are other signs of hazardous waste release were not observed.**

Photograph 28: **View of universal waste storage containers near the cooling tower. The waste storage containers were locked and unable to be accessed during the site reconnaissance.**

Photograph 29: **View of building (J-2) planned for demolition. Due to the age of construction of the building, it may contain lead-based paint and asbestos containing material.**

Photograph 30: **View of building planned for demolition. Due to the age of construction of the building, it may contain lead-based paint and asbestos containing material.**

Photograph 31: **View of pad-mounted transformers at the corner of Cobalt Street and Bucher Avenue.**

Photograph 32: **View of pad-mounted transformers running along Cobalt Avenue. These transformers provide the electricity to the grounds of the site.**

Photograph 33: **View of pad-mounted transformers running along Cobalt Avenue. These transformers provide the electricity to the grounds of the site.**

Photograph 34: **Looking east from the edge of the site at wilderness and residential properties.**

Photograph 35: **Looking north from the site at foothills to the San Gabriel Mountains.**

Photograph 36: **Looking south from the site at Olive View Drive, beyond which are residential properties.**

Photograph 37: **View of channel running along the western edge of the property. Stains are other signs of hazardous waste release were not observed.**

Photograph 38: **Looking west from the site at a gravel mound, beyond which are residential properties.**

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APPENDIX B

HAZARDOUS WASTE MANIFESTS

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014208875 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Site Address (if different than mailing address): CD Requested
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1907, Soda lime, 8, PGIII	1	DF	120	P	181		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Profile#070127495-904:Spent CO2 absorbent w/ soda lime in plastic cartridges
ERG# 154
1: 1 x 55gal fiber drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 12 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia
Signature:
Month 12 Day 29 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014208874 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Site Address (if different than mailing address): CD Requested
Generator's Phone: (818) 364-3405 Attn: Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, UN1993, Waste flammable liquids, n.o.s., (xylene, alcohol), 3, PGIII (D001, F003)	4	DF	220	G	D001	F003	212
X	2. UN1325, Waste flammable solids, organic, n.o.s., (carbon filters), 4.1, PGIII	1	DF	40	P	D001	331	
X	3. RQ, UN1325, Waste flammable solids, organic, n.o.s., (paraffin wax with xylene, alcohol), 4.1, PGII (D001, F003)	2	DF	214	P	D001	F003	331
	4.							

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Alcohols, xylenes, glycols, stains, water, hydrocarbons	128	1: 4 x 55gal poly drum
2: Profile#10020023: Used carbon filters/carbon in cardboard	133	2: 1 x 30gal fiber drum
3: Profile#14010076: Used paraffin wax with alcohol, xylene, limonene	133	3: 2 x 55gal fiber drum
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 12 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia
Signature:
Month 12 Day 29 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061 2. H141 3. H141 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Jorge Garcia
Signature:
Month 1 Day 4 Year 16

GENERATOR | INT'L | TRANSPORTER | SIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014208874 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address): CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800) 499-7145
U.S. EPA ID Number: CAD008252405

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ, UN1993, Waste flammable liquids, n.o.s., (xylene, alcohol), 3, PGIII (D001, F003)	4	DF	220	G	D001	F003	212
X	2. UN1325, Waste flammable solids, organic, n.o.s., (carbon filters), 4.1, PGIII	1	DF	40	P	D001	331	
X	3. RQ, UN1325, Waste flammable solids, organic, n.o.s., (paraffin wax with xylene, alcohol), 4.1, PGII (D001, F003)	2	DF	214	P	D001	F003	331
	4.							

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Alcohols, xylenes, glycols, stains, water, hydrocarbons	128	1: 4 x 55gal poly drum
2: Profile#10020023: Used carbon filters/carbon in cardboard	133	2: 1 x 30gal fiber drum
3: Profile#14010076: Used paraffin wax with alcohol, xylene, limonene	133	3: 2 x 55gal fiber drum
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 12 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia
Signature:
Month 12 Day 29 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR — INT'L — TRANSPORTER — SIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 2
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014208873 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address): CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services, Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1802, Waste perchloric acid, 8, (5.1), PGII	1	DF	7	P	D001 D002 791 OUTS 001H
X	2. UN2811, Toxic liquids, organic, n.o.s., (hydroquinone), 6.1, PGIII	1	DF	7	P	551 OUTS 0011
X	3. UN3267, Corrosive liquids, basic, organic, n.o.s., (methenamine borate), 8, PGIII	1	DF	7	P	551 OUTS 0011
X	4. UN2922, Waste corrosive liquid, toxic, n.o.s., (gold chloride), 8, (6.1), PGIII	1	DF	7	P	D002 OUTS 001H 792

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#1229-1 (Labpack)	140	1: 1 x 5gal poly drum
2: Drum#1229-2 (Labpack)	153	2: 1 x 5gal poly drum
3: Drum#1229-3 (Labpack)	153	3: 1 x 5gal poly drum
4: Drum#1229-4 (Labpack)	154	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: *Ben Alvarez* Signature: Month 12 Day 31 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: *Danny Tapia* Signature: Month 12 Day 31 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR INT'L TRANSPORTER SIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	C A D 9 8 3 5 8 5 3 2 4	2 of 2	014208873JJK

24. Generator's Name
Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

GENERATOR

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN2693,Waste bisulfites,aqueous solutions,n.o.s., (aqueous sodium bisulfite),8,PGIII	1	DF	7	P	D002 791	OUTS	001H
X	6.UN1789,Waste hydrochloric acid,8,PGII	1	DF	17	P	D002 791	OUTS	001H
X	7.UN3099,Waste oxidizing liquids,toxic,n.o.s., (potassium chromate,silver nitrate),5.1,(6.1),PGII	1	DF	8	P	D001 723	D007 OUTS	D011 001H
X	8.UN2789,Waste acetic acid,8,(3),PGII	1	DF	7	P	D001 OUTS	D002 001H	791
X	9.NA3082,Other regulated substances,liquid,n.o.s., (aqueous 10% formalin,sodium phosphate),9,PGIII	1	DF	55	G	331	OUTS	1011
X	10.NA3082,Other regulated substances,liquid,n.o.s., (diaminobenzidine,polyethylene glycol),9,PGIII	1	DF	15	G	331	OUTS	1011

32. Special Handling Instructions and Additional Information

	ERG#			
06: Drum#1229-6 (Labpack)	154	5: 1 x 5gal poly drum	9: 1 x 55gal poly drum-BULK	13:
07: Drum#1229-7 (Labpack)	157	6: 1 x 5gal poly drum	10: 1 x 15gal poly drum-BULK	14:
08: Drum#1229-8 (Labpack)	142	7: 1 x 5gal poly drum	11:	
09: Drum#1229-9 (Bulk)	132	8: 1 x 5gal poly drum	12:	
10: Drum#1229-10 (Bulk)	171			
	171			

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

FACILITY

35. Discrepancy

DESIGNATED

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007667903 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907, Soda lime, 8, III	1	DF	160	P	181
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Used carbon dioxide absorbent

ERG# 154

1: 1 x 55gal fiber drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez
Signature:
Month 12 Day 01 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia
Signature:
Month 12 Day 01 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H130 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Tuba Mc Moore
Signature:
Month 12 Day 03 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4

2. Page 1 of 1

3. Emergency Response Phone: NSE: (909) 875-9288

4. Manifest Tracking Number: 007667903 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
U.S. EPA ID Number

Facility's Phone: (775) 553-2203
N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907,Soda lime,8,III	1	DF	160	P	181
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Used carbon dioxide absorbent

ERG# 154

1: 1 x 55gal fiber drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name | Signature | Month 12 | Day 01 | Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia | Signature | Month 12 | Day 01 | Year 15
Transporter 2 Printed/Typed Name | Signature | Month | Day | Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) | Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. | 2. | 3. | 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name | Signature | Month | Day | Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
CAD983585324	2	NSE: (909)875-9288	007667902 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

This is to inform the generator of the waste shipment, that NSSI has the appropriate permits for, this manifest, and will accept, the waste the generator is shipping.

6. Transporter 1 Company Name: North State Environmental — U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713)641-0391 — U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	40	P	D001 001H	551	OUTS
X	2. UN1344,Trinitrophenol,wetted,4.1,I	1	DF	9	P	551	OUTS	0011
X	3. UN3098,Waste oxidizing liquid,corrosive,n.o.s., (silver nitrate,sodium hydroxide),5.1,(8),II	1	DF	9	P	D001 551	D002 OUTS	D011 001H
X	4. UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine,potassium iodine),6.1,(5.1),II	1	DF	9	P	D001 001H	551	OUTS

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#1201-1 : (Labpack)	133	1: 1 x 30gal fiber drum
2: Drum#1201-2 : (Labpack)	133	2: 1 x 5gal poly drum
3: Drum#1201-3 : (Labpack)	140	3: 1 x 5gal poly drum
4: Drum#1201-4 : (Labpack)	154	4: 1 x 5gal poly drum

ehs120215913

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez — Signature: [signature] — Month 12 Day 01 Year 15

GENERATOR

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia — Signature: [signature] — Month 12 Day 01 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-01 2. H141 for # 1-4 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: K Foston — Signature: [signature] — Month 12 Day 4 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 2
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007667902 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	40	P	D001 551 OUTS 001H
X	2. UN1344,Trinitrophenol,wetted,4.1,I	1	DF	9	P	551 OUTS 0011
X	3. UN3098,Waste oxidizing liquid,corrosive,n.o.s., (silver nitrate,sodium hydroxide),5.1,(8),II	1	DF	9	P	D001 D002 D011 551 OUTS 001H
X	4. UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine,potassium iodine),6.1,(5.1),II	1	DF	9	P	D001 551 OUTS 001H

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#1201-1 : (Labpack)	133	1: 1 x 30gal fiber drum
2: Drum#1201-2 : (Labpack)	133	2: 1 x 5gal poly drum
3: Drum#1201-3 : (Labpack)	140	3: 1 x 5gal poly drum
4: Drum#1201-4 : (Labpack)	154	4: 1 x 5gal poly drum

elg12021593

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: BENJAMIN ALVAREZ
Signature:
Month 12 Day 01 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia
Signature:
Month 12 Day 01 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 2. H141 for 1-4 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: R Foston
Signature:
Month 12 Day 4 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	007667902FLE

24. Generator's Name

Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	9	P	D001 OUTS	D002 001H	791
X	6.UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II	1	DF	10	P	D001 551	D007 OUTS	D011 001H
X	7.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(oxalic acid),8,II	1	DF	9	P	D002 001H	791	OUTS
X	8.RQ,UN2024,Waste mercury compounds,liquid,n.o.s., (mercuric chloride,formalin),6.1,II (D009) "toxic" "Marine Pollutant"	1	DF	14	P	D009 001H	725	OUTS
X	9.UN3289,Waste toxic liquid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	10	P	D002 001H	791	OUTS
X	10.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(hydrochloric acid,ferric chloride),8,II	1	DF	15	P	D002 001H	791	OUTS
X	11.NA3082,Other regulated substances liquids,n.o.s. (methenamine borate,sodium thiosulfate),9,III	1	DF	11	P	551	OUTS	0011
X	12.NA3082,Other regulated substances liquids,n.o.s. (aqueous formalin,phosphate buffers),9,III	2	DF	100	G	134	OUTS	1011

GENERATOR

32. Special Handling Instructions and Additional Information

05: Drum#1201-5 : (Labpack)
06: Drum#1201-6 : (Labpack)
07: Drum#1201-7 : (Labpack)
08: Drum#1201-8 : (Labpack)
09: Drum#1201-9 : (Labpack)
10: Drum#1201-10 : (Labpack)
11: Drum#1201-11 : (Labpack)
12: Drum#1201-12A,12B : (Formalin)

ERG# 143 140 153 151 154 154 171

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 2 x 55gal poly drum
13:
14:

elg120215513

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: [signature] — Signature: [signature] — Month 12 Day 1 Year 15

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

35. Discrepancy

DESIGN

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-OV / H141 for # 5-12

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	007667902FLE

24. Generator's Name

Olive View UCLA Medical Center

25. Transporter _____ Company Name | U.S. EPA ID Number

26. Transporter _____ Company Name | U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	9	P	D001 OUTS	D002 001H	791
X	6.UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II	1	DF	10	P	D001 551	D007 OUTS	D011 001H
X	7.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(oxalic acid),8,II	1	DF	9	P	D002 001H	791	OUTS
X	8.RQ,UN2024,Waste mercury compounds,liquid,n.o.s., (mercuric chloride,formalin),6.1,II (D009) "toxic" "Marine Pollutant"	1	DF	14	P	D009 001H	725	OUTS
X	9.UN3289,Waste toxic liquid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	10	P	D002 001H	791	OUTS
X	10.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(hydrochloric acid,ferric chloride),8,II	1	DF	15	P	D002 001H	791	OUTS
X	11.NA3082,Other regulated substances liquids,n.o.s. (methenamine borate,sodium thiosulfate),9,III	1	DF	11	P	551	OUTS	0011
X	12.NA3082,Other regulated substances liquids,n.o.s. (aqueous formalin,phosphate buffers),9,III	2	DF	100	G	134	OUTS	1011

GENERATOR

32. Special Handling Instructions and Additional Information

05: Drum#1201-5 : (Labpack)
06: Drum#1201-6 : (Labpack)
07: Drum#1201-7 : (Labpack)
08: Drum#1201-8 : (Labpack)
09: Drum#1201-9 : (Labpack)
10: Drum#1201-10 : (Labpack)
11: Drum#1201-11 : (Labpack)
12: Drum#1201-12A,12B : (Formalin)

ehg120215g13

ERG# 143 140 153 151 154 154 171

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 2 x 55gal poly drum
13:
14:

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Benjamin Alvarez | Signature: [signature] | Month 12 | Day 1 | Year 15

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

35. Discrepancy

DESIGN

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-OV / H141 for # 5-12

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4

2. Page 1 of: 2

3. Emergency Response Phone: NSE: (909) 875-9288

4. Manifest Tracking Number: 007667902 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087

Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	40	P	D001 001H	551	OUTS
X	2. UN1344,Trinitrophenol,wetted,4.1,I	1	DF	9	P	551	OUTS	0011
X	3. UN3098,Waste oxidizing liquid,corrosive,n.o.s., (silver nitrate,sodium hydroxide),5.1,(8),II	1	DF	9	P	D001 551	D002 OUTS	D011 001H
X	4. UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine,potassium iodine),6.1,(5.1),II	1	DF	9	P	D001 001H	551	OUTS

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#1201-1 : (Labpack)	133	1: 1 x 30gal fiber drum
2: Drum#1201-2 : (Labpack)	133	2: 1 x 5gal poly drum
3: Drum#1201-3 : (Labpack)	140	3: 1 x 5gal poly drum
4: Drum#1201-4 : (Labpack)	154	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 12 Day 01 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia Signature: [illegible] Month 12 Day 01 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	C A D 9 8 3 5 8 5 3 2 4	2 of 2	007667902FLE

24. Generator's Name

Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	9	P	D001	D002	791
						OUTS	001H	
X	6.UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II	1	DF	10	P	D001	D007	D011
						551	OUTS	001H
X	7.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(oxalic acid),8,II	1	DF	9	P	D002	791	OUTS
						001H		
X	8.RQ,UN2024,Waste mercury compounds,liquid,n.o.s., (mercuric chloride,formalin),6.1,II (D009) "toxic" "Marine Pollutant"	1	DF	14	P	D009	725	OUTS
						001H		
X	9.UN3289,Waste toxic liquid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	10	P	D002	791	OUTS
						001H		
X	10.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(hydrochloric acid,ferric chloride),8,II	1	DF	15	P	D002	791	OUTS
						001H		
X	11.NA3082,Other regulated substances liquids,n.o.s., (methenamine borate,sodium thiosulfate),9,III	1	DF	11	P	551	OUTS	0011
X	12.NA3082,Other regulated substances liquids,n.o.s., (aqueous formalin,phosphate buffers),9,III	2	DF	100	G	134	OUTS	1011

32. Special Handling Instructions and Additional Information

05: Drum#1201-5 : (Labpack)
06: Drum#1201-6 : (Labpack)
07: Drum#1201-7 : (Labpack)
08: Drum#1201-8 : (Labpack)
09: Drum#1201-9 : (Labpack)
10: Drum#1201-10 : (Labpack)
11: Drum#1201-11 : (Labpack)
12: Drum#1201-12A,12B : (Formalin)

ERG#
143
140
153
151
154
154
171

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 2 x 55gal poly drum
13:
14:

GENERATOR

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

TRANSPORTER

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

35. Discrepancy

DESIGNA

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007667901 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	4	DF	220	G	D001	F003	212
X	2. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,II (D001,F003)	1	DF	180	P	D001	F003	331
	3.							
	4.							

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Oils,pet dist,alcohols,xylenes,glycols,water,stains	128	1: 4 x 55gal poly drum
2: Profile#14010076: Used paraffin wax with alcohol,xylene	133	2: 1 x 55gal fiber drum
		3:
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez
Signature:
Month 12 Day 01 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia
Signature:
Month 12 Day 01 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061 2. H141 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Jorge Garcia
Signature:
Month 12 Day 17 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007667901 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address): CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S | Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023

Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	4	DF	220	G	D001	F003	212
X	2. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,II (D001,F003)	1	DF	180	P	D001	F003	331
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Profile#13070179: Oils,pet dist,alcohols,xylenes,glycols,water,stains
2: Profile#14010076: Used paraffin wax with alcohol,xylene

ERG#
128
133

1: 4 x 55gal poly drum
2: 1 x 55gal fiber drum
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Signature: Month 12 Day 01 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia Signature: Month 12 Day 01 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Signature: Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4

2. Page 1 of 1

3. Emergency Response Phone: NSE: (909) 875-9288

4. Manifest Tracking Number: 014208828 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342

Generator's Site Address (if different than mailing address): CD Requested

Generator's Phone: (818) 364-3405 Attn: Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
U.S. EPA ID Number

Facility's Phone: (775) 553-2203
N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1907, Soda lime, 8, PGIII	1	DF	80	P	181		
	2. Non-RCRA hazardous waste solid (lab debris)	1	DF	40	P	352		
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Profile#070127495-904:Spent CO2 absorbent w/ soda lime in plastic cartridges — ERG# 154 — 1: 1 x 55gal fiber drum
2: Profile#070128300-9087:Glass/plasticware,rags/paper,gloves,etc. — ERG# N/A — 2: 1 x 55gal fiber drum
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez — Signature: [signature] — Month 10 Day 27 Year 15

GENERATOR

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Danny Tapia — Signature: [signature] — Month 10 Day 27 Year 15

Transporter 2 Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H132 2. H132 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Tabitha Moore — Signature: [signature] — Month 11 Day 05 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014208828 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address): CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907, Soda lime, 8, PGIII	1	DF	80	P	181
	2. Non-RCRA hazardous waste solid (lab debris)	1	DF	40	P	352
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-904:Spent CO2 absorbent w/ soda lime in plastic cartridges
2: Profile#070128300-9087:Glass/plasticware,rags/paper,gloves,etc.

ERG#
154
N/A

1: 1 x 55gal fiber drum
2: 1 x 55gal fiber drum
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: *Ben Alvarez*
Signature:
Month 10 Day 27 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: *Danny Tapia*
Signature:
Month 10 Day 27 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR

INT'L

TRANSPORTER

SIGNATED FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014208827 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address): CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1325,Waste flammable solids,organic,n.o.s., (carbon filters),4.1,PGIII	1	DF	50	P	D001	331	
X	2. UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,PGII	1	DF	65	P	D001	F003	331
X	3. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,PGIII (D001,F003)	3	DF	165	G	D001	F003	212
	4.							

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#10020023:Used carbon filters/carbon in cardboard	133	1: 1 x 30gal fiber drum
2: Profile#14010076:Used paraffin wax with alcohol,xylene,limonene	133	2: 1 x 30gal fiber drum
3: Profile#13070179:Alcohols,xylenes,glycols,stains,water,hydrocarbons	128	3: 3 x 55gal poly drum
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 10 Day 27 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Danny Tapia
Signature:
Month 10 Day 27 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141	H061	

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Jorge Garcia
Signature:
Month 11 Day 2 Year 15

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014208827 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Site Address (if different than mailing address): CD Requested
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1325,Waste flammable solids,organic,n.o.s., (carbon filters),4.1,PGIII	1	DF	50	P	D001	331	
X	2. UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,PGII	1	DF	65	P	D001	F003	331
X	3. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,PGIII (D001,F003)	3	DF	165	G	D001	F003	212
	4.							

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#10020023:Used carbon filters/carbon in cardboard	133	1: 1 x 30gal fiber drum
2: Profile#14010076:Used paraffin wax with alcohol,xylene,limonene	133	2: 1 x 30gal fiber drum
3: Profile#13070179:Alcohols,xylenes,glycols,stains,water,hydrocarbons	128	3: 3 x 55gal poly drum
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: *Ben Alvarez* Signature: Month 10 Day 27 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: *Danny Tapia* Signature: Month 10 Day 27 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR INT'L TRANSPORTER SIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	C A D 9 8 3 5 8 5 3 2 4	2	NSE: (909) 875-9288	014208826 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

CD Requested

6. Transporter 1 Company Name
North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN2927,Toxic liquids,corrosive,n.o.s., (2.5% glutaraldehyde),(6.1),8,PGIII	1	DF	7	P	551 OUTS 0011
X	2. UN3099,Waste oxidizing liquids,toxic,n.o.s., (silver nitrate,potassium chromate),5.1,(6.1),PGIII	1	DF	7	P	D001 D007 D011 723 OUTS 001H
X	3. UN2693,Waste bisulfites,aqueous solutions,n.o.s., (aqueous sodium bisulfite),8,PGIII	1	DF	7	P	D002 OUTS 001H 791
X	4. UN1789,Waste hydrochloric acid,8,PGII	1	DF	7	P	D002 OUTS 001H 791

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#1027-1 (Labpack)	154	1: 1 x 5gal poly drum
2: Drum#1027-2 (Labpack)	142	2: 1 x 5gal poly drum
3: Drum#1027-3 (Labpack)	154	3: 1 x 5gal poly drum
4: Drum#1027-4 (Labpack)	157	4: 1 x 5gal poly drum

ohal03015 96

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature
Month 10 Day 27 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Tapia
Signature
Month 10 Day 27 Year 15
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 2. H141 for 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month 11 Day 16 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 2
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014208826 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342

Generator's Site Address (if different than mailing address): CD Requested

Generator's Phone: (818) 364-3405 Attn: Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services, Inc.
5711 Etheridge Street
Houston TX 77087

Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN2927, Toxic liquids, corrosive, n.o.s., (2.5% glutaraldehyde), (6.1), 8, PGIII	1	DF	7	P	551	OUTS	0011
X	2. UN3099, Waste oxidizing liquids, toxic, n.o.s., (silver nitrate, potassium chromate), 5.1, (6.1), PGIII	1	DF	7	P	D001 723	D007 OUTS	D011 001H
X	3. UN2693, Waste bisulfites, aqueous solutions, n.o.s., (aqueous sodium bisulfite), 8, PGIII	1	DF	7	P	D002 791	OUTS	001H
X	4. UN1789, Waste hydrochloric acid, 8, PGII	1	DF	7	P	D002 791	OUTS	001H

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#1027-1 (Labpack)	154	1: 1 x 5gal poly drum
2: Drum#1027-2 (Labpack)	142	2: 1 x 5gal poly drum
3: Drum#1027-3 (Labpack)	154	3: 1 x 5gal poly drum
4: Drum#1027-4 (Labpack)	157	4: 1 x 5gal poly drum

ehg1030159 6

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature: [signature]
Month 10 Day 27 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Danny Tapia
Signature: [signature]
Month 10 Day 27 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H040-07 2. H141 for 3. [illegible] 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: R. Foston
Signature: [signature]
Month 11 Day 6 Year 15

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	014208826JJK

24. Generator's Name
Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept the waste the generator is shipping.

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN2922,Waste corrosive liquids,toxic,n.o.s., (aqueous gold chloride),8,(6.1),PGIII	1	DF	7	P	D002	OUTS	001H
						792		
X	6.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (periodic acid,phosphomolybdic acid),5.1,(8),PGII	1	DF	7	P	D001	D002	792
						OUTS	001H	
X	7.UN1802,Waste perchloric acid,8,(5.1),PGII	1	DF	7	P	D001	D002	791
						OUTS	001H	
X	8.UN2924,Waste flammable liquids,corrosive,n.o.s., (ethanol,hydrochloric acid),3,(8),PGII	1	DF	7	P	D001	D002	791
						OUTS	001H	
X	9.UN1344,Waste trinitrophenol,wetted,4.1,PGI	1	DF	7	P	D002	OUTS	001H
						791		
X	10.UN2927,Waste toxic liquids,corrosive,n.o.s., (sodium cacodylate,glutaraldehyde),6.1,(8),PGII	1	DF	9	P	D004	OUTS	001H
						721		
X	11.UN2810,Toxic liquids,organic,n.o.s., (hydroquinone,phenol),6.1,PGIII	1	DF	7	P	551	OUTS	0011
X	12.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,formic acid),8,PGII	1	DF	68	P	D002	OUTS	001H
						791		
X	13.NA3082,Other regulated substances,liquid,n.o.s., (10% formalin,sodium phosphate),9,PGIII	1	DF	55	G	331	OUTS	1011

32. Special Handling Instructions and Additional Information

06: Drum#1027-6 (Labpack)
07: Drum#1027-7 (Labpack)
08: Drum#1027-8 (Labpack)
09: Drum#1027-9 (Labpack)
10: Drum#1027-10 (Labpack)
11: Drum#1027-11 (Labpack)
12: Drum#1027-12 (Labpack)
13: Drum#1027-13 (Bulk)

ERG#
154
140
140
132
113
154
153
153
171

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 1 x 5gal poly drum
13: 1 x 55gpd-BULK
14:

ehg10301596

303 fd

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-01 / H141 for # 5-13

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	014208826JJK

24. Generator's Name
Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN2922,Waste corrosive liquids,toxic,n.o.s., (aqueous gold chloride),8,(6.1),PGIII	1	DF	7	P	D002 792	OUTS	001H
X	6.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (periodic acid,phosphomolybdic acid),5.1,(8),PGII	1	DF	7	P	D001 OUTS	D002 001H	792
X	7.UN1802,Waste perchloric acid,8,(5.1),PGII	1	DF	7	P	D001 OUTS	D002 001H	791
X	8.UN2924,Waste flammable liquids,corrosive,n.o.s., (ethanol,hydrochloric acid),3,(8),PGII	1	DF	7	P	D001 OUTS	D002 001H	791
X	9.UN1344,Waste trinitrophenol,wetted,4.1,PGI	1	DF	7	P	D002 791	OUTS	001H
X	10.UN2927,Waste toxic liquids,corrosive,n.o.s., (sodium cacodylate,glutaraldehyde),6.1,(8),PGII	1	DF	9	P	D004 721	OUTS	001H
X	11.UN2810,Toxic liquids,organic,n.o.s., (hydroquinone,phenol),6.1,PGIII	1	DF	7	P	551	OUTS	0011
X	12.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,formic acid),8,PGII	1	DF	68	P	D002 791	OUTS	001H
X	13.NA3082,Other regulated substances,liquid,n.o.s., (10% formalin,sodium phosphate),9,PGIII	1	DF	55	G	331	OUTS	1011

GENERATOR

32. Special Handling Instructions and Additional Information
05: Drum#1027-5 (Labpack)
06: Drum#1027-6 (Labpack)
07: Drum#1027-7 (Labpack)
08: Drum#1027-8 (Labpack)
09: Drum#1027-9 (Labpack)
10: Drum#1027-10 (Labpack)
11: Drum#1027-11 (Labpack)
12: Drum#1027-12 (Labpack)
13: Drum#1027-13 (Bulk)

ehg10301536

ERG#
154 — 5: 1 x 5gal poly drum
140 — 6: 1 x 5gal poly drum
140 — 7: 1 x 5gal poly drum
132 — 8: 1 x 5gal poly drum
113 — 9: 1 x 5gal poly drum
154 — 10: 1 x 5gal poly drum
153 — 11: 1 x 5gal poly drum
153 — 12: 1 x ~~5gal poly drum~~ 30gal
171 — 13: 1 x 55gpd-BULK
14:

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
H040-OT / H141 for H 5-13

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 2
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014208826 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address): CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN2927,Toxic liquids,corrosive,n.o.s., (2.5% glutaraldehyde),(6.1),8,PGIII	1	DF	7	P	551	OUTS	0011
X	2. UN3099,Waste oxidizing liquids,toxic,n.o.s., (silver nitrate,potassium chromate),5.1,(6.1),PGIII	1	DF	7	P	D001 / 723	D007 / OUTS	D011 / 001H
X	3. UN2693,Waste bisulfites,aqueous solutions,n.o.s., (aqueous sodium bisulfite),8,PGIII	1	DF	7	P	D002 / 791	OUTS	001H
X	4. UN1789,Waste hydrochloric acid,8,PGII	1	DF	7	P	D002 / 791	OUTS	001H

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#1027-1 (Labpack)	154	1: 1 x 5gal poly drum
2: Drum#1027-2 (Labpack)	142	2: 1 x 5gal poly drum
3: Drum#1027-3 (Labpack)	154	3: 1 x 5gal poly drum
4: Drum#1027-4 (Labpack)	157	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: *Ben Alvarez* Signature: Month 10 Day 27 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: *Danny Tapia* Signature: Month 10 Day 27 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR INT'L TRANSPORTER DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	C A D 9 8 3 5 8 5 3 2 4	2 of 2	014208826JJK

24. Generator's Name
Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN2922,Waste corrosive liquids,toxic,n.o.s., (aqueous gold chloride),8,(6.1),PGIII	1	DF	7	P	D002 792	OUTS	001H
X	6.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (periodic acid,phosphomolybdic acid),5.1,(8),PGII	1	DF	7	P	D001 OUTS	D002 001H	792
X	7.UN1802,Waste perchloric acid,8,(5.1),PGII	1	DF	7	P	D001 OUTS	D002 001H	791
X	8.UN2924,Waste flammable liquids,corrosive,n.o.s., (ethanol,hydrochloric acid),3,(8),PGII	1	DF	7	P	D001 OUTS	D002 001H	791
X	9.UN1344,Waste trinitrophenol,wetted,4.1,PGI	1	DF	7	P	D002 791	OUTS	001H
X	10.UN2927,Waste toxic liquids,corrosive,n.o.s., (sodium cacodylate,glutaraldehyde),6.1,(8),PGII	1	DF	9	P	D004 721	OUTS	001H
X	11.UN2810,Toxic liquids,organic,n.o.s., (hydroquinone,phenol),6.1,PGIII	1	DF	7	P	551	OUTS	0011
X	12.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,formic acid),8,PGII	1	DF	68	P	D002 791	OUTS	001H
X	13.NA3082,Other regulated substances,liquid,n.o.s., (10% formalin,sodium phosphate),9,PGIII	1	DF	55	G	331	OUTS	1011

32. Special Handling Instructions and Additional Information

	ERG#			
05: Drum#1027-5 (Labpack)	154	5: 1 x 5gal poly drum	9: 1 x 5gal poly drum	13: 1 x 55gpd-BULK
06: Drum#1027-6 (Labpack)	140	6: 1 x 5gal poly drum	10: 1 x 5gal poly drum	14:
07: Drum#1027-7 (Labpack)	140	7: 1 x 5gal poly drum	11: 1 x 5gal poly drum	
08: Drum#1027-8 (Labpack)	132	8: 1 x 5gal poly drum	12: 1 x 5gal poly drum	
09: Drum#1027-9 (Labpack)	113			
10: Drum#1027-10 (Labpack)	154			
11: Drum#1027-11 (Labpack)	153			
12: Drum#1027-12 (Labpack)	153			
13: Drum#1027-13 (Bulk)	171			

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

35. Discrepancy

DESIGNA

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668118 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907,Soda lime,8,III	2	DF	230	P	181
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Used carbon dioxide absorbent w/ soda lime in plastic cartridge
ERG# 154
1: 2 x 55gal fiber drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez
Signature:
Month 09 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Topia
Signature:
Month 09 Day 29 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132
2.
3.
4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Jessica Neil
Signature:
Month 10 Day 1 Year 15

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668118 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907, Soda lime, 8, III	2	DF	230	P	181
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Used carbon dioxide absorbent w/ soda lime in plastic cartridge
ERG# 154
1: 2 x 55gal fiber drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 09 Day 29 Year 15

GENERATOR

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: *Danny Topia* Signature: [illegible] Month 09 Day 29 Year 15
Transporter 2 Printed/Typed Name Signature Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668117 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023

U.S. EPA ID Number: CAD008252405

Facility's Phone: (800)499-7145

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	5	DF	250	G	D001	F003	212
X	2. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,II (D001,F003)	1	DF	190	P	D001	F003	331
	3.							
	4.							

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Oils,pet dist,alcohols,xylenes,glycols,water,stains	128	1: 5 x 55gal poly drum
2: Profile#14010076: Used paraffin wax with alcohol,xylene	133	2: 1 x 55gal poly drum
		3:
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez
Signature:
Month 09 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Topia
Signature:
Month 09 Day 29 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H061	H141		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Jorge Garcia
Signature:
Month 10 Day 5 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668117 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023

Facility's Phone: (800) 499-7145
U.S. EPA ID Number: CAD008252405

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	5	DF	250	G	D001	F003	212
X	2. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,II (D001,F003)	1	DF	190	P	D001	F003	331
	3.							
	4.							

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Oils,pet dist,alcohols,xylenes,glycols,water,stains	128	1: 5 x 55gal poly drum
2: Profile#14010076: Used paraffin wax with alcohol,xylene	133	2: 1 x 55gal poly drum
		3:
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Signature: Month 09 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Topia Signature: Month 09 Day 29 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Signature: Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 2
3. Emergency Response Phone: NSE:(909)875-9288
4. Manifest Tracking Number: 007668116 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits and will accept, the waste the generator is shipping.

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000020608 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713)641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN2924,Waste flammable liquids,corrosive,n.o.s., (formic acid,methanol),3,(8),II	1	DF	14	P	D001	D002	791
						OUTS	001H	
X	2. UN1344,Waste trinitrophenol,wetted,4.1,I	1	DF	13	P	D001	D002	551
						OUTS	001H	
X	3. UN2922,Waste corrosive liquid,toxic,n.o.s., (gold chloride),8,(6.1),II	1	DF	11	P	D002	792	OUTS
						001H		
X	4. UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(ferric chloride,hydrochloric acid),8,II	1	DF	13	P	D002	791	OUTS
						001H		

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0929-1 : (Labpack)	132	1: 1 x 5gal poly drum
2: Drum#0929-2 : (Labpack)	113	2: 1 x 5gal poly drum
3: Drum#0929-3 : (Labpack)	154	3: 1 x 5gal poly drum
4: Drum#0929-4 : (Labpack)	154	4: 1 x 5gal poly drum

ehq10061599

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Juarez
Signature:
Month 09 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter signature (for exports only):
Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Topia
Signature:
Month 09 Day 29 Year 15
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 2. H141 for #1-4 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: R Foston
Signature:
Month 09 Day 29 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 2
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668116 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087

U.S. EPA ID Number: TXD982560294

Facility's Phone: (713) 641-0391

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN2924,Waste flammable liquids,corrosive,n.o.s., (formic acid,methanol),3,(8),II	1	DF	14	P	D001 D002 791 OUTS 001H
X	2. UN1344,Waste trinitrophenol,wetted,4.1,I	1	DF	13	P	D001 D002 551 OUTS 001H
X	3. UN2922,Waste corrosive liquid,toxic,n.o.s., (gold chloride),8,(6.1),II	1	DF	11	P	D002 792 OUTS 001H
X	4. UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(ferric chloride,hydrochloric acid),8,II	1	DF	13	P	D002 791 OUTS 001H

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0929-1 : (Labpack)	132	1: 1 x 5gal poly drum
2: Drum#0929-2 : (Labpack)	113	2: 1 x 5gal poly drum
3: Drum#0929-3 : (Labpack)	154	3: 1 x 5gal poly drum
4: Drum#0929-4 : (Labpack)	154	4: 1 x 5gal poly drum

ehq1006159 9

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Juarez
Signature:
Month 09 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Topia
Signature:
Month 09 Day 29 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 2. H141 for 3. H141 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: R. Foston
Signature:
Month 10 Day 9 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	C A D 9 8 3 5 8 5 3 2 4	2 of 2	007668116FLE

24. Generator's Name

Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept the waste the generator is shipping.

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3098,Waste oxidizing liquid,corrosive,n.o.s., (phosphotungstic acid,phosphomolybdic acid), 5.1,(8),II	1	DF	11	P	D001	D002	791
						OUTS	001H	
X	6.UN1500,Waste sodium nitrite solution,5.1,(6.1),II	1	DF	11	P	D001	551	OUTS
						001H		
X	7.UN1247,Waste methyl methacrylate monomer, 3,II	1	DF	14	P	D001	U162	551
						OUTS	001H	
X	8.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,sodium metabisulfite),8,II	1	DF	78	P	D002	791	OUTS
						001H		
X	9.UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	55	P	D001	551	OUTS
						001H		
X	10.UN1903,Waste disinfectant,liquid,corrosive,n.o.s., (isopropanol,diisobutylphenoxydimethyl benzyl ammonium chloride),8,III	1	DF	10	P	D001	551	OUTS
						001H		
X	11.NA3082,Other regulated substances liquids,n.o.s., (aqueous formalin,phosphate buffers,9,III	2	DF	110	G	134	OUTS	1011
X	12.NA3082,Other regulated substances liquids,n.o.s., (aqueous diaminobenzidine,polyethylene glycol), 9,III	1	DF	55	G	134	OUTS	1011

GENERATOR

32. Special Handling Instructions and Additional Information

	ERG#
05: Drum#0929-5 : (Labpack)	140
06: Drum#0929-6 : (Labpack)	140
07: Drum#0929-7 : (Labpack)	129P
08: Drum#0929-8 : (Labpack)	153
09: Drum#0929-9 : (Labpack)	133
10: Drum#0929-10 : (Labpack)	153
11: Drum#0929-11A,11B : (Formalin)	171
12: Drum#0929-12 : (DAB)	171

ehg 1006159

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 30gal fiber drum
9: 1 x 30gal fiber drum
10: 1 x 5gal poly drum
11: 2 x 55gal poly drum
12: 1 x 55gal poly drum
13:
14:

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

FACILITY

35. Discrepancy

DESIGN

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-07 / H141 for # 5-12

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	007668116FLE

24. Generator's Name

Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3098,Waste oxidizing liquid,corrosive,n.o.s., (phosphotungstic acid,phosphomolybdic acid), 5.1,(8),II	1	DF	11	P	D001	D002	791
						OUTS	001H	
X	6.UN1500,Waste sodium nitrite solution,5.1,(6.1),II	1	DF	11	P	D001	551	OUTS
						001H		
X	7.UN1247,Waste methyl methacrylate monomer, 3,II	1	DF	14	P	D001	U162	551
						OUTS	001H	
X	8.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,sodium metabisulfite),8,II	1	DF	78	P	D002	791	OUTS
						001H		
X	9.UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	55	P	D001	551	OUTS
						001H		
X	10.UN1903,Waste disinfectant,liquid,corrosive,n.o.s., (isopropanol,diisobutylphenoxydimethyl benzyl ammonium chloride),8,III	1	DF	10	P	D001	551	OUTS
						001H		
X	11.NA3082,Other regulated substances liquids,n.o.s., (aqueous formalin,phosphate buffers,9,III	2	DF	110	G	134	OUTS	1011
X	12.NA3082,Other regulated substances liquids,n.o.s., (aqueous diaminobenzidine,polyethylene glycol), 9,III	1	DF	55	G	134	OUTS	1011

32. Special Handling Instructions and Additional Information

05: Drum#0929-5 : (Labpack) ERG# 140
06: Drum#0929-6 : (Labpack) 140
07: Drum#0929-7 : (Labpack) 129P
08: Drum#0929-8 : (Labpack) 153
09: Drum#0929-9 : (Labpack) 133
10: Drum#0929-10 : (Labpack) 153
11: Drum#0929-11A,11B : (Formalin) 171
12: Drum#0929-12 : (DAB) 171

chg 10061599

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 30gal fiber drum
9: 1 x 30gal fiber drum
10: 1 x 5gal poly drum
11: 2 x 55gal poly drum
12: 1 x 55gal poly drum
13:
14:

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

35. Discrepancy

DESIGN

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-07 / H141 for H 5-12

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	007668116FLE

24. Generator's Name
Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3098,Waste oxidizing liquid,corrosive,n.o.s., (phosphotungstic acid,phosphomolybdic acid), 5.1,(8),II	1	DF	11	P	D001	D002	791
						OUTS	001H	
X	6.UN1500,Waste sodium nitrite solution,5.1,(6.1),II	1	DF	11	P	D001	551	OUTS
						001H		
X	7.UN1247,Waste methyl methacrylate monomer, 3,II	1	DF	14	P	D001	U162	551
						OUTS	001H	
X	8.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,sodium metabisulfite),8,II	1	DF	78	P	D002	791	OUTS
						001H		
X	9.UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	55	P	D001	551	OUTS
						001H		
X	10.UN1903,Waste disinfectant,liquid,corrosive,n.o.s., (isopropanol,diisobutylphenoxydimethyl benzyl ammonium chloride),8,III	1	DF	10	P	D001	551	OUTS
						001H		
X	11.NA3082,Other regulated substances liquids,n.o.s., (aqueous formalin,phosphate buffers,9,III	2	DF	110	G	134	OUTS	1011
X	12.NA3082,Other regulated substances liquids,n.o.s., (aqueous diaminobenzidine,polyethylene glycol), 9,III	1	DF	55	G	134	OUTS	1011

32. Special Handling Instructions and Additional Information

	ERG#
05: Drum#0929-5 : (Labpack)	140
06: Drum#0929-6 : (Labpack)	140
07: Drum#0929-7 : (Labpack)	129P
08: Drum#0929-8 : (Labpack)	153
09: Drum#0929-9 : (Labpack)	133
10: Drum#0929-10 : (Labpack)	153
11: Drum#0929-11A,11B : (Formalin)	171
12: Drum#0929-12 : (DAB)	171

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 30gal fiber drum
9: 1 x 30gal fiber drum
10: 1 x 5gal poly drum
11: 2 x 55gal poly drum
12: 1 x 55gal poly drum
13:
14:

GENERATOR

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

TRANSPORTER

35. Discrepancy

FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

DESIGN

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 2
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668116 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address) CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087

Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1.UN2924,Waste flammable liquids,corrosive,n.o.s., (formic acid,methanol),3,(8),II	1	DF	14	P	D001	D002	791
						OUTS	001H	
X	2.UN1344,Waste trinitrophenol,wetted,4.1,I	1	DF	13	P	D001	D002	551
						OUTS	001H	
X	3.UN2922,Waste corrosive liquid,toxic,n.o.s., (gold chloride),8,(6.1),II	1	DF	11	P	D002	792	OUTS
						001H		
X	4.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(ferric chloride,hydrochloric acid),8,II	1	DF	13	P	D002	791	OUTS
						001H		

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0929-1 : (Labpack)	132	1: 1 x 5gal poly drum
2: Drum#0929-2 : (Labpack)	113	2: 1 x 5gal poly drum
3: Drum#0929-3 : (Labpack)	154	3: 1 x 5gal poly drum
4: Drum#0929-4 : (Labpack)	154	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [signature] Month 09 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Danny Topia Signature: [signature] Month 09 Day 29 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
C A D 9 8 3 5 8 5 3 2 4	1	NSE: (909) 875-9288	007668078 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address) CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S | Office

6. Transporter 1 Company Name: North State Environmental — U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003

Facility's Phone: (775) 553-2203 — U.S. EPA ID Number: N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907,Soda lime,8,III	1	DF	81	P	181
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Used carbon dioxide absorbent

ERG# 154

1: 1 x 15gal fiber drum 1 x 30gal
2: 1 x 15gal fiber drum
3: 1 x 5gal poly drum
4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez — Signature: [signature] — Month 08 Day 25 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: ~~Leo Cervantes~~ David Spa[illegible] — Signature: [signature] — Month 08 Day 25 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Jessica Ra[illegible] — Signature: [signature] — Month 9 Day 3 Year 15

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668078 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S | Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907,Soda lime,8,III	1	DF	81	P	181
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Used carbon dioxide absorbent

ERG# 154

1: 1 x 15gal fiber drum
2: 1 x 15gal fiber drum
3: 1 x 5gal poly drum
4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible]
Signature:
Month 08 Day 25 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Leo Cervantes
Signature:
Month 08 Day 25 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668077 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800)499-7145
U.S. EPA ID Number: CAD008252405

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (alcohol,methanol),3,II (D001,F003)	3	DF	150	G	D001	F003	331
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Profile#pending: Solvent with methanol,alcohol,organic stains 13070179
ERG# 128
1: 3 x 55gal poly drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez
Signature: [signature]
Month 08 Day 25 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: ~~Leo Cervantes~~ David Sparo
Signature: [signature]
Month 08 Day 25 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☒ Full Rejection
NON CONFORMING TO PROFILE (1x 14F 55)
Manifest Reference Number: 014214551JJK

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061
2.
3.
4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Jorge Garcia
Signature: [signature]
Month 8 Day 28 Year 15

GENERATOR / INT'L / TRANSPORTER / SIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668077 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address): CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S | Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023

Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (alcohol,methanol),3,II (D001,F003)	3	DF	150	G	D001	F003	331
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Profile#pending: Solvent with methanol,alcohol,organic stains
ERG# 128
1: 3 x 55gal poly drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Signature: Month 08 Day 25 Year 15

GENERATOR

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

INT'L

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Leo Cervantes Signature: Month 08 Day 25 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

TRANSPORTER

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

DESIGNATED FACILITY

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Signature: Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	CAD983585324	2	NSE: (909) 875-9288	007668075 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Officer

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for and will accept, the waste the generator is shipping.

6. Transporter 1 Company Name: North State Environmental — U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	40	P	D001	551	
X	2. UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,alcian blue),8,II	1	DF	31	P	D002	791	
X	3. UN2924,Waste flammable liquid,corrosive,n.o.s., (hydrochloric acid,ethanol),3,(8),II	1	DF	9	P	D001	D002	791
X	4. UN1344,Waste trinitrophenol,wetted,4.1,I	1	DF	9	P	D001	551	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0825-1: (labpack) TX State Code: OUTS001H	133	1: 1 x 15gal fiber drum
2: Drum#0825-2: (labpack) TX State Code: OUTS001H	153	2: 1 x 15gal fiber drum
3: Drum#0825-3: (labpack) TX State Code: OUTS001H	132	3: 1 x 5gal poly drum
4: Drum#0825-4: (labpack) TX State Code: OUTS001H	113	4: 1 x 5gal poly drum

ehg08261593

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez — Signature: [signature] — Month 08 Day 25 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: ~~Leo Cervantes~~ David Spen — Signature: [signature] — Month 08 Day 25 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 / 2. H141 for # 3. 1-4 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: K. Foston — Signature: [signature] — Month 8 Day 29 Year 15

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 2
3. Emergency Response Phone: NSE: (909)875-9288
4. Manifest Tracking Number: 007668075 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087

U.S. EPA ID Number: TXD982560294

Facility's Phone: (713)641-0391

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	40	P	D001	551	
X	2. UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,alcian blue),8,II	1	DF	31	P	D002	791	
X	3. UN2924,Waste flammable liquid,corrosive,n.o.s., (hydrochloric acid,ethanol),3,(8),II	1	DF	9	P	D001	D002	791
X	4. UN1344,Waste trinitrophenol,wetted,4.1,I	1	DF	9	P	D001	551	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0825-1: (labpack) TX State Code: OUTS001H	133	1: 1 x 15gal fiber drum
2: Drum#0825-2: (labpack) TX State Code: OUTS001H	153	2: 1 x 15gal fiber drum
3: Drum#0825-3: (labpack) TX State Code: OUTS001H	132	3: 1 x 5gal poly drum
4: Drum#0825-4: (labpack) TX State Code: OUTS001H	113	4: 1 x 5gal poly drum

ehg08261593

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez
Signature:
Month 08 Day 25 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: ~~Leo Cervantes~~ David Sparo
Signature:
Month 08 Day 25 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H040-07 2. H141 for T 3. T-4 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: R. Foston
Signature:
Month Day Year 2015

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	007668075FLE

24. Generator's Name
Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN2582,Waste ferric chloride solution,8,III	1	DF	8	P	D002	791	
X	6.UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine,potassium iodide),6.1,(5.1),II	1	DF	8	P	D001	551	
X	7.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	8	P	D001	D002	791
X	8.UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II	1	DF	8	P	D001	D011	D007
						551		
X	9.UN3290,Waste toxic solid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	9	P	D002	791	
X	10.UN2810,Toxic liquids,organic,n.o.s., (hydroquinone,carbol fuchsin),6.1,II	1	DF	9	P	551		
X	11.NA3082,Other regulated substances,liquid,n.o.s., (aqueous formalin,propylene glycol),9,III	1	DF	55	G	134		

32. Special Handling Instructions and Additional Information

05: Drum#0825-5: (labpack) TX State Code: OUTS001H
06: Drum#0825-6: (labpack) TX State Code: OUTS001H
07: Drum#0825-7: (labpack) TX State Code: OUTS001H
08: Drum#0825-8: (labpack) TX State Code: OUTS001H
09: Drum#0825-9: (labpack) TX State Code: OUTS001H
10: Drum#0825-10: (labpack) TX State Code: OUTS0011
11: Drum#0825-11: (labpack) TX State Code: OUTS001H

ehg 08261593

ERG# 154 154 143 140 154 154 171

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 55gal poly drum
12:
13:
14:

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-01 / H141 for # 5-11

GENERATOR — TRANSPORTER — FACILITY — DESIGNATED

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	007668075FLE

24. Generator's Name

Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN2582,Waste ferric chloride solution,8,III	1	DF	8	P	D002	791	
X	6.UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine,potassium iodide),6.1,(5.1),II	1	DF	8	P	D001	551	
X	7.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	8	P	D001	D002	791
X	8.UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II	1	DF	8	P	D001	D011	D007
						551		
X	9.UN3290,Waste toxic solid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	9	P	D002	791	
X	10.UN2810,Toxic liquids,organic,n.o.s., (hydroquinone,carbol fuchsin),6.1,II	1	DF	9	P	551		
X	11.NA3082,Other regulated substances,liquid,n.o.s., (aqueous formalin,propylene glycol),9,III	1	DF	55	G	134		

32. Special Handling Instructions and Additional Information

05: Drum#0825-5: (labpack) TX State Code: OUTS001H
06: Drum#0825-6: (labpack) TX State Code: OUTS001H
07: Drum#0825-7: (labpack) TX State Code: OUTS001H
08: Drum#0825-8: (labpack) TX State Code: OUTS001H
09: Drum#0825-9: (labpack) TX State Code: OUTS001H
10: Drum#0825-10: (labpack) TX State Code: OUTS001H
11: Drum#0825-11: (labpack) TX State Code: OUTS001H

chg 08261593

ERG#			
154	5: 1 x 5gal poly drum	9: 1 x 5gal poly drum	13:
154	6: 1 x 5gal poly drum	10: 1 x 5gal poly drum	14:
143	7: 1 x 5gal poly drum	11: 1 x 55gal poly drum	
140			
154	8: 1 x 5gal poly drum	12:	
154			
171			

GENERATOR

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

TRANSPORTER

35. Discrepancy

DESIGNATED FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-OV / H141 for # 5-11

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 2
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668075 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S | Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	40	P	D001	551	
X	2. UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,alcian blue),8,II	1	DF	31	P	D002	791	
X	3. UN2924,Waste flammable liquid,corrosive,n.o.s., (hydrochloric acid,ethanol),3,(8),II	1	DF	9	P	D001	D002	791
X	4. UN1344,Waste trinitrophenol,wetted,4.1,I	1	DF	9	P	D001	551	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0825-1: (labpack) TX State Code: OUTS001H	133	1: 1 x 15gal fiber drum
2: Drum#0825-2: (labpack) TX State Code: OUTS001H	153	2: 1 x 15gal fiber drum
3: Drum#0825-3: (labpack) TX State Code: OUTS001H	132	3: 1 x 5gal poly drum
4: Drum#0825-4: (labpack) TX State Code: OUTS001H	113	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Signature: Month 08 Day 25 Year 15

GENERATOR

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Leo Cervantes Signature: Month 08 Day 25 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Signature: Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	007668075FLE

24. Generator's Name

Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN2582,Waste ferric chloride solution,8,III	1	DF	8	P	D002	791	
X	6.UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine,potassium iodide),6.1,(5.1),II	1	DF	8	P	D001	551	
X	7.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	8	P	D001	D002	791
X	8.UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II	1	DF	8	P	D001	D011	D007
						551		
X	9.UN3290,Waste toxic solid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	9	P	D002	791	
X	10.UN2810,Toxic liquids,organic,n.o.s., (hydroquinone,carbol fuchsin),6.1,II	1	DF	9	P	551		
X	11.NA3082,Other regulated substances,liquid,n.o.s., (aqueous formalin,propylene glycol),9,III	1	DF	55	G	134		

32. Special Handling Instructions and Additional Information

05: Drum#0825-5: (labpack) TX State Code: OUTS001H
06: Drum#0825-6: (labpack) TX State Code: OUTS001H
07: Drum#0825-7: (labpack) TX State Code: OUTS001H
08: Drum#0825-8: (labpack) TX State Code: OUTS001H
09: Drum#0825-9: (labpack) TX State Code: OUTS001H
10: Drum#0825-10: (labpack) TX State Code: OUTS001H
11: Drum#0825-11: (labpack) TX State Code: OUTS001H

ERG#
154 5: 1 x 5gal poly drum
154 6: 1 x 5gal poly drum
143 7: 1 x 5gal poly drum
140 8: 1 x 5gal poly drum
154 9: 1 x 5gal poly drum
154 10: 1 x 5gal poly drum
171 11: 1 x 55gal poly drum
12:
13:
14:

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR

TRANSPORTER

FACILITY

DESIGNA.

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 3
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014214452 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address): CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000020608 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services, Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1789, Waste hydrochloric acid, 8, PGII	1	DF	7	P	D002	791	
X	2. UN3267, Corrosive liquids, basic, organic, n.o.s., (methenamine borate), 8, PGIII	1	DF	7	P	551		
X	3. UN2922, Waste corrosive liquids, toxic, n.o.s., (gold chloride), 8, (6.1), PGIII	1	DF	7	P	D002	792	
X	4. UN1802, Waste perchloric acid, 8, (5.1), PGII	1	DF	7	P	D001	D002	791

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0729-1 (Labpack); TX State Code:OUTS001H	157	1: 1 x 5gal poly drum
2: Drum#0729-2 (Labpack); TX State Code:OUTS0011	153	2: 1 x 5gal poly drum
3: Drum#0729-3 (Labpack); TX State Code:OUTS001H	154	3: 1 x 5gal poly drum
4: Drum#0729-4 (Labpack); TX State Code:OUTS001H	140	4: 1 x 5gal poly drum

chg 08071592

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 07 Day 31 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Spero
Signature:
Month 07 Day 31 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H040-07 / 2. H141 for #1-4 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: K Foston
Signature:
Month 8 Day 14 Year 15

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 3	014214452JJK

24. Generator's Name

Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3099,Waste oxidizing liquids,toxic,n.o.s., (sodium nitrite,potassium chromate),5.1,(6.1),PGII	1	DF	7	P	D001 723	D007	D011
X	6.UN1760,Corrosive liquid,n.o.s., (glutaraldehyde),8,PGIII	1	DF	7	P	551		
X	7.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (periodic acid),5.1,(8),PGII	1	DF	7	P	D002	D001	791
X	8.UN2924,Waste flammable liquids,corrosive,n.o.s., (ethanol,hydrochloric acid),3,(8),PGII	1	DF	7	P	D001	D002	791
X	9.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,aluminum sulfate),8,PGIII	1	DF	13	P	D002	792	
X	10.UN1344,Waste trinitrophenol,wetted,4.1,PGI	1	DF	7	P	D001	D002	791
X	11.UN2693,Waste bisulfites,aqueous solutions,n.o.s., (aqueous sodium bisulfite),8,PGIII	1	DF	7	P	D002	791	
X	12.UN1935,Waste cyanide solution,n.o.s., (potassium ferrocyanide),6.1,PGIII "toxic" DOT-SP13192	1	DF	7	P	D003	711	
X	13.UN1813,Potassium hydroxide,solid,8,PGII	1	DF	7	P	551		
X	14.UN3244,Waste solids containing corrosive liquids, n.o.s.,(sulfuric acid on inert carrier),8,PGII	1	DF	7	P	D003	551	

32. Special Handling Instructions and Additional Information

	ERG#
05: Drum#0729-5 (Labpack); TX State Code:OUTS001H	142
06: Drum#0729-6 (Labpack); TX State Code:OUTS0011	154
07: Drum#0729-7 (Labpack); TX State Code:OUTS001H	140
08: Drum#0729-8 (Labpack); TX State Code:OUTS001H	132
09: Drum#0729-9 (Labpack); TX State Code:OUTS001H	153
10: Drum#0729-10 (Labpack); TX State Code:OUTS001H	113
11: Drum#0729-11 (Labpack); TX State Code:OUTS001H	154
12: Drum#0729-12 (Labpack); TX State Code:OUTS001H	157
13: Drum#0729-13 (Labpack); TX State Code:OUTS0011	154
14: Drum#0729-14 (Labpack); TX State Code:OUTS001H	154

ehg08071592

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 1 x 5gal poly drum
13: 1 x 5gal poly drum
14: 1 x 5gal poly drum

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-01 H141 for # 5-14

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 3	014214452JJK

24. Generator's Name
Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3099,Waste oxidizing liquids,toxic,n.o.s., (sodium nitrite,potassium chromate),5.1,(6.1),PGII	1	DF	7	P	D001 723	D007	D011
X	6.UN1760,Corrosive liquid,n.o.s., (glutaraldehyde),8,PGIII	1	DF	7	P	551		
X	7.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (periodic acid),5.1,(8),PGII	1	DF	7	P	D002	D001	791
X	8.UN2924,Waste flammable liquids,corrosive,n.o.s., (ethanol,hydrochloric acid),3,(8),PGII	1	DF	7	P	D001	D002	791
X	9.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,aluminum sulfate),8,PGIII	1	DF	13	P	D002	792	
X	10.UN1344,Waste trinitrophenol,wetted,4.1,PGI	1	DF	7	P	D001	D002	791
X	11.UN2693,Waste bisulfites,aqueous solutions,n.o.s., (aqueous sodium bisulfite),8,PGIII	1	DF	7	P	D002	791	
X	12.UN1935,Waste cyanide solution,n.o.s., (potassium ferrocyanide),6.1,PGIII "toxic" DOT-SP13192	1	DF	7	P	D003	711	
X	13.UN1813,Potassium hydroxide,solid,8,PGII	1	DF	7	P	551		
X	14.UN3244,Waste solids containing corrosive liquids, n.o.s.,(sulfuric acid on inert carrier),8,PGII	1	DF	7	P	D003	551	

32. Special Handling Instructions and Additional Information

	ERG#
05: Drum#0729-5 (Labpack); TX State Code:OUTS001H	142
06: Drum#0729-6 (Labpack); TX State Code:OUTS0011	154
07: Drum#0729-7 (Labpack); TX State Code:OUTS001H	140
08: Drum#0729-8 (Labpack); TX State Code:OUTS001H	132
09: Drum#0729-9 (Labpack); TX State Code:OUTS001H	153
10: Drum#0729-10 (Labpack); TX State Code:OUTS001H	113
11: Drum#0729-11 (Labpack); TX State Code:OUTS001H	154
12: Drum#0729-12 (Labpack); TX State Code:OUTS001H	157
13: Drum#0729-13 (Labpack); TX State Code:OUTS0011	154
14: Drum#0729-14 (Labpack); TX State Code:OUTS001H	154

ehg08071592

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 1 x 5gal poly drum
13: 1 x 5gal poly drum
14: 1 x 5gal poly drum

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
H040-07/ H141 for # 5-14

GENERATOR — TRANSPORTER — FACILITY — DESIGN

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete. DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	3 of 3	014214452JJK

24. Generator's Name
Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name

26. Transporter _____ Company Name

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15.UN2924,Waste flammable liquids,corrosive,n.o.s., (sodium hydroxide,ethanol),3,(8),PGII	1	DF	7	P	D001	D002	551
X	16.UN2925,Waste flammable solids,corrosive,organic, n.o.s.,(ammonia,ethanol),4.1,(8),PGII	1	DF	7	P	D001	551	
X	17.UN1950,Waste aerosols,2.1 (o-phenylphenol,ethanol)	1	DF	4	P	D001	331	
X	18.UN1344,Waste trinitrophenol,wetted,4.1,PGI	1	DF	7	P	D002	791	
X	19.UN1992,Waste flammable liquids,toxic,n.o.s., (phenol,alcohol),3,(6.1),PGII	1	DF	9	P	D001	551	
X	20.Toxic liquids,organic,n.o.s., (phenol,nuclear fast red),6.1,PGII	1	DF	9	P	551		
X	21.NA3082,Other regulated substances,liuqid,n.o.s., (formalin,sodium phosphate),9,PGIII	1	DF	55	G	331		

32. Special Handling Instructions and Additional Information
15: Drum#0729-15 (Labpack); TX State Code:OUTS001H
16: Drum#0729-16 (Labpack); TX State Code:OUTS001H
17: Drum#0729-17 (Labpack); TX State Code:OUTS801H
18: Drum#0729-18 (Labpack); TX State Code:OUTS001H
19: Drum#0729-19 (Labpack); TX State Code:OUTS001H
20: Drum#0729-20 (Labpack); TX State Code:OUTS0011
21: Drum#0729-21 (Bulk); TX State Code:OUTS1011

ERG#
132
134
126
113
131
131
171

15: 1 x 5gal poly drum
16: 1 x 5gal poly drum
17: 1 x 5gal poly drum
18: 1 x 5gal poly drum
19: 1 x 5gal poly drum
20: 1 x 5gal poly drum
21: 1 x 55gal poly drum-BULK
22:
23:
24:

ehy08071592

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
H040-011/H141 for # 15-21

GENERATOR
TRANSPORTER
DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	3 of 3	014214452JJK

24. Generator's Name
Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15.UN2924,Waste flammable liquids,corrosive,n.o.s., (sodium hydroxide,ethanol),3,(8),PGII	1	DF	7	P	D001	D002	551
X	16.UN2925,Waste flammable solids,corrosive,organic, n.o.s.,(ammonia,ethanol),4.1,(8),PGII	1	DF	7	P	D001	551	
X	17.UN1950,Waste aerosols,2.1 (o-phenylphenol,ethanol)	1	DF	4	P	D001	331	
X	18.UN1344,Waste trinitrophenol,wetted,4.1,PGI	1	DF	7	P	D002	791	
X	19.UN1992,Waste flammable liquids,toxic,n.o.s., (phenol,alcohol),3,(6.1),PGII	1	DF	9	P	D001	551	
X	20.Toxic liquids,organic,n.o.s., (phenol,nuclear fast red),6.1,PGII	1	DF	9	P	551		
X	21.NA3082,Other regulated substances,liuqid,n.o.s., (formalin,sodium phosphate),9,PGIII	1	DF	55	G	331		

32. Special Handling Instructions and Additional Information

15: Drum#0729-15 (Labpack); TX State Code:OUTS0011H
16: Drum#0729-16 (Labpack); TX State Code:OUTS001H
17: Drum#0729-17 (Labpack); TX State Code:OUTS801H
18: Drum#0729-18 (Labpack); TX State Code:OUTS001H
19: Drum#0729-19 (Labpack); TX State Code:OUTS001H
20: Drum#0729-20 (Labpack); TX State Code:OUTS0011
21: Drum#0729-21 (Bulk); TX State Code:OUTS1011

ERG#
132
134
126
113
131
131
171

15: 1 x 5gal poly drum
16: 1 x 5gal poly drum
17: 1 x 5gal poly drum
18: 1 x 5gal poly drum
19: 1 x 5gal poly drum
20: 1 x 5gal poly drum
21: 1 x 55gal poly drum-BULK
22:
23:
24:

cdy08071592

GENERATOR

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

TRANSPORTER

35. Discrepancy

FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
H040 / H141 for # 15-21

DESIGN.

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 3
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014214452 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Site Address (if different than mailing address): CD Requested
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services, Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982510294

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1789, Waste hydrochloric acid, 8, PGII	1	DF	7	P	D002	791	
X	2. UN3267, Corrosive liquids, basic, organic, n.o.s., (methenamine borate), 8, PGIII	1	DF	7	P	551		
X	3. UN2922, Waste corrosive liquids, toxic, n.o.s., (gold chloride), 8, (6.1), PGIII	1	DF	7	P	D002	792	
X	4. UN1802, Waste perchloric acid, 8, (5.1), PGII	1	DF	7	P	D001	D002	791

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0729-1 (Labpack); TX State Code:OUTS001H	157	1: 1 x 5gal poly drum
2: Drum#0729-2 (Labpack); TX State Code:OUTS0011	153	2: 1 x 5gal poly drum
3: Drum#0729-3 (Labpack); TX State Code:OUTS001H	154	3: 1 x 5gal poly drum
4: Drum#0729-4 (Labpack); TX State Code:OUTS001H	140	4: 1 x 5gal poly drum

ch508071592

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 07 Day 31 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter signature (for exports only):
Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Spero
Signature:
Month 07 Day 31 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H040-07 / 2. H141 for #1-4 / 3. / 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: R Foston
Signature:
Month 8 Day 14 Year 15

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 3
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014214452 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342

Generator's Site Address (if different than mailing address): CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087

Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1789,Waste hydrochloric acid,8,PGII	1	DF	7	P	D002	791	
X	2. UN3267,Corrosive liquids,basic,organic,n.o.s., (methenamine borate),8,PGIII	1	DF	7	P	551		
X	3. UN2922,Waste corrosive liquids,toxic,n.o.s., (gold chloride),8,(6.1),PGIII	1	DF	7	P	D002	792	
X	4. UN1802,Waste perchloric acid,8,(5.1),PGII	1	DF	7	P	D001	D002	791

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0729-1 (Labpack); TX State Code:OUTS001H	157	1: 1 x 5gal poly drum
2: Drum#0729-2 (Labpack); TX State Code:OUTS0011	153	2: 1 x 5gal poly drum
3: Drum#0729-3 (Labpack); TX State Code:OUTS001H	154	3: 1 x 5gal poly drum
4: Drum#0729-4 (Labpack); TX State Code:OUTS001H	140	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: *Ben Alvarez* Signature: Month 07 Day 31 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: *David Spero* Signature: Month 07 Day 31 Year 15

Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name Signature Month Day Year

GENERATOR INT'L TRANSPORTER DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4

2. Page 1 of 1

3. Emergency Response Phone: NSE: (909) 875-9288

4. Manifest Tracking Number: 014214451 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342

Generator's Site Address (if different than mailing address)

CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003

U.S. EPA ID Number

Facility's Phone: (775) 553-2203

N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1907, Soda lime, 8, PGIII	1	DF	163	P	181		
	2. Non-RCRA hazardous waste solid (lab debris)	1	DF	37	P	352		
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Spent CO2 absorbent w/ soda lime in plastic cartridges
2: Profile#070128300-9087:Glass/plasticware,rags/paper,gloves,etc.

ERG#
154
N/A

1: 1 x 55gal poly drum
2: 1 x 30gal fiber drum
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: *Ben Alvarez*
Signature:
Month 07 Day 29 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: *David Spero*
Signature:
Month 07 Day 29 Year 15

Transporter 2 Printed/Typed Name
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014214451 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342

Generator's Site Address (if different than mailing address): CD Requested

Generator's Phone: (818) 364-3405 Attn: Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003

Facility's Phone: (775) 553-2203
U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907, Soda lime, 8, PGIII	1	DF	163	P	181
	2. Non-RCRA hazardous waste solid (lab debris)	1	DF	37	P	352
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Spent CO2 absorbent w/ soda lime in plastic cartridges — ERG# 154 — 1: 1 x 55gal poly drum
2: Profile#070128300-9087:Glass/plasticware,rags/paper,gloves,etc. — N/A — 2: 1 x 30gal fiber drum
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

GENERATOR

Generator's/Offeror's Printed/Typed Name: Ben Alvarez — Signature: [signature] — Month 07 Day 29 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Spero — Signature: [signature] — Month 07 Day 29 Year 15

Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H132 2. H132 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Nann Bernadez — Signature: [signature] — Month 07 Day 31 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014214450 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address): CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800) 499-7145
U.S. EPA ID Number: CAD008252405

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	3	DF	165	G	D001	F003	212
X	2. UN1325,Waste flammable solids,organic,n.o.s., (carbon filters),4.1,PGIII	1	DF	40	P	D001	331	
X	3. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,PGII (D001,F003)	1	DF	157	P	D001	F003	331
X	4. UN1950,Waste aerosols,2.1	1	DF	11	P	D001	331	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Alcohols,xylenes,glycols,stains,water,hydrocarbons	128	1: 3 x 55gal poly drum
2: Profile#10020023:Used carbon filters/carbon in cardboard	133	2: 1 x 30gal fiber drum
3: Profile#14010076: Used paraffin wax with alcohol,xylene,limonene	133	3: 1 x 55gal fiber drum
4: Profile#2609171:Flammable aerosols with hydrocarbon solvents 26090171	126	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 07 Day 29 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Spero
Signature:
Month 07 Day 29 Year 15

Transporter 2 Printed/Typed Name
Signature:
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H061	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Sergio Gonzalez
Signature:
Month 7 Day 31 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4

2. Page 1 of 1

3. Emergency Response Phone: NSE: (909) 875-9288

4. Manifest Tracking Number: 014214450 JJK

5. Generator's Name and Mailing Address
Olive View Medical Center Los Angeles County
14445 Olive View Drive
Sylmar CA 91342

Generator's Site Address (if different than mailing address): CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023

Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	3	DF	165	G	D001	F003	212
X	2. UN1325,Waste flammable solids,organic,n.o.s., (carbon filters),4.1,PGIII	1	DF	40	P	D001	331	
X	3. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,PGII (D001,F003)	1	DF	157	P	D001	F003	331
X	4. UN1950,Waste aerosols,2.1	1	DF	11	P	D001	331	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Alcohols,xylenes,glycols,stains,water,hydrocarbons	128	1: 3 x 55gal poly drum
2: Profile#10020023:Used carbon filters/carbon in cardboard	133	2: 1 x 30gal fiber drum
3: Profile#14010076: Used paraffin wax with alcohol,xylene,limonene	133	3: 1 x 55gal fiber drum
4: Profile#2609171:Flammable aerosols with hydrocarbon solvents	126	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: *Ben Alvarez*
Signature:
Month 07 Day 29 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: *David Spero*
Signature:
Month 07 Day 29 Year 15

Transporter 2 Printed/Typed Name
Signature:
Month Day Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

...se print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 2
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014203095 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address) CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S | Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN2924,Waste flammable liquids,corrosive,n.o.s., (ethanol,hydrochloric acid),3,(8),PGII	1	DF	6	P	D001	D002	791
X	2. UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(ferric chloride,hydrochloric acid),8,PGII	1	DF	7	P	D002	792	
X	3. UN2810,Toxic liquids,organic,n.o.s., (phenol,nuclear fast red),6.1,PGII	1	DF	8	P	551		
X	4. UN2693,Waste bisulfite,aqueous solutions,n.o.s., (aqueous sodium bisulfite),8,PGIII	1	DF	6	P	D002	791	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0630-1 (Labpack); TX State Code:OUTS001H	132	1: 1 x 5gal poly drum
2: Drum#0630-2 (Labpack); TX State Code:OUTS001H	154	2: 1 x 5gal poly drum
3: Drum#0630-3 (Labpack); TX State Code:OUTS0011	153	3: 1 x 5gal poly drum
4: Drum#0630-4 (Labpack); TX State Code:OUTS001H ehq07101593	154	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 07 Day 03 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Leo Cervantes
Signature:
Month 07 Day 03 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H141 2. For all 3. Items 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Marlina A. Ramirez
Signature:
Month 07 Day 17 Year 15

GENERATOR — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	CAD983585324	2	NSE: (909) 875-9288	014203095 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave., RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn: Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental — U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name: — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services, Inc.
5711 Etheridge Street
Houston TX 77087

Facility's Phone: (713) 641-0391 — U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN2924, Waste flammable liquids, corrosive, n.o.s., (ethanol, hydrochloric acid), 3, (8), PGII	1	DF	6	P	D001	D002	791
X	2. UN3264, Waste corrosive liquids, acidic, inorganic, n.o.s., (ferric chloride, hydrochloric acid), 8, PGII	1	DF	7	P	D002	792	
X	3. UN2810, Toxic liquids, organic, n.o.s., (phenol, nuclear fast red), 6.1, PGII	1	DF	8	P	551		
X	4. UN2693, Waste bisulfite, aqueous solutions, n.o.s., (aqueous sodium bisulfite), 8, PGIII	1	DF	6	P	D002	791	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0630-1 (Labpack); TX State Code:OUTS001H	132	1: 1 x 5gal poly drum
2: Drum#0630-2 (Labpack); TX State Code:OUTS001H	154	2: 1 x 5gal poly drum
3: Drum#0630-3 (Labpack); TX State Code:OUTS0011	153	3: 1 x 5gal poly drum
4: Drum#0630-4 (Labpack); TX State Code:OUTS001H ehg07161593	154	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez — Signature: [signature] — Month 07 Day 03 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Leo Cervantes — Signature: Leo Cervantes — Month 07 Day 03 Year 15

Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	For all	Items	

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Marcus A. Ramirez — Signature: Marcus A. Ramirez — Month 7 Day 17 Year 15

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	014203095JJK

24. Generator's Name
Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3267,Corrosive liquid,basic,organic,n.o.s., (aqueous methenamine borate),8,PGIII	1	DF	6	P	551		
X	6.UN1802,Waste perchloric acid,8,(5.1),PGII	1	DF	6	P	D001	D002	791
X	7.UN1824,Waste sodium hydroxide solution,8,PGII	1	DF	6	P	D002	551	
X	8.UN3099,Waste oxidizing liquids,toxic,n.o.s., (silver nitrate,sodium chromate),5.1,(6.1),PGII	1	DF	6	P	D001	D007	D011
						723		
X	9.UN2922,Waste corrosive liquids,toxic,n.o.s., (aqueous gold chloride),8,(6.1),PGIII	1	DF	6	P	D002	792	
X	10.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,ethylene glycol),8,PGIII	1	DF	7	P	D002	792	
X	11.NA3082,Other regulated substances,liquid,n.o.s., (formalin,sodium phosphate),9,PGIII	2	DF	110	G	331		

32. Special Handling Instructions and Additional Information

	ERG#
05: Drum#0630-5 (Labpack); TX State Code:OUTS0011	153
06: Drum#0630-6 (Labpack); TX State Code:OUTS001H	140
07: Drum#0630-7 (Labpack); TX State Code:OUTS001H	154
08: Drum#0630-8 (Labpack); TX State Code:OUTS001H	142
09: Drum#0630-9 (Labpack); TX State Code:OUTS001H	154
10: Drum#0630-10 (Labpack); TX State Code:OUTS001H	153
11: Drum#0630-11A,11B (Bulk); TX State Code:OUTS1011	171

ehg07101593

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 2 x 55gal poly drum-BULK
12:
13:
14:

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H141 | For All | Items

GENERATOR — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CAD983585324

22. Page: 2 of 2

23. Manifest Tracking Number: 014203095JJK

24. Generator's Name: Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3267,Corrosive liquid,basic,organic,n.o.s., (aqueous methenamine borate),8,PGIII	1	DF	6	P	551		
X	6.UN1802,Waste perchloric acid,8,(5.1),PGII	1	DF	6	P	D001	D002	791
X	7.UN1824,Waste sodium hydroxide solution,8,PGII	1	DF	6	P	D002	551	
X	8.UN3099,Waste oxidizing liquids,toxic,n.o.s., (silver nitrate,sodium chromate),5.1,(6.1),PGII	1	DF	6	P	D001 723	D007	D011
X	9.UN2922,Waste corrosive liquids,toxic,n.o.s., (aqueous gold chloride),8,(6.1),PGIII	1	DF	6	P	D002	792	
X	10.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,ethylene glycol),8,PGIII	1	DF	7	P	D002	792	
X	11.NA3082,Other regulated substances,liquid,n.o.s., (formalin,sodium phosphate),9,PGIII	2	DF	110	G	331		

32. Special Handling Instructions and Additional Information

05: Drum#0630-5 (Labpack); TX State Code:OUTS0011 — ERG# 153
06: Drum#0630-6 (Labpack); TX State Code:OUTS001H — 140
07: Drum#0630-7 (Labpack); TX State Code:OUTS001H — 154
08: Drum#0630-8 (Labpack); TX State Code:OUTS001H — 142
09: Drum#0630-9 (Labpack); TX State Code:OUTS001H — 154
10: Drum#0630-10 (Labpack); TX State Code:OUTS001H — 153
11: Drum#0630-11A,11B (Bulk); TX State Code:OUTS1011 — 171

Chg07101593

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 2 x 55gal poly drum-BULK
12:
13:
14:

GENERATOR

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

TRANSPORTER

35. Discrepancy

FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H141 | For Cell | Items

DESIGNATED

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 2	014203095JJK

24. Generator's Name
Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3267,Corrosive liquid,basic,organic,n.o.s., (aqueous methenamine borate),8,PGIII	1	DF	6	P	551		
X	6.UN1802,Waste perchloric acid,8,(5.1),PGII	1	DF	6	P	D001	D002	791
X	7.UN1824,Waste sodium hydroxide solution,8,PGII	1	DF	6	P	D002	551	
X	8.UN3099,Waste oxidizing liquids,toxic,n.o.s., (silver nitrate,sodium chromate),5.1,(6.1),PGII	1	DF	6	P	D001	D007	D011
X	9.UN2922,Waste corrosive liquids,toxic,n.o.s., (aqueous gold chloride),8,(6.1),PGIII	1	DF	6	P	723	D002	792
X	10.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,ethylene glycol),8,PGIII	1	DF	7	P	D002	792	
X	11.NA3082,Other regulated substances,liquid,n.o.s., (formalin,sodium phosphate),9,PGIII	2	DF	110	G	331		

32. Special Handling Instructions and Additional Information
05: Drum#0630-5 (Labpack); TX State Code:OUTS001I
06: Drum#0630-6 (Labpack); TX State Code:OUTS001H
07: Drum#0630-7 (Labpack); TX State Code:OUTS001H
08: Drum#0630-8 (Labpack); TX State Code:OUTS001H
09: Drum#0630-9 (Labpack); TX State Code:OUTS001H
10: Drum#0630-10 (Labpack); TX State Code:OUTS001H
11: Drum#0630-11A,11B (Bulk); TX State Code:OUTSI011

ERG#
153
140
154
142
154
153
171

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 2 x 55gal poly drum-BULK
12:
13:
14:

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

35. Discrepancy

DESIGNATED

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 2
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014203095 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address): CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1.UN2924,Waste flammable liquids,corrosive,n.o.s., (ethanol,hydrochloric acid),3,(8),PGII	1	DF	6	P	D001	D002	791
X	2.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(ferric chloride,hydrochloric acid),8,PGII	1	DF	7	P	D002	792	
X	3.UN2810,Toxic liquids,organic,n.o.s., (phenol,nuclear fast red),6.1,PGII	1	DF	8	P	551		
X	4.UN2693,Waste bisulfite,aqueous solutions,n.o.s., (aqueous sodium bisulfite),8,PGIII	1	DF	6	P	D002	791	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0630-1 (Labpack); TX State Code:OUTS001H	132	1: 1 x 5gal poly drum
2: Drum#0630-2 (Labpack); TX State Code:OUTS001H	154	2: 1 x 5gal poly drum
3: Drum#0630-3 (Labpack); TX State Code:OUTS0011	153	3: 1 x 5gal poly drum
4: Drum#0630-4 (Labpack); TX State Code:OUTS001H	154	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 07 Day 03 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Leo Cervantes
Signature:
Month 07 Day 03 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014203096 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address): CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003

Facility's Phone: (775)553-2203
U.S. EPA ID Number: N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907,Soda lime,8,PGIII	1	DF	145	P	181
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Spent CO2 absorbent w/ soda lime in plastic cartridges

ERG# 154

1: 1 x 55gal poly drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 06 Day 30 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Leo Cervantes
Signature:
Month 06 Day 30 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H31 | 2. | 3. | 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Jessica Reid
Signature:
Month 7 Day 9 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014203096 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1907, Soda lime, 8, PGIII	1	DF	145	P	181		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Spent CO2 absorbent w/ soda lime in plastic cartridges
ERG# 154
1: 1 x 55gal poly drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 06 Day 30 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Leo Cervantes
Signature:
Month 06 Day 30 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR
INT'L
TRANSPORTER
DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 014203094 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address): CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023

Facility's Phone: (800)499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	4	DF	220	G	D001	F003	212
X	2. UN1325,Waste flammable solids,organic,n.o.s., (carbon filters),4.1,PGIII	1	DF	24	P	D001	331	
X	3. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,PGII (D001,F003)	1	DF	160	P	D001	F003	331
	4.							

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Alcohols,xylenes,glycols,stains,water,hydrocarbons	128	1: 4 x 55gal poly drum
2: Profile#10020023: Used carbon filters/carbon in cardboard	133	2: 1 x 15gal fiber drum
3: Profile#14010076: Used paraffin wax with alcohol,xylene,limonene	133	3: 1 x 55gal poly drum
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 06 Day 30 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Leo Cervantes
Signature:
Month 06 Day 30 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H061	H141	H141	

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Jorge Garcia
Signature:
Month 7 Day 6 Year 15

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4

2. Page 1 of: 1

3. Emergency Response Phone: NSE: (909) 875-9288

4. Manifest Tracking Number: 014203094 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address): CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023

U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

Facility's Phone: (800) 499-7145

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	4	DF	220	G	D001	F003	212
X	2. UN1325,Waste flammable solids,organic,n.o.s., (carbon filters),4.1,PGIII	1	DF	24	P	D001	331	
X	3. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,PGII (D001,F003)	1	DF	160	P	D001	F003	331
	4.							

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Alcohols,xylenes,glycols,stains,water,hydrocarbons	128	1: 4 x 55gal poly drum
2: Profile#10020023: Used carbon filters/carbon in cardboard	133	2: 1 x 15gal fiber drum
3: Profile#14010076: Used paraffin wax with alcohol,xylene,limonene	133	3: 1 x 55gal poly drum
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Ben Alvarez
Signature:
Month 06 Day 30 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: Leo Cervantes
Signature:
Month 06 Day 30 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name
Signature
Month Day Year

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 3	014214452JJK

24. Generator's Name

Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3099,Waste oxidizing liquids,toxic,n.o.s., (sodium nitrite,potassium chromate),5.1,(6.1),PGII	1	DF	7	P	D001	D007	D011
						723		
X	6.UN1760,Corrosive liquid,n.o.s., (glutaraldehyde),8,PGIII	1	DF	7	P	551		
X	7.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (periodic acid),5.1,(8),PGII	1	DF	7	P	D002	D001	791
X	8.UN2924,Waste flammable liquids,corrosive,n.o.s., (ethanol,hydrochloric acid),3,(8),PGII	1	DF	7	P	D001	D002	791
X	9.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,aluminum sulfate),8,PGIII	1	DF	13	P	D002	792	
X	10.UN1344,Waste trinitrophenol,wetted,4.1,PGI	1	DF	7	P	D001	D002	791
X	11.UN2693,Waste bisulfites,aqueous solutions,n.o.s. (aqueous sodium bisulfite),8,PGIII	1	DF	7	P	D002	791	
X	12.UN1935,Waste cyanide solution,n.o.s., (potassium ferrocyanide),6.1,PGIII "toxic" DOT-SP13192	1	DF	7	P	D003	711	
X	13.UN1813,Potassium hydroxide,solid,8,PGII	1	DF	7	P	551		
X	14.UN3244,Waste solids containing corrosive liquids, n.o.s.,(sulfuric acid on inert carrier),8,PGII	1	DF	7	P	D003	551	

32. Special Handling Instructions and Additional Information

05: Drum#0729-5 (Labpack); TX State Code:OUTS001H
06: Drum#0729-6 (Labpack); TX State Code:OUTS0011
07: Drum#0729-7 (Labpack); TX State Code:OUTS001H
08: Drum#0729-8 (Labpack); TX State Code:OUTS001H
09: Drum#0729-9 (Labpack); TX State Code:OUTS001H
10: Drum#0729-10 (Labpack); TX State Code:OUTS001H
11: Drum#0729-11 (Labpack); TX State Code:OUTS001H
12: Drum#0729-12 (Labpack); TX State Code:OUTS001H
13: Drum#0729-13 (Labpack); TX State Code:OUTS0011
14: Drum#0729-14 (Labpack); TX State Code:OUTS001H

ERG#: 142, 154, 140, 132, 153, 113, 154, 157, 154, 154

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 1 x 5gal poly drum
13: 1 x 5gal poly drum
14: 1 x 5gal poly drum

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

FACILITY

35. Discrepancy

DESIGNATED

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	3 of 3	014214452JJK

24. Generator's Name
Olive View Medical Center Los Angeles County

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15.UN2924,Waste flammable liquids,corrosive,n.o.s., (sodium hydroxide,ethanol),3,(8),PGII	1	DF	7	P	D001	D002	551
X	16.UN2925,Waste flammable solids,corrosive,organic, n.o.s.,(ammonia,ethanol),4.1,(8),PGII	1	DF	7	P	D001	551	
X	17.UN1950,Waste aerosols,2.1 (o-phenylphenol,ethanol)	1	DF	4	P	D001	331	
X	18.UN1344,Waste trinitrophenol,wetted,4.1,PGI	1	DF	7	P	D002	791	
X	19.UN1992,Waste flammable liquids,toxic,n.o.s., (phenol,alcohol),3,(6.1),PGII	1	DF	9	P	D001	551	
X	20.Toxic liquids,organic,n.o.s., (phenol,nuclear fast red),6.1,PGII	1	DF	9	P	551		
X	21.NA3082,Other regulated substances,liuqid,n.o.s., (formalin,sodium phosphate),9,PGIII	1	DF	55	G	331		

32. Special Handling Instructions and Additional Information

15: Drum#0729-15 (Labpack); TX State Code:OUTS001H
16: Drum#0729-16 (Labpack); TX State Code:OUTS001H
17: Drum#0729-17 (Labpack); TX State Code:OUTS801H
18: Drum#0729-18 (Labpack); TX State Code:OUTS001H
19: Drum#0729-19 (Labpack); TX State Code:OUTS001H
20: Drum#0729-20 (Labpack); TX State Code:OUTS0011
21: Drum#0729-21 (Bulk); TX State Code:OUTS1011

ERG#
132
134
126
113
131
131
171

15: 1 x 5gal poly drum
16: 1 x 5gal poly drum
17: 1 x 5gal poly drum
18: 1 x 5gal poly drum
19: 1 x 5gal poly drum
20: 1 x 5gal poly drum
21: 1 x 55gal poly drum-BULK
22:
23:
24:

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

FACILITY

35. Discrepancy

DESIGNATED FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: (909) 875-9288
4. Manifest Tracking Number: 014188931 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert

Generator's Site Address (if different than mailing address): *CD Requested*

6. Transporter 1 Company Name: North State Environmental (650) 588-2838
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907, Soda lime, 8, PGIII	1	DF	150	P	181
	2. Non-RCRA hazardous waste solid (lab debris)		DF		P	352
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1 070127495-903 ; Soda lime cartridges
2 070128300-8053 ; Lab debris-plastic, glassware,paper,cardboard,PPE

ERG#
154
N/A

1:
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: HAYK SVADIAN
Signature
Month Day Year

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name
Signature
Month Day Year

Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	C A D 9 8 3 5 8 5 3 2 4	1	(909) 875-9288	014188930 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert

Generator's Site Address (if different than mailing address)

CD Requested

6. Transporter 1 Company Name: North State Environmental (650)588-2838 — U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
NSSI/Sources & Services, Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391

U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082, Other regulated substances, liquid, n.o.s., (phosphate buffered formalin), 9, PGIII	11	DF	605	G	134
X	2. NA3082, Other regulated substances liquid, n.o.s., (DAB Waste), 9, PGIII	3	DF	165	G	134
	3.					
	4.					

14. Special Handling Instructions and Additional Information

		ERG#
1 ehg020513g2	; ehg020513g2, TX State Code: OUTS001H	171
2 ehg013013g7-BD1	; EHG013013g7-BD1, TX State Code: OUTS001H	171

1: [illegible]
2: [illegible]
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: HAYK SVA[illegible]AN — Signature: [illegible] — Month: 05 Day: 28 Year: [illegible]

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: [illegible] — Signature: [illegible] — Month: 05 Day: 28 Year: [illegible]

Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 1
3. Emergency Response Phone: (909) 875-9288
4. Manifest Tracking Number: 014188929 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert

Generator's Site Address (if different than mailing address)

CD Requested

6. Transporter 1 Company Name: North State Environmental (650)588-2838
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800)499-7145
U.S. EPA ID Number: CAD008252405

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (methanol,hexane),3,II (D001,F003)		DM		G	D001	F003	212
X	2. UN1325,Waste flammable solids,organic,n.o.s., (cardboard filters with carbon),4.1,III		DM		P	D001		352
X	3. RQ,UN3175,Waste solids containing flammable liquids ,n.o.s.,(paraffin wax with xylene,petroleum distillates),4.1,II (D001)		DM		P	D001	F003	331 / 331
	4.							

14. Special Handling Instructions and Additional Information

			ERG#	
1	13070179	Profile#13070179: Solvent with methanol,alcohol,hexane	128	1: 29455[illegible]
2	10020023	Carbon filler cardborad filters (bulk)	133	2:
3	14010076	Profile#14010076: Paraffin wax with xlyene,petroleum distillates	133	3:
				4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: MAYK SVADIAN
Signature: [signature]
Month Day Year

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible]
Signature: [illegible]
Month Day Year

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name
Signature
Month Day Year

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668623 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003

Facility's Phone: (775) 553-2203
U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA hazardous waste solid (lab debris)	1	DF	30	P	352
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070128300-9087: Lab debris with broken glass,rags,absorbent,gloves

ERG# N/A

1: 1 x 55gal fiber drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez
Signature:
Month 06 Day 05 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: ~~Leo Cervantes~~ David Spero
Signature:
Month 06 Day 05 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: Amber Park
Signature: Amber Park
Month 6 Day 10 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668623 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S | Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
U.S. EPA ID Number

Facility's Phone: (775)553-2203
NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
	1. Non-RCRA hazardous waste solid (lab debris)	1	DF	30	P	352		
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Profile#070128300-9087: Lab debris with broken glass,rags,absorbent,gloves

ERG# N/A

1: 1 x 55gal fiber drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] | Signature: [illegible] | Month 06 Day 05 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Leo Cervantes | Signature: [illegible] | Month 06 Day 05 Year 15
Transporter 2 Printed/Typed Name | Signature | Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) | U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) | Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name | Signature | Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668622 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800) 499-7145
U.S. EPA ID Number: CAD008252405

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,II	1	DF	86	P	D001	331	
X	2. UN1950,Waste aerosols,2.1	1	DF	5	P	D001	331	
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Drum#0605-1: Spent paraffin wax with xylene,alcohol 14D10076
2: Profile#Pending:Flammable aerosols with hydrocarbon solvents and propellants 26096171

ERG#
133
126

1: 1 x 30gal fiber drum
2: 1 x 5gal poly drum
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Linares
Signature:
Month 06 Day 05 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Leo Cervantes David Spero
Signature:
Month 06 Day 05 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H141 2. H141 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Jorge Garcia
Signature:
Month 6 Day 8 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668622 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023

Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,II	1	DF	26	P	D001	331	
X	2. UN1950,Waste aerosols,2.1	1	DF	5	P	D001	331	
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Drum#0605-1: Spent paraffin wax with xylene,alcohol
2: Profile#Pending:Flammable aerosols with hydrocarbon solvents and propellants

ERG#
133
126

1: 1 x 30gal fiber drum
2: 1 x 5gal poly drum
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 06 Day 05 Year 15

GENERATOR

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

INT'L

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Leo Cervantes Signature: [illegible] Month 06 Day 05 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

TRANSPORTER

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

DESIGNATED FACILITY

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 3
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668621 FLE

CD Requested

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

This is to inform the generator of the waste shipment this manifest, that NSSI has the appropriate permit and will accept, the waste the generator is shipping.

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine,potassium iodide),6.1,(5.1),II	1	DF	72	P	D001	551	
X	2. RQ,UN2024,Waste mercury compounds,liquid,n.o.s., (formalin,mercuric chloride),6.1,II (D009) "toxic" "Marine Pollutant"	1	DF	27	P	D009	725	
X	3. UN1344,Waste trinitrophenol,wetted,4.1,I	1	DF	12	P	D001	551	
X	4. UN3142,Waste disinfectants,liquid,toxic,n.o.s., (isopropanol,diisobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride),6.1,II	1	DF	14	P	D001	551	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0605-1: (Labpack) TX State Code: OUTS001H	154	1: 1 x 30gal fiber drum
2: Drum#0605-2: (Labpack) TX State Code: OUTS001H	151	2: 1 x 15gal fiber drum
3: Drum#0605-3: (Labpack) TX State Code: OUTS001H	113	3: 1 x 5gal poly drum
4: Drum#0605-4: (Labpack) TX State Code: OUTS001H	154	4: 1 x 5gal poly drum

ehg 061115910

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez
Signature:
Month 06 Day 05 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: ~~Leo Cervantes~~ David Sperry
Signature:
Month 06 Day 05 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 2. H141 for # 1-4 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: R. Foster
Signature:
Month 6 Day 9 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 3
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668621 FLE

CD Requested

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine,potassium iodide),6.1,(5.1),II	1	DF	72	P	D001 551
X	2. RQ,UN2024,Waste mercury compounds,liquid,n.o.s., (formalin,mercuric chloride),6.1,II (D009) "toxic" "Marine Pollutant"	1	DF	27	P	D009 725
X	3. UN1344,Waste trinitrophenol,wetted,4.1,I	1	DF	12	P	D001 551
X	4. UN3142,Waste disinfectants,liquid,toxic,n.o.s., (isopropanol,diisobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride),6.1,II	1	DF	14	P	D001 551

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0605-1: (Labpack) TX State Code: OUTS001H	154	1: 1 x 30gal fiber drum
2: Drum#0605-2: (Labpack) TX State Code: OUTS001H	151	2: 1 x 15gal fiber drum
3: Drum#0605-3: (Labpack) TX State Code: OUTS001H	113	3: 1 x 5gal poly drum
4: Drum#0605-4: (Labpack) TX State Code: OUTS001H	154	4: 1 x 5gal poly drum

ehg 061115910

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Benjamin Alvarez
Signature:
Month 06 Day 05 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: ~~Leo Cervantes~~ David Spears
Signature:
Month 06 Day 05 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. H040-07 2. H141 for #1-4 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name: A. Foston
Signature:
Month 6 Day 19 Year 15

GENERATOR — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 3	007668621FLE

24. Generator's Name

Olive View UCLA Medical Center

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for and will accept, the waste the generator is shipping.

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN1791,Waste hypochlorite solution,8,III	1	DF	12	P	D001	551	
X	6.UN3098,Waste oxidizing liquid,corrosive,n.o.s., (ammoniacal silver nitrate),5.1,(8),II	1	DF	8	P	D001	D011	551
X	7.UN1866,Waste resin solution,3,II	1	DF	10	P	D001	551	
X	8.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	10	P	D001	D002	791
X	9.UN3290,Waste toxic solid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	13	P	D002	791	
X	10.RQ,UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II (D011)	1	DF	13	P	D001	D007	D011
X	11.UN3098,Waste oxidizing liquid,corrosive,n.o.s., (phosphotungstic,phosphomolybdic acid),5.1,(8),II	1	DF	10	P	D001	D002	791
X	12.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(ferric chloride,hydrochloric acid),8,II	1	DF	34	P	D002	791	
X	13.UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	17	P	D001	551	
X	14.UN3280,Waste organoarsenic compound,liquid, n.o.s.,(aqueous sodium cacodylate,glutaraldehyde), 6.1,II "toxic"	1	DF	12	P	D004	551	

32. Special Handling Instructions and Additional Information

05: Drum#0605-5: (Labpack) TX State Code: OUTS001H — ERG# 154
06: Drum#0605-6: (Labpack) TX State Code: OUTS001H — 140
07: Drum#0605-7: (Labpack) TX State Code: OUTS001H — 127
08: Drum#0605-8: (Labpack) TX State Code: OUTS001H — 143
09: Drum#0605-9: (Labpack) TX State Code: OUTS001H — 154
10: Drum#0605-10: (Labpack) TX State Code: OUTS001H — 140
11: Drum#0605-11: (Labpack) TX State Code: OUTS001H — 140
12: Drum#0605-12: (Labpack) TX State Code: OUTS001H — 153
13: Drum#0605-13: (Labpack) TX State Code: OUTS001H — 133
14: Drum#0605-14: (Labpack) TX State Code: OUTS001H — 131

dhg 061115910

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 1 x 15gal fiber drum
13: 1 x 5gal poly drum
14: 1 x 5gal poly drum

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

FACILITY

35. Discrepancy

DESIGNA

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved: OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CAD983585324

22. Page: 2 of 3

23. Manifest Tracking Number: 007668621FLE

24. Generator's Name: Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN1791,Waste hypochlorite solution,8,III	1	DF	12	P	D001	551	
X	6.UN3098,Waste oxidizing liquid,corrosive,n.o.s., (ammoniacal silver nitrate),5.1,(8),II	1	DF	8	P	D001	D011	551
X	7.UN1866,Waste resin solution,3,II	1	DF	10	P	D001	551	
X	8.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	10	P	D001	D002	791
X	9.UN3290,Waste toxic solid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	13	P	D002	791	
X	10.RQ,UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II (D011)	1	DF	13	P	D001	D007	D011
						551		
X	11.UN3098,Waste oxidizing liquid,corrosive,n.o.s., (phosphotungstic,phosphomolybdic acid),5.1,(8),II	1	DF	10	P	D001	D002	791
X	12.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(ferric chloride,hydrochloric acid),8,II	1	DF	34	P	D002	791	
X	13.UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	17	P	D001	551	
X	14.UN3280,Waste organoarsenic compound,liquid, n.o.s.,(aqueous sodium cacodylate,glutaraldehyde), 6.1,II "toxic"	1	DF	12	P	D004	551	

32. Special Handling Instructions and Additional Information

	ERG#
05: Drum#0605-5: (Labpack) TX State Code: OUTS001H	154
06: Drum#0605-6: (Labpack) TX State Code: OUTS001H	140
07: Drum#0605-7: (Labpack) TX State Code: OUTS001H	127
08: Drum#0605-8: (Labpack) TX State Code: OUTS001H	143
09: Drum#0605-9: (Labpack) TX State Code: OUTS001H	154
10: Drum#0605-10: (Labpack) TX State Code: OUTS001H	140
11: Drum#0605-11: (Labpack) TX State Code: OUTS001H	140
12: Drum#0605-12: (Labpack) TX State Code: OUTS001H	153
13: Drum#0605-13: (Labpack) TX State Code: OUTS001H	133
14: Drum#0605-14: (Labpack) TX State Code: OUTS001H	151

dhg 06111 5910

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 1 x 15gal fiber drum
13: 1 x 5gal poly drum
14: 1 x 5gal poly drum

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month — Day — Year

FACILITY

35. Discrepancy

DESIGNATED FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	3 of 3	007668621FLE

24. Generator's Name

Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for and will accept the waste the generator is shipping.

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15.UN2810,Toxic liquids,organic,n.o.s., (aqueous hydroquinone),6.1,III	1	DF	8	P	551		
X	16.UN2924,Waste flammable liquid,corrosive,n.o.s., (acid alcohol,formic acid),3,(8),II	1	DF	11	P	D001	D002	791
X	17.UN1719,Waste caustic alkali liquids,n.o.s., (sodium hydroxide,sodium carbonate),8,II	1	DF	9	P	D002	551	
X	18.RQ,UN3287,Waste toxic liquid,inorganic,n.o.s., (silver nitrate,barium chloride),6.1,II (D011)	1	DF	15	P	D005	D011	551
X	19.UN1993,Waste flammable liquids,n.o.s., (methanol,ethanol),3,II	1	DF	85	P	D001	U002	F003
						551		
X	20.NA3082,Other regulated substances liquid,n.o.s., (sodium thiosulfate,methenamine borate),9,III	1	DF	136	P	551		
X	21.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(oxalic acid,acetic acid),8,II	1	DF	31	P	D002	791	

32. Special Handling Instructions and Additional Information

15: Drum#0605-15: (Labpack) TX State Code: OUTS0011
16: Drum#0605-16: (Labpack) TX State Code: OUTS001H
17: Drum#0605-17: (Labpack) TX State Code: OUTS001H
18: Drum#0605-18: (Labpack) TX State Code: OUTS001H
19: Drum#0605-19: (Labpack) TX State Code: OUTS001H
20: Drum#0605-20: (Labpack) TX State Code: OUTS0011
21: Drum#0605-21: (Labpack) TX State Code: OUTS001H

Chg061115910

ERG#			
154	15: 1 x 5gal poly drum	19: 1 x 30gal fiber drum	23:
132	16: 1 x 5gal poly drum	20: 1 x 55gal fiber drum	24:
154	17: 1 x 5gal poly drum	21: 1 x 15gal fiber drum	
151	18: 1 x 5gal poly drum	22:	
128			
171			
153			

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-01 / H141 for #15-21

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	3 of 3	007668621FLE

24. Generator's Name

Olive View UCLA Medical Center

25. Transporter _____ Company Name | U.S. EPA ID Number

26. Transporter _____ Company Name | U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15.UN2810,Toxic liquids,organic,n.o.s., (aqueous hydroquinone),6.1,III	1	DF	8	P	551		
X	16.UN2924,Waste flammable liquid,corrosive,n.o.s., (acid alcohol,formic acid),3,(8),II	1	DF	11	P	D001	D002	791
X	17.UN1719,Waste caustic alkali liquids,n.o.s., (sodium hydroxide,sodium carbonate),8,II	1	DF	9	P	D002	551	
X	18.RQ,UN3287,Waste toxic liquid,inorganic,n.o.s., (silver nitrate,barium chloride),6.1,II (D011)	1	DF	15	P	D005	D011	551
X	19.UN1993,Waste flammable liquids,n.o.s., (methanol,ethanol),3,II	1	DF	85	P	D001	U002	F003
						551		
X	20.NA3082,Other regulated substances liquid,n.o.s., (sodium thiosulfate,methenamine borate),9,III	1	DF	136	P	551		
X	21.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(oxalic acid,acetic acid),8,II	1	DF	31	P	D002	791	

GENERATOR

32. Special Handling Instructions and Additional Information

	ERG#
15: Drum#0605-15: (Labpack) TX State Code: OUTS0011	154
16: Drum#0605-16: (Labpack) TX State Code: OUTS001H	132
17: Drum#0605-17: (Labpack) TX State Code: OUTS001H	154
18: Drum#0605-18: (Labpack) TX State Code: OUTS001H	151
19: Drum#0605-19: (Labpack) TX State Code: OUTS001H	128
20: Drum#0605-20: (Labpack) TX State Code: OUTS0011	171
21: Drum#0605-21: (Labpack) TX State Code: OUTS001H	153

ehg061115g10

15: 1 x 5gal poly drum
16: 1 x 5gal poly drum
17: 1 x 5gal poly drum
18: 1 x 5gal poly drum
19: 1 x 30gal fiber drum
20: 1 x 55gal fiber drum
21: 1 x 15gal fiber drum
22:
23:
24:

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

35. Discrepancy

DESIGNA

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-01/H141 for # 15-21

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 3
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668621 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address): CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S | Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087

Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine,potassium iodide),6.1,(5.1),II	1	DF	77	P	D001	551	
X	2. RQ,UN2024,Waste mercury compounds,liquid,n.o.s., (formalin,mercuric chloride),6.1,II (D009) "toxic" "Marine Pollutant"	1	DF	77	P	D009	725	
X	3. UN1344,Waste trinitrophenol,wetted,4.1,I	1	DF	77	P	D001	551	
X	4. UN3142,Waste disinfectants,liquid,toxic,n.o.s., (isopropanol,diisobutylphenoxyethoxyethyl dimethyl benzyl ammonium chloride),6.1,II	1	DF	77	P	D001	551	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0605-1: (Labpack) TX State Code: OUTS001H	154	1: 1 x 30gal fiber drum
2: Drum#0605-2: (Labpack) TX State Code: OUTS001H	151	2: 1 x 15gal fiber drum
3: Drum#0605-3: (Labpack) TX State Code: OUTS001H	113	3: 1 x 5gal poly drum
4: Drum#0605-4: (Labpack) TX State Code: OUTS001H	154	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Signature: Month 06 Day 05 Year 15

GENERATOR

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

INT'L

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Leo Cervantes Signature: Month 06 Day 05 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

TRANSPORTER

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

DESIGNATED FACILITY

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Signature: Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number: CAD983585324	22. Page 2 of 3	23. Manifest Tracking Number 007668621FLE

24. Generator's Name
Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN1791,Waste hypochlorite solution,8,III	1	DF	12	P	D001	551	
X	6.UN3098,Waste oxidizing liquid,corrosive,n.o.s., (ammoniacal silver nitrate),5.1,(8),II	1	DF	8	P	D001	D011	551
X	7.UN1866,Waste resin solution,3,II	1	DF	10	P	D001	551	
X	8.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	10	P	D001	D002	791
X	9.UN3290,Waste toxic solid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	13	P	D002	791	
X	10.RQ,UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II (D011)	1	DF	13	P	D001	D007	D011
						551		
X	11.UN3098,Waste oxidizing liquid,corrosive,n.o.s., (phosphotungstic,phosphomolybdic acid),5.1,(8),II	1	DF	10	P	D001	D002	791
X	12.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(ferric chloride,hydrochloric acid),8,II	1	DF	34	P	D002	791	
X	13.UN1362,Waste carbon,activated,4.2,III DOT-SP13192	1	DF	17	P	D001	551	
X	14.UN3280,Waste organoarsenic compound,liquid, n.o.s.,(aqueous sodium cacodylate,glutaraldehyde), 6.1,II "toxic"	1	DF	12	P	D004	551	

32. Special Handling Instructions and Additional Information

	ERG#
05: Drum#0605-5: (Labpack) TX State Code: OUTS001H	154
06: Drum#0605-6: (Labpack) TX State Code: OUTS001H	140
07: Drum#0605-7: (Labpack) TX State Code: OUTS001H	127
08: Drum#0605-8: (Labpack) TX State Code: OUTS001H	143
09: Drum#0605-9: (Labpack) TX State Code: OUTS001H	154
10: Drum#0605-10: (Labpack) TX State Code: OUTS001H	140
11: Drum#0605-11: (Labpack) TX State Code: OUTS001H	140
12: Drum#0605-12: (Labpack) TX State Code: OUTS001H	153
13: Drum#0605-13: (Labpack) TX State Code: OUTS001H	133
14: Drum#0605-14: (Labpack) TX State Code: OUTS001H	131

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 1 x 15gal fiber drum
13: 1 x 5gal poly drum
14: 1 x 5gal poly drum

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR — TRANSPORTER — FACILITY — DESIGN/

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CAD983585324

22. Page: 3 of 3

23. Manifest Tracking Number: 007668621FLE

24. Generator's Name: Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15.UN2810,Toxic liquids,organic,n.o.s., (aqueous hydroquinone),6.1,III	1	DF	9	P	551		
X	16.UN2924,Waste flammable liquid,corrosive,n.o.s., (acid alcohol,formic acid),3,(8),II	1	DF	11	P	D001	D002	791
X	17.UN1719,Waste caustic alkali liquids,n.o.s., (sodium hydroxide,sodium carbonate),8,II	1	DF	7	P	D002	551	
X	18.RQ,UN3287,Waste toxic liquid,inorganic,n.o.s., (silver nitrate,barium chloride),6.1,II (D011)	1	DF	15	P	D005	D011	551
X	19.UN1993,Waste flammable liquids,n.o.s., (methanol,ethanol),3,II	1	DF	95	P	D001	U002	F003
						551		
X	20.NA3082,Other regulated substances liquid,n.o.s., (sodium thiosulfate,methenamine borate),9,III	1	DF	136	P	551		
X	21.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(oxalic acid,acetic acid),8,II	1	DF	31	P	D002	791	

GENERATOR

32. Special Handling Instructions and Additional Information

15: Drum#0605-15: (Labpack) TX State Code: OUTS0011
16: Drum#0605-16: (Labpack) TX State Code: OUTS001H
17: Drum#0605-17: (Labpack) TX State Code: OUTS001H
18: Drum#0605-18: (Labpack) TX State Code: OUTS001H
19: Drum#0605-19: (Labpack) TX State Code: OUTS001H
20: Drum#0605-20: (Labpack) TX State Code: OUTS0011
21: Drum#0605-21: (Labpack) TX State Code: OUTS001H

ERG# 154, 132, 154, 151, 128, 171, 153

15: 1 x 5gal poly drum
16: 1 x 5gal poly drum
17: 1 x 5gal poly drum
18: 1 x 5gal poly drum
19: 1 x 30gal fiber drum
20: 1 x 55gal fiber drum
21: 1 x 15gal fiber drum
22:
23:
24:

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month Day Year

FACILITY

35. Discrepancy

DESIGN

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: (909) 875-9288
4. Manifest Tracking Number: 014188931 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert

Generator's Site Address (if different than mailing address)

CD Requested

6. Transporter 1 Company Name: North State Environmental (650) 588-2838
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907, Soda lime, 8, PGIII	4	DF	950	P	181
	2. Non-RCRA hazardous waste solid (lab debris)	~~1~~ 2	DF	175	P	352
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1 070127495-903 ; Soda lime cartridges
2 070128300-8053 ; Lab debris-plastic, glassware,paper,cardboard,PPE

ERG#
154
N/A

1: 4x55GFD
2: 2x55GFD
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: HAYK SVADIAN
Signature: [signature]
Month 05 Day 28 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S.
Port of entry/exit:
Transporter signature (for exports only):
Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Randy Haynes
Signature: Randy Haynes
Month 05 Day 28 Year 15
Transporter 2 Printed/Typed Name
Signature
Month Day Year

SIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132
2. H132
3.
4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Umber Park
Signature: Umber Park
Month 06 Day 14 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 1
3. Emergency Response Phone: (909) 875-9288
4. Manifest Tracking Number: 014188930 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert

Generator's Site Address (if different than mailing address)
This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.
CD Requested

6. Transporter 1 Company Name: North State Environmental (650) 588-2838
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
NSSI/Sources & Services, Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082, Other regulated substances, liquid, n.o.s., (phosphate buffered formalin), 9, PGIII	12 ~~7~~	DF	660 ~~665~~	G	134
X	2. NA3082, Other regulated substances liquid, n.o.s., (DAB Waste), 9, PGIII	3	DF	165	G	134
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1 ehg020513g2 ; ehg020513g2, TX State Code: OUTS001H — ERG# 171 — 1: 11 x 55 GPD
2 ehg013013g7-BD1 ; EHG013013g7-BD1, TX State Code: OUTS001H — ERG# 171 — 2: 3 x 55 GPD
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: HAYK SVAJIAN — Signature: [signature] — Month 05 Day 28 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: RANDY HAYNES — Signature: [signature] — Month 05 Day 28 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 2. H141 for # 1,2 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: R. Foster — Signature: [signature] — Month 6 Day 5 Year 15

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	CAD983585324	1	(909) 875-9288	014188930 JJK

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert

Generator's Site Address (if different than mailing address)

CD Requested

6. Transporter 1 Company Name
North State Environmental (650)588-2838
U.S. EPA ID Number CAR000206086

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
NSSI/Sources & Services, Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713) 641-0391
U.S. EPA ID Number TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082, Other regulated substances, liquid, n.o.s., (phosphate buffered formalin), 9, PGIII	12 ~~11~~	DF	660 ~~605~~	G	134
X	2. NA3082, Other regulated substances liquid, n.o.s., (DAB Waste), 9, PGIII	3	DF	165	G	134
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1 ehg020513g2 ; ehg020513g2, TX State Code: OUTS001H
2 ehg013013g7-BD1 ; EHG013013g7-BD1, TX State Code: OUTS001H

ERG# 171 171
1: 11x55GPD
2: 3x55GPD
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: HAYK SVAJIAN
Signature: [signature]
Month 05 Day 28 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: RANDY HAYNES
Signature: [signature]
Month 05 Day 28 Year 15
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 / 2. H141 for 3. #1, 2 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: R. Foston
Signature: [signature]
Month 6 Day 5 Year 15

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of 1
3. Emergency Response Phone: (909) 875-9288
4. Manifest Tracking Number: 014188929 JJK

GENERATOR

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
14445 Olive View Drive
Sylmar CA 91342
Generator's Phone: (818) 364-3405 Attn: Frank Colbert

Generator's Site Address (if different than mailing address)

CD Requested

6. Transporter 1 Company Name
North State Environmental (650) 588-2838
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (methanol,hexane),3,II (D001,F003)	28 ~~26~~ ~~27~~	DF ~~DM~~	1540 ~~1595~~ ~~1575~~	G	D001	F003	212
X	2. UN1325,Waste flammable solids,organic,n.o.s., (cardboard filters with carbon),4.1,III	2	DF ~~DM~~	200	P	D001		352
X	3. RQ,UN3175,Waste solids containing flammable liquids ,n.o.s.,(paraffin wax with xylene,petroleum distillates),4.1,II (D001)	7 ~~6~~	DM	2300	P	D001	F003	331 331
	4.							

14. Special Handling Instructions and Additional Information

1 13070179 ; Profile#13070179: Solvent with methanol,alcohol,hexane — ERG# 128 — 1: 24x55 GPD
2 10020023 ; Carbon filler cardborad filters (bulk) — ERG# 133 — 2: 2x55GPD
3 14010076 ; Profile#14010076: Paraffin wax with xlyene,petroleum distillates — ERG# 133 — 3: 6x55 GPD
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: MAYK SVADIAN — Signature: [signature] — Month 05 Day 28 Year 15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: RANDY HAYNES — Signature: Randy Haynes — Month 05 Day 28 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

SIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H061 2. H141 3. H141 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Alma Vacio — Signature: [signature] — Month 5 Day 29 Year 15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAL000163403
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668381 FLE

5. Generator's Name and Mailing Address
Olive View Power Plant
1100 N. Eastern Ave RM119
Los Angeles CA 90063
Generator's Phone: (323) 793-3260 Attn: Harry Parra

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA hazardous waste solid (oily rags, oily debris)	1	DM	10	P	352
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070128300-9088: Oily rags, oily towels, oily carboard, oily, debris

ERG# N/A

1: 1255 OTS
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Hank Teen
Signature
Month Day Year: 03 18 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero
Signature
Month Day Year: 03 18 15
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H132 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Wanda Thompson
Signature
Month Day Year: 3 26 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668379 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave., RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn: Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
SET Environmental, Inc.
5743 Cheswood
Houston TX 77087

Facility's Phone: (713) 645-8710
U.S. EPA ID Number: TXD055135388

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1080, Sulfur hexafluoride, 2.2	3	CY	8	P	141
X	2. UN3163, Liquefied gas, n.o.s., (perfluoropropane), 2.2	2	CY	5	P	741
X	3. UN1956, Compressed gas, n.o.s., (ethanol (103ppm) in nitrogen), 2.2	1	CY	5	P	331
	4.					

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0318-1A-->1C: (Cylinder) TX State Code: OUTS7011	126	1: 3 x lecture cylinder (5gpd)
2: Drum#0318-2A,2B: (Cylinder) TX State Code: OUTS8011	126	2: 2 x lecture cylinder (5gpd)
3: Drum#0318-3: (Cylinder) TX State Code: OUTS8011	126	3: 1 x small cylinder (5gpd)
		4:

112504

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: HAYK SVAJIAN
Signature: [signature]
Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero
Signature: [signature]
Month 03 Day 18 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H100	H100	H061	

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Andrea Coleman
Signature: Andrea Coleman
Month 03 Day 27 Year 15

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668376 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003
Facility's Phone: (775) 553-2203
U.S. EPA ID Number: NVT330010000

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907,Soda lime,8,III	3	DF	300	P	181
	2. Non-RCRA hazardous waste solid (lab debris)	1	DF	60	P	352
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Used carbon dioxide absorbent w/ soda lime in plastic cartridge
2: Profile#070128300-9087: Lab debris with broken glass,rags,absorbent,gloves

ERG# 154
N/A

1: 3 x 55gal poly drum
2: 1 x 55gal fiber drum
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: HAYK SIAMAN
Signature: [signature]
Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero
Signature: [signature]
Month 03 Day 18 Year 15
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 11132 2. 11132 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Brianna Thompson
Signature: [signature]
Month 3 Day 26 Year 15

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668375 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023

Facility's Phone: (800) 499-7145
U.S. EPA ID Number: CAD008252405

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	15	DF	800	G	D001	F003	212
X	2. UN1950,Waste aerosols,2.1	1	DF	12	P	D001	331	
X	3. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,II (D001,F003)	5	DF	481	P	D001	F003	331
X	4. RQ,UN1325,Waste flammable solids,organic,n.o.s., (carbon filters),4.1,II (D001)	2	DF	163	P	D001	331	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Oils,pet dist,alcohols,xylenes,glycols,water,stains	128	1: 15 x 55gal poly drum
2: Profile#~~2609171~~:Flammable aerosols with hydrocarbon solvents/propellants 26090171	126	2: 1 x 5gal poly drum
3: Profile#14010076: Used paraffin wax with alcohol,xylene	133	3: 5 x 55gal fiber drum
4: Profile#10020023: Used carbon filters/carbon	133	4: 2 x 55gal fiber drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: HAYK SVAJIAN
Signature:
Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero
Signature:
Month 03 Day 18 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H061	H141	H141	H141

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Romin Escobar
Signature:
Month 3 Day 24 Year 15

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909)875-9288
4. Manifest Tracking Number: 007668378 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental — U.S. EPA ID Number: CAR000206086
7. Transporter 2 Company Name — U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Veolia ES Technical Solutions, L.L.C.
5736 West Jefferson Street
Phoenix AZ 85043
Facility's Phone: (602)233-2955
U.S. EPA ID Number: AZ0000337360

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. RQ,UN3082,Waste environmentally hazardous substance liquids,n.o.s.,(mercury thermometers),9,III (D009) "Marine Pollutant"	1	DF	5	P	D009 725
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Drum#0318-1: Broken thermometers,lamps
ERG# 172
1: 1 x 5gal poly drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: HAYK SUADIAN — Signature: [signature] — Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero — Signature: [signature] — Month 03 Day 18 Year 15
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H010 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: John M. Genta — Signature: [signature] — Month 03 Day 23 Year 15

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of: 3
3. Emergency Response Phone: NSE: (909)875-9288
4. Manifest Tracking Number: 007668377 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713)641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN2924,Waste flammable liquid,corrosive,n.o.s., (formic acid,methanol),3,(8),II	1	DF	96	P	D001	D002	791
X	2. UN2924,Waste flammable liquid,corrosive,n.o.s., (isopropanol,sodium hydroxide),3,(8),II	1	DF	99	P	D001	D002	551
X	3. UN1719,Waste caustic alkali liquids,n.o.s., (ammonium hydroxide,sodium hydroxide),8,II	1	DF	13	P	D002	551	
X	4. UN2811,Toxic solid,organic,n.o.s., (aqueous hydroquinone),6.1,III	1	DF	10	P	551		

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0317-1: (Labpack) TX State Code: OUTS001H	132	1: 1 x 15gal fiber drum
2: Drum#0317-2: (Labpack) TX State Code: OUTS001H	132	2: 1 x 15gal fiber drum
3: Drum#0317-3: (Labpack) TX State Code: OUTS001H	153	3: 1 x 5gal poly drum
4: Drum#0317-4: (Labpack) TX State Code: OUTS0011	154	4: 1 x 5gal poly drum

ehs0323359 5

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: MARK SARJAN
Signature:
Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero
Signature:
Month 03 Day 18 Year 15
Transporter 2 Printed/Typed Name
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 2. H141 for T 3. 1-4 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Kenneth Foston
Signature:
Month 3 Day 27 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAD983585324
2. Page 1 of 3
3. Emergency Response Phone: NSE: (909)875-9288
4. Manifest Tracking Number: 007668377 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087
Facility's Phone: (713)641-0391
U.S. EPA ID Number: TXD982560294

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN2924,Waste flammable liquid,corrosive,n.o.s., (formic acid,methanol),3,(8),II	1	DF	46	P	D001	D002	791
X	2. UN2924,Waste flammable liquid,corrosive,n.o.s., (isopropanol,sodium hydroxide),3,(8),II	1	DF	49	P	D001	D002	551
X	3. UN1719,Waste caustic alkali liquids,n.o.s., (ammonium hydroxide,sodium hydroxide),8,II	1	DF	13	P	D002	551	
X	4. UN2811,Toxic solid,organic,n.o.s., (aqueous hydroquinone),6.1,III	1	DF	10	P	551		

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0317-1: (Labpack) TX State Code: OUTS001H	132	1: 1 x 15gal fiber drum
2: Drum#0317-2: (Labpack) TX State Code: OUTS001H	132	2: 1 x 15gal fiber drum
3: Drum#0317-3: (Labpack) TX State Code: OUTS001H	153	3: 1 x 5gal poly drum
4: Drum#0317-4: (Labpack) TX State Code: OUTS0011	154	4: 1 x 5gal poly drum

ehs0323159 5

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: MARK SVAJIAN
Signature:
Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero
Signature:
Month 03 Day 18 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040-07 2. H141 for 1-4 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Kenneth Foston
Signature:
Month 3 Day 27 Year 15

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 3	007668377FLE

24. Generator's Name
Olive View UCLA Medical Center

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3280,Waste organoarsenic compounds,liquid, n.o.s.,(aqueous sodium cacodylate,glutaraldehyde), 6.1,II "toxic"	1	DF	10	P	D004	721	
X	6.UN1344,Trinitrophenol,wetted,4.1,I	1	DF	9	P	551		
X	7.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	9	P	D001	D002	791
X	8.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (aqueous periodic acid),5.1,(8),II	1	DF	10	P	D001	D002	791
X	9.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,ammonium aluminum sulfate),8,II	1	DF	10	P	D002	791	
X	10.UN1755,Waste chromic acid solution,8,II	1	DF	10	P	D001	D007	791
X	11.UN2024,Waste mercury compounds,liquid,n.o.s., (aqueous thimerosal,poly-l-lysine),6.1,II "Marine Pollutant"	1	DF	10	P	D009	725	
X	12.UN3261,Corrosive solids,acidic,organic,n.o.s., (citric acid),8,III	1	DF	9	P	551		
X	13.UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine),6.1,(5.1),II	1	DF	10	P	D001	551	
X	14.RQ,UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II (D011)	1	DF	10	P	D001	D007	D011
						551		

32. Special Handling Instructions and Additional Information

	ERG#			
05: Drum#0317-5: (Labpack) TX State Code: OUTS001H	141	5: 1 x 5gal poly drum	9: 1 x 5gal poly drum	13: 1 x 5gal poly drum
06: Drum#0317-6: (Labpack) TX State Code: OUTS0011	113	6: 1 x 5gal poly drum	10: 1 x 5gal poly drum	14: 1 x 5gal poly drum
07: Drum#0317-7: (Labpack) TX State Code: OUTS001H	143	7: 1 x 5gal poly drum	11: 1 x 5gal poly drum	
08: Drum#0317-8: (Labpack) TX State Code: OUTS001H	140	8: 1 x 5gal poly drum	12: 1 x 5gal poly drum	
09: Drum#0317-9: (Labpack) TX State Code: OUTS001H	153			
10: Drum#0317-10: (Labpack) TX State Code: OUTS001H	140			
11: Drum#0317-11: (Labpack) TX State Code: OUTS001H	151			
12: Drum#0317-12: (Labpack) TX State Code: OUTS0011	154			
13: Drum#0317-13: (Labpack) TX State Code: OUTS001H	154			
14: Drum#0317-14: (Labpack) TX State Code: OUTS001H	140			

Ohs03231555

GENERATOR

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: HAYK SVAJIAN — Signature: [signature] — Month / Day / Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month / Day / Year

TRANSPORTER

35. Discrepancy

FACILITY

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-01 / H141 for # 5-14

DESIGN

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CAD983585324

22. Page: 2 of 3

23. Manifest Tracking Number: 007668377FLE

24. Generator's Name: Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3280,Waste organoarsenic compounds,liquid, n.o.s.,(aqueous sodium cacodylate,glutaraldehyde), 6.1,II "toxic"	1	DF	10	P	D004	721	
X	6.UN1344,Trinitrophenol,wetted,4.1,I	1	DF	9	P	551		
X	7.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	9	P	D001	D002	791
X	8.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (aqueous periodic acid),5.1,(8),II	1	DF	10	P	D001	D002	791
X	9.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,ammonium aluminum sulfate),8,II	1	DF	10	P	D002	791	
X	10.UN1755,Waste chromic acid solution,8,II	1	DF	10	P	D001	D007	791
X	11.UN2024,Waste mercury compounds,liquid,n.o.s., (aqueous thimerosal,poly-l-lysine),6.1,II "Marine Pollutant"	1	DF	10	P	D009	725	
X	12.UN3261,Corrosive solids,acidic,organic,n.o.s., (citric acid),8,III	1	DF	9	P	551		
X	13.UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine),6.1,(5.1),II	1	DF	10	P	D001	551	
X	14.RQ,UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II (D011)	1	DF	10	P	D001	D007	D011
						551		

32. Special Handling Instructions and Additional Information

05: Drum#0317-5: (Labpack) TX State Code: OUTS001H — ERG# 141
06: Drum#0317-6: (Labpack) TX State Code: OUTS0011 — 113
07: Drum#0317-7: (Labpack) TX State Code: OUTS001H — 143
08: Drum#0317-8: (Labpack) TX State Code: OUTS001H — 140
09: Drum#0317-9: (Labpack) TX State Code: OUTS001H — 153
10: Drum#0317-10: (Labpack) TX State Code: OUTS001H — 140
11: Drum#0317-11: (Labpack) TX State Code: OUTS001H — 151
12: Drum#0317-12: (Labpack) TX State Code: OUTS001I — 154
13: Drum#0317-13: (Labpack) TX State Code: OUTS001H — 154
14: Drum#0317-14: (Labpack) TX State Code: OUTS001H — 140

Chs0323155

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 1 x 5gal poly drum
13: 1 x 5gal poly drum
14: 1 x 5gal poly drum

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: HAYK SVAJIAN — Signature: [signature] — Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name — Signature — Month | Day | Year

FACILITY

35. Discrepancy

DESIGN

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-01 / H141 for #5-14

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: CAD983585324

22. Page: 3 of 3

23. Manifest Tracking Number: 007668377FLE

24. Generator's Name: Olive View UCLA Medical Center

This is to inform the generator of the waste shipped on this manifest, that NSSI has the appropriate permits for, and will accept, the waste the generator is shipping.

25. Transporter _____ Company Name | U.S. EPA ID Number

26. Transporter _____ Company Name | U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15.UN2984,Waste hydrogen peroxide,aqueous solution, 5.1,III	1	DF	9	P	D001	551	
X	16.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (silver nitrate,ammonium hydroxide),5.1,(8),II	1	DF	9	P	D001	D002	551
X	17.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(hydrochloric acid,ferric ammonium sulfate), 8,II	1	DF	3½	P	D002	791	
X	18.UN3289,Waste toxic liquid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	9	P	D002	792	
X	19.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(sodium bisulfite),8,III	1	DF	11	P	D002	D003	791
X	20.UN1866,Waste resin solution,3,II	1	DF	9	P	D001	551	
X	21.NA3077,Other regulated substances,solid,n.o.s., (aqueous phosphate buffered formalin),9,III	7	DF	350	G	134		

GENERATOR

32. Special Handling Instructions and Additional Information

15: Drum#0317-15: (Labpack) TX State Code: OUTS001H — ERG# 140
16: Drum#0317-16: (Labpack) TX State Code: OUTS001H — ERG# 140
17: Drum#0317-17: (Labpack) TX State Code: OUTS001H — ERG# 154
18: Drum#0317-18: (Labpack) TX State Code: OUTS001H — ERG# 154
19: Drum#0317-19: (Labpack) TX State Code: OUTS001H — ERG# 154
20: Drum#0317-20: (Labpack) TX State Code: OUTS001H — ERG# 154
21: Drum#0317-21A-->21G: (Bulk) TX State Code: OUTS1011 — ERG# 127, 171

chg 03/23/595

15: 1 x 5gal poly drum
16: 1 x 5gal poly drum
17: 1 x 5gal poly drum 15
18: 1 x 5gal poly drum
19: 1 x 5gal poly drum
20: 1 x 5gal poly drum
21: 7 x 55gal poly drum
22:
23:
24:

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name: HAYK SIAJIAN | Signature | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials

Printed/Typed Name | Signature | Month | Day | Year

FACILITY

35. Discrepancy

DESIGN

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

H040-01 / H141 for #15-21

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	3 of 3	007668377FLE

24. Generator's Name
Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15.UN2984,Waste hydrogen peroxide,aqueous solution, 5.1,III	1	DF	9	P	D001	551	
X	16.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (silver nitrate,ammonium hydroxide),5.1,(8),II	1	DF	9	P	D001	D002	551
X	17.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(hydrochloric acid,ferric ammonium sulfate), 8,II	1	DF	36	P	D002	791	
X	18.UN3289,Waste toxic liquid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	9	P	D002	792	
X	19.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(sodium bisulfite),8,III	1	DF	11	P	D002	D003	791
X	20.UN1866,Waste resin solution,3,II	1	DF	9	P	D001	551	
X	21.NA3077,Other regulated substances,solid,n.o.s., (aqueous phosphate buffered formalin),9,III	7	DF	350	G	134		

GENERATOR

32. Special Handling Instructions and Additional Information

15: Drum#0317-15: (Labpack) TX State Code: OUTS001H — ERG# 140
16: Drum#0317-16: (Labpack) TX State Code: OUTS001H — 140
17: Drum#0317-17: (Labpack) TX State Code: OUTS001H — 154
18: Drum#0317-18: (Labpack) TX State Code: OUTS001H — 154
19: Drum#0317-19: (Labpack) TX State Code: OUTS001H — 154
20: Drum#0317-20: (Labpack) TX State Code: OUTS001H — 127
21: Drum#0317-21A—>21G: (Bulk) TX State Code: OUTS1011 — 171

ehg03231595

15: 1 x 5gal poly drum
16: 1 x 5gal poly drum
17: 1 x 5gal poly drum 15
18: 1 x 5gal poly drum
19: 1 x 5gal poly drum
20: 1 x 5gal poly drum
21: 7 x 55gal poly drum
22:
23:
24:

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name: HAYK SLAJIAN — Signature: [signature] — Month — Day — Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month — Day — Year

FACILITY

35. Discrepancy

DESIGN

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
H040-01 / H141 for # 15-21

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR STATE (IF REQUIRED)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4

2. Page 1 of: 1

3. Emergency Response Phone: NSE: (909) 875-9288

4. Manifest Tracking Number: 007668379 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address): CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
SET Environmental, Inc.
5743 Cheswood
Houston TX 77087

Facility's Phone: (713) 645-8710
U.S. EPA ID Number: T X D 0 5 5 1 3 5 3 8 8

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1080,Sulfur hexafluoride,2.2	3	CY	8	P	141
X	2. UN3163,Liquefied gas,n.o.s.,(perfluoropropane),2.2	2	CY	5	P	741
X	3. UN1956,Compressed gas,n.o.s., (ethanol (103ppm) in nitrogen),2.2	1	CY	5	P	331
	4.					

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0318-1A-->1C: (Cylinder) TX State Code: OUTS7011	126	1: 3 x lecture cylinder (5gpd)
2: Drum#0318-2A,2B: (Cylinder) TX State Code: OUTS8011	126	2: 2 x lecture cylinder (5gpd)
3: Drum#0318-3: (Cylinder) TX State Code: OUTS8011	126	3: 1 x small cylinder (5gpd)
		4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Spero Signature: Month 03 Day 18 Year 15

Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name Signature Month Day Year

GENERATOR

INT'L

TRANSPORTER

DESIGNATED FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668378 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818)364-3405 Attn:Frank Colbert-EH&S Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Veolia ES Technical Solutions, L.L.C.
5736 West Jefferson Street
Phoenix AZ 85043
Facility's Phone: (602)233-2955
U.S. EPA ID Number: A Z 0 0 0 0 3 3 7 3 6 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN3082,Waste environmentally hazardous substance liquids,n.o.s.,(mercury thermometers),9,III (D009) "Marine Pollutant"	1	DF	5	P	D009	725	
	2.							
	3.							
	4.							

14. Special Handling Instructions and Additional Information
1: Drum#0318-1: Broken thermometers,lamps
ERG# 172
1: 1 x 5gal poly drum
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero Signature: [illegible] Month 03 Day 18 Year 15
Transporter 2 Printed/Typed Name: Signature: Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	3 of 3	007668377FLE

24. Generator's Name
Olive View UCLA Medical Center

25. Transporter _____ Company Name | U.S. EPA ID Number

26. Transporter _____ Company Name | U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	15.UN2984,Waste hydrogen peroxide,aqueous solution, 5.1,III	1	DF	7	P	D001	551	
X	16.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (silver nitrate,ammonium hydroxide),5.1,(8),II	1	DF	9	P	D001	D002	551
X	17.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(hydrochloric acid,ferric ammonium sulfate), 8,II	1	DF	10	P	D002	791	
X	18.UN3289,Waste toxic liquid,corrosive,inorganic, n.o.s.,(gold chloride),6.1,(8),II	1	DF	9	P	D002	792	
X	19.UN3264,Waste corrosive liquids,acidic,inorganic, n.o.s.,(sodium bisulfite),8,III	1	DF	11	P	D002	D003	791
X	20.UN1866,Waste resin solution,3,II	1	DF	9	P	D001	551	
X	21.NA3077,Other regulated substances,solid,n.o.s., (aqueous phosphate buffered formalin),9,III	7	DF	350	G	134		

32. Special Handling Instructions and Additional Information

	ERG#
15: Drum#0317-15: (Labpack) TX State Code: OUTS001H	140
16: Drum#0317-16: (Labpack) TX State Code: OUTS001H	140
17: Drum#0317-17: (Labpack) TX State Code: OUTS001H	154
18: Drum#0317-18: (Labpack) TX State Code: OUTS001H	154
19: Drum#0317-19: (Labpack) TX State Code: OUTS001H	154
20: Drum#0317-20: (Labpack) TX State Code: OUTS001H	127
21: Drum#0317-21A-->21G: (Bulk) TX State Code: OUTS1011	171

15: 1 x 5gal poly drum
16: 1 x 5gal poly drum
17: 1 x 5gal poly drum
18: 1 x 5gal poly drum
19: 1 x 5gal poly drum
20: 1 x 5gal poly drum
21: 7 x 55gal poly drum
22:
23:
24:

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name: [illegible] | Signature: [illegible] | Month | Day | Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name | Signature | Month | Day | Year

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

GENERATOR | TRANSPORTER | FACILITY | DESIGN

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	21. Generator ID Number	22. Page	23. Manifest Tracking Number
	CAD983585324	2 of 3	007668377FLE

24. Generator's Name
Olive View UCLA Medical Center

25. Transporter _____ Company Name — U.S. EPA ID Number

26. Transporter _____ Company Name — U.S. EPA ID Number

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		
X	5.UN3280,Waste organoarsenic compounds,liquid, n.o.s.,(aqueous sodium cacodylate,glutaraldehyde), 6.1,II "toxic"	1	DF	10	P	D004	721	
X	6.UN1344,Trinitrophenol,wetted,4.1,I	1	DF	7	P	551		
X	7.UN1873,Waste perchloric acid,5.1,(8),I	1	DF	7	P	D001	D002	791
X	8.UN3098,Waste oxidizing liquids,corrosive,n.o.s., (aqueous periodic acid),5.1,(8),II	1	DF	10	P	D001	D002	791
X	9.UN3265,Waste corrosive liquids,acidic,organic, n.o.s.,(acetic acid,ammonium aluminum sulfate),8,II	1	DF	10	P	D002	791	
X	10.UN1755,Waste chromic acid solution,8,II	1	DF	10	P	D001	D007	791
X	11.UN2024,Waste mercury compounds,liquid,n.o.s., (aqueous thimerosal,poly-l-lysine),6.1,II "Marine Pollutant"	1	DF	10	P	D009	725	
X	12.UN3261,Corrosive solids,acidic,organic,n.o.s., (citric acid),8,III	1	DF	7	P	551		
X	13.UN3122,Waste toxic liquid,oxidizing,n.o.s., (iodine),6.1,(5.1),II	1	DF	10	P	D001	551	
X	14.RQ,UN3139,Waste oxidizing liquid,n.o.s., (silver nitrate,sodium chromate),5.1,II (D011)	1	DF	10	P	D001	D007	D011
						551		

32. Special Handling Instructions and Additional Information

	ERG#
05: Drum#0317-5: (Labpack) TX State Code: OUTS001H	141
06: Drum#0317-6: (Labpack) TX State Code: OUTS0011	113
07: Drum#0317-7: (Labpack) TX State Code: OUTS001H	143
08: Drum#0317-8: (Labpack) TX State Code: OUTS001H	140
09: Drum#0317-9: (Labpack) TX State Code: OUTS001H	153
10: Drum#0317-10: (Labpack) TX State Code: OUTS001H	140
11: Drum#0317-11: (Labpack) TX State Code: OUTS001H	151
12: Drum#0317-12: (Labpack) TX State Code: OUTS0011	154
13: Drum#0317-13: (Labpack) TX State Code: OUTS001H	154
14: Drum#0317-14: (Labpack) TX State Code: OUTS001H	140

5: 1 x 5gal poly drum
6: 1 x 5gal poly drum
7: 1 x 5gal poly drum
8: 1 x 5gal poly drum
9: 1 x 5gal poly drum
10: 1 x 5gal poly drum
11: 1 x 5gal poly drum
12: 1 x 5gal poly drum
13: 1 x 5gal poly drum
14: 1 x 5gal poly drum

GENERATOR

TRANSPORTER

33. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

34. Transporter _____ Acknowledgment of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

35. Discrepancy

DESIGN

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 3
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668377 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
NSSI/Sources & Services,Inc.
5711 Etheridge Street
Houston TX 77087

Facility's Phone: (713) 641-0391
U.S. EPA ID Number: T X D 9 8 2 5 6 0 2 9 4

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. UN2924,Waste flammable liquid,corrosive,n.o.s., (formic acid,methanol),3,(8),II	1	DF	46	P	D001	D002	791
X	2. UN2924,Waste flammable liquid,corrosive,n.o.s., (isopropanol,sodium hydroxide),3,(8),II	1	DF	49	P	D001	D002	551
X	3. UN1719,Waste caustic alkali liquids,n.o.s., (ammonium hydroxide,sodium hydroxide),8,II	1	DF	13	P	D002	551	
X	4. UN2811,Toxic solid,organic,n.o.s., (aqueous hydroquinone),6.1,III	1	DF	10	P	551		

14. Special Handling Instructions and Additional Information

	ERG#	
1: Drum#0317-1: (Labpack) TX State Code: OUTS001H	132	1: 1 x 15gal fiber drum
2: Drum#0317-2: (Labpack) TX State Code: OUTS001H	132	2: 1 x 15gal fiber drum
3: Drum#0317-3: (Labpack) TX State Code: OUTS001H	153	3: 1 x 5gal poly drum
4: Drum#0317-4: (Labpack) TX State Code: OUTS0011	154	4: 1 x 5gal poly drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Hank Sanan
Signature: [signature]
Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: David Spero
Signature:
Month 03 Day 18 Year 15

Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name:
Signature:
Month Day Year

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668376 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S Office

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
US Ecology, Inc.
Hwy 95, 11 miles south of
Beatty NV 89003

Facility's Phone: (775) 553-2203
U.S. EPA ID Number: N V T 3 3 0 0 1 0 0 0 0

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. UN1907,Soda lime,8,III	3	DF	300	P	181
	2. Non-RCRA hazardous waste solid (lab debris)	1	DF	60	P	352
	3.					
	4.					

14. Special Handling Instructions and Additional Information
1: Profile#070127495-903:Used carbon dioxide absorbent w/ soda lime in plastic cartridge — ERG# 154 — 1: 3 x 55gal poly drum
2: Profile#070128300-9087: Lab debris with broken glass,rags,absorbent,gloves — N/A — 2: 1 x 55gal fiber drum
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] — Signature: [illegible] — Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero — Signature: — Month 03 Day 18 Year 15
Transporter 2 Printed/Typed Name: — Signature: — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name — Signature — Month Day Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: C A D 9 8 3 5 8 5 3 2 4
2. Page 1 of: 1
3. Emergency Response Phone: NSE: (909) 875-9288
4. Manifest Tracking Number: 007668375 FLE

5. Generator's Name and Mailing Address
Olive View UCLA Medical Center
1100 N. Eastern Ave.,RM225
Los Angeles CA 90063
Generator's Phone: (818) 364-3405 Attn:Frank Colbert-EH&S | Office

Generator's Site Address (if different than mailing address)
14445 Olive View Drive
Sylmar CA 91342

CD Requested

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: C A R 0 0 0 2 0 6 0 8 6

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
Pacific Resource Recovery
3150 East Pico Boulevard
Los Angeles CA 90023
Facility's Phone: (800) 499-7145
U.S. EPA ID Number: C A D 0 0 8 2 5 2 4 0 5

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
X	1. RQ,UN1993,Waste flammable liquids,n.o.s., (xylene,alcohol),3,II (D001,F003)	15	DF	[illegible]	G	D001	F003	212
X	2. UN1950,Waste aerosols,2.1	1	DF	[illegible]	P	D001	331	
X	3. RQ,UN1325,Waste flammable solids,organic,n.o.s., (paraffin wax with xylene,alcohol),4.1,II (D001,F003)	5	DF	[illegible]	P	D001	F003	331
X	4. RQ,UN1325,Waste flammable solids,organic,n.o.s., (carbon filters),4.1,II (D001)	2	DF	[illegible]	P	D001	331	

14. Special Handling Instructions and Additional Information

	ERG#	
1: Profile#13070179: Oils,pet dist,alcohols,xylenes,glycols,water,stains	128	1: 15 x 55gal poly drum
2: Profile#2609171:Flammable aerosols with hydrocarbon solvents/propellants	126	2: 1 x 5gal poly drum
3: Profile#14010076: Used paraffin wax with alcohol,xylene	133	3: 5 x 55gal fiber drum
4: Profile#10020023: Used carbon filters/carbon	133	4: 2 x 55gal fiber drum

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: [illegible] Signature: [illegible] Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: David Spero Signature: Month 03 Day 18 Year 15
Transporter 2 Printed/Typed Name Signature Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name Signature Month Day Year

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

GENERATOR'S INITIAL COPY

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Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: CAL000163403
2. Page 1 of 1
3. Emergency Response Phone: NSE: (909)875-9288
4. Manifest Tracking Number: 007668380 FLE

5. Generator's Name and Mailing Address
Olive View Power Plant
1100 N. Eastern Ave RM119
Los Angeles CA 90063
Generator's Phone: (323) 793-3260Attn:Harry Parra

Generator's Site Address (if different than mailing address)
CD Requested
14445 Olive View Drive
Sylmar CA 91342

6. Transporter 1 Company Name: North State Environmental
U.S. EPA ID Number: CAR000206086

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address
Demenno\Kerdoon
2000 N. Alameda St.
Compton CA 90222
Facility's Phone: (310)537-7100
U.S. EPA ID Number: CAT080013352

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Non-RCRA hazardous waste liquid (oil)	3	DM	165	G	221
	2.					
	3.					
	4.					

THIS WASTE STREAM HAS BEEN QUALIFIED FOR RECYCLING/TREATMENTS AT THE DeMENNO / KERDOON FACILITY IN COMPTON, CALIFORNIA. THIS FACILITY HAS THE NECESSARY PERMITS TO RECEIVE YOUR WASTE STREAM AS QUALIFIED. OUR EPA NUMBER IS CAT080013352

14. Special Handling Instructions and Additional Information
1: Profile#Pending:Used motor/transmission/hydraulic oil waste
ERG# N/A
1: 3455 [illegible]
2:
3:
4:

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Hank Parra
Signature: [signature]
Month 03 Day 18 Year 15

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Laurie Spero
Signature: [signature]
Month 03 Day 18 Year 15
Transporter 2 Printed/Typed Name: [signature]
Signature:
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H039
2.
3.
4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Wilma Valley
Signature: [signature]
Month 03 Day 24 Year 15

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

DRAFT

APPENDIX C

HISTORICAL RESEARCH DOCUMENTATION

Olive View-UCLA Med Center
14445 Olive View Drive
Sylmar, CA 91342

Inquiry Number: 4518850.9
January 26, 2016

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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Date EDR Searched Historical Sources:
Aerial Photography January 26, 2016

Target Property:
14445 Olive View Drive
Sylmar, CA 91342

Year	***Scale***	***Details***	***Source***
1928	Aerial Photograph. Scale: 1"=500'	Flight Year: 1928	Fairchild
1938	Aerial Photograph. Scale: 1"=500'	Flight Year: 1938	Laval
1947	Aerial Photograph. Scale: 1"=500'	Flight Year: 1947	Tubis
1952	Aerial Photograph. Scale: 1"=500'	Flight Year: 1952	Pacific Air
1965	Aerial Photograph. Scale: 1"=500'	Flight Year: 1965	Fairchild
1976	Aerial Photograph. Scale: 1"=500'	Flight Year: 1976	Teledyne
1981	Aerial Photograph. Scale: 1"=500'	Flight Year: 1981	AMI
1989	Aerial Photograph. Scale: 1"=500'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	USGS/DOQQ
1994	Aerial Photograph. Scale: 1"=500'	/DOQQ - acquisition dates: 1994	USGS/DOQQ
2002	Aerial Photograph. Scale: 1"=500'	Flight Year: 2002	USGS
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2005	Aerial Photograph. Scale: 1"=500'	Flight Year: 2005	USDA/NAIP
2009	Aerial Photograph. Scale: 1"=500'	Flight Year: 2009	USDA/NAIP
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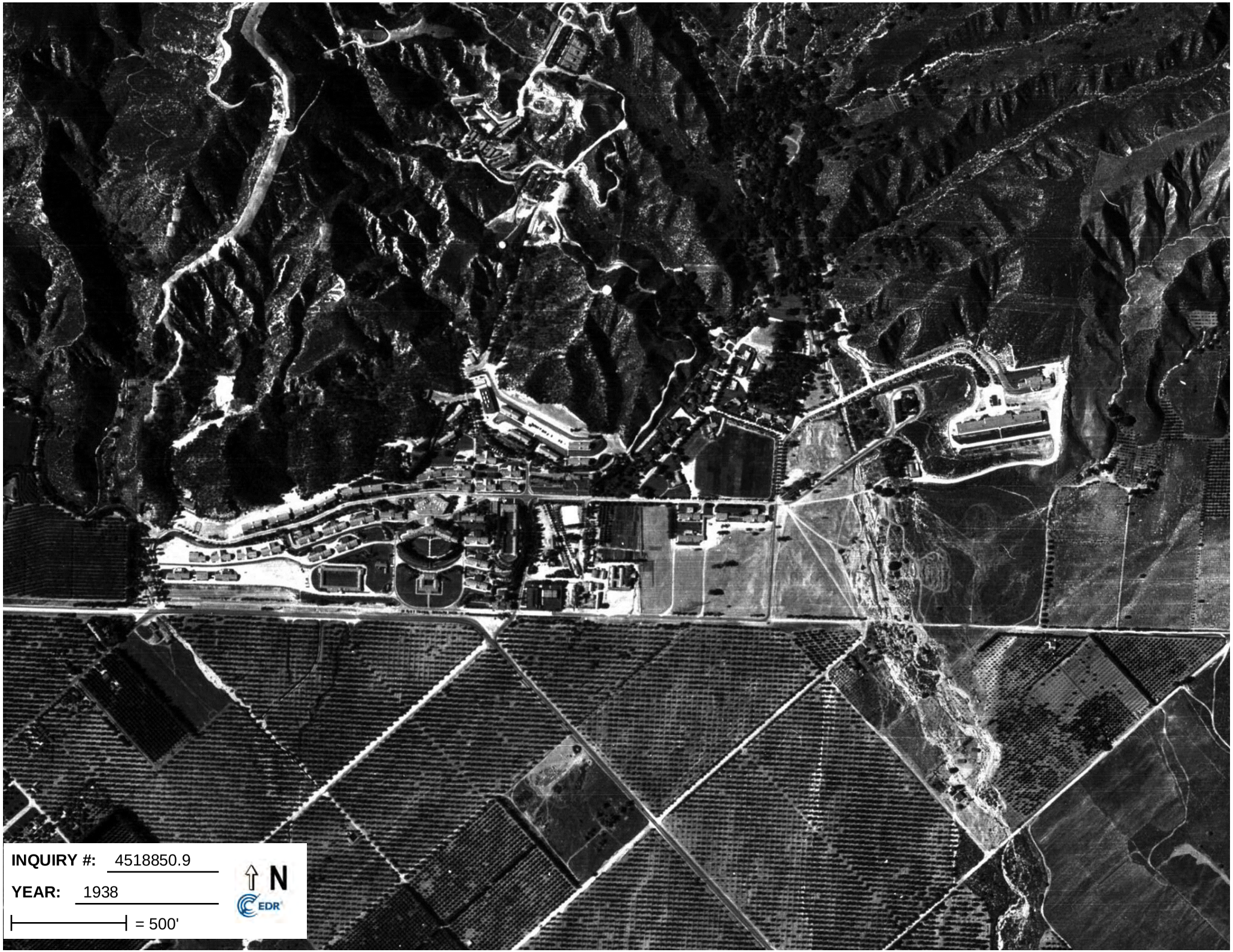
EDR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EDR

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INQUIRY #: 4518850.9
YEAR: 2012
= 500'
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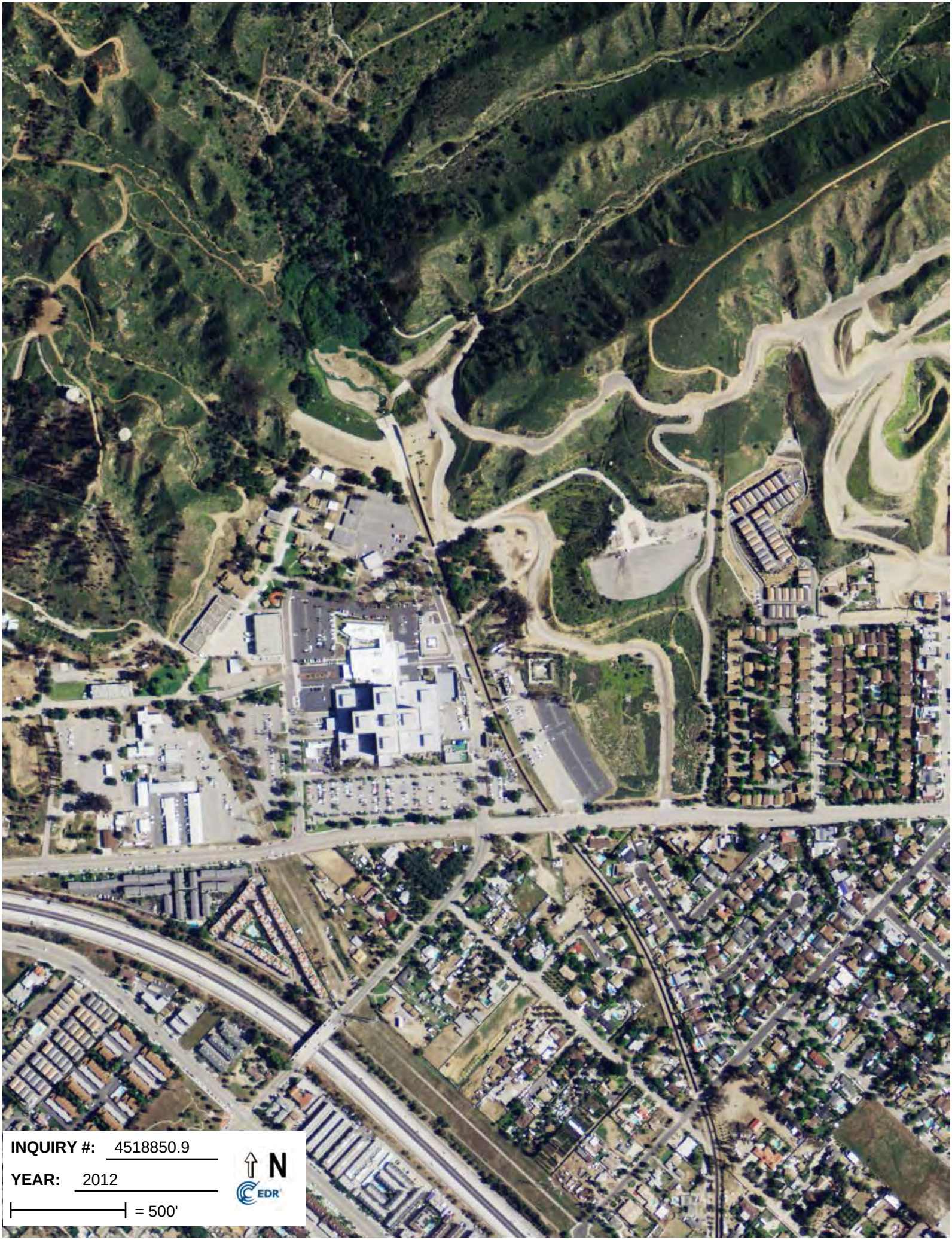
EDR


INQUIRY #: 4518850.9
YEAR: 2012
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N
EDR

Olive View-UCLA Med Center
14445 Olive View Drive
Sylmar, CA 91342

Inquiry Number: 4518850.3
January 25, 2016

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

1/25/16

Site Name:	**Client Name:**
Olive View-UCLA Med Center	Ninyo & Moore
14445 Olive View Drive	475 Goddard
Sylmar, CA 91342	Irvine, CA 92618
EDR Inquiry # 4518850.3	Contact: Patrick Cullip

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Certified Sanborn Results:

Site Name: Olive View-UCLA Med Center
Address: 14445 Olive View Drive
City, State, Zip: Sylmar, CA 91342
Cross Street:
P.O. # 209600001
Project: Olive View-UCLA Medical Center
Certification # 35A8-490A-9F93

Maps Provided:

1954
1940

Sanborn® Library search results
Certification # 35A8-490A-9F93

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ✔ Library of Congress
- ✔ University Publications of America
- ✔ EDR Private Collection

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Sanborn Sheet Thumbnails

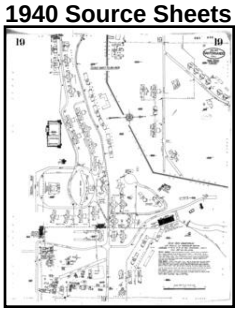
This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

1954 Source Sheets

Volume 1, Sheet 19

Volume 1, Sheet 19

1940 Source Sheets



Volume 1, Sheet 19

1954 Certified Sanborn Map

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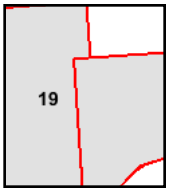
Site Name:	Olive View-UCLA Med Center
Address:	14445 Olive View Drive
City, ST, ZIP:	Sylmar CA 91342
Client:	Ninyo & Moore
EDR Inquiry:	4518850.3
Order Date:	1/25/2016 10:48:59 AM
Certification #	35A8-490A-9F93
Copyright:	1954

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

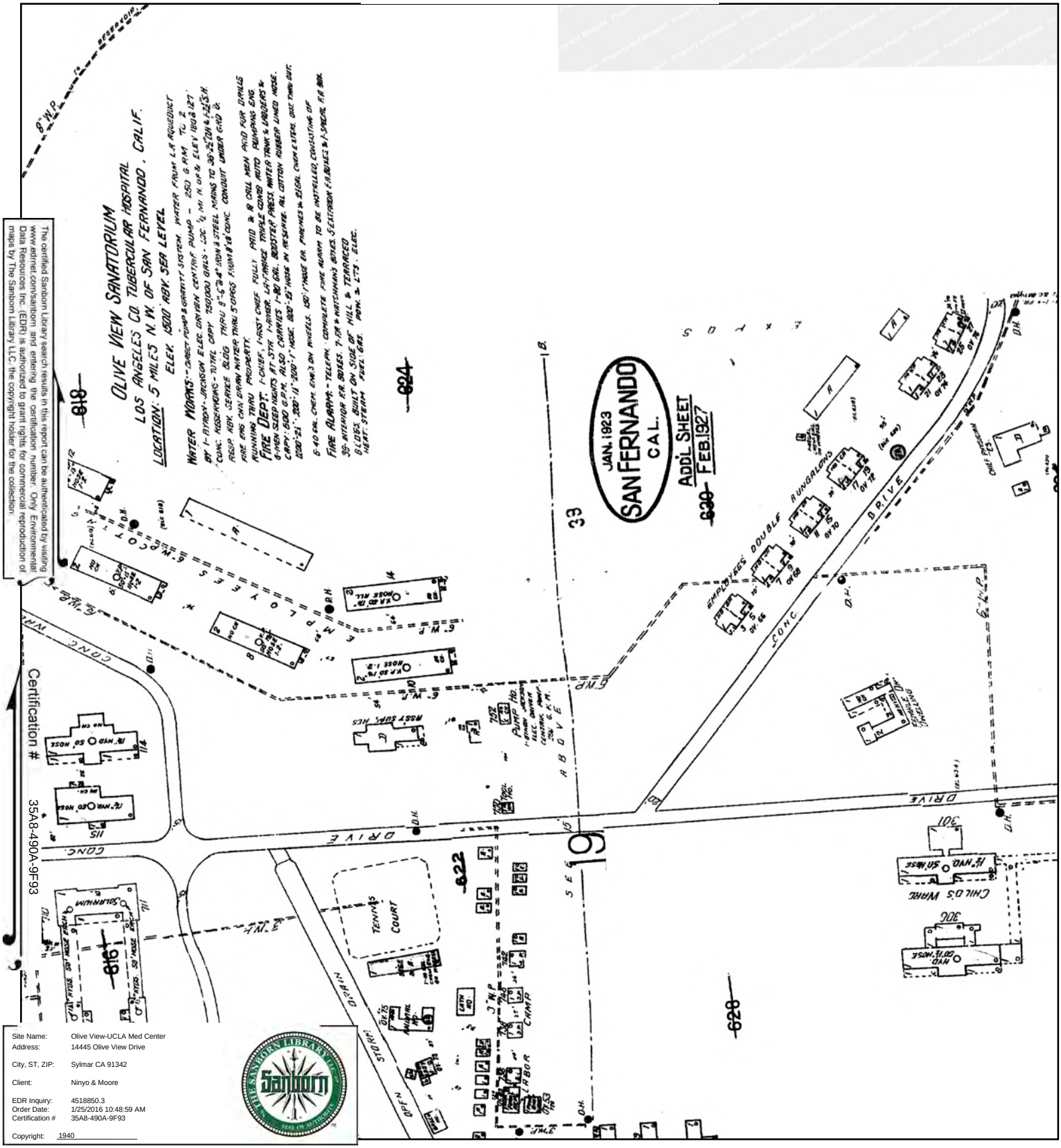
0 Feet 150 300 600



Volume 1, Sheet 19
Volume 1, Sheet 19

N

1940 Certified Sanborn Map



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Site Name:	Olive View-UCLA Med Center
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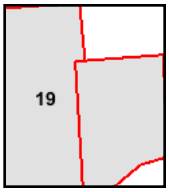
Order Date:	1/25/2016 10:48:59 AM
Certification #	35A8-490A-9F93
Copyright:	1940

This Certified Sanborn Map combines the following sheets.
Outlined areas indicate map sheets within the collection.

0 Feet 150 300 600



Volume 1, Sheet 19

N

Olive View-UCLA Med Center
14445 Olive View Drive
Sylmar, CA 91342

Inquiry Number: 4518850.5
January 22, 2016

The EDR-City Directory Abstract

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

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Executive Summary

Findings

City Directory Images

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2013. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

Year	Source	TP	Adjoining	Text Abstract	Source Image
2013	Cole Information Services	X	X	X	-
2008	Cole Information Services	X	X	X	-
2006	Haines Company	-	-	-	-
2004	Haines Company	X	X	X	-
2003	Haines & Company	-	-	-	-
2001	Haines Company, Inc.	-	-	-	-
2000	Haines	-	-	-	-
1999	Haines Company	-	-	-	-
1996	GTE	-	-	-	-
1995	Pacific Bell	X	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	-	-	-
1991	Pacific Bell	X	X	X	-
1990	PACIFIC BELL WHITE PAGES	-	-	-	-
1986	Pacific Bell	-	-	-	-
1985	Pacific Bell	-	X	X	-
1981	Pacific Telephone	-	-	-	-
1980	Pacific Telephone	X	X	X	-
1976	R.L. Polk & Co Publishers	-	-	-	-
1975	Pacific Telephone	X	X	X	-
1972	R. L. Polk & Co.	-	-	-	-
1971	R. L. Polk & Co.	-	-	-	-
1970	Pacific Telephone	-	-	-	-
1969	Pacific Telephone	-	-	-	-
1967	R. L. Polk & Co.	-	-	-	-
1966	Pacific Telephone	-	-	-	-

EXECUTIVE SUMMARY

Year	Source	TP	Adjoining	Text Abstract	Source Image
1965	GTE	-	-	-	-
1964	Pacific Telephone	-	-	-	-
1963	Pacific Telephone	-	-	-	-
1962	Pacific Telephone	-	-	-	-
1961	R. L. Polk & Co.	-	-	-	-
1960	Pacific Telephone	-	-	-	-
1958	Pacific Telephone	-	-	-	-
1957	Pacific Telephone	-	-	-	-
1956	Pacific Telephone	-	X	X	-
1955	R. L. Polk & Co.	-	-	-	-
1954	R. L. Polk & Co.	-	-	-	-
1952	Los Angeles Directory Co.	-	-	-	-
1951	Los Angeles Directory Co.	-	-	-	-
1950	Pacific Telephone	-	X	X	-
1949	Los Angeles Directory Co.	-	-	-	-
1948	Associated Telephone Company, Ltd.	-	-	-	-
1947	Pacific Directory Co.	-	-	-	-
1946	Southern California Telephone Co	-	-	-	-
1945	R. L. Polk & Co.	-	-	-	-
1944	R. L. Polk & Co.	-	-	-	-
1942	Los Angeles Directory Co.	-	-	-	-
1940	Los Angeles Directory Co.	-	-	-	-
1939	Los Angeles Directory Co.	-	-	-	-
1938	Los Angeles Directory Company Publishers	-	-	-	-
1937	Los Angeles Directory Co.	-	-	-	-
1936	Los Angeles Directory Co.	-	-	-	-
1935	Los Angeles Directory Co.	-	-	-	-
1934	Los Angeles Directory Co.	-	-	-	-
1933	Los Angeles Directory Co.	-	-	-	-
1932	Los Angeles Directory Co.	-	-	-	-
1931	TRIBUNE-NEWS PUBLISHING CO.	-	-	-	-
1930	Los Angeles Directory Co.	-	-	-	-
1929	Los Angeles Directory Co.	-	-	-	-
1928	Los Angeles Directory Co.	-	-	-	-
1927	Los Angeles Directory Co.	-	-	-	-
1926	Los Angeles Directory Co.	-	-	-	-
1925	Los Angeles Directory Co.	-	-	-	-
1924	Los Angeles Directory Co.	-	-	-	-
1923	Los Angeles Directory Co.	-	-	-	-
1921	Los Angeles Directory Co.	-	-	-	-
1920	Los Angeles Directory Co.	-	-	-	-

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

14445 Olive View Drive
Sylmar, CA 91342

FINDINGS DETAIL

Target Property research detail.

OLIVE VIEW DR

14445 OLIVE VIEW DR

Year	*Uses*	*Source*
2013	COUNTY OF LOS ANGELES	Cole Information Services
	OLIVE VIEW CREDIT UNION	Cole Information Services
	OLIVE VIEWUCLA MEDICAL CENTER	Cole Information Services
2008	CHILD DEV CONSORTIUM OF LOS ANGELES	Cole Information Services
	COMMUNITY HEALTH CENTER	Cole Information Services
	COUNTY OF LOS ANGELES	Cole Information Services
	DAVID A TALAN MD	Cole Information Services
	DEM NORTH ANNEX BUILDING	Cole Information Services
	HEALTH SCIENCE LIBRARY	Cole Information Services
	INSIGHT HEALTH CORP	Cole Information Services
	LAC OLIVE VIEW UCLA MC	Cole Information Services
	LOS ANGELES COUNTY HOSPITALS OLIVE V	Cole Information Services
	LOS ANGELES OLIVE VW MD CENTER	Cole Information Services
	MORRISTOWN S CUSTOM MGMT	Cole Information Services
	NEUR DEPT N ANNEX	Cole Information Services
	OLIKHI CENTER FOR MRI	Cole Information Services
	OLIVE VIEW EMPLOYEES FEDERAL CREDIT	Cole Information Services
	OLIVE VIEW HOSPITAL	Cole Information Services
	OLIVE VIEW UCLA EDUCATION &	Cole Information Services
	OLIVE VW CLA MEDICAL CENTER FOUNDATI	Cole Information Services
	OLIVEVIEW UCLA MEDICAL CENTER	Cole Information Services
	RAD SCIS	Cole Information Services
	REGENTS OF THE UNIVERSITY OF CAL	Cole Information Services
	SERVICON	Cole Information Services

FINDINGS

Year	Uses	Source
2008	UCLA MC OLIVE VIEW	Cole Information Services
	UCLA MEDICAL CENTER PEDS DEPARTMENT	Cole Information Services
	UCLA SCH MEDICAL	Cole Information Services
	VALLEY CARE OLIVE VIEW UCLA	Cole Information Services
2004	OLIVE VIEW UCLAMED	Haines Company
	OLIVEVIEWCRDTUN	Haines Company
1995	Olive View Credit Union	Pacific Bell
	Olive View UCLA Medical Center	Pacific Bell
1991	Olive View Credit Union	Pacific Bell
	Olive View Medical Center L A County	Pacific Bell
1980	LOS ANGELES COUNTY OF HOSPITALS	Pacific Telephone
	OLIVE VIEW CREDIT UNION	Pacific Telephone
1975	Childrens Outpatient Mental Health	Pacific Telephone
	Day Treatment Center	Pacific Telephone
	Olive View Community Mental Health Center	Pacific Telephone
	OLIVE VIEW MEDICAL CENTER Los Angeles County	Pacific Telephone
	Psychiatric Outpatient Clinic	Pacific Telephone

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

OLIVE VIEW DR

14130 OLIVE VIEW DR

Year	Uses	Source
1956	LYNCH JAY	Pacific Telephone
1950	FLEMING P JOHN R	Pacific Telephone
	FLEMING P JOHN R	Pacific Telephone

14443 OLIVE VIEW DR

Year	Uses	Source
2004	no info	Haines Company
1985	Wallace Scott C	Pacific Bell
	Wallace Sam P Inc	Pacific Bell
	Pierce Enterprises	Pacific Bell
	Instrumentation Contractors Inc	Pacific Bell
	Honeywell Inc	Pacific Bell
	Honeywell Protection Services	Pacific Bell

14450 OLIVE VIEW DR

Year	Uses	Source
2004	no info	Haines Company

14452 OLIVE VIEW DR

Year	Uses	Source
2008	REGENTS OF THE UNIVERSITY OF CAL	Cole Information Services

14500 OLIVE VIEW DR

Year	Uses	Source
2013	OLIVE VIEW INVESTMENT INC	Cole Information Services
2008	HIS SYSTEM INC	Cole Information Services
	OLIVE VIEW INVESTMENT INC	Cole Information Services
	ELEGANCE BY SHIR LE	Cole Information Services
2004	APARTMENTS	Haines Company
	ALDACOJohana	Haines Company
	ALDACORosaevelia	Haines Company

FINDINGS

Year	Uses	Source
2004	ARCHIE Tim J	Haines Company
	ARRIETA David	Haines Company
	CAMPERO Daniel	Haines Company
	CARPENTER Donald Jr	Haines Company
	CHAIDEZ Luis	Haines Company
	COOLEYSean M	Haines Company
	GONZALEZ Maria	Haines Company
	GONZALEZMartha	Haines Company
	GRIGGS David	Haines Company
	LEGARRETA Richard	Haines Company
	LOZA Jessica	Haines Company
	OLIVEVIEW	Haines Company
	RAMIREZ Carcos	Haines Company
	RAMIREZ Carcos	Haines Company
	VALDEZDanete E	Haines Company
1995	Araujo Facundo	Pacific Bell
	Hall Crystal	Pacific Bell
	Shower Diane	Pacific Bell
1991	Bargmann D L	Pacific Bell
	Boles Nathan	Pacific Bell
	Boles RG	Pacific Bell
	Boles Robt E	Pacific Bell
	Boles Sidney L	Pacific Bell
	Bosteder Walter	Pacific Bell
	Bostic E L	Pacific Bell
	Bostic G&S GHis	Pacific Bell
	Bostic ME Sylm	Pacific Bell
	Bostick C Sun	Pacific Bell
	Bostick Dana & Joyce Sylm	Pacific Bell
	Brooks Hortense	Pacific Bell
	Frame Wm	Pacific Bell
	Galloway Robt Jr	Pacific Bell
	Lundin Maria	Pacific Bell
	Lundin Reggie	Pacific Bell
	Mahoney A P	Pacific Bell
	Mahoney B	Pacific Bell
	Mahoney Brian T 7	Pacific Bell
	Mahoney Chris	Pacific Bell

FINDINGS

Year	Uses	Source
1991	Martinez Hertberth	Pacific Bell
	Meyer Lloyd	Pacific Bell
	Pelka Michele	Pacific Bell
	Peralta Louis	Pacific Bell
	Rivas Beatrice	Pacific Bell
	Rosales Mike	Pacific Bell
	Safar Geo	Pacific Bell
	Shirey MG	Pacific Bell
	Shirey Michael C	Pacific Bell
	Shower Diane	Pacific Bell
	Simmons Harrold J	Pacific Bell
	Wallace ohnnie	Pacific Bell
	Yriarte Joaquin	Pacific Bell
	Yribe Leopoldo E	Pacific Bell
1985	Bargmann D L	Pacific Bell
	Burkeen Belinda	Pacific Bell
	Contreraz John	Pacific Bell
	Dilmore David Allen	Pacific Bell
	Ferguson Jas	Pacific Bell
	Ferguson Jas E	Pacific Bell
	George Michele	Pacific Bell
	Hurlbut Debbie & Robt	Pacific Bell
	Jackson Albert	Pacific Bell
	Jeffery Laurence	Pacific Bell
	Jones Gary	Pacific Bell
	Lake Appliance Service	Pacific Bell
	Lake Richard	Pacific Bell
	Leon Clifford	Pacific Bell
	Longlano Dreatha	Pacific Bell
	Mac Lean Malcolm	Pacific Bell
	Meza Bobby	Pacific Bell
	Mez Susan	Pacific Bell
	Page David Scott	Pacific Bell
	Pirmoradi Shahram	Pacific Bell
	Roanhaus Thos P	Pacific Bell
	Robinson David	Pacific Bell
	Resales Mike	Pacific Bell
	Seeley Angela	Pacific Bell

FINDINGS

Year	Uses	Source
1985	Shirey Toni	Pacific Bell
	Shirian J S	Pacific Bell
	Shower Diane	Pacific Bell
	Stein N	Pacific Bell
	Stocky Michael & Marilyn	Pacific Bell
	Tabor Gregory	Pacific Bell
	Tabor I	Pacific Bell
	Tayahua Virginia	Pacific Bell
	Vasquez Yrineo	Pacific Bell
	Vickers Matt	Pacific Bell
	White Henry C	Pacific Bell
	White Henry J	Pacific Bell
	Wilson Alice	Pacific Bell
1980	AGUILERA ALMA	Pacific Telephone
	ALCOSER JOS S	Pacific Telephone
	BARGMANN D L	Pacific Telephone
	BEATTY MARGARET	Pacific Telephone
	BECERRA JOSE LUIS	Pacific Telephone
	BELL ROGER	Pacific Telephone
	BYE LAURA	Pacific Telephone
	CHANDLER JAS W	Pacific Telephone
	CONTRERAZ JOHN	Pacific Telephone
	DOSS ROBT A	Pacific Telephone
	FAULKNER EDWIN	Pacific Telephone
	FLINN WM	Pacific Telephone
	FUSANO MICKAEL C	Pacific Telephone
	GARCIA DEBRA	Pacific Telephone
	GUTIERREZ PAT	Pacific Telephone
	HANKINS STEPHEN	Pacific Telephone
	HURLBUT DEBBIE & ROBT	Pacific Telephone
	HURST MARILYN	Pacific Telephone
	ILEJAY JOHN III	Pacific Telephone
	LAZARUS JAY S	Pacific Telephone
	LEON CLIFFORD	Pacific Telephone
	MATTAR WAHIB	Pacific Telephone
	MCQUARY J	Pacific Telephone
	MEDINA NORMA F	Pacific Telephone
	MORGAN T	Pacific Telephone

FINDINGS

Year	Uses	Source
1980	NEAR COLLEEN	Pacific Telephone
	NOEL WALKER	Pacific Telephone
	PRIESTLEY A B	Pacific Telephone
	QUATTRO RALPH	Pacific Telephone
	RODRIGUEZ ANITA	Pacific Telephone
	ROSALES MIKE	Pacific Telephone
	RUBIO RONALD W	Pacific Telephone
	SCHULTZ K A	Pacific Telephone
	SHOWERS DIANNE	Pacific Telephone
	SPURRIER TED	Pacific Telephone
	STRICKLIN DONALD	Pacific Telephone
	TAYAHUA VIRGINIA	Pacific Telephone
	VASQUEZ YRLNEO	Pacific Telephone
	WHITE HENRY C	Pacific Telephone
	WOLF DAVID	Pacific Telephone
	YBARRA JESS	Pacific Telephone
1975	Anderson Grant	Pacific Telephone
	Arriola Raquel D	Pacific Telephone
	Blanchard John V	Pacific Telephone
	Boles Susan H	Pacific Telephone
	Bradner Stephanie	Pacific Telephone
	Christianson Kris N	Pacific Telephone
	Clark M	Pacific Telephone
	Coaty Ken	Pacific Telephone
	Coaty Linda	Pacific Telephone
	Colliander Eric	Pacific Telephone
	Corkill J	Pacific Telephone
	Cummings Ron	Pacific Telephone
	Davis Rita	Pacific Telephone
	Ellis Michael E	Pacific Telephone
	Evans Raymond	Pacific Telephone
	Fallon Kathy	Pacific Telephone
	Fitzgerald Robt	Pacific Telephone
	Friedman Frank	Pacific Telephone
	Garcia Joe Jr	Pacific Telephone
	Gartner Paul J	Pacific Telephone
	Govea Art	Pacific Telephone
	Grisaffi Joe A	Pacific Telephone

FINDINGS

Year	Uses	Source
1975	Henthorn Blanche	Pacific Telephone
	Ivey H E	Pacific Telephone
	Kerr David	Pacific Telephone
	Kopanski C F	Pacific Telephone
	Koshak Mary	Pacific Telephone
	Kramer Robt	Pacific Telephone
	Kurich Laura	Pacific Telephone
	Kurich Norman	Pacific Telephone
	La Course Anthony	Pacific Telephone
	Lanagan Nancy	Pacific Telephone
	Lealos Kristine	Pacific Telephone
	Macpherson Bruce D	Pacific Telephone
	Maruca Michael	Pacific Telephone
	Mc Cain Albert	Pacific Telephone
	Mc Neer Francine	Pacific Telephone
	Miller Lyle L	Pacific Telephone
	Miller Peter N	Pacific Telephone
	Ozab Lorraine	Pacific Telephone
	Pilmer W E	Pacific Telephone
	Ramirez Steve	Pacific Telephone
	Reagan N E	Pacific Telephone
	Rice Jas H	Pacific Telephone
	Riley Kathryn	Pacific Telephone
	Schielke Bruce	Pacific Telephone
	Serpa Richard	Pacific Telephone
	Shipley Chas	Pacific Telephone
	Spurrier Ted	Pacific Telephone
	Werner Frank	Pacific Telephone
	White K	Pacific Telephone
	Williams Della	Pacific Telephone
	Williams Jas	Pacific Telephone
	Williams Michael	Pacific Telephone
	Wood Danl H	Pacific Telephone

14509 OLIVE VIEW DR

Year	Uses	Source
2004	no info	Haines Company

FINDINGS

OLIVE VIEW LN

13901 OLIVE VIEW LN

Year	*Uses*	*Source*
2013	REO SOLUTIONS	Cole Information Services
2008	GALACTICA LIMOUSINE	Cole Information Services
	INSTITUTE FOR RIVER RESEARCH	Cole Information Services
2004	KOCUREK Michael	Haines Company
	LAGUNA Marin	Haines Company
	LOPEZ Rose	Haines Company
	MARES Elsa	Haines Company
	MELCHORJose	Haines Company
	CMONTESMana	Haines Company
	MUNGUIAManuel	Haines Company
	NAJARIAN Edith	Haines Company
	ONEWTONLoia	Haines Company
	COVCHAROV Enriko	Haines Company
	PARRA Amold	Haines Company
	PEREZCelina Ley L	Haines Company
	SPHILLIPSJomel	Haines Company
	POWERS Catherine	Haines Company
	ORAMIREZAddriana	Haines Company
	RAMIREZ Maria T	Haines Company
	REYNOZO Edgar	Haines Company
	RODRIGUEZYvonne	Haines Company
	CSANCHEZMardcela	Haines Company
	SEBERTLanrry	Haines Company
	SHEAR Diane	Haines Company
	SIEVERSDean	Haines Company
	STEVENS Michael S	Haines Company
	TARIN Alfredo	Haines Company
	TYJUS Francela	Haines Company
	0 URBINAElren	Haines Company
	OVALLELEYJohn	Haines Company
	VERA Malcolm	Haines Company
	WELCH Lloyd	Haines Company
	APARTMENTS	Haines Company
	CALORIDGESean	Haines Company
	CARIASJosne	Haines Company

FINDINGS

Year	Uses	Source
2004	AVILAElena	Haines Company
	a BARAJASJose C	Haines Company
	c BERRY Lance	Haines Company
	BOYDMartin D	Haines Company
	SBRILLOEryn	Haines Company
	$BUTTERWORTH Francis	Haines Company
	CARRILLO Jesus	Haines Company
	CHAPMAN Alice	Haines Company
	CONTEBruce	Haines Company
	ODAGHLIAN Manuel	Haines Company
	ODESIMONE Robert	Haines Company
	DIAZJose	Haines Company
	ESTRADAAlfredo	Haines Company
	FELLEGI John	Haines Company
	GARCIALuis	Haines Company
	GODINEZMaria	Haines Company
	GRANADOS Olga	Haines Company
	CGUZMANHeclor	Haines Company
	HULLFrancisca	Haines Company
	INST FORRIVER	Haines Company
	RESEARCH	Haines Company
	SAAC Byron	Haines Company
	JADESIMI Gbolahan	Haines Company
	JOHNSON Heidi	Haines Company
	JUAREZ Frank	Haines Company
1995	Boyd Martin	Pacific Bell
	Depaul Anthony	Pacific Bell
	Dowden Jeffrey	Pacific Bell
	Fischer Gienda	Pacific Bell
	Welch MA	Pacific Bell
1991	Clarke Michael	Pacific Bell
	Clarke Michael A	Pacific Bell
	pl Anthony	Pacific Bell
	Dowden Jeffrey	Pacific Bell
	Dowding Jack	Pacific Bell
	Dowdie Angela	Pacific Bell
	Ebia Stephanie	Pacific Bell
	Ebin CM	Pacific Bell

FINDINGS

Year	Uses	Source
1991	Ebin I	Pacific Bell
	Ebin W&L	Pacific Bell
	Ebina Tadaharu	Pacific Bell
	Ebinger E L	Pacific Bell
	Ebinger M	Pacific Bell
	Hart Robt J	Pacific Bell
	Hart Robert L	Pacific Bell
	Hultine Alex & Fred	Pacific Bell
	Huatman A Sylm	Pacific Bell
	Huatman E M	Pacific Bell
	Isaac Byron	Pacific Bell
	Lukowich Edwin M	Pacific Bell
	Massar Geo t TY only	Pacific Bell
	Massar George D Jr	Pacific Bell
	Massar Julius C	Pacific Bell
	Massara G	Pacific Bell
	Massara GA	Pacific Bell
	Massaraay	Pacific Bell
	Massarano Victor & Joyce	Pacific Bell
	Nadalet John	Pacific Bell
	Nadalin M	Pacific Bell
	Niemiec Jerry	Pacific Bell
	Zerro Salih I	Pacific Bell

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched	Address Not Identified in Research Source
14445 Olive View Drive	2006, 2003, 2001, 2000, 1999, 1996, 1992, 1990, 1986, 1985, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched	Address Not Identified in Research Source
13901 OLIVE VIEW LN	2013, 2008, 2006, 2003, 2001, 2000, 1999, 1996, 1992, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
13901 OLIVE VIEW LN	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
14130 OLIVE VIEW DR	2013, 2008, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1955, 1954, 1952, 1951, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
14443 OLIVE VIEW DR	2013, 2008, 2006, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
14450 OLIVE VIEW DR	2013, 2008, 2006, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
14452 OLIVE VIEW DR	2013, 2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
14500 OLIVE VIEW DR	2013, 2008, 2006, 2003, 2001, 2000, 1999, 1996, 1992, 1990, 1986, 1981, 1976, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

FINDINGS

Address Researched	Address Not Identified in Research Source
14500 OLIVE VIEW DR	2006, 2004, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920
14509 OLIVE VIEW DR	2013, 2008, 2006, 2003, 2001, 2000, 1999, 1996, 1995, 1992, 1991, 1990, 1986, 1985, 1981, 1980, 1976, 1975, 1972, 1971, 1970, 1969, 1967, 1966, 1965, 1964, 1963, 1962, 1961, 1960, 1958, 1957, 1956, 1955, 1954, 1952, 1951, 1950, 1949, 1948, 1947, 1946, 1945, 1944, 1942, 1940, 1939, 1938, 1937, 1936, 1935, 1934, 1933, 1932, 1931, 1930, 1929, 1928, 1927, 1926, 1925, 1924, 1923, 1921, 1920

Olive View-UCLA Med Center

14445 Olive View Drive

Sylmar, CA 91342

Inquiry Number: 4518850.4

January 22, 2016

EDR Historical Topo Map Report

with QuadMatch™

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Historical Topo Map Report

01/22/16

Site Name:	Client Name:
Olive View-UCLA Med Center	Ninyo & Moore
14445 Olive View Drive	475 Goddard
Sylmar, CA 91342	Irvine, CA 92618
EDR Inquiry # 4518850.4	Contact: Patrick Cullip

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Ninyo & Moore were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:		*Coordinates:*	
Site Name:	Olive View-UCLA Med Center	**Latitude:**	34.326893 34° 19' 37" North
Address:	14445 Olive View Drive	**Longitude:**	-118.449283 -118° 26' 57" West
City,State,Zip:	Sylmar, CA 91342	**UTM Zone:**	Zone 11 North
P.O.#	209600001	**UTM X Meters:**	366671.49
Project:	Olive View-UCLA Medical Cent	**UTM Y Meters:**	3799353.22
		Elevation:	1479.95' above sea level

Maps Provided:

2012	1940
1995	1935
1988	1929
1972	1928
1966	1925
1953	1900
1945	
1942	

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Topo Sheet Thumbnails

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

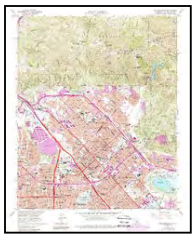
2012 Source Sheets

San Fernando
2012
7.5-minute, 24000

1995 Source Sheets

San Fernando
1995
7.5-minute, 24000
Aerial Photo Revised 1993

1988 Source Sheets



San Fernando
1988
7.5-minute, 24000
Photo Revised 1988
Aerial Photo Revised 1985

1972 Source Sheets

San Fernando
1972
7.5-minute, 24000
Photo Revised 1972
Aerial Photo Revised 1972

Topo Sheet Thumbnails

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1966 Source Sheets

San Fernando
1966
7.5-minute, 24000
Aerial Photo Revised 1964

1953 Source Sheets

San Fernando
1953
7.5-minute, 24000
Aerial Photo Revised 1952

1945 Source Sheets

San Fernando
1945
15-minute, 62500
Aerial Photo Revised 1940

1942 Source Sheets

Sylmar
1942
7.5-minute, 24000
Edited 1942

Topo Sheet Thumbnails

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

1940 Source Sheets

San Fernando
1940
15-minute, 62500
Aerial Photo Revised 1940

1935 Source Sheets

Sylmar
1935
7.5-minute, 24000

1929 Source Sheets

Sylmar
1929
7.5-minute, 24000

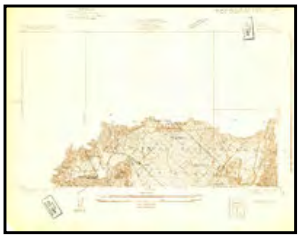
1928 Source Sheets

Sylmar
1928
7.5-minute, 24000

Topo Sheet Thumbnails

This EDR Topo Map Report is based upon the following USGS topographic map sheets.

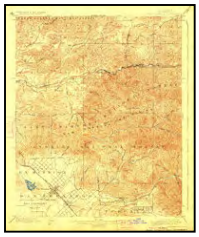
1925 Source Sheets



Sylmar
1925
7.5-minute, 24000

1900 Source Sheets

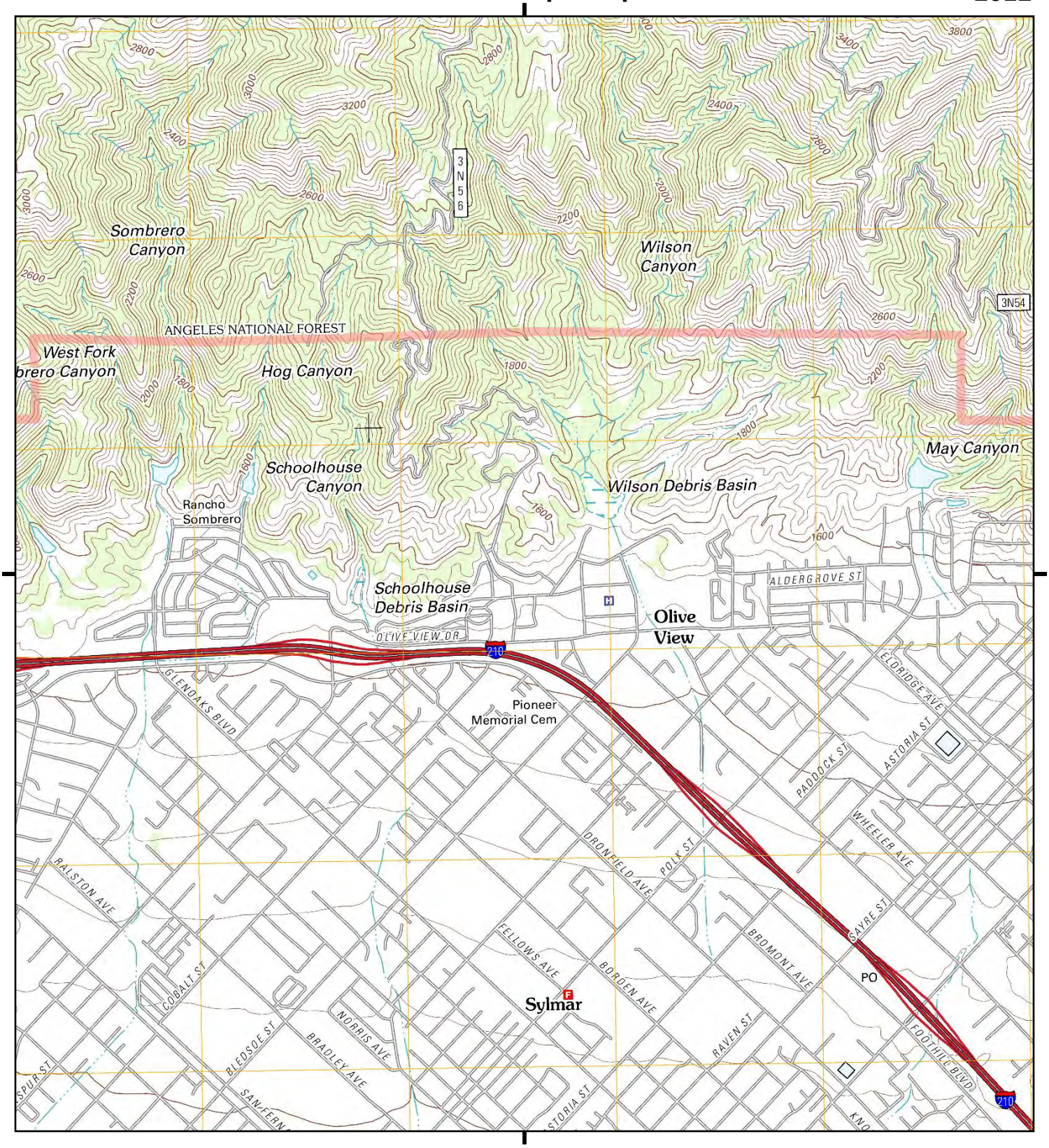
Fernando
1900
15-minute, 62500



San Fernando
1900
15-minute, 62500

Historical Topo Map

2012



This report includes information from the following map sheet(s).

Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

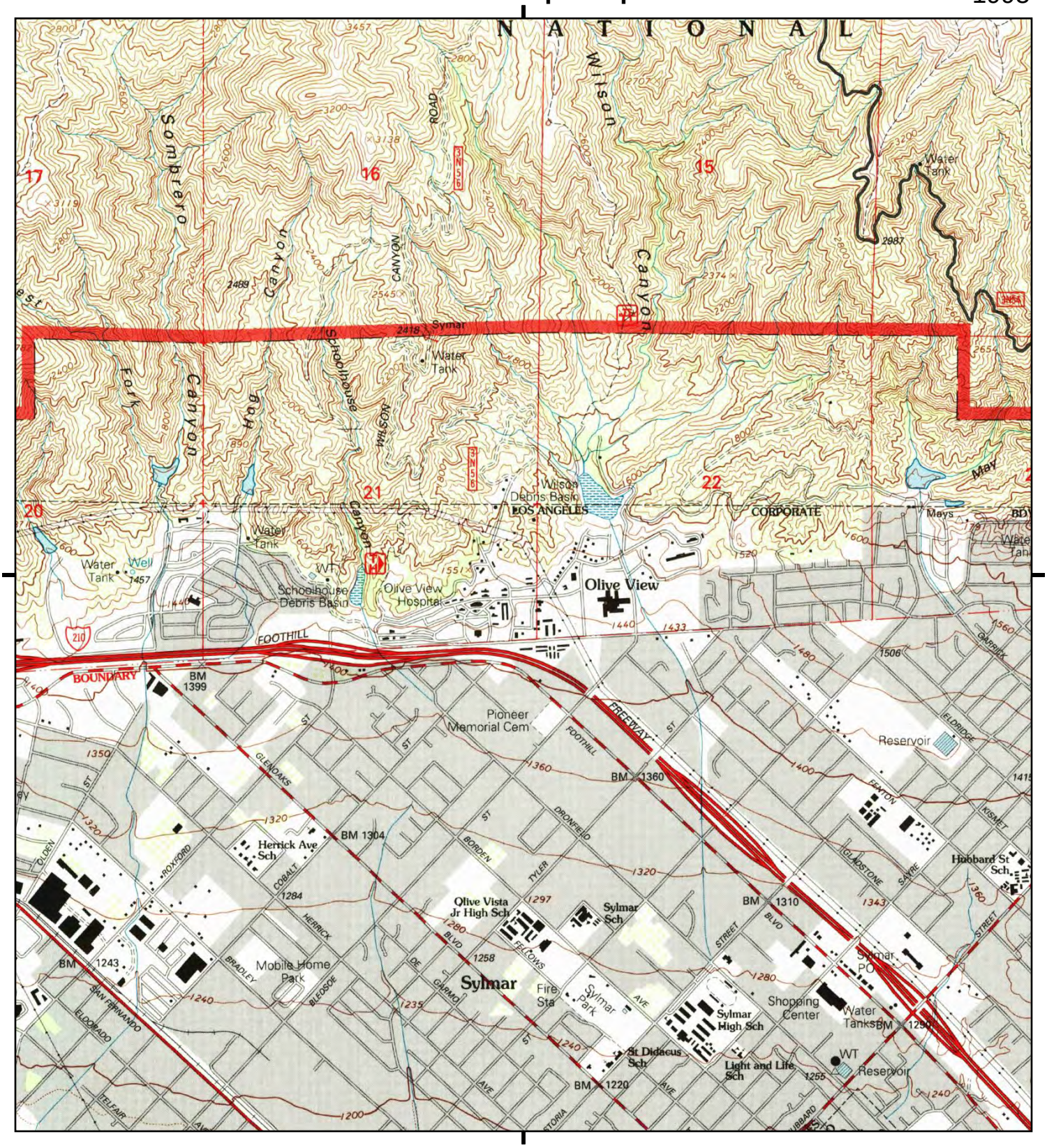
TP, San Fernando, 2012, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1995



This report includes information from the following map sheet(s).

Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

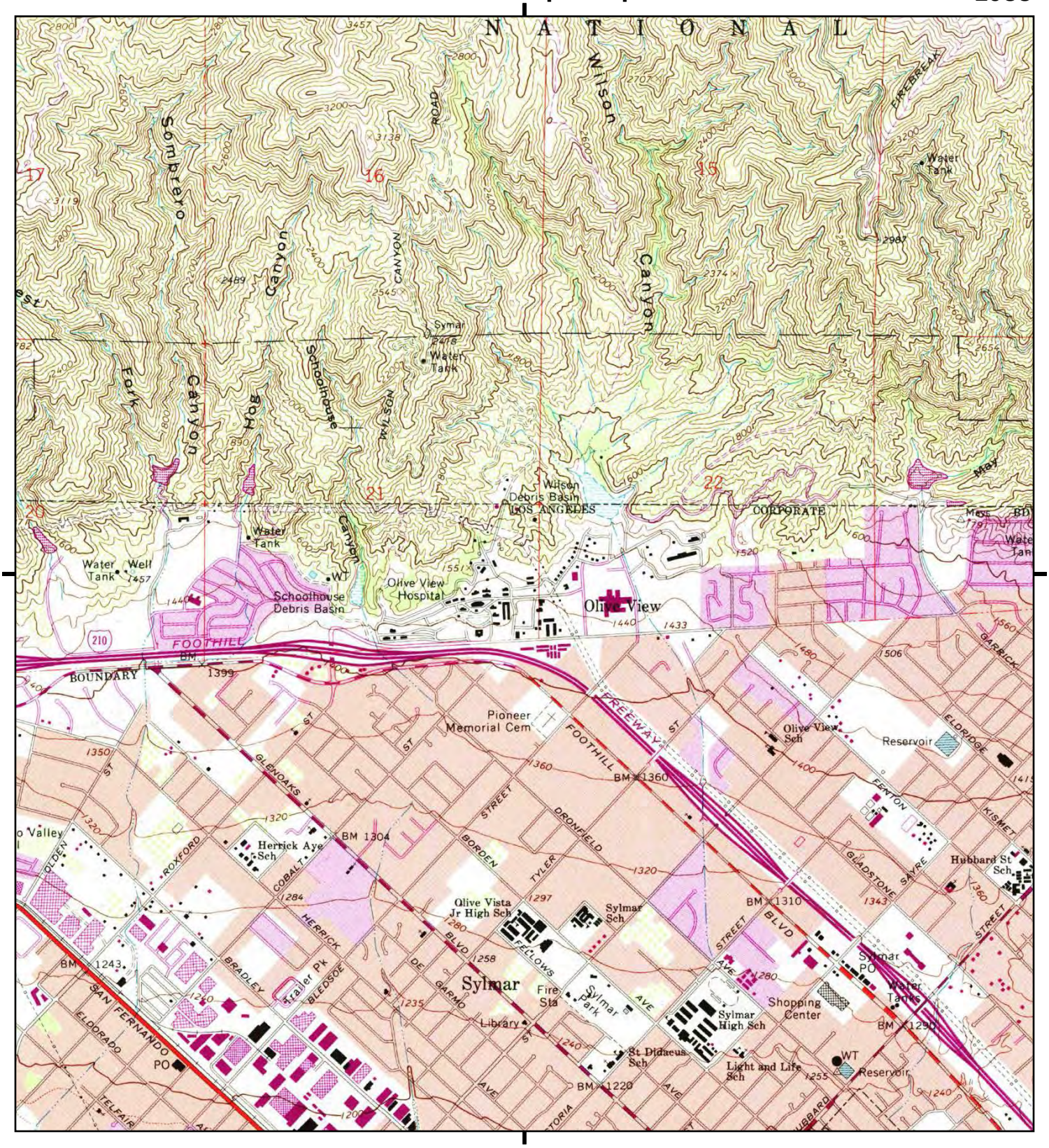
TP, San Fernando, 1995, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1988



This report includes information from the following map sheet(s).

Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

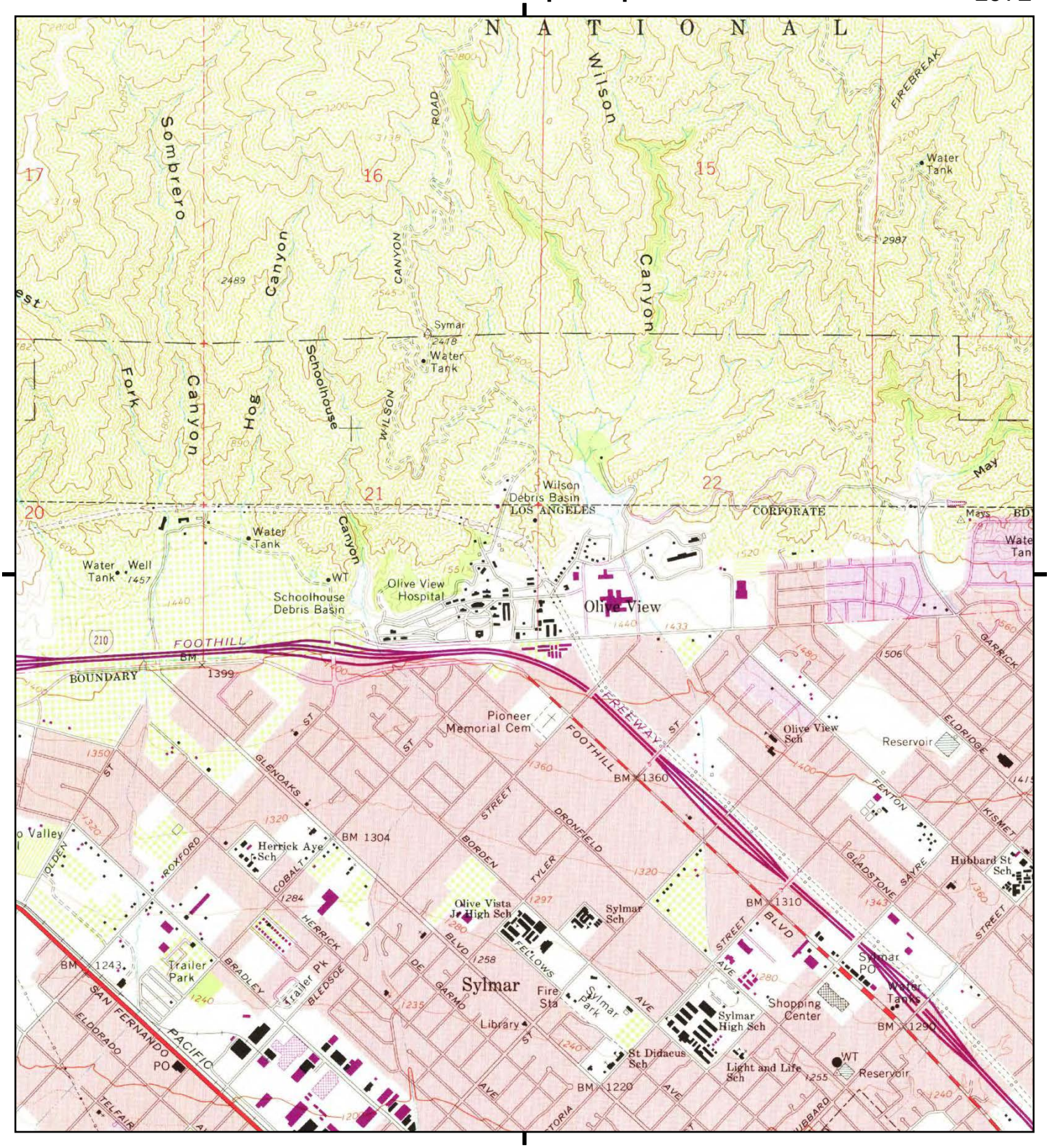
TP, San Fernando, 1988, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

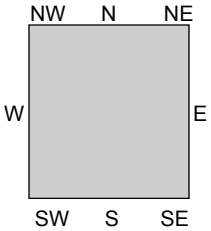
Historical Topo Map

1972



This report includes information from the following map sheet(s).

Miles 0.25 0.5 1 1.5



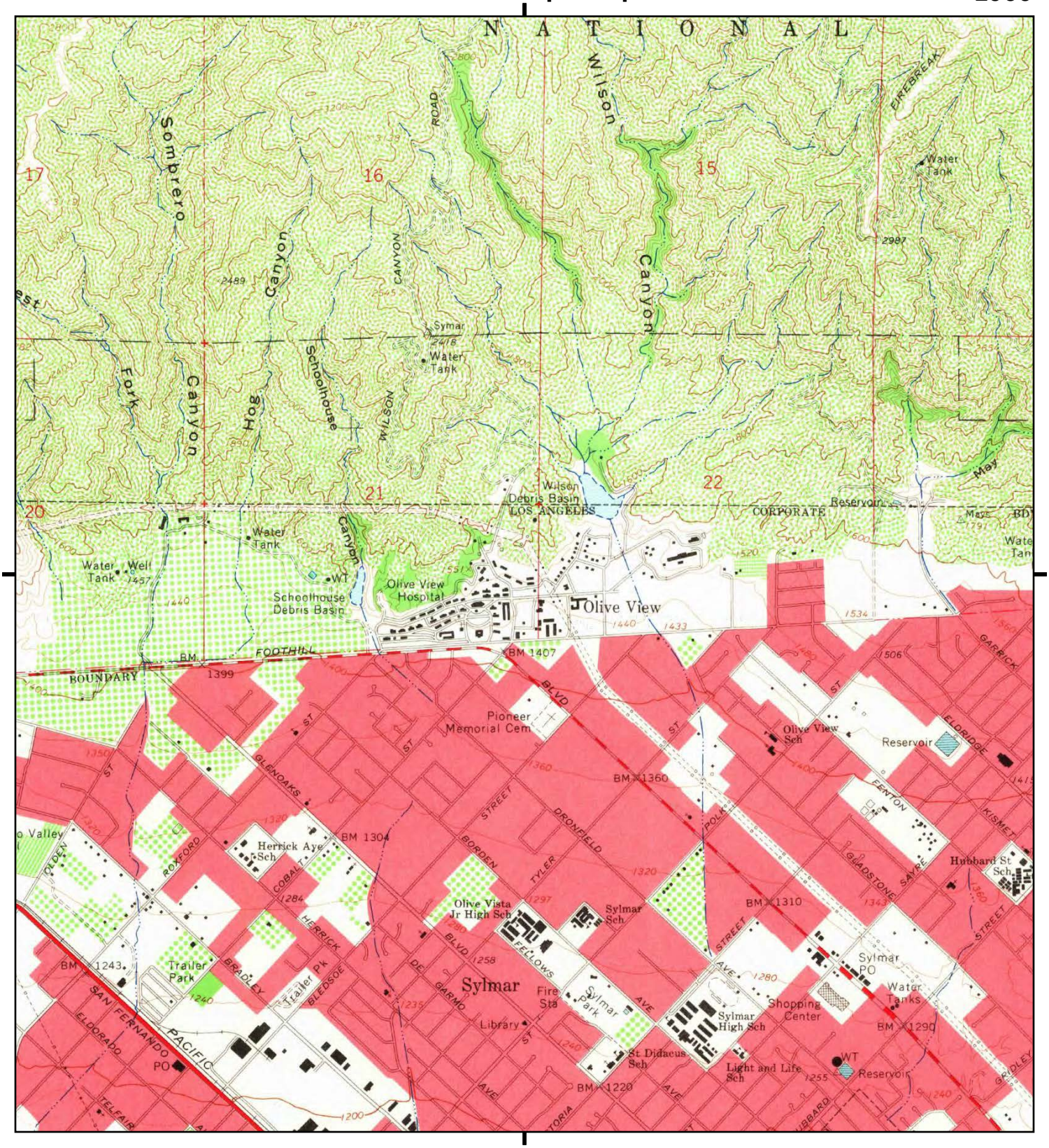
TP, San Fernando, 1972, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1966



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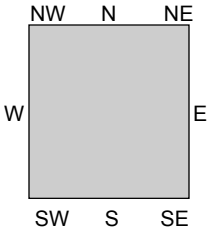
Miles 0.25 0.5 1 1.5



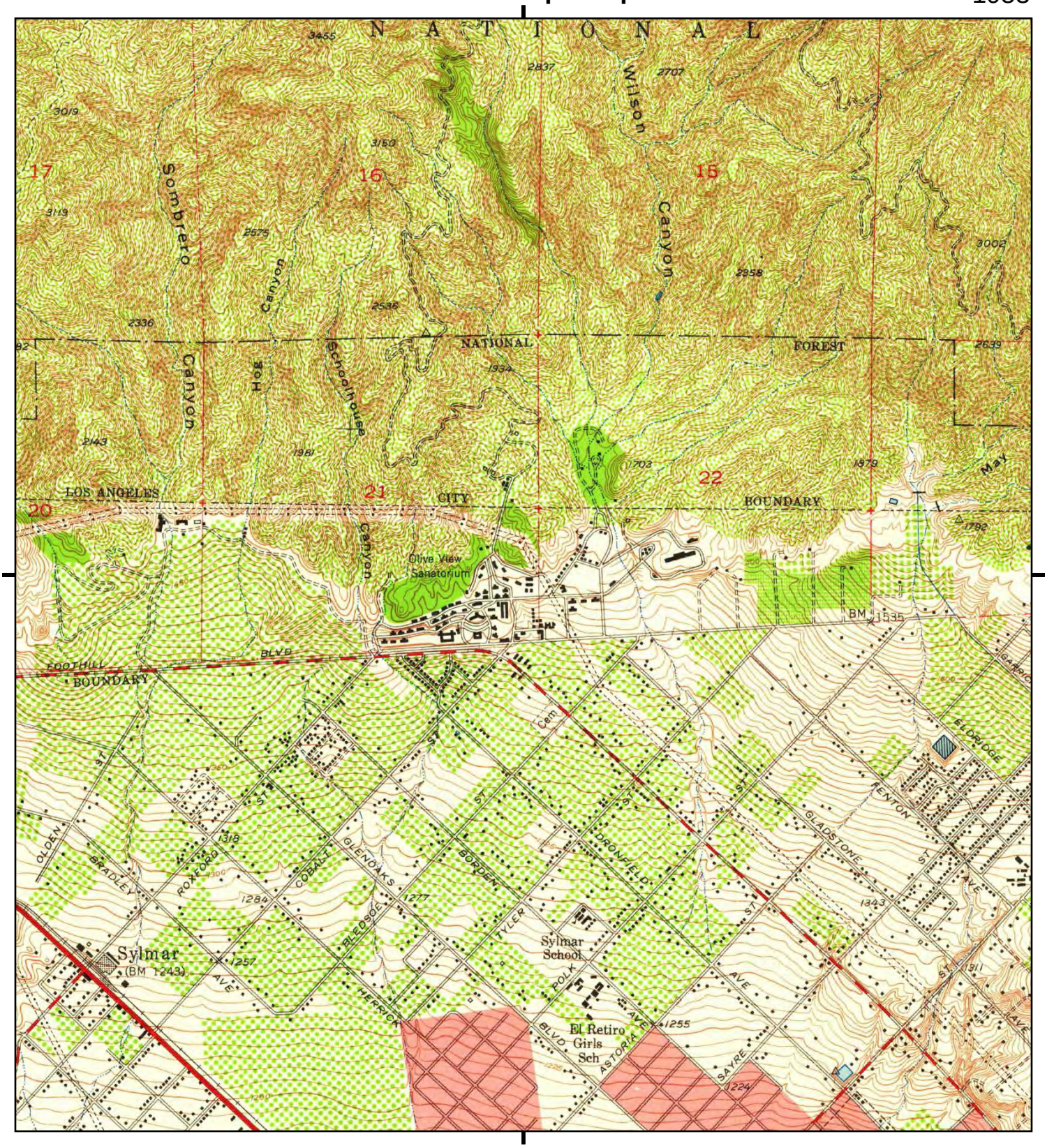
TP, San Fernando, 1966, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1953



This report includes information from the following map sheet(s).

Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

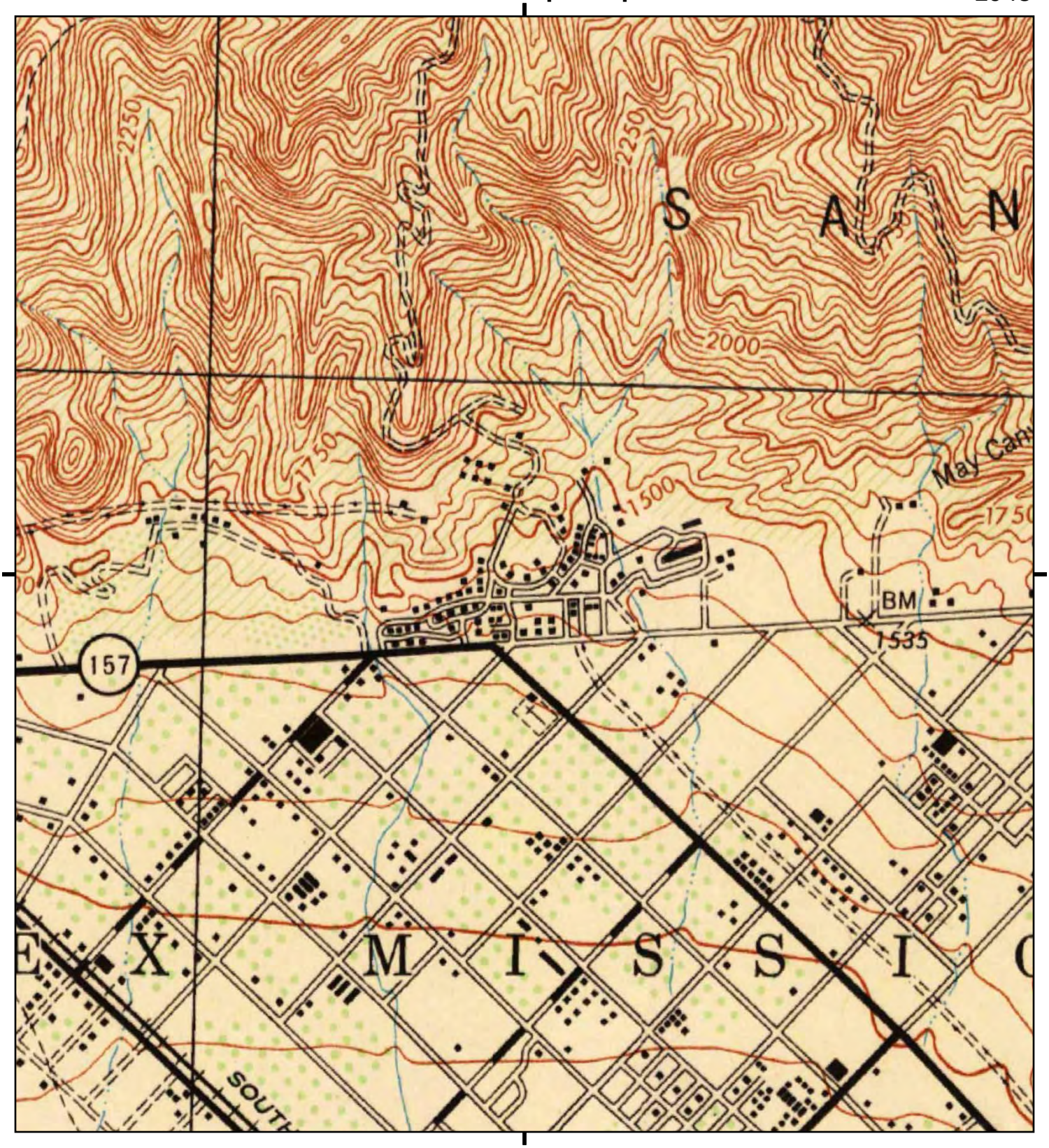
TP, San Fernando, 1953, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1945



This report includes information from the following map sheet(s).

Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

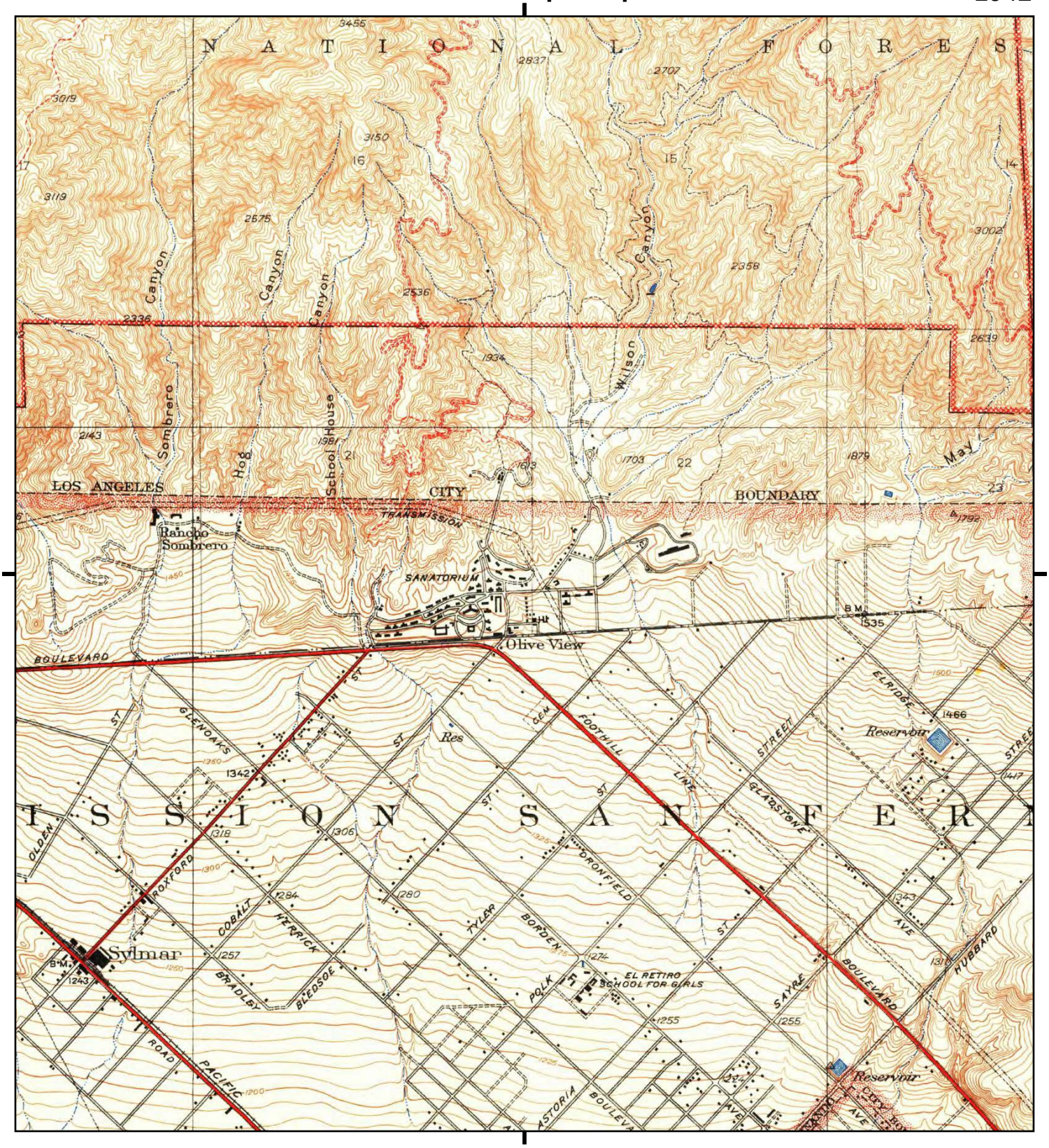
TP, San Fernando, 1945, 15-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1942



This report includes information from the following map sheet(s).

Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

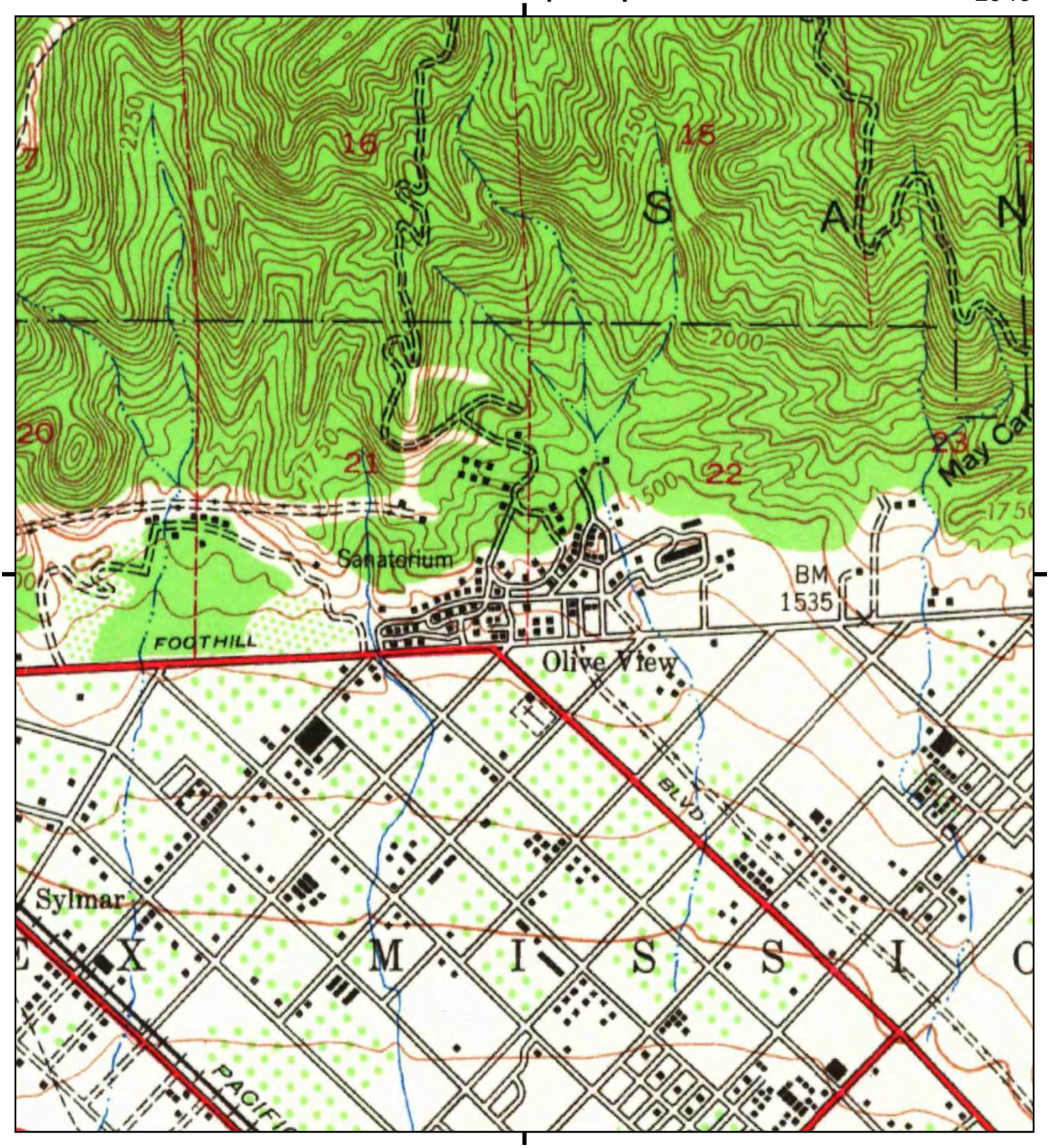
TP, Sylmar, 1942, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1940



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NW N NE
W E
SW S SE

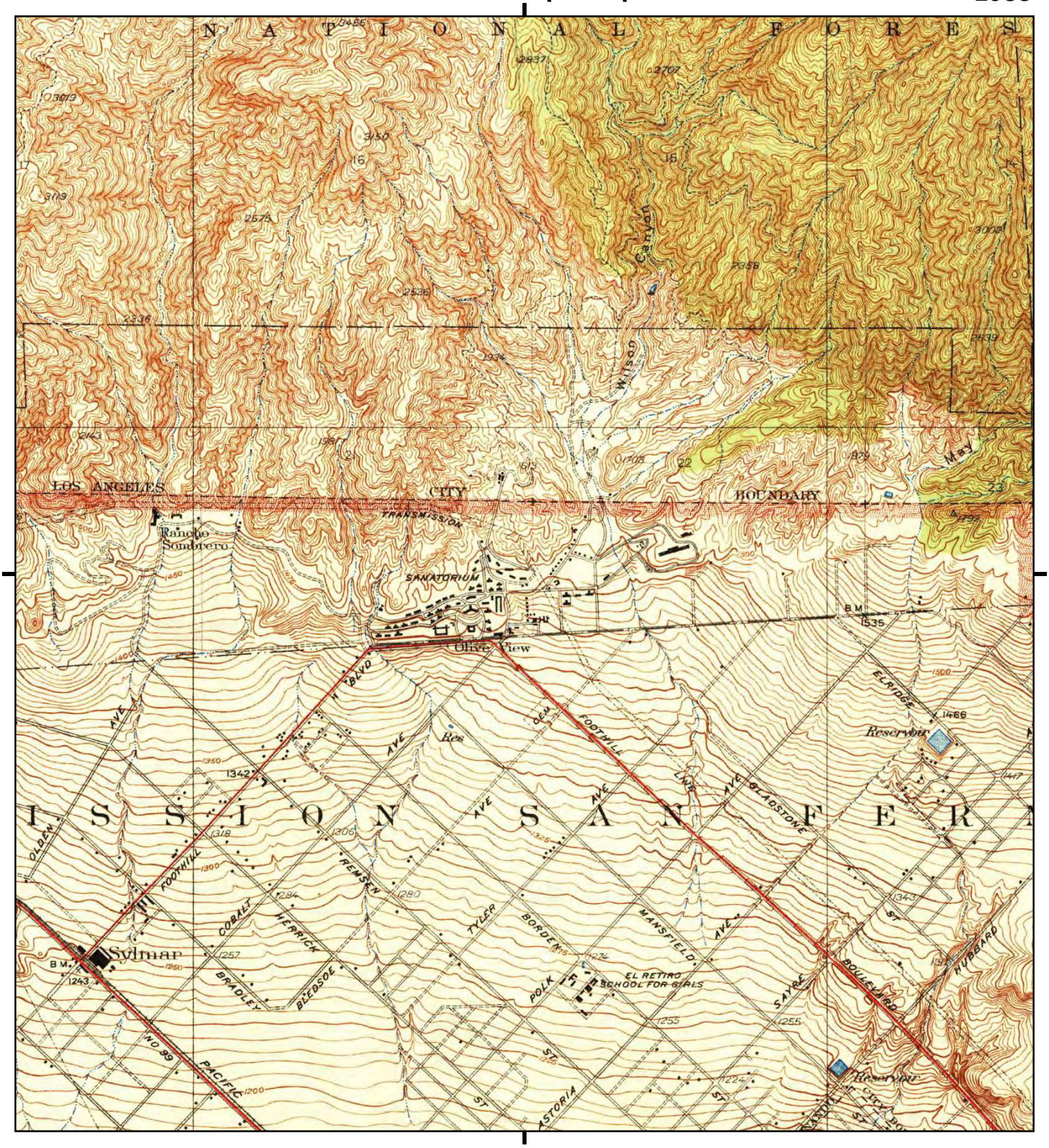
TP, San Fernando, 1940, 15-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1935



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Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

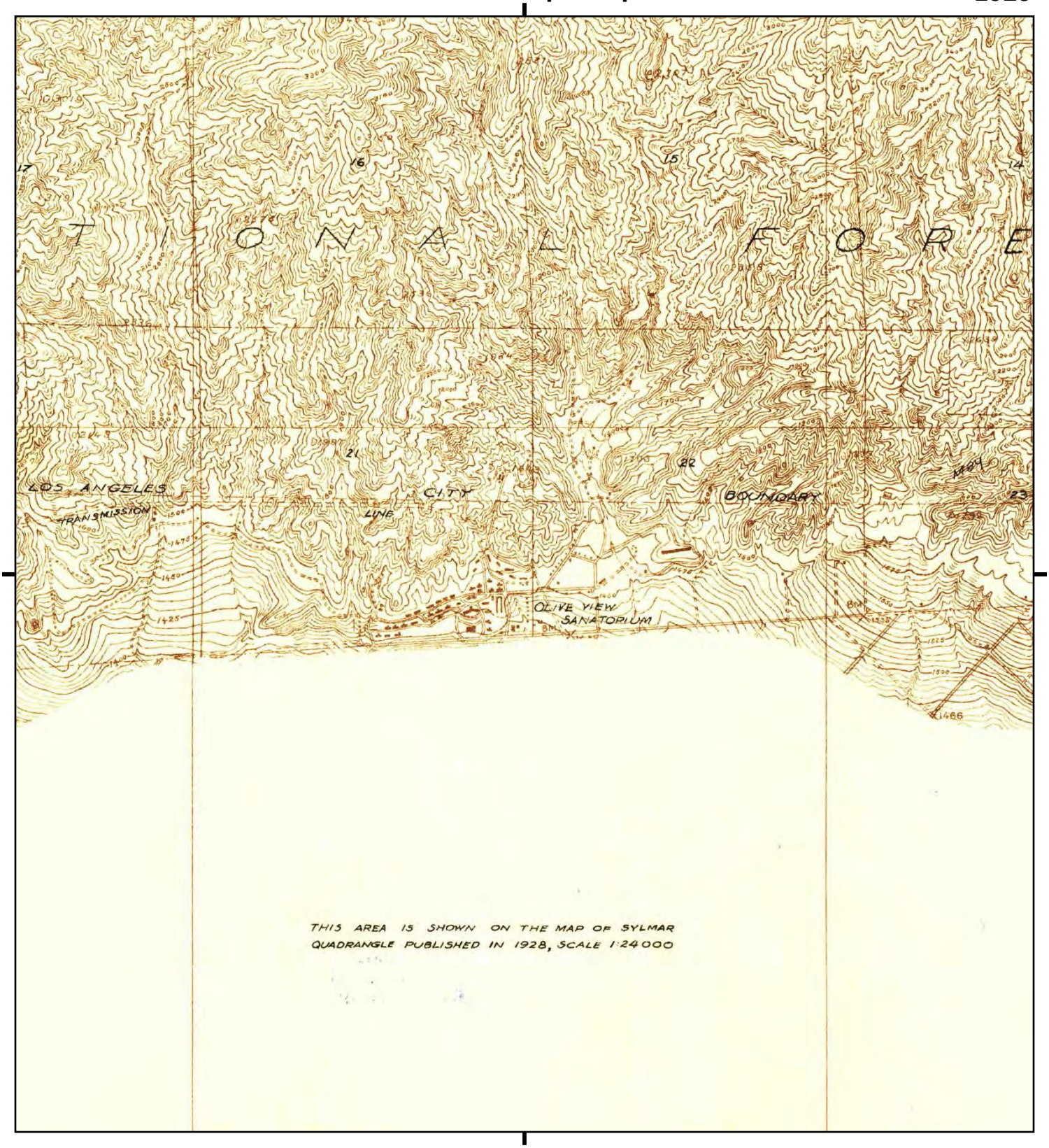
TP, Sylmar, 1935, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1929



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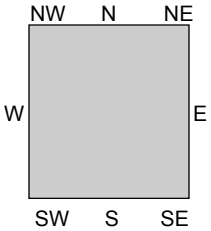


TP, Sylmar, 1929, 7.5-minute

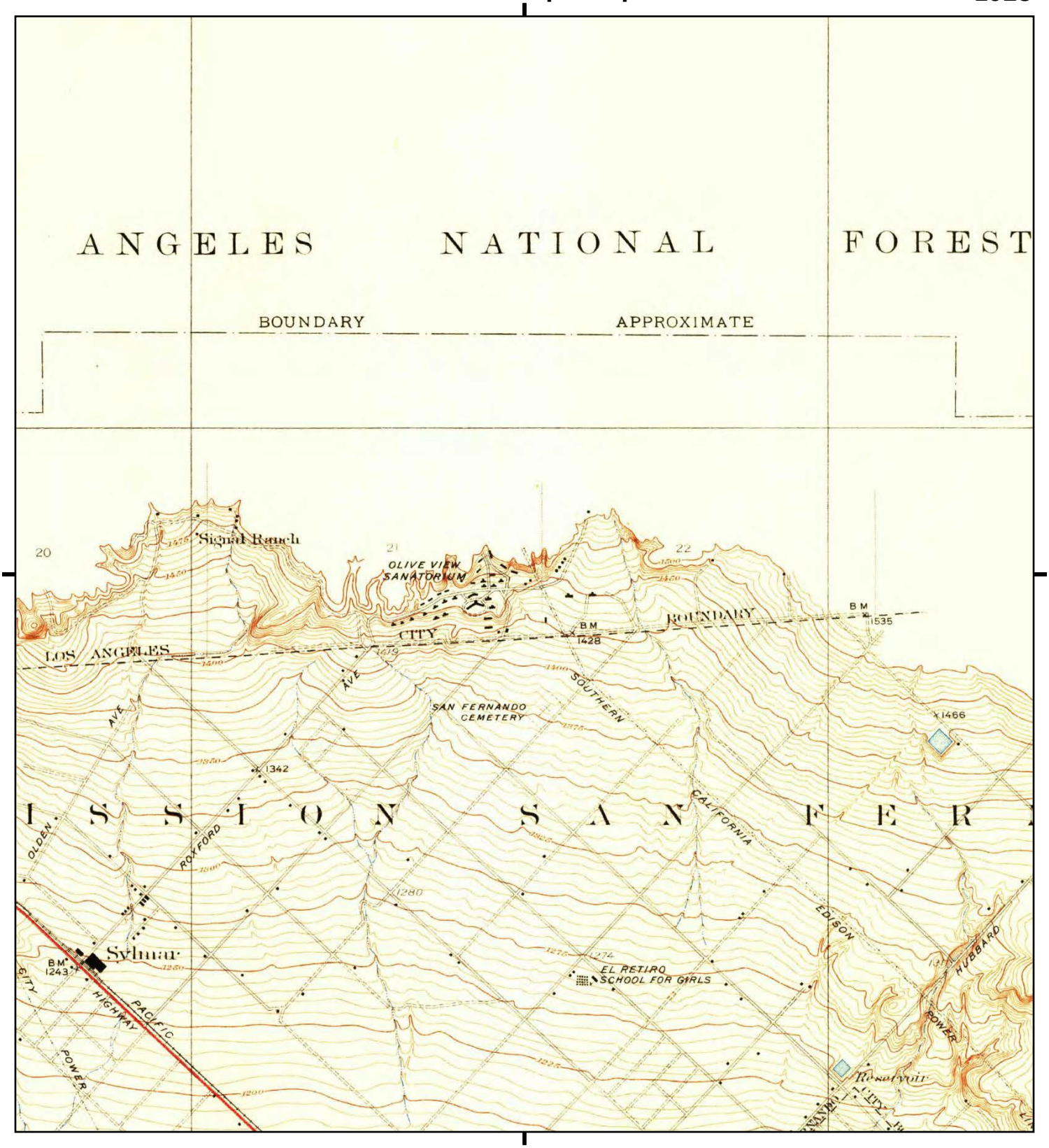
Miles 0.25 0.5 1 1.5

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

Historical Topo Map

1928



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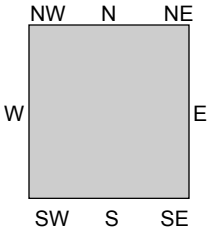


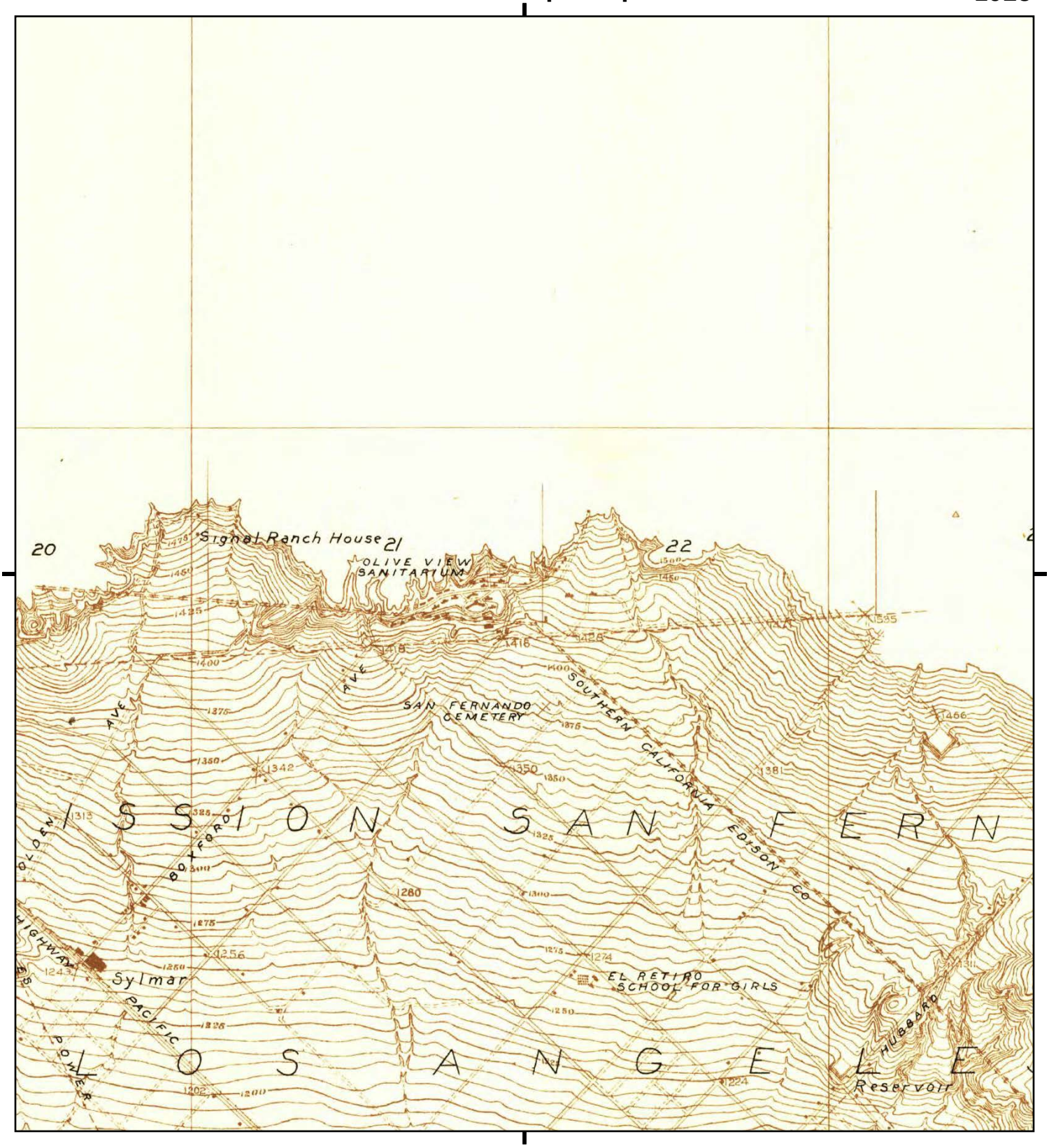
TP, Sylmar, 1928, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

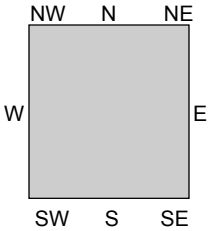
Historical Topo Map

1925



This report includes information from the following map sheet(s).

Miles 0.25 0.5 1 1.5



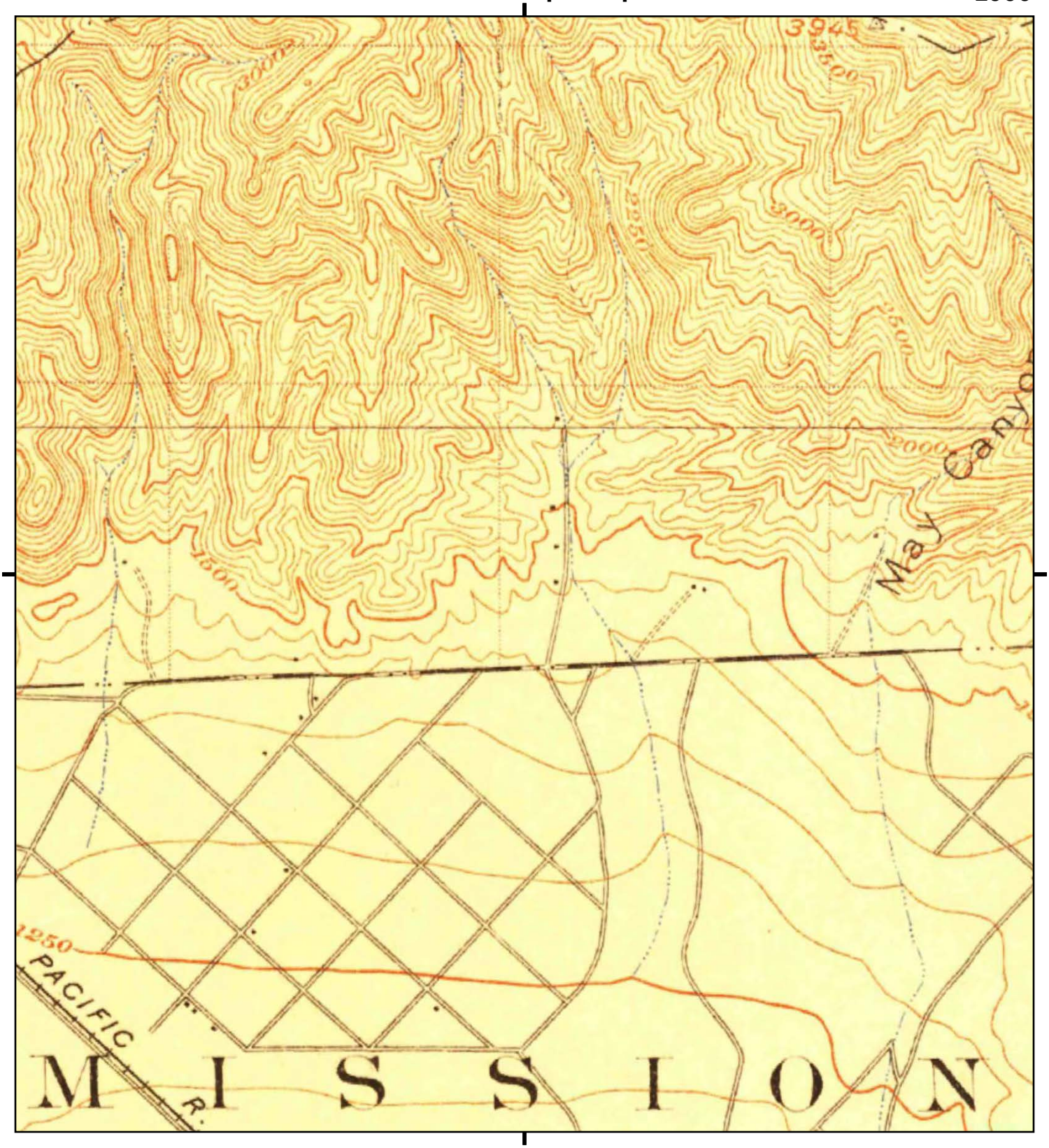
TP, Sylmar, 1925, 7.5-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

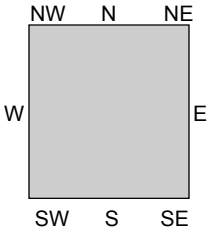
Historical Topo Map

1900



This report includes information from the following map sheet(s).

Miles 0.25 0.5 1 1.5



TP, Fernando, 1900, 15-minute

TP, San Fernando, 1900, 15-minute

SITE NAME: Olive View-UCLA Med Center
ADDRESS: 14445 Olive View Drive
Sylmar, CA 91342
CLIENT: Ninyo & Moore

N

DRAFT

APPENDIX D

EDR ENVIRONMENTAL DATABASE REPORT

Olive View-UCLA Med Center
14445 Olive View Drive
Sylmar, CA 91342

Inquiry Number: 4518850.2s
January 22, 2016

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Detail Map	3
Map Findings Summary	4
Map Findings	8
Orphan Summary	66
Government Records Searched/Data Currency Tracking	GR-1

GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
Physical Setting Source Map	A-12
Physical Setting Source Map Findings	A-14
Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

14445 OLIVE VIEW DRIVE
SYLMAR, CA 91342

COORDINATES

Latitude (North):	34.3268930 - 34˚ 19' 36.81''
Longitude (West):	118.4492830 - 118˚ 26' 57.41''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	366668.5
UTM Y (Meters):	3799157.8
Elevation:	1482 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5636833 SAN FERNANDO, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120428
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
14445 OLIVE VIEW DRIVE
SYLMAR, CA 91342

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	LA CO FMD OLIVE VIEW	14445 OLIVE VIEW DR	LOS ANGELES CO. HMS		TP
A2	LOS ANGELES COUNTY	14445 OLIVE VIEW DR	UST		TP
A3	NALCO	14445 OLIVE VIEW DR	HAZNET		TP
A4	PSYCHIATRIC URGENT C	14445 OLIVE VIEW DR	HAZNET		TP
A5	OLIVE VIEW UCLA MED	14445 OLIVE VIEW DR	HAZNET		TP
A6		14445 OLIVE VIEW DRI	CHMIRS		TP
A7	OLIVE VIEW HOSPITAL-	14445 OLIVE VIEW DR	LOS ANGELES CO. HMS		TP
A8	OLIVE VIEW MEDICAL C	14445 OLIVE VIEW DR	RCRA-LQG, US AIRS, HAZNET		TP
A9	LOS ANGELES COUNTY/	14445 OLIVE VIEW DR	HAZNET		TP
A10	LA CO., OLIVE VIEW/U	14445 OLIVE VIEW DR.	EMI		TP
A11	OLIVE VIEW MEDICAL C	14445 OLIVE VIEW DRI	FINDS		TP
A12	OLIVE VIEW MEDICAL C	14445 OLIVE VIEW DR	HAZNET		TP
A13	COUNTY OF LOS ANGELS	14445 OLIVE VIEW DR	HAZNET		TP
A14	LA CO., OLIVE VIEW/U	14445 OLIVE VIEW DR	SWEEPS UST, CHMIRS, EMI, NPDES		TP
15	CASTLE PRECISION IND	14148 BLEDSOE ST.	ENVIROSTOR	Lower	1 ft.
B16	LOS ANGELES COUNTY	14443 OLIVE VIEW DR	CA FID UST	Lower	22, 0.004, SSW
B17	OLIVE VIEW HOSPITAL	14501 OLIVE VIEW DR	HIST UST	Lower	22, 0.004, SW
C18	FIRE STATION	14425 OLIVE VIEW DR	SWEEPS UST, CA FID UST	Lower	44, 0.008, South
C19	FIRE STATION #46	14425 OLIVE VIEW DR	HIST UST	Lower	44, 0.008, South
C20	LA CO FD FIRE STATIO	14425 OLIVE VIEW	LUST, HIST CORTESE, LOS ANGELES CO. HMS	Lower	44, 0.008, South
21		15000 OLIVE VIEW DR	EDR Hist Auto	Lower	419, 0.079, WSW
22		14682 COBALT ST	EDR Hist Auto	Lower	595, 0.113, SSW
23	VACANT LOT	13780 GLADSTONE	SWEEPS UST, CA FID UST	Lower	867, 0.164, SE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 8 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
LA CO FMD OLIVE VIEW 14445 OLIVE VIEW DR CALABASAS (UNIN.), CA	LOS ANGELES CO. HMS Facility ID: 012577-012744	N/A
LOS ANGELES COUNTY 14445 OLIVE VIEW DR SYLMAR, CA 91342	UST Facility Id: 24841	N/A
NALCO 14445 OLIVE VIEW DR SYLMAR, CA 91342	HAZNET GEPAID: CAC001316768	N/A
PSYCHIATRIC URGENT C 14445 OLIVE VIEW DR SYLMAR, CA 91342	HAZNET GEPAID: CAC002650276	N/A
OLIVE VIEW UCLA MED 14445 OLIVE VIEW DR SYLMAR, CA 91342	HAZNET GEPAID: CAL000144653	N/A
14445 OLIVE VIEW DRI 14445 OLIVE VIEW DRI LOS ANGELES, CA 91342	CHMIRS OES Incident Number: 08-8234	N/A
OLIVE VIEW HOSPITAL- 14445 OLIVE VIEW DR CALABASAS (UNIN.), CA	LOS ANGELES CO. HMS Facility ID: 012577-I12744	N/A
OLIVE VIEW MEDICAL C 14445 OLIVE VIEW DR SYLMAR, CA 91342	RCRA-LQG EPA ID:: CAD983585324 US AIRS EPA plant ID:: 110008281117 HAZNET GEPAID: CAD983585324	CAD983585324
LOS ANGELES COUNTY/ 14445 OLIVE VIEW DR SYLMAR, CA 91342	HAZNET	N/A

	GEPAID: CAL000163403	
LA CO., OLIVE VIEW/U 14445 OLIVE VIEW DR. SYLMAR, CA 91342	EMI Facility Id: 3093	N/A
OLIVE VIEW MEDICAL C 14445 OLIVE VIEW DRI SYLMAR, CA 91342	FINDS Registry ID:: 110008281117	N/A
OLIVE VIEW MEDICAL C 14445 OLIVE VIEW DR SYLMAR, CA 91342	HAZNET GEPAID: CAC002706866	N/A
COUNTY OF LOS ANGELS 14445 OLIVE VIEW DR LOS ANGELES, CA 91342	HAZNET GEPAID: CAC002640329	N/A
LA CO., OLIVE VIEW/U 14445 OLIVE VIEW DR SYLMAR, CA 91342	SWEEPS UST Status: A Comp Number: 6406 CHMIRS OES Incident Number: 5-2127 EMI Facility Id: 3093 NPDES Facility Status: Terminated	N/A

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL---------- National Priority List

EXECUTIVE SUMMARY

Proposed NPL ..... Proposed National Priority List Sites
NPL LIENS ..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ..... National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ..... Federal Facility Site Information listing
CERCLIS ..... Comprehensive Environmental Response, Compensation, and Liability Information System

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP ..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS ..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-SQG ..... RCRA - Small Quantity Generators
RCRA-CESQG ..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

LUCIS ..... Land Use Control Information System
US ENG CONTROLS ..... Engineering Controls Sites List
US INST CONTROL ..... Sites with Institutional Controls

Federal ERNS list

ERNS ..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ..... Leaking Underground Storage Tanks on Indian Land
SLIC ..... Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ..... Underground Storage Tank Listing

EXECUTIVE SUMMARY

AST ..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST ..... Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ..... Voluntary Cleanup Priority Listing
VCP ..... Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ..... Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ..... Waste Management Unit Database
SWRCY ..... Recycler Database
HAULERS ..... Registered Waste Tire Haulers Listing
INDIAN ODI ..... Report on the Status of Open Dumps on Indian Lands
ODI ..... Open Dump Inventory
DEBRIS REGION 9 ..... Torres Martinez Reservation Illegal Dump Site Locations

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ..... National Clandestine Laboratory Register
AOCONCERN ..... San Gabriel Valley Areas of Concern
HIST Cal-Sites ..... Historical Calsites Database
SCH ..... School Property Evaluation Program
CDL ..... Clandestine Drug Labs
Toxic Pits ..... Toxic Pits Cleanup Act Sites
US CDL ..... Clandestine Drug Labs

Local Land Records

LIENS ..... Environmental Liens Listing
LIENS 2 ..... CERCLA Lien Information
DEED ..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ..... Hazardous Materials Information Reporting System
LDS ..... Land Disposal Sites Listing
MCS ..... Military Cleanup Sites Listing
SPILLS 90 ..... SPILLS 90 data from FirstSearch

Other Ascertainable Records

RCRA NonGen / NLR ..... RCRA - Non Generators / No Longer Regulated
FUDS ..... Formerly Used Defense Sites

EXECUTIVE SUMMARY

DOD	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	Toxic Chemical Release Inventory System
SSTS	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	Risk Management Plans
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
PADS	PCB Activity Database System
ICIS	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS	Material Licensing Tracking System
COAL ASH DOE	Steam-Electric Plant Operation Data
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
RADINFO	Radiation Information Database
HIST FTTS	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	Indian Reservations
UMTRA	Uranium Mill Tailings Sites
LEAD SMELTERS	Lead Smelter Sites
US MINES	Mines Master Index File
CA BOND EXP. PLAN	Bond Expenditure Plan
Cortese	"Cortese" Hazardous Waste & Substances Sites List
CUPA Listings	CUPA Resources List
DRYCLEANERS	Cleaner Facilities
ENF	Enforcement Action Listing
Financial Assurance	Financial Assurance Information Listing
HWP	EnviroStor Permitted Facilities Listing
HWT	Registered Hazardous Waste Transporter Database
MINES	Mines Site Location Listing
MWMP	Medical Waste Management Program Listing
PEST LIC	Pesticide Regulation Licenses Listing
PROC	Certified Processors Database
Notify 65	Proposition 65 Records
LA Co. Site Mitigation	Site Mitigation List
UIC	UIC Listing
WASTEWATER PITS	Oil Wastewater Pits Listing
WDS	Waste Discharge System
WIP	Well Investigation Program Case List

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner	EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF	Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

RGA LUST..... Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 11/07/2015 has revealed that there is 1 ENVIROSTOR site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
CASTLE PRECISION IND Facility Id: 19990045 Status: Refer: 1248 Local Agency	14148 BLEDSOE ST.	0 - 1/8 (0.000 mi.)	15	59

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 10/21/2015 has revealed that there is 1 LUST site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA CO FD FIRE STATIO	***14425 OLIVE VIEW***	***S 0 - 1/8 (0.008 mi.)***	***C20***	***62***

Global ID: T0603705142
Facility Id: R-12544
Status: Leak being confirmed

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there are 2 SWEEPS UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
FIRE STATION Status: A Tank Status: A Comp Number: 1438	***14425 OLIVE VIEW DR***	***S 0 - 1/8 (0.008 mi.)***	***C18***	***61***
VACANT LOT Comp Number: 7651	***13780 GLADSTONE***	***SE 1/8 - 1/4 (0.164 mi.)***	***23***	***64***

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
OLIVE VIEW HOSPITAL Facility Id: 00000020708	14501 OLIVE VIEW DR	SW 0 - 1/8 (0.004 mi.)	B17	60
FIRE STATION #46 Facility Id: 00000020636	14425 OLIVE VIEW DR	S 0 - 1/8 (0.008 mi.)	C19	62

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there are 3 CA FID UST sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LOS ANGELES COUNTY Facility Id: 19056212 Status: A	14443 OLIVE VIEW DR	SSW 0 - 1/8 (0.004 mi.)	B16	60
FIRE STATION	***14425 OLIVE VIEW DR***	***S 0 - 1/8 (0.008 mi.)***	***C18***	***61***

Facility Id: 19050395 Status: A				
VACANT LOT Facility Id: 19015946 Status: I	***13780 GLADSTONE***	***SE 1/8 - 1/4 (0.164 mi.)***	***23***	***64***

Other Ascertainable Records

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there is 1 HIST CORTESE site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
LA CO FD FIRE STATIO Reg Id: R-12544	***14425 OLIVE VIEW***	***S 0 - 1/8 (0.008 mi.)***	***C20***	***62***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there are 2 EDR Hist Auto sites within approximately 0.125 miles of the target property.

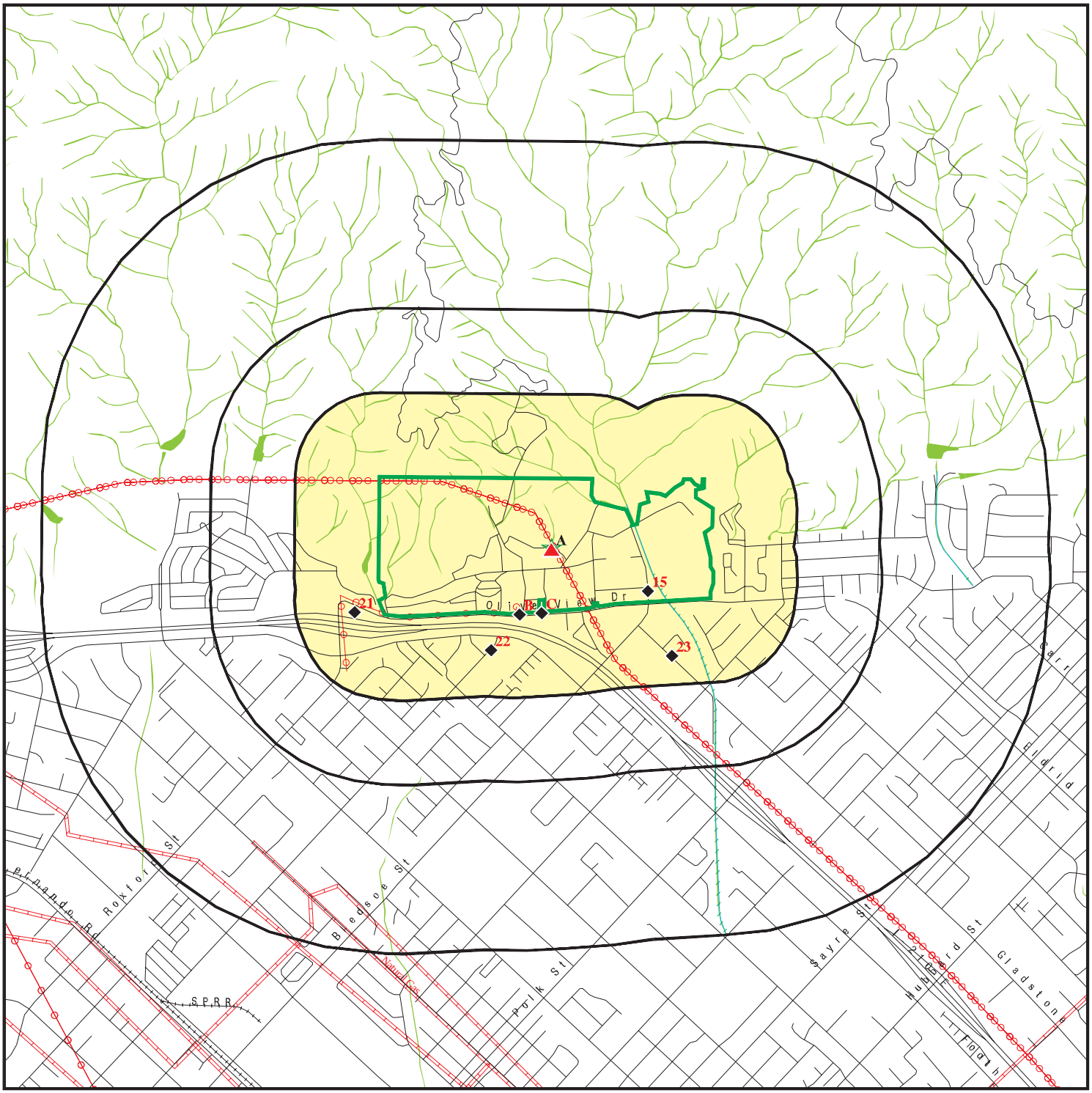
Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	15000 OLIVE VIEW DR	WSW 0 - 1/8 (0.079 mi.)	21	64
Not reported	14682 COBALT ST	SSW 0 - 1/8 (0.113 mi.)	22	64

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 4 records.

Site Name	Database(s)
	CDL
	CDL
	CDL
VALLEY REGION SPAN K-8 #1	ENVIROSTOR, SCH

OVERVIEW MAP - 4518850.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

0 1/4 1/2 1 Miles

Indian Reservations BIA

Power transmission lines

Pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Olive View-UCLA Med Center	CLIENT: Ninyo & Moore
ADDRESS: 14445 Olive View Drive Sylmar CA 91342	CONTACT: Patrick Cullip
LAT/LONG: 34.326893 / 118.449283	INQUIRY #: 4518850.2s
	DATE: January 22, 2016 11:28 am

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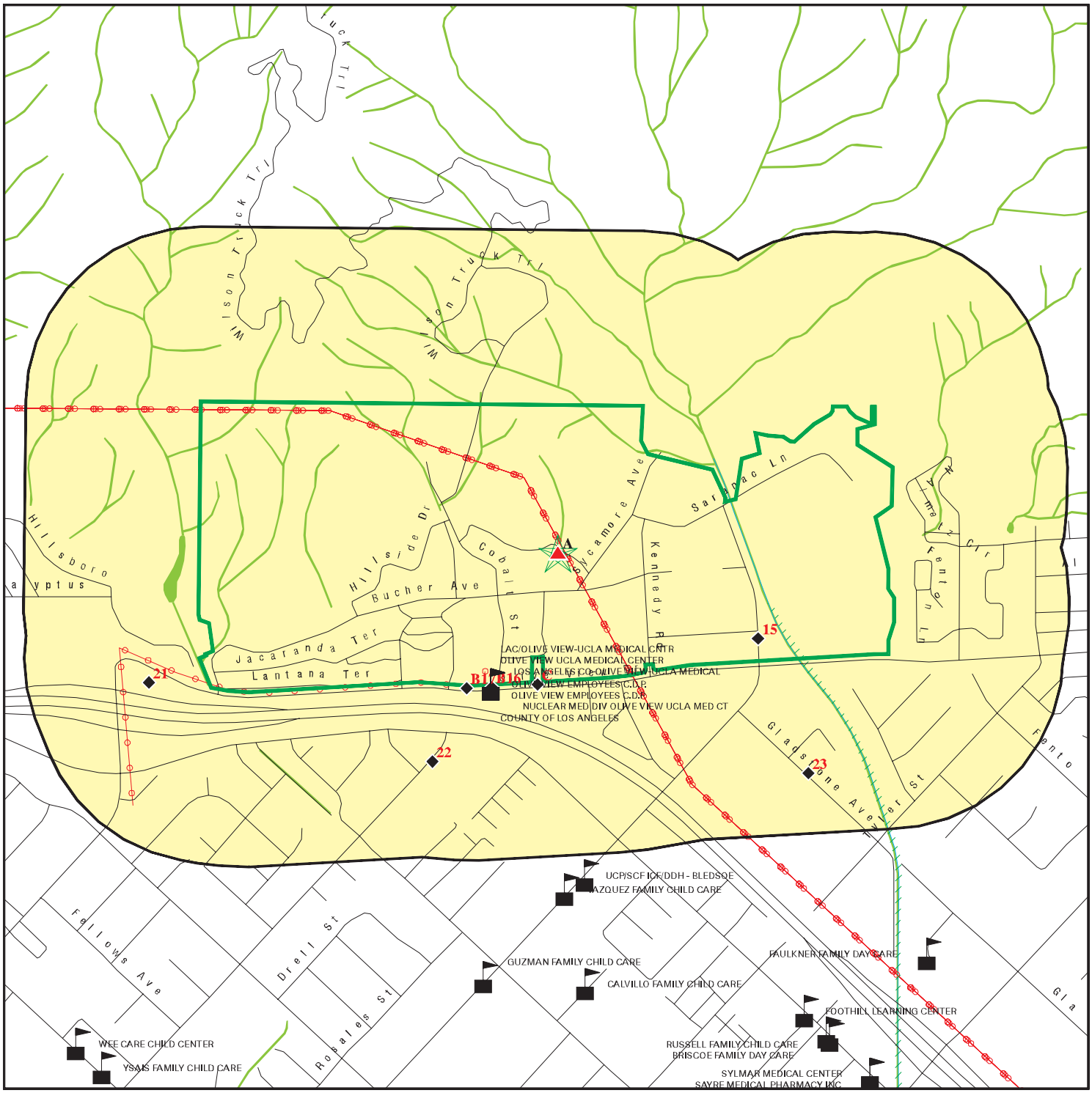
DETAIL MAP - 4518850.2S



0 1/8 1/4 1/2 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Olive View-UCLA Med Center	CLIENT: Ninyo & Moore
ADDRESS: 14445 Olive View Drive Sylmar CA 91342	CONTACT: Patrick Cullip
LAT/LONG: 34.326893 / 118.449283	INQUIRY #: 4518850.2s
	DATE: January 22, 2016 11:30 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	TP		NR	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
CERCLIS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERCLIS-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250	1	0	0	NR	NR	NR	1
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		1	0	0	0	NR	1
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		1	0	0	NR	NR	1

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250	1	0	0	NR	NR	NR	1
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	TP		NR	NR	NR	NR	NR	0
AOCONCERN	1.000		0	0	0	0	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
US CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250	1	1	1	NR	NR	NR	3
HIST UST	0.250		2	0	NR	NR	NR	2
CA FID UST	0.250		2	1	NR	NR	NR	3
Local Land Records								
LIENS	TP		NR	NR	NR	NR	NR	0
LIENS 2	TP		NR	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS	TP	2	NR	NR	NR	NR	NR	2
LDS	TP		NR	NR	NR	NR	NR	0
MCS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
DOT OPS	TP		NR	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP	1	NR	NR	NR	NR	NR	1
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		0	0	0	NR	NR	0
CUPA Listings	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	TP	2	NR	NR	NR	NR	NR	2
ENF	TP		NR	NR	NR	NR	NR	0
Financial Assurance	TP		NR	NR	NR	NR	NR	0
HAZNET	TP	7	NR	NR	NR	NR	NR	7
HIST CORTESE	0.500		1	0	0	NR	NR	1
LOS ANGELES CO. HMS	TP	2	NR	NR	NR	NR	NR	2
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	TP		NR	NR	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
NPDES	TP	1	NR	NR	NR	NR	NR	1
PEST LIC	TP		NR	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	0	0	NR	0
LA Co. Site Mitigation	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	TP		NR	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		2	NR	NR	NR	NR	2
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	TP		NR	NR	NR	NR	NR	0
RGA LUST	TP		NR	NR	NR	NR	NR	0
- Totals --		19	10	2	0	0	0	31

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 Target Property | **LA CO FMD OLIVE VIEW HOSP** | **LOS ANGELES CO. HMS** | **S102062941**
14445 OLIVE VIEW DR | **N/A**
CALABASAS (UNIN.), CA

Site 1 of 14 in cluster A

Actual: 1482 ft.

LOS ANGELES CO. HMS:

Region:	LA
Facility Id:	012577-012744
Facility Type:	Not reported
Facility Status:	OPEN
Area:	5
Permit Number:	Not reported
Permit Status:	Not reported

A2 Target Property | **LOS ANGELES COUNTY** | **UST** | **U003781188**
14445 OLIVE VIEW DR | **N/A**
SYLMAR, CA 91342

Site 2 of 14 in cluster A

Actual: 1482 ft.

UST:

Facility ID:	24841
Permitting Agency:	LOS ANGELES, CITY OF
Latitude:	34.3270574
Longitude:	-118.4444271

A3 Target Property | **NALCO** | **HAZNET** | **S112881894**
14445 OLIVE VIEW DR | **N/A**
SYLMAR, CA 91342

Site 3 of 14 in cluster A

Actual: 1482 ft.

HAZNET:

envid:	S112881894
Year:	1999
GEPAID:	CAC001316768
Contact:	NALCO
Telephone:	6303051982
Mailing Name:	Not reported
Mailing Address:	ONE NALCO CENTER
Mailing City,St,Zip:	NAPERVILLE, IL 605630000
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Not reported
Tons:	.1750
Cat Decode:	Other inorganic solid waste
Method Decode:	Not reported
Facility County:	Los Angeles

envid:	S112881894
Year:	1999
GEPAID:	CAC001316768
Contact:	NALCO
Telephone:	6303051982
Mailing Name:	Not reported

NALCO (Continued) **S112881894**

Mailing Address: ONE NALCO CENTER
Mailing City,St,Zip: NAPERVILLE, IL 605630000
Gen County: Not reported
TSD EPA ID: CAD028409019
TSD County: Not reported
Waste Category: Other inorganic solid waste
Disposal Method: Transfer Station
Tons: .1750
Cat Decode: Other inorganic solid waste
Method Decode: Transfer Station
Facility County: Los Angeles

A4 Target Property **PSYCHIATRIC URGENT CARE CENTER OLIVE VIEW MEDICAL CENTER** **HAZNET** **S113458352**
14445 OLIVE VIEW DR **N/A**
SYLMAR, CA 91342

Site 4 of 14 in cluster A

Actual: 1482 ft.

HAZNET:
envid: S113458352
Year: 2010
GEPAID: CAC002650276
Contact: PARISA DADMEHR
Telephone: 8185814915
Mailing Name: Not reported
Mailing Address: 900 S FREMONT AVE
Mailing City,St,Zip: ALHAMBRA, CA 91803
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported
Waste Category: Asbestos containing waste
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 16
Cat Decode: Asbestos containing waste
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County: Los Angeles

A5 Target Property **OLIVE VIEW UCLA MED CTR** **HAZNET** **S113079432**
14445 OLIVE VIEW DR **N/A**
SYLMAR, CA 91342

Site 5 of 14 in cluster A

Actual: 1482 ft.

HAZNET:
envid: S113079432
Year: 2010
GEPAID: CAL000144653
Contact: SERGEY BAZLOR
Telephone: 8183644610
Mailing Name: Not reported
Mailing Address: 14445 OLIVE VIEW DR BUNGALOW I
Mailing City,St,Zip: SYLMAR, CA 913421437
Gen County: Not reported
TSD EPA ID: AZC950823111
TSD County: Not reported

OLIVE VIEW UCLA MED CTR (Continued) **S113079432**

Waste Category:	Other inorganic solid waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	71.638
Cat Decode:	Other inorganic solid waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County:	Los Angeles

envid:	S113079432
Year:	2010
GEPAID:	CAL000144653
Contact:	SERGEY BAZLOR
Telephone:	8183644610
Mailing Name:	Not reported
Mailing Address:	14445 OLIVE VIEW DR BUNGALOW I
Mailing City,St,Zip:	SYLMAR, CA 913421437
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other organic solids
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.925
Cat Decode:	Other organic solids
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	S113079432
Year:	2009
GEPAID:	CAL000144653
Contact:	SERGEY BAZLOR
Telephone:	8183644610
Mailing Name:	Not reported
Mailing Address:	14445 OLIVE VIEW DR BUNGALOW I
Mailing City,St,Zip:	SYLMAR, CA 913421437
Gen County:	Not reported
TSD EPA ID:	CAD009007626
TSD County:	Not reported
Waste Category:	Asbestos containing waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	198.8
Cat Decode:	Asbestos containing waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County:	Los Angeles

envid:	S113079432
Year:	2009
GEPAID:	CAL000144653
Contact:	SERGEY BAZLOR
Telephone:	8183644610
Mailing Name:	Not reported
Mailing Address:	14445 OLIVE VIEW DR BUNGALOW I
Mailing City,St,Zip:	SYLMAR, CA 913421437
Gen County:	Not reported
TSD EPA ID:	CAT000646117
TSD County:	Not reported

OLIVE VIEW UCLA MED CTR (Continued) **S113079432**

Waste Category:	Other inorganic solid waste
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	67.424
Cat Decode:	Other inorganic solid waste
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County:	Los Angeles

envid:	S113079432
Year:	2008
GEPAID:	CAL000144653
Contact:	SERGEY BAZLOR
Telephone:	8183644610
Mailing Name:	Not reported
Mailing Address:	14445 OLIVE VIEW DR BUNGALOW I
Mailing City,St,Zip:	SYLMAR, CA 913421437
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Other inorganic solid waste
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.025
Cat Decode:	Other inorganic solid waste
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

Click this hyperlink while viewing on your computer to access
2 additional CA_HAZNET: record(s) in the EDR Site Report.

A6 **CHMIRS** **S110418148**
Target Property **14445 OLIVE VIEW DRIVE** **N/A**
LOS ANGELES, CA 91342

Site 6 of 14 in cluster A

Actual: 1482 ft.

CHMIRS:

OES Incident Number:	08-8234
OES notification:	11/15/2008
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported
Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported

(Continued) **S110418148**

Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	No
Waterway:	Not reported
Spill Site:	Merchant/Business
Cleanup By:	Unknown
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Gal(s)
Other:	Not reported
Date/Time:	0455
Year:	2008
Agency:	LA County Fire
Incident Date:	11/15/2008
Admin Agency:	Los Angeles City Fire Department
Amount:	Not reported
Contained:	Yes
Site Type:	Not reported
E Date:	Not reported
Substance:	UNK PESTICIDES & HERBICIDES
Quantity Released:	200 - 300
Unknown:	Not reported
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported
Comments:	Not reported
Description:	RP States: A fire caused the release of the materials onto the ground. Several lockers with rounds of ammunition. Release was a result of the Sayre Fire.

A7 Target Property | **OLIVE VIEW HOSPITAL-CLOSED FIL** | **LOS ANGELES CO. HMS** | **U003064715**
14445 OLIVE VIEW DR | **N/A**
CALABASAS (UNIN.), CA

Site 7 of 14 in cluster A

Actual: 1482 ft.

LOS ANGELES CO. HMS:

Region:	LA
Facility Id:	012577-I12744
Facility Type:	IS4
Facility Status:	Closed
Area:	5
Permit Number:	000553465
Permit Status:	Closed

A8 Target Property | **OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY** | **RCRA-LQG** | **1000594673**
14445 OLIVE VIEW DR | **US AIRS** | **CAD983585324**
SYLMAR, CA 91342 | **HAZNET**

Site 8 of 14 in cluster A

Actual: 1482 ft.

RCRA-LQG:

Date form received by agency:	08/29/2013
Facility name:	OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY
Facility address:	14445 OLIVE VIEW DR SYLMAR, CA 91342
EPA ID:	CAD983585324
Contact:	FRANK COLBERT
Contact address:	14445 OLIVE VIEW DR SAFETY OFFICE BLDG I SYLMAR, CA 91342
Contact country:	US
Contact telephone:	818-364-3405
Contact email:	Not reported
EPA Region:	09
Classification:	Large Quantity Generator
Description:	Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

Owner/Operator Summary:

Owner/operator name:	LA COUNTY
Owner/operator address:	Not reported Not reported
Owner/operator country:	US
Owner/operator telephone:	Not reported
Legal status:	County
Owner/Operator Type:	Operator
Owner/Op start date:	01/01/1959
Owner/Op end date:	Not reported

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Owner/operator name: LA COUNTY
Owner/operator address: 14445 OLIVE VIEW DR SAFETY OFFICE BLDG I
SYLMAR, CA 91342
Owner/operator country: US
Owner/operator telephone: 818-364-3405
Legal status: County
Owner/Operator Type: Owner
Owner/Op start date: 01/01/1959
Owner/Op end date: Not reported

Handler Activities Summary:
U.S. importer of hazardous waste: No
Mixed waste (haz. and radioactive): Yes
Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

. Waste code: 134
. Waste name: 134

. Waste code: 181
. Waste name: 181

. Waste code: 331
. Waste name: 331

. Waste code: 343
. Waste name: 343

. Waste code: 352
. Waste name: 352

. Waste code: 551
. Waste name: 551

. Waste code: 725
. Waste name: 725

. Waste code: 741
. Waste name: 741

. Waste code: 791
. Waste name: 791

. Waste code: 792
. Waste name: 792

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

. Waste code: D001
. Waste name: IGNITABLE WASTE

. Waste code: D002
. Waste name: CORROSIVE WASTE

. Waste code: D009
. Waste name: MERCURY

Historical Generators:
Date form received by agency: 09/01/1996
Site name: OLIVE VIEW MED CTR LA CO
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996
Site name: OLIVE VIEW MED CTR LA CO
Classification: Small Quantity Generator

Date form received by agency: 05/29/1991
Site name: OLIVE VIEW MED CTR LA CO
Classification: Small Quantity Generator

Violation Status: No violations found

US AIRS (AFS):
Envid: 1000594673
Region Code: 09
County Code: CA037
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
D and B Number: Not reported
Facility Site Name: LA CO-OLIVE VIEW/UCLA MEDICAL CENTER
Primary SIC Code: 8011
NAICS Code: 622110
Default Air Classification Code: MAJ
Facility Type of Ownership Code: CNG
Air CMS Category Code: TVM
HPV Status: Not reported

US AIRS (AFS):
Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: Not reported
Activity Status Date: 2012-03-14 00:00:00
Activity Group: Case File
Activity Type: Case File
Activity Status: Resolved

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Date:	2015-04-30 00:00:00
Activity Status Date:	2015-07-30 13:55:48
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2015-04-30 00:00:00
Activity Status Date:	2015-07-30 14:03:45
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1992-10-20 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1996-10-01 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1997-05-28 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1998-02-13 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	1999-09-23 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2000-10-11 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2002-03-02 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2002-03-06 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2002-09-29 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2002-09-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2004-02-04 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2004-08-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-02-09 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-05-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2005-08-16 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2006-02-21 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2006-05-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Date:	2006-07-05 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2006-07-15 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2006-08-30 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2007-01-22 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2007-05-02 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported
Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2007-05-04 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2007-12-15 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-02-06 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-02-29 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2008-07-11 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2008-07-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-01-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-04-03 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-06-30 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-07-14 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2009-07-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-02-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-04-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2010-04-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Date:	2010-04-28 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2010-07-01 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2010-07-09 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-02-09 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-06-27 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-06-28 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-07-27 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-12-04 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-12-07 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2012-02-08 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-02-10 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-03-07 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2012-03-08 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-06-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2013-11-12 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-02-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-05-20 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-06-05 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date: 2014-06-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Date:	2011-11-22 00:00:00
Activity Status Date:	2011-11-22 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	State Implementation Plan for National Primary and Secondary Ambient Air Quality Standards
Activity Date:	2011-07-27 00:00:00
Activity Status Date:	2011-07-27 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not reported
Activity Status Date:	2002-07-02 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not reported
Activity Status Date:	2003-08-07 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	Not reported
Activity Status Date:	2012-03-14 00:00:00
Activity Group:	Case File
Activity Type:	Case File
Activity Status:	Resolved

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-09-07 00:00:00
Activity Status Date:	2015-07-30 14:02:58
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-11-06 00:00:00
Activity Status Date:	2015-07-30 14:01:21
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2015-01-06 00:00:00
Activity Status Date:	2015-07-30 13:57:04
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2015-04-30 00:00:00
Activity Status Date:	2015-07-30 13:55:48
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2015-04-30 00:00:00
Activity Status Date:	2015-07-30 14:03:45
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Active

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 1998-02-13 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 1999-09-23 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2000-10-11 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2002-03-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2002-03-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2002-09-29 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2002-09-30 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2003-03-26 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2003-08-13 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Date:	2004-02-04 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2004-08-03 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2005-02-09 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2005-05-27 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2005-08-16 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2006-02-21 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2006-05-30 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2006-07-05 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2006-07-15 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2006-08-30 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-01-22 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-05-02 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-05-04 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2007-12-15 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2008-02-06 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-02-29 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-07-11 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2008-07-20 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-01-15 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Date:	2009-04-03 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-06-30 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-07-14 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2009-07-15 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-02-02 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-04-07 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-04-27 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-04-28 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-07-01 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2010-07-09 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-02-09 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-06-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-06-28 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-07-27 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring
Activity Type: Inspection/Evaluation
Activity Status: Not reported

Region Code: 09
Programmatic ID: AIR CASCA00006037C0066
Facility Registry ID: 110008281117
Air Operating Status Code: OPR
Default Air Classification Code: MAJ
Air Program: Title V Permits
Activity Date: 2011-12-04 00:00:00
Activity Status Date: Not reported
Activity Group: Compliance Monitoring

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-12-07 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2012-02-08 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2012-02-10 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2012-03-07 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Date:	2012-03-08 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-01-09 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-06-04 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-06-05 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2013-11-12 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-02-05 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-05-20 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-06-05 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2014-06-06 00:00:00
Activity Status Date:	Not reported
Activity Group:	Compliance Monitoring
Activity Type:	Inspection/Evaluation
Activity Status:	Not reported

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2002-05-16 00:00:00
Activity Status Date:	2002-05-16 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2003-06-24 00:00:00
Activity Status Date:	2003-06-24 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-11-22 00:00:00
Activity Status Date:	2011-11-22 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Formal
Activity Status:	Final Order Issued

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2002-03-06 00:00:00
Activity Status Date:	2002-03-06 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2003-04-10 00:00:00
Activity Status Date:	2003-04-10 00:00:00
Activity Group:	Enforcement Action
Activity Type:	Administrative - Informal
Activity Status:	Achieved

Region Code:	09
Programmatic ID:	AIR CASCA00006037C0066
Facility Registry ID:	110008281117
Air Operating Status Code:	OPR
Default Air Classification Code:	MAJ
Air Program:	Title V Permits
Activity Date:	2011-07-27 00:00:00
Activity Status Date:	2011-07-27 00:00:00
Activity Group:	Enforcement Action

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Activity Type: Administrative - Informal
Activity Status: Achieved

HAZNET:

envid: 1000594673
Year: 2013
GEPAID: CAD983585324
Contact: FRANK COLBERT
Telephone: 8183643405
Mailing Name: Not reported
Mailing Address: 14445 OLIVE VIEW DR
Mailing City,St,Zip: SYLMAR, CA 913420000
Gen County: Los Angeles
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.1435
Cat Decode: Not reported
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Not reported

envid: 1000594673
Year: 2013
GEPAID: CAD983585324
Contact: FRANK COLBERT
Telephone: 8183643405
Mailing Name: Not reported
Mailing Address: 14445 OLIVE VIEW DR
Mailing City,St,Zip: SYLMAR, CA 913420000
Gen County: Los Angeles
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons: 1.564
Cat Decode: Not reported
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County: Not reported

envid: 1000594673
Year: 2013
GEPAID: CAD983585324
Contact: FRANK COLBERT
Telephone: 8183643405
Mailing Name: Not reported
Mailing Address: 14445 OLIVE VIEW DR
Mailing City,St,Zip: SYLMAR, CA 913420000
Gen County: Los Angeles
TSD EPA ID: NVT330010000
TSD County: 99
Waste Category: Not reported
Disposal Method: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)

OLIVE VIEW MEDICAL CTR LOS ANGELES CNTY (Continued) **1000594673**

Tons: 0.316
Cat Decode: Not reported
Method Decode: Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County: Not reported

envid: 1000594673
Year: 2013
GEPAID: CAD983585324
Contact: FRANK COLBERT
Telephone: 8183643405
Mailing Name: Not reported
Mailing Address: 14445 OLIVE VIEW DR
Mailing City,St,Zip: SYLMAR, CA 913420000
Gen County: Los Angeles
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons: 0.152
Cat Decode: Not reported
Method Decode: Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County: Not reported

envid: 1000594673
Year: 2013
GEPAID: CAD983585324
Contact: FRANK COLBERT
Telephone: 8183643405
Mailing Name: Not reported
Mailing Address: 14445 OLIVE VIEW DR
Mailing City,St,Zip: SYLMAR, CA 913420000
Gen County: Los Angeles
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Not reported
Disposal Method: Fuel Blending Prior To Energy Recovery At Another Site
Tons: 0.065
Cat Decode: Not reported
Method Decode: Fuel Blending Prior To Energy Recovery At Another Site
Facility County: Not reported

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765 additional CA_HAZNET: record(s) in the EDR Site Report.

A9 Target Property **LOS ANGELES COUNTY/ ISD** **HAZNET** **S113087512**
14445 OLIVE VIEW DR **N/A**
SYLMAR, CA 91342

Site 9 of 14 in cluster A

Actual: 1482 ft.

HAZNET:
envid: S113087512
Year: 2014
GEPAID: CAL000163403
Contact: HARRY PARRA
Telephone: 3237933260
Mailing Name: Not reported

LOS ANGELES COUNTY/ ISD (Continued) **S113087512**

Mailing Address:	1100 N EASTERN AVE RM 119
Mailing City,St,Zip:	LOS ANGELES, CA 900633200
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Waste oil and mixed oil
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.608
Cat Decode:	Waste oil and mixed oil
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Los Angeles

envid:	S113087512
Year:	2014
GEPAID:	CAL000163403
Contact:	HARRY PARRA
Telephone:	3237933260
Mailing Name:	Not reported
Mailing Address:	1100 N EASTERN AVE RM 119
Mailing City,St,Zip:	LOS ANGELES, CA 900633200
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Other organic solids
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	0.355
Cat Decode:	Other organic solids
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County:	Los Angeles

envid:	S113087512
Year:	2013
GEPAID:	CAL000163403
Contact:	HARRY PARRA
Telephone:	3237933260
Mailing Name:	Not reported
Mailing Address:	1100 N EASTERN AVE RM 119
Mailing City,St,Zip:	LOS ANGELES, CA 900633200
Gen County:	Los Angeles
TSD EPA ID:	NVT330010000
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.055
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Not reported

envid:	S113087512
Year:	2013
GEPAID:	CAL000163403
Contact:	HARRY PARRA
Telephone:	3237933260
Mailing Name:	Not reported

LOS ANGELES COUNTY/ ISD (Continued) **S113087512**

Mailing Address:	1100 N EASTERN AVE RM 119
Mailing City,St,Zip:	LOS ANGELES, CA 900633200
Gen County:	Los Angeles
TSD EPA ID:	CAD008252405
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Tons:	0.02
Cat Decode:	Not reported
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Not reported

envid:	S113087512
Year:	2013
GEPAID:	CAL000163403
Contact:	HARRY PARRA
Telephone:	3237933260
Mailing Name:	Not reported
Mailing Address:	1100 N EASTERN AVE RM 119
Mailing City,St,Zip:	LOS ANGELES, CA 900633200
Gen County:	Los Angeles
TSD EPA ID:	CAT080013352
TSD County:	Los Angeles
Waste Category:	Not reported
Disposal Method:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Tons:	0.22935
Cat Decode:	Not reported
Method Decode:	Other Recovery Of Reclamation For Reuse Including Acid Regeneration, Organics Recovery Ect
Facility County:	Not reported

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8 additional CA_HAZNET: record(s) in the EDR Site Report.

A10
Target
Property

LA CO., OLIVE VIEW/UCLA MEDICAL CENTER **EMI** **S109281882**
14445 OLIVE VIEW DR. **N/A**
SYLMAR, CA 91342

Site 10 of 14 in cluster A

Actual:
1482 ft.

EMI:

Year:	2002
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	65
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	14
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

LA CO., OLIVE VIEW/UCLA MEDICAL CENTER (Continued) **S109281882**

Year:	2003
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	65
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	14
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	2004
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	64.652257
Reactive Organic Gases Tons/Yr:	8.32
Carbon Monoxide Emissions Tons/Yr:	3.77692
NOX - Oxides of Nitrogen Tons/Yr:	13.6238
SOX - Oxides of Sulphur Tons/Yr:	0.091268
Particulate Matter Tons/Yr:	1.96566
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1.95

Year:	2005
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.63577
Reactive Organic Gases Tons/Yr:	1.373367604
Carbon Monoxide Emissions Tons/Yr:	4.43575
NOX - Oxides of Nitrogen Tons/Yr:	12.5284
SOX - Oxides of Sulphur Tons/Yr:	.43176
Particulate Matter Tons/Yr:	.89147
Part. Matter 10 Micrometers & Smllr Tons/Yr:	.8851088

Year:	2006
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062

LA CO., OLIVE VIEW/UCLA MEDICAL CENTER (Continued) **S109281882**

Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5.681359288318271029
Reactive Organic Gases Tons/Yr:	2.349
Carbon Monoxide Emissions Tons/Yr:	5.55
NOX - Oxides of Nitrogen Tons/Yr:	15.843
SOX - Oxides of Sulphur Tons/Yr:	.552
Particulate Matter Tons/Yr:	1.115
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1.10861

Year:	2007
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	5.681359288318271029
Reactive Organic Gases Tons/Yr:	2.349
Carbon Monoxide Emissions Tons/Yr:	5.55
NOX - Oxides of Nitrogen Tons/Yr:	15.843
SOX - Oxides of Sulphur Tons/Yr:	.552
Particulate Matter Tons/Yr:	1.115
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1.10861

Year:	2008
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8.776727475374679803
Reactive Organic Gases Tons/Yr:	8.33028
Carbon Monoxide Emissions Tons/Yr:	1.1814
NOX - Oxides of Nitrogen Tons/Yr:	2.0952
SOX - Oxides of Sulphur Tons/Yr:	.060719
Particulate Matter Tons/Yr:	3.3003
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.360745

Year:	2012
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.45489772038
Reactive Organic Gases Tons/Yr:	0.11203
Carbon Monoxide Emissions Tons/Yr:	0.75492

LA CO., OLIVE VIEW/UCLA MEDICAL CENTER (Continued) **S109281882**

NOX - Oxides of Nitrogen Tons/Yr:	1.98756
SOX - Oxides of Sulphur Tons/Yr:	0.0526
Particulate Matter Tons/Yr:	2.02691
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1.46057626

Year:	2013
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	11.383190326
Reactive Organic Gases Tons/Yr:	8.14681
Carbon Monoxide Emissions Tons/Yr:	5.81846
NOX - Oxides of Nitrogen Tons/Yr:	15.7558
SOX - Oxides of Sulphur Tons/Yr:	0.52556
Particulate Matter Tons/Yr:	2.99912
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.42717918

A11 Target Property **OLIVE VIEW MEDICAL CENTER LA COUNTY** **FINDS** **1016060465**
14445 OLIVE VIEW DRIVE **N/A**
SYLMAR, CA 91342

Site 11 of 14 in cluster A

Actual: 1482 ft.

FINDS:

Registry ID: 110008281117

Environmental Interest/Information System

AFS (Aerometric Information Retrieval System (AIRS) Facility Subsystem) replaces the former Compliance Data System (CDS), the National Emission Data System (NEDS), and the Storage and Retrieval of Aerometric Data (SAROAD). AIRS is the national repository for information concerning airborne pollution in the United States. AFS is used to track emissions and compliance data from industrial plants. AFS data are utilized by states to prepare State Implementation Plans to comply with regulatory programs and by EPA as an input for the estimation of total national emissions. AFS is undergoing a major redesign to support facility operating permits required under Title V of the Clean Air Act.

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS AIR POLLUTANT MAJOR

OLIVE VIEW MEDICAL CENTER LA COUNTY (Continued) **1016060465**

US Emissions & Generation Resource Database (EGRID) contains data on emissions and resource mix for virtually every power plant and company that generates electricity in the United States.

AIR MAJOR

ELECTRIC GENERATOR

A12 Target Property **OLIVE VIEW MEDICAL CENTER** **HAZNET** **S113789566**
14445 OLIVE VIEW DR **N/A**
SYLMAR, CA 91342

Site 12 of 14 in cluster A

Actual: 1482 ft.

HAZNET:

envid:	S113789566
Year:	2012
GEPAID:	CAC002706866
Contact:	YASMIN ESTRADA
Telephone:	9099232704
Mailing Name:	Not reported
Mailing Address:	1490 S VINEYARD AVE STE E
Mailing City,St,Zip:	ONTARIO, CA 917618043
Gen County:	Los Angeles
TSD EPA ID:	AZC950823111
TSD County:	99
Waste Category:	Not reported
Disposal Method:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization)
Tons:	16
Cat Decode:	Not reported
Method Decode:	Landfill Or Surface Impoundment That Will Be Closed As Landfill(To Include On-Site Treatment And/Or Stabilization
Facility County:	Los Angeles

A13 Target Property **COUNTY OF LOS ANGELS DEPT WEIGHT MEASURE** **HAZNET** **S112976615**
14445 OLIVE VIEW DR **N/A**
LOS ANGELES, CA 91342

Site 13 of 14 in cluster A

Actual: 1482 ft.

HAZNET:

envid:	S112976615
Year:	2009
GEPAID:	CAC002640329
Contact:	MIKE PEASON
Telephone:	6266411089
Mailing Name:	Not reported
Mailing Address:	12300 LOWER AZUSA RD
Mailing City,St,Zip:	ARCADIA, CA 910068722
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Pesticides and other waste associated with pesticide production
Disposal Method:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)

COUNTY OF LOS ANGELS DEPT WEIGHT MEASURE (Continued) **S112976615**

Tons:	0.48
Cat Decode:	Pesticides and other waste associated with pesticide production
Method Decode:	Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery (H010-H129) Or (H131-H135)
Facility County:	Los Angeles

envid:	S112976615
Year:	2009
GEPAID:	CAC002640329
Contact:	MIKE PEASON
Telephone:	6266411089
Mailing Name:	Not reported
Mailing Address:	12300 LOWER AZUSA RD
Mailing City,St,Zip:	ARCADIA, CA 910068722
Gen County:	Not reported
TSD EPA ID:	CAD028409019
TSD County:	Not reported
Waste Category:	Pesticide rinse water
Disposal Method:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Tons:	0.2085
Cat Decode:	Pesticide rinse water
Method Decode:	Discharge To Sewer/Potw Or Npdes(With Prior Storage--With Or Without Treatment)
Facility County:	Los Angeles

A14 Target Property | **LA CO., OLIVE VIEW/UCLA MEDICA** | **SWEEPS UST** | **S104566144**
14445 OLIVE VIEW DR | **CHMIRS** | **N/A**
SYLMAR, CA 91342 | **EMI**
NPDES

Site 14 of 14 in cluster A

Actual: 1482 ft.

SWEEPS UST:

Status:	Active
Comp Number:	6406
Number:	5
Board Of Equalization:	Not reported
Referral Date:	04-21-93
Action Date:	04-21-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

CHMIRS:

OES Incident Number:	5-2127
OES notification:	04/07/2005
OES Date:	Not reported
OES Time:	Not reported
Date Completed:	**Not reported**
Property Use:	Not reported
Agency Id Number:	Not reported
Agency Incident Number:	Not reported

LA CO., OLIVE VIEW/UCLA MEDICA (Continued) **S104566144**

Time Notified:	Not reported
Time Completed:	Not reported
Surrounding Area:	Not reported
Estimated Temperature:	Not reported
Property Management:	Not reported
More Than Two Substances Involved?:	Not reported
Resp Agncy Personel # Of Decontaminated:	Not reported
Responding Agency Personel # Of Injuries:	Not reported
Responding Agency Personel # Of Fatalities:	Not reported
Others Number Of Decontaminated:	Not reported
Others Number Of Injuries:	Not reported
Others Number Of Fatalities:	Not reported
Vehicle Make/year:	Not reported
Vehicle License Number:	Not reported
Vehicle State:	Not reported
Vehicle Id Number:	Not reported
CA DOT PUC/ICC Number:	Not reported
Company Name:	Not reported
Reporting Officer Name/ID:	Not reported
Report Date:	Not reported
Facility Telephone:	Not reported
Waterway Involved:	Not reported
Waterway:	Not reported
Spill Site:	Not reported
Cleanup By:	Contractor
Containment:	Not reported
What Happened:	Not reported
Type:	Not reported
Measure:	Not reported
Other:	Not reported
Date/Time:	Not reported
Year:	2005
Agency:	La County Health Hazmat
Incident Date:	4/6/200712:00:00 AM
Admin Agency:	L. A. County Fire Prevention
Amount:	Not reported
Contained:	Unknown
Site Type:	Other
E Date:	Not reported
Substance:	Mercury
Gallons:	0.000000
Pounds:	15
Unknown:	0
Substance #2:	Not reported
Substance #3:	Not reported
Evacuations:	0
Number of Injuries:	0
Number of Fatalities:	0
#1 Pipeline:	Not reported
#2 Pipeline:	Not reported
#3 Pipeline:	Not reported
#1 Vessel >= 300 Tons:	Not reported
#2 Vessel >= 300 Tons:	Not reported
#3 Vessel >= 300 Tons:	Not reported
Evacs:	Not reported
Injuries:	Not reported
Fatals:	Not reported

LA CO., OLIVE VIEW/UCLA MEDICA (Continued) **S104566144**

Comments: Not reported
Description: Due to employee error, mercury went into the drain at th Olive View Med Center.

EMI:

Year:	1987
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8011
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	6
NOX - Oxides of Nitrogen Tons/Yr:	35
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1990
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8011
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	3
Reactive Organic Gases Tons/Yr:	1
Carbon Monoxide Emissions Tons/Yr:	9
NOX - Oxides of Nitrogen Tons/Yr:	32
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	1
Part. Matter 10 Micrometers & Smllr Tons/Yr:	1

Year:	1995
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	32
Reactive Organic Gases Tons/Yr:	3
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	24
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year: 1996

LA CO., OLIVE VIEW/UCLA MEDICA (Continued) **S104566144**

County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	93
Reactive Organic Gases Tons/Yr:	9
Carbon Monoxide Emissions Tons/Yr:	8
NOX - Oxides of Nitrogen Tons/Yr:	48
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	4
Part. Matter 10 Micrometers & Smllr Tons/Yr:	4

Year:	1997
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	70
Reactive Organic Gases Tons/Yr:	6
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	24
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1998
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	86
Reactive Organic Gases Tons/Yr:	8
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	24
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	1999
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD

LA CO., OLIVE VIEW/UCLA MEDICA (Continued) **S104566144**

Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	70
Reactive Organic Gases Tons/Yr:	6
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	24
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	2000
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	70
Reactive Organic Gases Tons/Yr:	6
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	24
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	2
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	2001
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Y
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	104
Reactive Organic Gases Tons/Yr:	10
Carbon Monoxide Emissions Tons/Yr:	4
NOX - Oxides of Nitrogen Tons/Yr:	18
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	3
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2

Year:	2009
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	8.9320168721991902
Reactive Organic Gases Tons/Yr:	8.4602450000000005
Carbon Monoxide Emissions Tons/Yr:	1.5212300000000001
NOX - Oxides of Nitrogen Tons/Yr:	3.67455

LA CO., OLIVE VIEW/UCLA MEDICA (Continued) **S104566144**

SOX - Oxides of Sulphur Tons/Yr:	8.4331000000000003E-2
Particulate Matter Tons/Yr:	3.410263
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.4673498500000002

Year:	2010
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	7.4487582068657998
Reactive Organic Gases Tons/Yr:	7.04331
Carbon Monoxide Emissions Tons/Yr:	1.51274
NOX - Oxides of Nitrogen Tons/Yr:	3.7890999999999999
SOX - Oxides of Sulphur Tons/Yr:	0.087173
Particulate Matter Tons/Yr:	3.4342999999999999
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.4899304799999999

Year:	2011
County Code:	19
Air Basin:	SC
Facility ID:	3093
Air District Name:	SC
SIC Code:	8062
Air District Name:	SOUTH COAST AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.8748894102
Reactive Organic Gases Tons/Yr:	1.45662
Carbon Monoxide Emissions Tons/Yr:	1.64418
NOX - Oxides of Nitrogen Tons/Yr:	3.8253
SOX - Oxides of Sulphur Tons/Yr:	0.0881
Particulate Matter Tons/Yr:	3.44443
Part. Matter 10 Micrometers & Smllr Tons/Yr:	2.50012128

NPDES:

Npdes Number:	Not reported
Facility Status:	Not reported
Agency Id:	Not reported
Region:	4
Regulatory Measure Id:	421172
Order No:	Not reported
Regulatory Measure Type:	Construction
Place Id:	Not reported
WDID:	4 19C363039
Program Type:	Not reported
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	Not reported
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	8/28/2014
Discharge Name:	Not reported
Discharge Address:	Not reported
Discharge City:	Not reported
Discharge State:	Not reported

LA CO., OLIVE VIEW/UCLA MEDICA (Continued) **S104566144**

Discharge Zip:	Not reported
RECEIVED DATE:	2/15/2012
PROCESSED DATE:	2/17/2012
STATUS CODE NAME:	Terminated
STATUS DATE:	4/2/2015
PLACE SIZE:	4.07
PLACE SIZE UNIT:	Acres
FACILITY CONTACT NAME:	Randolph Mills
FACILITY CONTACT TITLE:	Project Manager
FACILITY CONTACT PHONE:	818-364-3325
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	rmills@dhs.laconty.gov
OPERATOR NAME:	County of Los Angeles Department of Public Works
OPERATOR ADDRESS:	900 South Fremont Avenue
OPERATOR CITY:	Alhambra
OPERATOR STATE:	California
OPERATOR ZIP:	91803
OPERATOR CONTACT NAME:	Alioune Dioum
OPERATOR CONTACT TITLE:	Project Manager
OPERATOR CONTACT PHONE:	626-300-3273
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	adioum@dpw.lacounty.gov
OPERATOR TYPE:	County Agency
DEVELOPER NAME:	New Creation Builders
DEVELOPER ADDRESS:	17809 Clark Avenue
DEVELOPER CITY:	Bellflower
DEVELOPER STATE:	California
DEVELOPER ZIP:	90706
DEVELOPER CONTACT NAME:	Greg Edwards
DEVELOPER CONTACT TITLE:	Project Manager
CONSTYPE LINEAR UTILITY IND:	N
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Y
CONSTYPE ELECTRICAL LINE IND:	Not reported
CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Y
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	N
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	TeLing Chou
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	15-FEB-12
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

LA CO., OLIVE VIEW/UCLA MEDICA (Continued) **S104566144**

Npdes Number:	CAS000002
Facility Status:	Terminated
Agency Id:	0
Region:	4
Regulatory Measure Id:	421172
Order No:	2009-0009-DWQ
Regulatory Measure Type:	Enrollee
Place Id:	Not reported
WDID:	4 19C363039
Program Type:	Construction
Adoption Date Of Regulatory Measure:	Not reported
Effective Date Of Regulatory Measure:	02/17/2012
Expiration Date Of Regulatory Measure:	Not reported
Termination Date Of Regulatory Measure:	08/28/2014
Discharge Name:	County of Los Angeles Department of Public Works
Discharge Address:	900 South Fremont Avenue
Discharge City:	Alhambra
Discharge State:	California
Discharge Zip:	91803
RECEIVED DATE:	Not reported
PROCESSED DATE:	Not reported
STATUS CODE NAME:	Not reported
STATUS DATE:	Not reported
PLACE SIZE:	Not reported
PLACE SIZE UNIT:	Not reported
FACILITY CONTACT NAME:	Not reported
FACILITY CONTACT TITLE:	Not reported
FACILITY CONTACT PHONE:	Not reported
FACILITY CONTACT PHONE EXT:	Not reported
FACILITY CONTACT EMAIL:	Not reported
OPERATOR NAME:	Not reported
OPERATOR ADDRESS:	Not reported
OPERATOR CITY:	Not reported
OPERATOR STATE:	Not reported
OPERATOR ZIP:	Not reported
OPERATOR CONTACT NAME:	Not reported
OPERATOR CONTACT TITLE:	Not reported
OPERATOR CONTACT PHONE:	Not reported
OPERATOR CONTACT PHONE EXT:	Not reported
OPERATOR CONTACT EMAIL:	Not reported
OPERATOR TYPE:	Not reported
DEVELOPER NAME:	Not reported
DEVELOPER ADDRESS:	Not reported
DEVELOPER CITY:	Not reported
DEVELOPER STATE:	Not reported
DEVELOPER ZIP:	Not reported
DEVELOPER CONTACT NAME:	Not reported
DEVELOPER CONTACT TITLE:	Not reported
CONSTYPE LINEAR UTILITY IND:	Not reported
EMERGENCY PHONE NO:	Not reported
EMERGENCY PHONE EXT:	Not reported
CONSTYPE ABOVE GROUND IND:	Not reported
CONSTYPE BELOW GROUND IND:	Not reported
CONSTYPE CABLE LINE IND:	Not reported
CONSTYPE COMM LINE IND:	Not reported
CONSTYPE COMMERTIAL IND:	Not reported
CONSTYPE ELECTRICAL LINE IND:	Not reported

LA CO., OLIVE VIEW/UCLA MEDICA (Continued) **S104566144**

CONSTYPE GAS LINE IND:	Not reported
CONSTYPE INDUSTRIAL IND:	Not reported
CONSTYPE OTHER DESRIPTION:	Not reported
CONSTYPE OTHER IND:	Not reported
CONSTYPE RECONS IND:	Not reported
CONSTYPE RESIDENTIAL IND:	Not reported
CONSTYPE TRANSPORT IND:	Not reported
CONSTYPE UTILITY DESCRIPTION:	Not reported
CONSTYPE UTILITY IND:	Not reported
CONSTYPE WATER SEWER IND:	Not reported
DIR DISCHARGE USWATER IND:	Not reported
RECEIVING WATER NAME:	Not reported
CERTIFIER NAME:	Not reported
CERTIFIER TITLE:	Not reported
CERTIFICATION DATE:	Not reported
PRIMARY SIC:	Not reported
SECONDARY SIC:	Not reported
TERTIARY SIC:	Not reported

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15 **CASTLE PRECISION INDUSTRIES** **ENVIROSTOR** **S106665629**
14148 BLEDSOE ST. **N/A**
< 1/8 **SYLMAR, CA 91342**
1 ft.

Relative:
Lower

Actual:
1444 ft.

ENVIROSTOR:

Facility ID:	19990045
Status:	Refer: 1248 Local Agency
Status Date:	09/01/2004
Site Code:	Not reported
Site Type:	Evaluation
Site Type Detailed:	Evaluation
Acres:	Not reported
NPL:	NO
Regulatory Agencies:	NONE SPECIFIED
Lead Agency:	NONE SPECIFIED
Program Manager:	Not reported
Supervisor:	Referred - Not Assigned
Division Branch:	Cleanup Cypress
Assembly:	39
Senate:	Not reported
Special Program:	Not reported
Restricted Use:	NO
Site Mgmt Req:	NONE SPECIFIED
Funding:	Not Applicable
Latitude:	0
Longitude:	0
APN:	NONE SPECIFIED
Past Use:	NONE SPECIFIED
Potential COC:	NONE SPECIFIED
Confirmed COC:	NONE SPECIFIED
Potential Description:	NONE SPECIFIED
Alias Name:	19990045
Alias Type:	Envirostor ID Number

Completed Info:

Completed Area Name:	Not reported
Completed Sub Area Name:	Not reported
Completed Document Type:	Not reported

CASTLE PRECISION INDUSTRIES (Continued) **S106665629**

Completed Date:	Not reported
Comments:	Not reported
Future Area Name:	Not reported
Future Sub Area Name:	Not reported
Future Document Type:	Not reported
Future Due Date:	Not reported
Schedule Area Name:	Not reported
Schedule Sub Area Name:	Not reported
Schedule Document Type:	Not reported
Schedule Due Date:	Not reported
Schedule Revised Date:	Not reported

B16 **LOS ANGELES COUNTY** **CA FID UST** **S101587980**
SSW **14443 OLIVE VIEW DR** **N/A**
< 1/8 **SYLMAR, CA 91342**
0.004 mi.
22 ft. **Site 1 of 2 in cluster B**

Relative:
Lower

Actual:
1427 ft.

CA FID UST:

Facility ID:	19056212
Regulated By:	UTNKA
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	2130000000
Mail To:	Not reported
Mailing Address:	14443 OLIVE VIEW DR
Mailing Address 2:	Not reported
Mailing City,St,Zip:	SYLMAR 913420000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

B17 **OLIVE VIEW HOSPITAL** **HIST UST** **U001562353**
SW **14501 OLIVE VIEW DR** **N/A**
< 1/8 **SYLMAR, CA 90063**
0.004 mi.
22 ft. **Site 2 of 2 in cluster B**

Relative:
Lower

Actual:
1427 ft.

HIST UST:

Region:	STATE
Facility ID:	00000020708
Facility Type:	Other
Other Type:	HOSPITAL
Contact Name:	L.A. COUNTY MECHANICAL DEPT.
Telephone:	2132672242
Owner Name:	LOS ANGELES COUNTY MECHANICAL
Owner Address:	1100 NORTH EASTERN AVENUE
Owner City,St,Zip:	LOS ANGELES, CA 90063
Total Tanks:	0001

OLIVE VIEW HOSPITAL (Continued) **U001562353**

Tank Num:	001
Container Num:	#01
Year Installed:	Not reported
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	REGULAR
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

C18
South
< 1/8
0.008 mi.
44 ft.

FIRE STATION
14425 OLIVE VIEW DR
SYLMAR, CA 91342

SWEEPS UST **S101618464**
CA FID UST **N/A**

Site 1 of 3 in cluster C

Relative:
Lower

Actual:
1425 ft.

SWEEPS UST:

Status:	Active
Comp Number:	1438
Number:	5
Board Of Equalization:	44-011798
Referral Date:	03-04-93
Action Date:	03-04-93
Created Date:	02-29-88
Owner Tank Id:	Not reported
SWRCB Tank Id:	19-050-001438-000001
Tank Status:	A
Capacity:	1000
Active Date:	04-20-88
Tank Use:	M.V. FUEL
STG:	P
Content:	DIESEL
Number Of Tanks:	1

CA FID UST:

Facility ID:	19050395
Regulated By:	UTNKA
Regulated ID:	00020636
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8183675212
Mail To:	Not reported
Mailing Address:	1100 N EASTERN AVE
Mailing Address 2:	Not reported
Mailing City,St,Zip:	SYLMAR 913420000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

C19 South < 1/8 0.008 mi. 44 ft. | **FIRE STATION #46**
14425 OLIVE VIEW DR
SYLMAR, CA 91342 | **HIST UST** | **U001567574**
N/A

Site 2 of 3 in cluster C

Relative: Lower

Actual: 1425 ft.

HIST UST:

Region:	STATE
Facility ID:	00000020636
Facility Type:	Other
Other Type:	FIRE ST
Contact Name:	L.A. COUNTY MECHANICAL DEPARTM
Telephone:	2132672242
Owner Name:	LOS ANGELES COUNTY MECHANICAL
Owner Address:	1100 N. EASTERN AVE.
Owner City,St,Zip:	LOS ANGELES, CA 90063
Total Tanks:	0001
Tank Num:	001
Container Num:	#1
Year Installed:	Not reported
Tank Capacity:	00001000
Tank Used for:	PRODUCT
Type of Fuel:	DIESEL
Container Construction Thickness:	Not reported
Leak Detection:	Stock Inventor

C20 South < 1/8 0.008 mi. 44 ft. | **LA CO FD FIRE STATION #04**
14425 OLIVE VIEW
SYLMAR, CA 91342 | **LUST**
HIST CORTESE
LOS ANGELES CO. HMS | **S102062935**
N/A

Site 3 of 3 in cluster C

Relative: Lower

Actual: 1425 ft.

LUST REG 4:

Region:	4	
Regional Board:	04	
County:	Los Angeles	
Facility Id:	R-12544	
Status:	Leak being confirmed	
Substance:	1	
Substance Quantity:	Not reported	
Local Case No:	Not reported	
Case Type:	Soil	
Abatement Method Used at the Site:		Not reported
Global ID:	T0603705142	
W Global ID:	Not reported	
Staff:	UNK	
Local Agency:	19050	
Cross Street:	COBALT ST	
Enforcement Type:	Not reported	
Date Leak Discovered:	Not reported	
Date Leak First Reported:		11/7/1995
Date Leak Record Entered:	5/3/1996	
Date Confirmation Began:	11/7/1995	
Date Leak Stopped:	Not reported	
Date Case Last Changed on Database:		11/7/1995
Date the Case was Closed:		Not reported
How Leak Discovered:	Not reported	
How Leak Stopped:	Not reported	
Cause of Leak:	Not reported	

LA CO FD FIRE STATION #04 (Continued) **S102062935**

Leak Source:	Not reported
Operator:	Not reported
Water System:	Not reported
Well Name:	Not reported
Approx. Dist To Production Well (ft):	5455.8783860447104857297560465
Source of Cleanup Funding:	Not reported
Preliminary Site Assessment Workplan Submitted:	Not reported
Preliminary Site Assessment Began:	Not reported
Pollution Characterization Began:	Not reported
Remediation Plan Submitted:	Not reported
Remedial Action Underway:	Not reported
Post Remedial Action Monitoring Began:	Not reported
Enforcement Action Date:	Not reported
Historical Max MTBE Date:	Not reported
Hist Max MTBE Conc in Groundwater:	Not reported
Hist Max MTBE Conc in Soil:	Not reported
Significant Interim Remedial Action Taken:	Not reported
GW Qualifier:	Not reported
Soil Qualifier:	Not reported
Organization:	Not reported
Owner Contact:	Not reported
Responsible Party:	BLANK RP
RP Address:	Not reported
Program:	LUST
Lat/Long:	34.324158 / -1
Local Agency Staff:	PEJ
Beneficial Use:	Not reported
Priority:	Not reported
Cleanup Fund Id:	Not reported
Suspended:	Not reported
Assigned Name:	Not reported
Summary:	Not reported

HIST CORTESE:

Region:	CORTESE
Facility County Code:	19
Reg By:	LTNKA
Reg Id:	R-12544

LOS ANGELES CO. HMS:

Region:	LA
Facility Id:	012413-012544
Facility Type:	T0
Facility Status:	Removed
Area:	5F
Permit Number:	00004300T
Permit Status:	Removed

21
WSW
< 1/8
0.079 mi.
419 ft.

15000 OLIVE VIEW DR
SYLMAR, CA 91342

EDR Hist Auto **1015237704**
N/A

Relative:
Lower

Actual:
1432 ft.

EDR Historical Auto Stations:

Name: JIFFY LUBE
Year: 2010
Address: 15000 OLIVE VIEW DR

Name: JIFFY LUBE
Year: 2012
Address: 15000 OLIVE VIEW DR

22
SSW
< 1/8
0.113 mi.
595 ft.

14682 COBALT ST
SYLMAR, CA 91342

EDR Hist Auto **1015232307**
N/A

Relative:
Lower

Actual:
1395 ft.

EDR Historical Auto Stations:

Name: DR PINKERTONS AUTO CLINIC
Year: 2002
Address: 14682 COBALT ST

Name: DR PNKRTNS MBL AUTO & RV RPR
Year: 2004
Address: 14682 COBALT ST

Name: DR PINKERTONS AUTO CLINIC
Year: 2005
Address: 14682 COBALT ST

Name: DR PINKERTONS AUTO CLINIC
Year: 2006
Address: 14682 COBALT ST

Name: DR PINKERTONS AUTO CLINIC
Year: 2007
Address: 14682 COBALT ST

Name: DR PINKERTONS AUTO & RV RPR
Year: 2010
Address: 14682 COBALT ST

23
SE
1/8-1/4
0.164 mi.
867 ft.

VACANT LOT
13780 GLADSTONE
SYLMAR, CA 91801

SWEEPS UST **S101584823**
CA FID UST **N/A**

Relative:
Lower

Actual:
1408 ft.

SWEEPS UST:

Status: Not reported
Comp Number: 7651
Number: Not reported
Board Of Equalization: Not reported
Referral Date: Not reported

VACANT LOT (Continued) **S101584823**

Action Date:	Not reported
Created Date:	Not reported
Owner Tank Id:	Not reported
SWRCB Tank Id:	Not reported
Tank Status:	Not reported
Capacity:	Not reported
Active Date:	Not reported
Tank Use:	Not reported
STG:	Not reported
Content:	Not reported
Number Of Tanks:	Not reported

CA FID UST:

Facility ID:	19015946
Regulated By:	UTNKI
Regulated ID:	Not reported
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	8183625106
Mail To:	Not reported
Mailing Address:	P O BOX
Mailing Address 2:	Not reported
Mailing City,St,Zip:	SYLMAR 918010000
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Inactive

Count: 4 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
LOS ANGELES COUNTY	S107530249		190TH ST E, EAST AVE I		CDL
LOS ANGELES COUNTY	S107531547		240TH ST & AVE J EAST		CDL
SANTA CLARITA	S107540283		PLACERITA CANYON RD (1 MILE EA	91321	CDL
SYLMAR	S108974347	VALLEY REGION SPAN K-8 #1	DRONFIELD AVENUE/BLEDSOE STREE	91342	ENVIROSTOR, SCH

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: EPA
Telephone: N/A
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 10/30/2015	Source: EPA
Date Data Arrived at EDR: 11/07/2015	Telephone: N/A
Date Made Active in Reports: 01/04/2016	Last EDR Contact: 01/08/2016
Number of Days to Update: 58	Next Scheduled EDR Contact: 04/18/2016
	Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 03/26/2015	Source: Environmental Protection Agency
Date Data Arrived at EDR: 04/08/2015	Telephone: 703-603-8704
Date Made Active in Reports: 06/11/2015	Last EDR Contact: 01/06/2016
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/18/2016
	Data Release Frequency: Varies

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 11/23/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/07/2016
	Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 11/11/2013	Telephone: 703-412-9810
Date Made Active in Reports: 02/13/2014	Last EDR Contact: 11/23/2015
Number of Days to Update: 94	Next Scheduled EDR Contact: 03/07/2016
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015
Date Data Arrived at EDR: 05/29/2015
Date Made Active in Reports: 06/11/2015
Number of Days to Update: 13

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 09/10/2015
Date Data Arrived at EDR: 09/11/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 53

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/22/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 12/29/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 64

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Varies

LUST REG 9: Leaking Underground Storage Tank Report
Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report
Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 10/21/2015
Date Data Arrived at EDR: 10/22/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 14

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

LUST REG 5: Leaking Underground Storage Tank Database
Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List
Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/30/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 48

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/08/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/29/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 76

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/07/2016
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/30/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/28/2015
Date Made Active in Reports: 06/22/2015
Number of Days to Update: 55

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/08/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 05/13/2015
Date Data Arrived at EDR: 08/03/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 34

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Semi-Annually

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 10/21/2015
Date Data Arrived at EDR: 10/22/2015
Date Made Active in Reports: 11/06/2015
Number of Days to Update: 15

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: Annually

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 10/21/2015
Date Data Arrived at EDR: 10/22/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 28

Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 08/01/2009
Date Data Arrived at EDR: 09/10/2009
Date Made Active in Reports: 10/01/2009
Number of Days to Update: 21

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 07/21/2015
Date Data Arrived at EDR: 07/29/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 76

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 01/07/2016
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 12/14/2014
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/30/2015
Next Scheduled EDR Contact: 02/09/2016
Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/28/2015
Date Data Arrived at EDR: 08/14/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 60

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/22/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/13/2015
Date Data Arrived at EDR: 08/03/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 71

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Semi-Annually

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 11/05/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 52

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 34

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/29/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 67

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/27/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties
Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/29/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 12/28/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 12/04/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 09/21/2015
Date Data Arrived at EDR: 09/23/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 103

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/21/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 11/09/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 09/14/2015
Date Data Arrived at EDR: 09/15/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 29

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 58

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 11/06/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: No Update Planned

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/12/2015
Date Data Arrived at EDR: 09/04/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 60

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/31/2015
Next Scheduled EDR Contact: 12/14/2015
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database
The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program
This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 11/07/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs
A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/18/2015
Number of Days to Update: 8

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/12/2015
Date Data Arrived at EDR: 09/04/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 60

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 11/25/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Quarterly

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 11/25/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 16

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 09/08/2015
Date Data Arrived at EDR: 09/10/2015
Date Made Active in Reports: 10/12/2015
Number of Days to Update: 32

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/30/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 12/08/2015
Next Scheduled EDR Contact: 12/21/2015
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/24/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/02/2015
Number of Days to Update: 68

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 12/30/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 09/25/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 20

Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 10/27/2015
Next Scheduled EDR Contact: 11/09/2015
Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 10/21/2015
Date Data Arrived at EDR: 10/22/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 14

Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 10/21/2015
Date Data Arrived at EDR: 10/22/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 14

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/09/2015
Date Data Arrived at EDR: 06/26/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 12/11/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011
Date Data Arrived at EDR: 03/09/2011
Date Made Active in Reports: 05/02/2011
Number of Days to Update: 54

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 09/01/2015
Date Data Arrived at EDR: 09/03/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 61

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 11/10/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 110

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 12/11/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2015
Date Data Arrived at EDR: 08/26/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 01/12/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 06/26/2015
Date Data Arrived at EDR: 07/10/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 95

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 12/07/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/13/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 12/11/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011
Date Data Arrived at EDR: 10/19/2011
Date Made Active in Reports: 01/10/2012
Number of Days to Update: 83

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/29/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/07/2015
Date Data Arrived at EDR: 07/09/2015
Date Made Active in Reports: 09/16/2015
Number of Days to Update: 69

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 01/07/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012
Date Data Arrived at EDR: 08/07/2012
Date Made Active in Reports: 09/18/2012
Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/02/2015
Number of Days to Update: 46

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 02/24/2015
Date Made Active in Reports: 09/30/2015
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 12/08/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 34

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010
Date Data Arrived at EDR: 10/07/2011
Date Made Active in Reports: 03/01/2012
Number of Days to Update: 146

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/20/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 69

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 12/22/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/18/2015
Date Data Arrived at EDR: 09/01/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 125

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 12/03/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 07/20/2015
Date Data Arrived at EDR: 09/09/2015
Date Made Active in Reports: 11/03/2015
Number of Days to Update: 55

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 12/10/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 12/28/2015
Date Data Arrived at EDR: 12/29/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 23

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 12/29/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 08/10/2015
Date Data Arrived at EDR: 08/27/2015
Date Made Active in Reports: 10/01/2015
Number of Days to Update: 35

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 09/25/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 41

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 40

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 58

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 11/23/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 58

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 11/24/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 36

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/13/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing

A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 09/14/2015
Date Data Arrived at EDR: 09/15/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 29

Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 11/10/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 12/08/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 64

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing

A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 44

Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 12/08/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Quarterly

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 09/14/2015
Date Data Arrived at EDR: 09/15/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 29

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 08/04/2015
Date Data Arrived at EDR: 08/25/2015
Date Made Active in Reports: 10/05/2015
Number of Days to Update: 41

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: No Update Planned

UIC: UIC Listing

A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 07/23/2015
Date Data Arrived at EDR: 09/15/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 28

Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 12/18/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing

Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water board?s review found that more than one-third of the region?s active disposal pits are operating without permission.

Date of Government Version: 04/15/2015
Date Data Arrived at EDR: 04/17/2015
Date Made Active in Reports: 06/23/2015
Number of Days to Update: 67

Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Varies

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Quarterly

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13

Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants
The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historic Gas Stations
EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners
EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 10/13/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 34

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 10/09/2015
Date Data Arrived at EDR: 10/13/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 37

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA Facility List
Cupa Facility List

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA Facility Listing
Cupa facility list.

Date of Government Version: 11/20/2014
Date Data Arrived at EDR: 11/24/2014
Date Made Active in Reports: 01/07/2015
Number of Days to Update: 44

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 10/22/2015
Date Data Arrived at EDR: 10/23/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 24

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 12/28/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 06/08/2015
Date Data Arrived at EDR: 09/22/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 22

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 11/09/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Varies

CONTRA COSTA COUNTY:

Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 12/01/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 48

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA Facility List
Cupa Facility list

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 24

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/30/2015
Date Data Arrived at EDR: 12/03/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 49

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 11/07/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 10/15/2015
Date Data Arrived at EDR: 10/15/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 32

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/04/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Semi-Annually

HUMBOLDT COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 12/02/2015
Date Data Arrived at EDR: 12/04/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 48

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 11/12/2015
Next Scheduled EDR Contact: 12/07/2015
Data Release Frequency: Varies

IMPERIAL COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 10/30/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 34

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

INYO COUNTY:

CUPA Facility List
Cupa facility list.

Date of Government Version: 09/10/2013
Date Data Arrived at EDR: 09/11/2013
Date Made Active in Reports: 10/14/2013
Number of Days to Update: 33

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 05/19/2015
Date Data Arrived at EDR: 06/18/2015
Date Made Active in Reports: 07/22/2015
Number of Days to Update: 34

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 11/19/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 18

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

LAKE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 08/11/2015
Date Data Arrived at EDR: 08/14/2015
Date Made Active in Reports: 09/03/2015
Number of Days to Update: 20

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: No Update Planned

HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 11/24/2014
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/04/2015
Number of Days to Update: 33

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/08/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 10/19/2015
Date Data Arrived at EDR: 10/20/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 30

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/20/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2015
Date Data Arrived at EDR: 07/27/2015
Date Made Active in Reports: 08/10/2015
Number of Days to Update: 14

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Varies

Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/15/2015
Date Data Arrived at EDR: 01/29/2015
Date Made Active in Reports: 03/10/2015
Number of Days to Update: 40

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/02/2015
Date Made Active in Reports: 04/13/2015
Number of Days to Update: 11

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 11/04/2015
Date Data Arrived at EDR: 11/13/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Annually

City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 10/13/2015
Date Data Arrived at EDR: 10/14/2015
Date Made Active in Reports: 12/01/2015
Number of Days to Update: 48

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 09/15/2015
Date Data Arrived at EDR: 09/17/2015
Date Made Active in Reports: 10/14/2015
Number of Days to Update: 27

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 10/05/2015
Date Data Arrived at EDR: 10/08/2015
Date Made Active in Reports: 10/15/2015
Number of Days to Update: 7

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA Facility List

CUPA facility list.

Date of Government Version: 12/14/2015
Date Data Arrived at EDR: 12/18/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 34

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 12/10/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

MONO COUNTY:

CUPA Facility List

CUPA Facility List

Date of Government Version: 11/24/2015
Date Data Arrived at EDR: 12/01/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 51

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 10/01/2015
Date Data Arrived at EDR: 10/06/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 66

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

NAPA COUNTY:

Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011
Date Data Arrived at EDR: 12/06/2011
Date Made Active in Reports: 02/07/2012
Number of Days to Update: 63

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA Facility List
CUPA facility list.

Date of Government Version: 11/16/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 24

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 11/06/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Varies

ORANGE COUNTY:

List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 11/01/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 65

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/10/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 08/03/2015
Date Data Arrived at EDR: 08/10/2015
Date Made Active in Reports: 09/11/2015
Number of Days to Update: 32

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/10/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 11/01/2015
Date Data Arrived at EDR: 11/11/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 36

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 11/11/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 12/11/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 41

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 10/26/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 10/26/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 08/03/2015
Date Data Arrived at EDR: 10/06/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 41

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 08/03/2015
Date Data Arrived at EDR: 10/06/2015
Date Made Active in Reports: 11/06/2015
Number of Days to Update: 31

Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 01/05/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 06/30/2015
Date Data Arrived at EDR: 07/07/2015
Date Made Active in Reports: 07/14/2015
Number of Days to Update: 7

Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 11/09/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/23/2013
Date Data Arrived at EDR: 09/24/2013
Date Made Active in Reports: 10/17/2013
Number of Days to Update: 23

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Quarterly

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2015
Date Data Arrived at EDR: 11/07/2015
Date Made Active in Reports: 01/04/2016
Number of Days to Update: 58

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 11/09/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 11/09/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 09/23/2015
Date Data Arrived at EDR: 09/25/2015
Date Made Active in Reports: 10/15/2015
Number of Days to Update: 20

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 04/04/2016
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA Facility List
Cupa Facility List.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

SAN MATEO COUNTY:

Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 10/14/2015
Date Data Arrived at EDR: 10/15/2015
Date Made Active in Reports: 11/16/2015
Number of Days to Update: 32

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/14/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Annually

Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 09/16/2015
Date Data Arrived at EDR: 09/17/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 49

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 12/10/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

SANTA CLARA COUNTY:

Cupa Facility List
Cupa facility list

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/24/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 17

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 11/23/2015
Next Scheduled EDR Contact: 03/14/2016
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 11/17/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 59

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 02/22/2016
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA Facility List

CUPA facility listing.

Date of Government Version: 11/18/2015
Date Data Arrived at EDR: 11/23/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 18

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA Facility List

Cupa Facility List.

Date of Government Version: 12/09/2015
Date Data Arrived at EDR: 12/10/2015
Date Made Active in Reports: 01/21/2016
Number of Days to Update: 42

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 11/18/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Varies

SOLANO COUNTY:

Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 09/02/2015
Date Data Arrived at EDR: 09/17/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 49

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 09/10/2015
Next Scheduled EDR Contact: 12/28/2015
Data Release Frequency: Quarterly

Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 09/02/2015
Date Data Arrived at EDR: 09/18/2015
Date Made Active in Reports: 10/15/2015
Number of Days to Update: 27

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 12/10/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

SONOMA COUNTY:

Cupa Facility List
Cupa Facility list

Date of Government Version: 09/28/2015
Date Data Arrived at EDR: 09/30/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 36

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 01/11/2016
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Varies

Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 10/01/2015
Date Data Arrived at EDR: 10/02/2015
Date Made Active in Reports: 11/05/2015
Number of Days to Update: 34

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 12/23/2015
Next Scheduled EDR Contact: 04/11/2016
Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 12/07/2015
Date Data Arrived at EDR: 12/08/2015
Date Made Active in Reports: 12/17/2015
Number of Days to Update: 9

Source: Sutter County Department of Agriculture
Telephone: 530-822-7500
Last EDR Contact: 12/04/2015
Next Scheduled EDR Contact: 03/21/2016
Data Release Frequency: Semi-Annually

TUOLUMNE COUNTY:

CUPA Facility List
Cupa facility list

Date of Government Version: 10/29/2015
Date Data Arrived at EDR: 10/30/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 42

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Varies

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 08/17/2015
Date Made Active in Reports: 09/03/2015
Number of Days to Update: 17

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/12/2015
Next Scheduled EDR Contact: 11/30/2015
Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/30/2015
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: Quarterly

Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 09/28/2015
Date Data Arrived at EDR: 10/28/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 22

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 10/26/2015
Next Scheduled EDR Contact: 02/08/2016
Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 08/26/2015
Date Data Arrived at EDR: 09/15/2015
Date Made Active in Reports: 10/15/2015
Number of Days to Update: 30

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 12/17/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Quarterly

YOLO COUNTY:

Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

Date of Government Version: 10/19/2015
Date Data Arrived at EDR: 10/27/2015
Date Made Active in Reports: 11/19/2015
Number of Days to Update: 23

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 04/18/2016
Data Release Frequency: Annually

YUBA COUNTY:

CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 11/13/2015
Date Data Arrived at EDR: 11/17/2015
Date Made Active in Reports: 12/11/2015
Number of Days to Update: 24

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 11/13/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data
Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013
Date Data Arrived at EDR: 08/19/2013
Date Made Active in Reports: 10/03/2013
Number of Days to Update: 45

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 11/16/2015
Next Scheduled EDR Contact: 02/29/2016
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 07/17/2015
Date Made Active in Reports: 08/12/2015
Number of Days to Update: 26

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 01/15/2016
Next Scheduled EDR Contact: 04/25/2016
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data
Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 11/02/2015
Date Data Arrived at EDR: 11/08/2015
Date Made Active in Reports: 12/09/2015
Number of Days to Update: 31

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 11/08/2015
Next Scheduled EDR Contact: 02/15/2016
Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/24/2015
Date Made Active in Reports: 08/18/2015
Number of Days to Update: 25

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 01/19/2016
Next Scheduled EDR Contact: 05/02/2016
Data Release Frequency: Annually

RI MANIFEST: Manifest information
Hazardous waste manifest information

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 06/19/2015
Date Made Active in Reports: 07/15/2015
Number of Days to Update: 26

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 11/19/2015
Next Scheduled EDR Contact: 03/07/2016
Data Release Frequency: Annually

WI MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 12/09/2015
Next Scheduled EDR Contact: 03/28/2016
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: PennWell Corporation
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data
Source: PennWell Corporation
This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

OLIVE VIEW-UCLA MED CENTER
14445 OLIVE VIEW DRIVE
SYLMAR, CA 91342

TARGET PROPERTY COORDINATES

Latitude (North):	34.326893 - 34˚ 19' 36.81''
Longitude (West):	118.449283 - 118˚ 26' 57.42''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	366668.5
UTM Y (Meters):	3799157.8
Elevation:	1482 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5636833 SAN FERNANDO, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

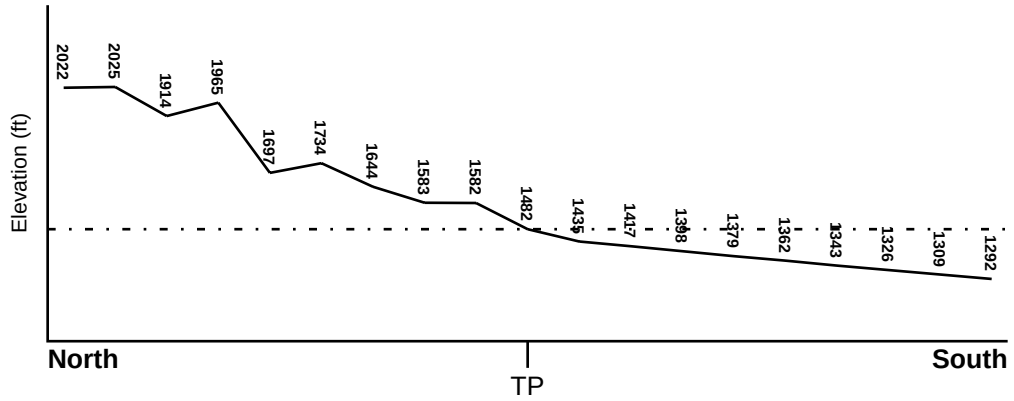
TOPOGRAPHIC INFORMATION

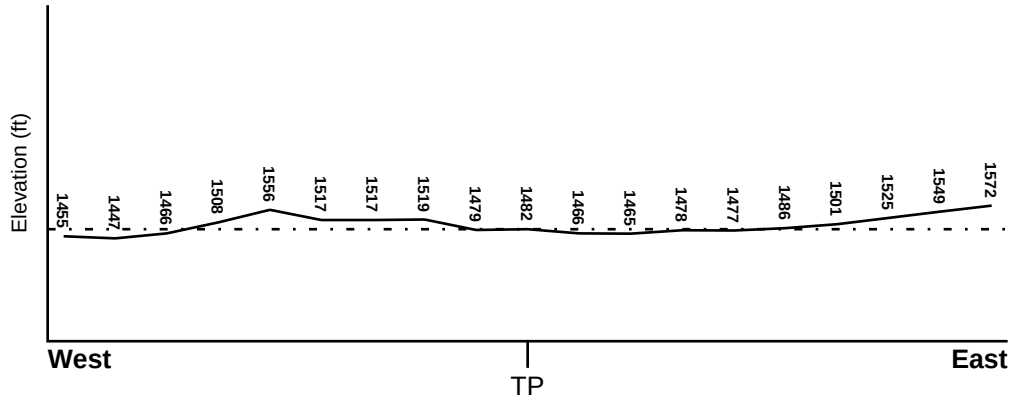
Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES





Target Property Elevation: 1482 ft.

0 1/2 1 Miles

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Target Property County	FEMA Flood Electronic Data
LOS ANGELES, CA	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06037C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius: 1.25 miles
Status: Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

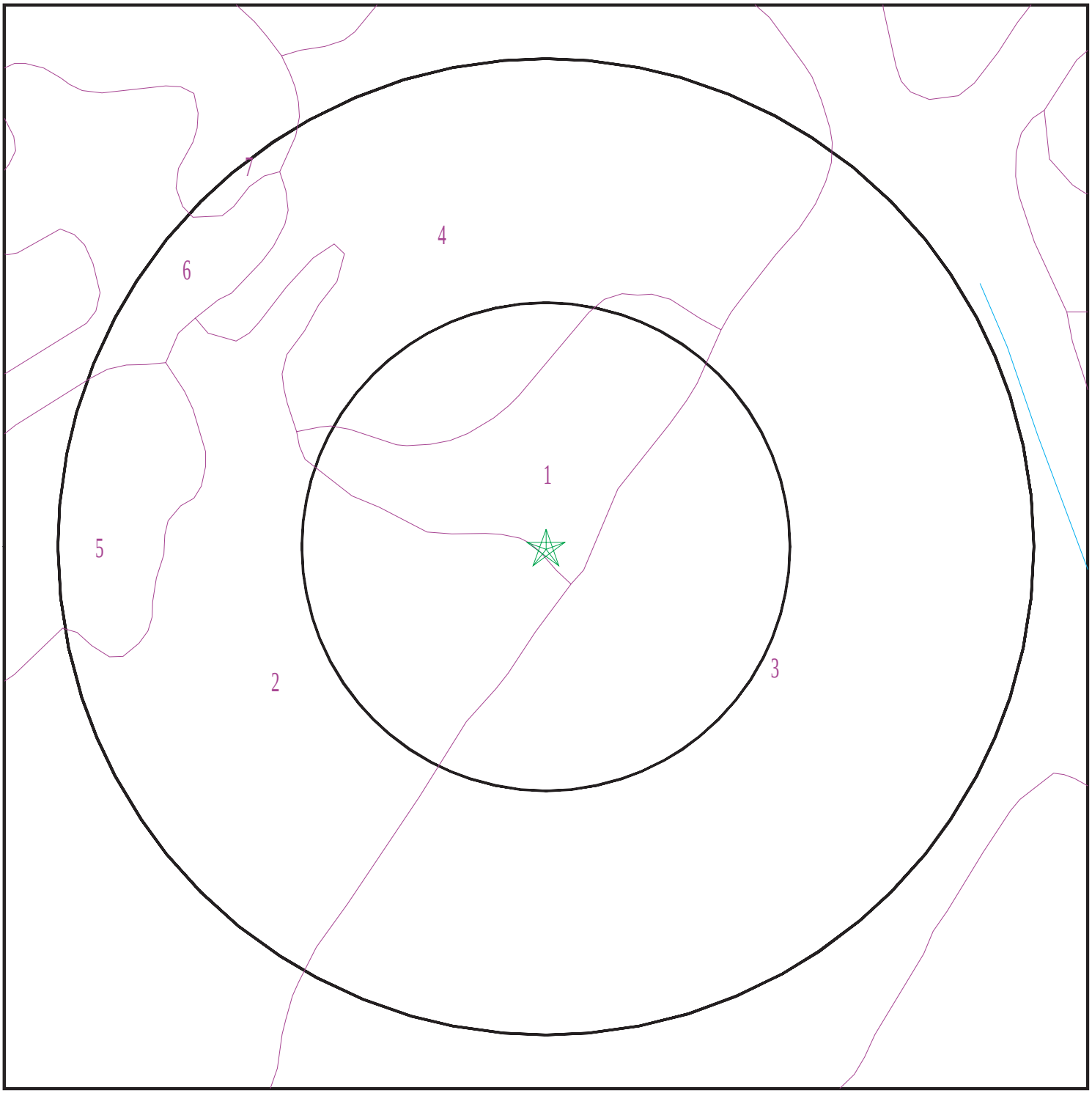
Era:	Mesozoic
System:	Cretaceous
Series:	Cretaceous granitic rocks
Code:	Kg *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Plutonic and Intrusive Rocks

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 4518850.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME: Olive View-UCLA Med Center ADDRESS: 14445 Olive View Drive Sylmar CA 91342 LAT/LONG: 34.326893 / 118.449283	CLIENT: Ninyo & Moore CONTACT: Patrick Cullip INQUIRY #: 4518850.2s DATE: January 22, 2016 11:31 am

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Soper

Soil Surface Texture: gravelly sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	gravelly sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Clayey sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 14 Min: 4	Max: 7.3 Min: 6.1
2	11 inches	31 inches	cobbly sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1
3	31 inches	35 inches	weathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 2

Soil Component Name: Capistrano

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	40 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 8.4 Min: 6.1
2	40 inches	72 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 8.4 Min: 6.6

Soil Map ID: 3

Soil Component Name: Soboba

Soil Surface Texture: gravelly loamy sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Excessively drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Low

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	gravelly loamy sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 141	Max: 7.8 Min: 6.1
2	9 inches	59 inches	very gravelly sand	Granular materials (35 pct. or less passing No. 200), Stone Fragments, Gravel and Sand.	COARSE-GRAINED SOILS, Gravels, Clean gravels, Poorly Graded Gravel.	Max: 141 Min: 141	Max: 7.8 Min: 6.1

Soil Map ID: 4

Soil Component Name: Saugus

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
2	18 inches	44 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
3	44 inches	48 inches	weathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 5

Soil Component Name: Saugus

Soil Surface Texture: loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	18 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
2	18 inches	44 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay. FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 7.8 Min: 6.1
3	44 inches	48 inches	weathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 6

Soil Component Name: Badland

Soil Surface Texture: weathered bedrock

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	59 inches	weathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 7

Soil Component Name: Vista

Soil Surface Texture: coarse sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	20 inches	coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1
2	20 inches	35 inches	coarse sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 7.3 Min: 6.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
3	35 inches	40 inches	weathered bedrock	Not reported	Not reported	Max: Min:	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

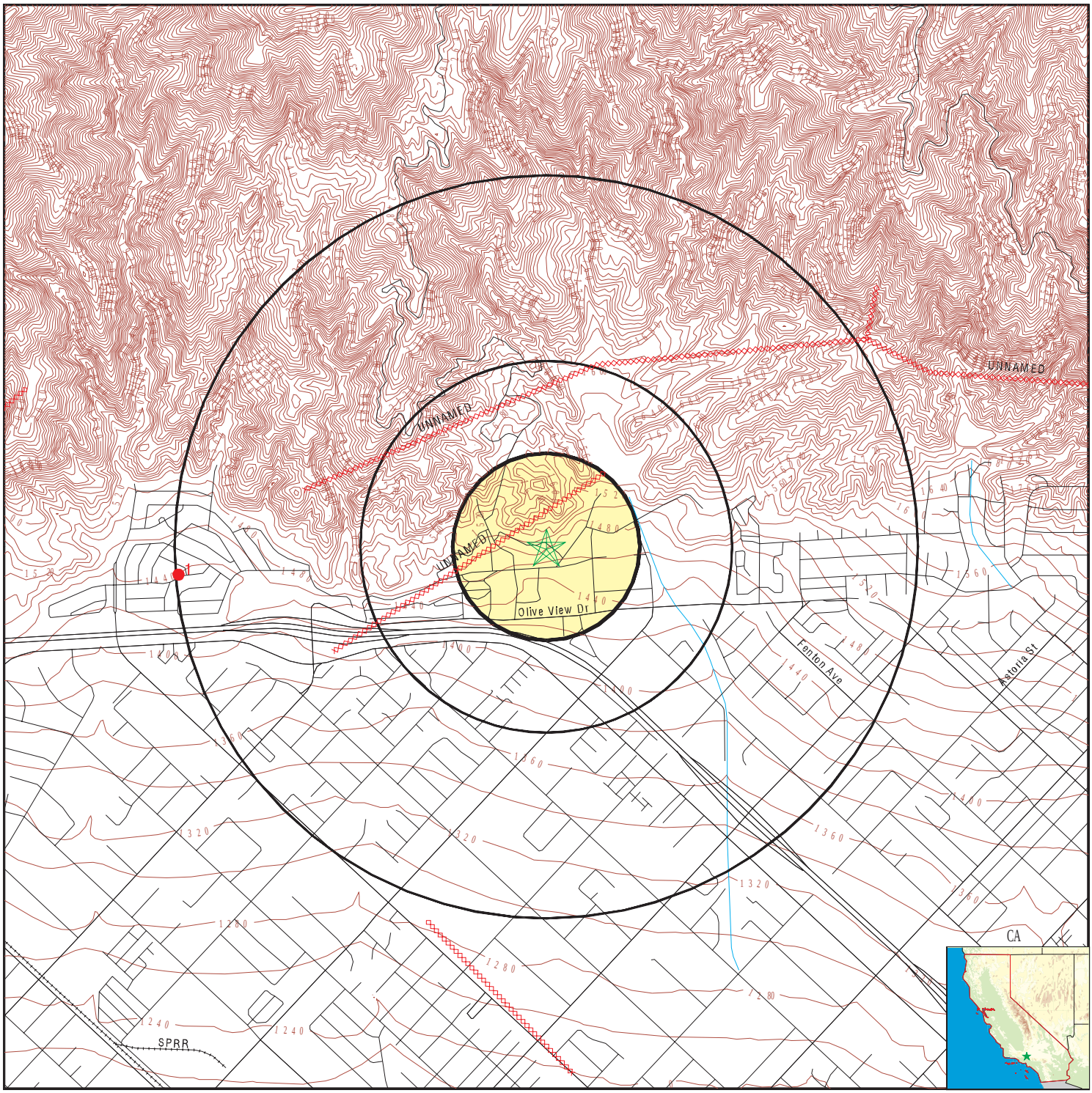
MAP ID	WELL ID	LOCATION FROM TP
No Wells Found		

OTHER STATE DATABASE INFORMATION

STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	CAOG11000280918	1/2 - 1 Mile West

PHYSICAL SETTING SOURCE MAP - 4518850.2s



County Boundary
Major Roads
Contour Lines
Earthquake Fault Lines
Earthquake epicenter, Richter 5 or greater
Water Wells
Public Water Supply Wells
Cluster of Multiple Icons

0 1/4 1/2 1 Miles

Groundwater Flow Direction
GI Indeterminate Groundwater Flow at Location
GV Groundwater Flow Varies at Location
HD Closest Hydrogeological Data
Oil, gas or related wells

N

SITE NAME:	Olive View-UCLA Med Center	CLIENT:	Ninyo & Moore
ADDRESS:	14445 Olive View Drive Sylmar CA 91342	CONTACT:	Patrick Cullip
		INQUIRY #:	4518850.2s
LAT/LONG:	34.326893 / 118.449283	DATE:	January 22, 2016 11:31 am

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Map ID Direction Distance	Database	EDR ID Number
1 **West** **1/2 - 1 Mile**	**OIL_GAS**	**CAOG11000280918**

District nun:	2	Api number:	03706034
Blm well:	N	Redrill can:	No
Dryhole:	Y	Well status:	P
Operator name:	Oryx Energy Company		
County name:	Los Angeles	Fieldname:	Any Field
Area name:	Any Area	Section:	21
Township:	03N	Range:	15W
Base meridian:	SB	Elevation:	Not Reported
Locationde:	Not Reported		
Gissourcec:	hud		
Comments:	Not Reported		
Leasename:	Stetson-Sombrero	Wellnumber:	1
Epawell:	N	Hydraulica:	N
Confidenti:	N	Spuddate:	Not Reported
Welldeptha:	0		
Redrillfoo:	0		
Abandonedd:	Not Reported	Completion:	Not Reported
Directiona:	Not Directionally drilled	Gissymbol:	PDH
Site id:	CAOG11000280918		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
91342	68	14

Federal EPA Radon Zone for LOS ANGELES County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for Zip Code: 91342

Number of sites tested: 1

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.300 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish & Game
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Department of Conservation
Telephone: 916-323-1779
Oil and Gas well locations in the state.

RADON

State Database: CA Radon
Source: Department of Health Services
Telephone: 916-324-2208
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Appendix H

Hydrology Report

Appendix H1

Hydrology Technical Memorandum

HYDROLOGY TECHNICAL MEMORANDUM

Project: **Los Angeles County Olive View - UCLA Medical Center EIR**
Client: ICF International/Los Angeles County
Prepared By: Jennifer J. Walker, P.E., D.WRE, CFM, QSD
Date: 5-6-2019
Purpose: Memorandum of Hydrology and Water Quality Results

Note: Draft memorandum released under the authority of Jennifer J. Walker, P.E. (C77079), D.WRE, CFM on 5/06/2019 and should not be used for design or construction.

INTRODUCTION

This memorandum documents hydrologic and Low Impact Development (LID) modeling results for the build-out of Tier 1 of the Olive View - UCLA Medical Center project as described in the August 2015 *Olive View-UCLA Medical Center Master Plan.* The project is anticipated to include post-construction stormwater Best Management Practices (BMPs) and Low Impact Development (LID) features. Hydrologic and LID analyses are based on the Tier 1 development concept and layout described in the *Master Plan. Tier 2 development is addressed at a conceptual, less detailed level without calculations as development plans are less solidified and will occur over a longer time-frame.*

Development in Tier 1 of the project focuses on a new Ambulatory Care Center, expanded Inpatient Services in the existing hospital, a new Community Center, construction of new UCLA offices and research facilities, Central Utility Expansion, and a new Materials Management Building. Additionally, Tier 1 development contains plans for a new Administration building along with Community Open Space and Landscaping throughout the campus. This new development will include additional parking lots/structures and pedestrian walkways. Finally, Tier 1 development will require upgraded utility infrastructure, including sewer, water, storm drains, and telecommunication.

As shown on Exhibit 1, the project site is located within Los Angeles County's San Fernando Valley Cluster/Valley Care region. The site located near Sylmar, California and is bounded by the Angeles National Forest on the North, Olive View Drive on the South, Wilson Canyon Channel on the East, and Bucher Avenue to the West. The project site is mostly developed and land cover consists largely of buildings and pavement with an existing impervious cover of approximately 65% in Tier 1. There are currently large tracts of open space in and around the campus consisting of various types of vegetation (trees, shrubs, turf grass, bare soil, etc.) in Tier 2.

In accordance with the County of Los Angeles *Low Impact Development Standards Manual*, published February 2014 (*LID Manual*), stormwater Best Management Practices (BMPs) are proposed and analyzed as a post-construction water quality and hydrologic treatment measure for development of the campus. The Low Impact Development Plan from the *Master Plan* illustrates the location of the following LID features at the site:

- Bioretention
- Permeable Pavement

- Dry Wells (planned as a potential parking lot LID feature per County staff).

The goals established for this project include:

- ✓ Meet Los Angeles County Low Impact Development (LID) and stormwater treatment criteria;
- ✓ Use LID to reduce proposed conditions peak flows and runoff volumes to below existing conditions;
- ✓ Simulate undeveloped conditions through use of infiltration and groundwater recharge across the project site.

EXISTING CONDITIONS

Existing conditions for the project are described based on evaluation of prior reports, available data, and results of the site reconnaissance. As shown in Exhibit 1, the proposed Olive View site is located on the existing University of California Los Angeles (UCLA) Olive View Medical Center. The Center is located in Sylmar, is bounded by the Angeles National Forest to the north and Olive View Drive to the south and is located west of single-family housing, north of residential and commercial-industrial land use, and east of the Santa Susana Mountains. The location of site is considered part of the San Fernando Valley, within the City of Los Angeles.

The Olive View project site is an institutional space with elevations ranging from 1,415 feet (ft) at the southern edge of the campus up to 1,540 ft. This range is due to the mountain landscape within the Angeles National Forest just north of and adjacent to the campus. The impervious cover is approximately 65% in Tier 1 (Exhibits 2, 7A and 7B). Land use of the area surrounding the campus is largely open space with a few single-family homes in the vicinity.

Existing conditions are discussed in the sections below for the following categories:

- Surface Water Quality
- Groundwater
- Hydrology
- Hydraulics
- Flooding and Hazards

Surface Water Quality

The project site is currently developed and land cover consists of medical and administrative buildings, paved roadways and parking lots, and tracts of vegetated open space throughout, with an existing impervious cover of 65-percent (Exhibit 2). Photos from the site reconnaissance are included in Appendix I. Land use around the site is varied (Exhibits 7A and 7B). To the north of the site is mostly vacant/undifferentiated open space containing flood waterways and electrical power facilities-powerlines. Directly to the east and west of the site is also vacant/undifferentiated open space. South of the campus is made up of low-rise apartments, low-

density single-family homes, and freeways/major roads and is considered retail/commercial land use for the water quality analysis.

The existing site does not include water quality or stormwater controls, such as stormwater BMPs, LID features, or hydromodification management facilities. Additionally, stormwater detention and other flood control features are not present on-site. Instead, the existing site manages rainfall and stormwater runoff by overland sheet flow towards Wilson Canyon and primarily toward a series of on-site catch basins and discharges to the City of Los Angeles storm drain line at Olive View Drive.

Typical Pollutants from Project Site

Stormwater runoff from the existing site is typical of developed areas, which include moderate amounts of pollutants. TSS and Trash are common in single-family residential areas and commercial areas. Additionally, nutrients from fertilizers as well as herbicides and pesticides associated with landscape maintenance are also likely to be present in stormwater runoff from the vicinity into Wilson Canyon, as a photo shows from the site reconnaissance on Appendix I. Also, as shown in the photos included in Appendix I, many of the drainage inlets in roadways adjacent to the site include grates or screens to prevent or limit trash from entering the storm drain system and discharging to the receiving water (Wilson Canyon). The site drains to Wilson Canyon Drain, Schoolhouse Drain, and most of it to the Olive View Drive storm drain system. Urban runoff and human activities may generate bacteria and other pollutants around Wilson Canyon and Schoolhouse Canyon.

Table 1 summarizes typical pollutants of concern based on land use. The majority of the pollutants are from the City of Los Angeles Department of Public Works *Low Impact Development Standards Manual.* Also included in this table are other pollutants that the U.S. EPA recognizes to be typically associated with land use present on the project site.

TABLE 1: POLLUTANTS OF CONCERN BY LAND USE

Land Use	Pollutants of Concern													
	Suspended Solids[2]	Total Phosphorus[2]	Total Nitrogen[2]	Total Kjedahl Nitrogen[2]	Cadmium, Total[2]	Chromium, Total[2]	Copper Total[2]	Lead Total[2]	Zinc, Total[2]	Biological Oxygen Demand	Chemical Oxygen Demand	Fecal Coliform[5]	Hydrocarbons[5]	Trash[5]
Commercial	x	x	x	x	[4]	[4]	x	x	x					
Industrial		x	x	x	[4]	[4]	x	x	x					
Transportation (streets, roads)	x	x	x	x	[4]	[4]	x	x	x					
Institutional (educational facilities)	x				[4]	[4]	x		x					
Vacant/Undeveloped[5]	x	x	x	x				x	x					
Project Site	x	x	x	x	x	x	x	x	x	x	x	x	x	x

[1] Adapted from Table A-3 of the *Technical Manual for Stormwater Best Management Practices in the County of Los Angeles* (February 2004) and the Southern California Coastal Water Research Project Land Use Specific Storm Water Monitoring Data. X= exceedance of "standard" by observed median/average concentration; blank = no exceedance of "standard" by observed median/average concentration.
[2] Derived from Table 11 of the 2012 Los Angeles County MS4 Permit (page 104).
[3] Critical facilities include automobile dismantling (SIC 50xx), automobile repair (SIC 75xx), metal fabrication (SIC 34xx), motor freight (SIC 42xx), automobile dealerships (SIC 55xx), chemical manufacturing (SIC 28xx), and machinery manufacturing (SIC 35xx).
[4] No available date to determine if these pollutants of concern originate from this land use. Pollutant is assumed to be produced by this land use unless otherwise proven by the project applicant.
[5] Based on 2006 U.S. EPA *Guide to Stormwater Pollutant Concentrations*.

Pollutants of Concern Based on Receiving Water Impairment

The Clean Water Act (CWA) requires that states adopt water quality standards for receiving waters. Water quality standards designate beneficial uses for the receiving water and include criteria required to support those beneficial uses. Water quality criteria are either narrative statements related to the quality of water to support a particular use or maximum concentrations of levels of pollutants (i.e., bacteria, etc.). As part of the CWA, when monitoring data indicates that a pollutant is exceeded, the receiving water is classified as impaired and placed on the *CWA Section 303(d) List of Water Quality Limited Segments Requiring TMDLs* (303(d) List). A Total Maximum Daily Load (TMDL) is then developed for the pollutant(s) causing the impairment. The purpose of the TMDL is to limit the amount of pollutant(s) discharged to the receiving water from all sources (i.e., stormwater runoff, wastewater, agriculture).

There are several pollutants of concern related to the receiving body of water and include those pollutants with a developed TMDL requirement, other pollutants listed on the 303(d) List, and pollutants of concern for the Sylmar watershed management area based on the *Water Quality Compliance Master Plan for Urban Runoff, 2009.* The project is located adjacent to Wilson Canyon just upstream of the confluence with Schoolhouse Canyon. Table 2 incudes data from the State Water Resources Control Board (SWRCB), based on the combined California 2010 303(d) List and includes pollutants that have a completed TMDL, pollutants that require development of a TMDL, and pollutants that are being addressed by actions other than a TMDL. The project area is located within the Lower Pacoima watershed (Exhibit 5), which was not listed in the 303(d) List. It is, however, within the Tujunga Wash Watershed shown in Figure 2-6 of the Water Quality Compliance Master Plan for Urban Runoff (Appendix F). The table specifically addresses the Tujunga Watershed and Reach 4 of the Los Angeles River into which runoff from the Lower Pacoima Watershed eventually discharges.

TABLE 2: LOS ANGELES RIVER IMPAIRED WATERS 303(d) List[1]

WATER BODY NAME	POLLUTANT	POLLUTANT CATEGORY	TMDL STATUS	USEPA TMDL APPROVED DATE
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Copper	Metals/Metalloids	TMDL completed	29-Oct-08
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Lead	Metals/Metalloids	TMDL completed	29-Oct-08

WATER BODY NAME	POLLUTANT	POLLUTANT CATEGORY	TMDL STATUS	USEPA TMDL APPROVED DATE
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Ammonia	Nutrients	TMDL completed	18-Mar-04
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Nutrients (Algae)	Nutrients	TMDL completed	18-Mar-04
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Coliform Bacteria	Pathogens	TMDL completed	23-Mar-12
Los Angeles River Reach 4 (Sepulveda Dr. to Sepulveda Dam)	Trash	Trash	TMDL completed	24-Jul-08
Tujunga Wash (LA River to Hansen Dam)	Copper	Metals/Metalloids	TMDL completed	29-Oct-08
Tujunga Wash (LA River to Hansen Dam)	Ammonia	Nutrients	TMDL completed	18-Mar-04
Tujunga Wash (LA River to Hansen Dam)	Coliform Bacteria	Pathogens	TMDL completed	23-Mar-12
Tujunga Wash (LA River to Hansen Dam)	Trash	Trash	TMDL completed	24-Jul-08

[1] 2010 EPA approved 303(d) Final List

Table 3a shows pollutant and other constituent concentrations as measured at the Los Angeles mass emissions site. Pollutants and concentrations are courtesy of Section 5 of the Los Angeles River Watershed Report, 2005 (Appendix E). The project site is located within the Tujunga

Water Management Area, according to Figure 2-6 of the County of LA LID Handbook (Appendix F). Multiple TMDLs are in effect for the Tujunga Watershed Management Area for the following pollutants:

- Metals (Copper and Lead)
- Nutrients (Algae and Ammonia)
- Trash
- Coliform Bacteria

TABLE 3A: ANNUAL MEAN CONCENTRATION FOR CONSTITUENTS MEASURED AT THE LOS ANGELES RIVER MASS EMISSION SITE, 2004-2005.

Constituent	Units	Annual Mean Concentration	Pollutant Category
Alkalinity	ug/l	78.4	Metals/Metalloids
Bicarbonate	ug/l	93.3	Other Organics
BOD	ug/l	29.6	Other Organics
Calcium	ug/l	25.2	Other Organics
Chloride	ug/l	31	Other Organics
COD	ug/l	50.39	Other Organics
Cyanide	ug/l	0.26	Other Inorganics
Dissolved Oxygen	ug/l	7.8	Other Organics
Fluoride	ug/l	0.24	Other Organics
Hardness	ug/l	85	Hardness
Magnesium	ug/l	5.43	Metals/Metalloids
MBAS	ug/l	0.18	Other Organics
Oil and Grease	ug/l	2.1	Other Inorganics
pH	ug/l	7.16	pH
Potassium	ug/l	5.69	Metals/Metalloids
Sodium	ug/l	30.34	Other Organics
Specific Conductivity	ug/l	300	Conductivity
Sulfate	ug/l	39.38	Other Organics
Total Dissolved Solids	ug/l	199	Other Organics
Total Organic Carbon	ug/l	14.49	Other Organics
Total Phenols	ug/l	1.96	Other Inorganics
Total Suspended Solids	ug/l	376	Other Organics
Turbidity	ug/l	52	Turbidity
Ammonia	ug/l	1.26	Other Organics

Constituent	Units	Annual Mean Concentration	Pollutant Category
Dissolved Phosphorus	ug/l	0.23	Other Organics
NH3-N	ug/l	1.03	Other Organics
Nitrate	ug/l	5.83	Other Organics
Total Phosphorus	ug/l	0.42	Other Organics
Fecal Coliform	ug/l	190,034	Bacteria
Enterococcus	ug/l	248,100	Bacteria
Total Coliform	ug/l	1,600,260	Bacteria
Total Aluminum	ug/l	2,378	Metals/Metalloids
Total Arsenic	ug/l	2.27	Metals/Metalloids
Total Cadmium	ug/l	0.64	Metals/Metalloids
Total Copper	ug/l	36.8	Metals/Metalloids
Total Lead	ug/l	29.9	Metals/Metalloids
Total Selenium	ug/l	2.57	Metals/Metalloids
Total Zinc	ug/l	127	Metals/Metalloids

Table 3b and Appendix K of the County of LA LID Handbook list the pollutants of concern for the Los Angeles River Watershed Management Area in which the project site occurs.

TABLE 3B: TIER 3 POLLUTANTS OF CONCERN FOR THE LOS ANGELES RIVER WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Total Dissolved Solids
E. *coli* Bacteria	Turbidity
Total Coliform Bacteria [1]	Aluminum, Total Recoverable
Fecal Coliform Bacteria[1]	Cyanide, Total Recoverable
Enterococcus Bacteria [1]	Copper, Total Recoverable
Chloride	Mercury, Total Recoverable
Nitrite Nitrogen, Total (as N)	Selenium, Total Recoverable
Sulfate	

[1] Apply only to discharges to the estuary and the ocean

Total Maximum Daily Loads

A TMDL is a regulatory term in the U.S. CWA, describing the value of the maximum amount of a pollutant that may enter a water body while still meeting water quality standards. There are several listed TMDLs for the Los Angeles River area in Table 4 below from the Los Angeles Region's *Basin Plan* (Appendix M) and from the 2010 US EPA approved 303d list. Among those listed are: trash, cadmium, copper, lead, selenium, zinc, chlordane, dichlorodiphenyltrichloroethane (DDTs), Total PCBs, E. coli bacteria, fecal coliform, Enterococcus, and total coliform. The loading capacities for each pollutant are:

TABLE 4: TMDLS FOR LOS ANGELES RIVER

Pollutant	Loading Capacity (ug/L)
Trash	0
Total Recoverable Metals	
Copper	18
Lead	55
Selenium	5
Zinc	119
Toxic Pollutants (Sediment)	
Cadmium	1.2
Copper	34
Lead	46.7
Silver	1
Chlordane	0.5
DDT	1.58
Total PCBs	22.7
Total PAH	4,022
E. Coli (MPN)	126
Fecal Coliform (MPN)	200

Summary

Table 5 summarizes potential pollutants from the site based on land use along with pollutants of concern from the various sources described above and Table 6 summarizes pollutants of concern specific to the Los Angeles River (Appendix E). Tables 7A and 7B summarizes pollutant influent based on the land use areas in Tier 1 of the Olive View - UCLA Medical Center project.

TABLE 5: SUMMARY OF POTENTIAL POLLUTANTS AND POLLUTANTS[1] OF CONCERN

Nutrients	Metals	Organics	Other	Pathogens	Sediment/Solids
Kjedahl Nitrogen	Cadmium	BOD	Chlordane	Coliform Bacteria	Suspended Solids
Total Nitrogen	Chromium	COD	pH	Viruses	Total Dissolved Solids
Total Phosphorous	Copper	DDT	Sulfate	E. coli Bacteria	Turbidity
Ammonium	Lead	DO	Trash		
Magnesium	Selenium	Hydrocarbons	Chlordane		
Nitrate	Silver	TOC	Calcium Bicarbonate		
Nitrite	Zinc	PAH	Chloride		
Algae	Aluminum	PCB	Cyanide		
Potassium	Arsenic	Phenols	Fluoride		
	Mercury		Hardness		
			MBAS		
			Sodium		

[1] Pollutants from the 2010 U.S. EPA approved 303(d) list.

TABLE 6: POLLUTANTS OF CONCERN FOR LOS ANGELES RIVER

Constituent	Constituent of Concern	Comparison to 303(d) List
Cyanide	•	
Enterococcus	•	•
Fecal Coliform	•	•
Total Coliform	•	•
Algae		•
Ammonia		•
Oil and Grease		•
Total Aluminum	•	•
Total Copper	•	
Total Lead	•	•
Total Zinc	•	
Dissolved Cadmium		•
Dissolved Copper	•	•
Dissolved Lead	•	•
Dissolved Zinc	•	•
Chlordane		•
Dichloroethylene		•
Tetrachloroethylene		•
Trichloroethylene		•
Alkalinity		•
Bicarbonate		•

TMDL Information courtesy of Section 5 of the *Los Angeles River Watershed Final Report*, August 2005 (Appendix E).

TABLE 7A: TIER 1 VACANT/OPEN AREA POLLUTANT LOADS

Pollutant	Concentration (lbs/acre-yr)	Annual Load (lbs/yr)
TSS	3.0	199
TP	0.0	2
TKN	1.5	100
NH_3-N	NA	-
NO_2+NO_3-N	0.3	20

Pollutant	Concentration (lbs/acre-yr)	Annual Load (lbs/yr)
BOD	NA	-
COD	2.0	133
Pb	0.0	0
Zn	NA	-
Cu	NA	-

[1]Annual loads are courtesy of EPA *Guide to Urban Stormwater Pollutant Concentrations*, 2006.
[2] While Selenium is listed as a pollutant of concern in the 303(d) list, the rate is expected to have similar performance rates during modeling as the other heavy metals and was therefore omitted from the pollutant levels.

TABLE 7B: TIER 1 RETAIL/COMMERCIAL POLLUTANT LOADS

Pollutant	Concentration (lbs/acre-yr)	Annual Load (lbs/yr)
TSS	1000	66,400
TP	1.5	100
TKN	6.7	445
NH_3-N	1.9	126
NO_2+NO_3-N	3.1	206
BOD	62	4,117
COD	420	27,888
Pb	2.7	179
Zn	2.1	139
Cu	0.4	27

[1]Annual loads are courtesy of EPA Guide to Urban Stormwater Pollutant Concentrations, 2006.
[2] While Selenium is listed as a pollutant of concern in the 303(d) list, the rate is expected to have similar performance rates during modeling as the other heavy metals and was therefore omitted from the pollutant levels.

Groundwater

As indicated on the groundwater basin exhibit (Exhibit 6), the project is located along the northeastern edge of the Sylmar water basin, which is a sub-basin of the Upper Los Angeles River Area basins. It is located a significant distance from existing stormwater spreading grounds shown in Exhibit 9. As such, stormwater runoff from the site will not provide recharge into existing stormwater spreading grounds or introduce pollutants into these spreading grounds.

The Olive View -UCLA Medical Center is within the geographic boundaries of the Sylmar Groundwater Basin (Sylmar Basin) of the Upper Los Angeles River Area (ULARA) basins. According to the ULARA Watermaster website the Sylmar Basin, located in the northern portion of ULARA, consists of 5,600 acres of land with a storage capacity of 310,000 acre-feet, making up 4.6 percent of the ULARA valley fill. The basin contains flows generally towards to the southeast, with levels ranging from 15 to100 ft below ground surface. Water levels in this basin have been fairly stable over about the past 20 years, since adjudication of the basin. There are no significant contaminant plumes in the local Sylmar basin (City of Los Angeles *Granada Hills-Knollwood & Sylmar Community Plans Draft EIR*, Oct 2012).

According to the *Groundwater Assessment Study* by The Metropolitan Water District of Southern California, the Sylmar Groundwater Basin is recharged through the Lopez, Pacoima, and Branford spreading grounds along Pacoima Wash and Hansen and Tujunga spreading grounds along Tujunga Wash. The spreading grounds are all located South of the site. Exhibit 10 notes their locations.

Water Supply

Based on preliminary utility research presented in the *Master Plan*, water service for Olive View - UCLA Medical Center is provided by the City of Los Angeles Department of Water and Power (LADWP). Existing water use is approximately 99,706 units/year based on the Los Angeles County Utility System Billing summary from March 2015 through February 2016, where each unit equals 100 cubic feet (748 gallons). Total use is approximate 74.58 million gallons (MG).

According to the Water Quality section of the LADWP's website, approximately 15% of the water is obtained from local groundwater wells. Remaining water supply sources includes approximately 60% from the Eastern Sierra via the Los Angeles Aqueduct system and from the Metropolitan Water District's Colorado and Feather River supplies. Approximately 80% of the groundwater utilized is from the San Fernando basin, which is partially shown on Exhibit 9.

The LADWP is allotted 3,570 ac-ft of water per year for safe yield from the Sylmar Groundwater Basin (ULARA Watermaster). Water pumped from the Sylmar Groundwater Basin accounted for approximately four-percent of the groundwater utilized for drinking, and approximately 0.5-percent of all drinking water sources in 2001 (City of Los Angeles *Granada Hills-Knollwood & Sylmar Community Plans Draft EIR*, Oct 2012).

Depth to Groundwater

According to the *Preliminary Geotechnical Evaluation* prepared by Ninyo & Moore the groundwater at the site has an historic high of 120 ft below ground surface, with levels ranging on average from 120 to 200 ft below ground surface. The evaluation also stated "Groundwater levels may be influenced by seasonal variations, precipitation, irrigation, soil/rock types, groundwater pumping, and other factors and are subject to fluctuations. On- site infiltration of storm water related to LID guidelines may have an impact on existing and planned site improvements and should be evaluated during the detailed design phase of the project."

Due to its depth, groundwater is not expected to have a significant impact on excavation or other construction activities. However, the *Preliminary Geotechnical Evaluation* suggested that portions of the site located in the northeast region of the project area near the mouth of Wilson Canyon are potentially susceptible to liquefaction due to sections of shallow groundwater. Potentially liquefiable areas are noted in Exhibit 12.

Recharge

Soils within the project site are Ramona Loam, Hanford Gravelly Sandy Loam, and Hanford Fine Sandy Loam (Exhibit 8). On the northern portion of the site there exists Los Angeles River soil which consist mainly of recent alluvial deposits. The *Preliminary Geotechnical Evaluation* categorized the northern and western portions of the site as being "underlain by Pacoima Formation and older alluvium comprised of weakly consolidated sand and gravel." The evaluation also notes that the southern region of the site, the location of existing improvements, and the area at the base of Wilson Canyon in the east as being "underlain by young (Holocene) alluvial deposits generally comprised of gravel, sand and clay sediments." These soil types have a relatively high conductivity and based on the continuous simulation modeling results discussed in the Hydrologic Analysis section, approximately 3.8 inches or 33-percent of the annual rainfall on the Tier 1 area infiltrates in existing conditions. As such, recharge is expected to occur into the Sylmar basin.

Due to soils with poor cohesion, pre-existing undeveloped areas and steep slopes present at the site, the *Preliminary Geotechnical Evaluation* (Ninyo and Moore 2106) concluded there is a potential for erosion, especially along the northern edge of the campus where steeper slopes are found. The evaluation also suggested the creation of a Storm Water Pollution Prevention Program (SWPPP) incorporating BMPs to mitigate soil erosion.

Contamination

Based on the *Phase 1 Hazardous Materials Assessment* prepared by Ninyo & Moore (March 11, 2016) there were no reports of Groundwater Contamination in the Sylmar Basin.

HYDROLOGY

Elevations within the Olive View - UCLA Medical Center campus range from a low of approximately 1,415 feet (ft) in the southwestern portion of the campus to a high of approximately 1,540 ft in the northwestern portion (Exhibit 4). Overland flow within the site is generally from north to south. The Santa Monica Mountains run along the northern extent of the campus, surrounding the site in trees and understory vegetation.

The Wilson Canyon Drainage Channel runs parallel to the western site boundary and overland flow in this vicinity is generally South-Southwest towards Olive View Drive and ultimately into the Wilson Canyon Channel. Wilson Canyon Channel joins the underground storm drain system at the intersection of Astoria Street and Dronfield Avenue. Wilson Canyon Channel is a concrete structure that serves as a major flood control facility for the site and surrounding areas.

There are currently two watersheds north of project site, the Wilson Canyon Channel watershed and the Mansfield Channel watershed, with an average 50-year storm event of 4,690 cubic feet per second (cfs) (*Master Plan*). The runoff from these areas is conveyed through the Schoolhouse Canyon Diversion to the Pacoima Wash located at the southeast corner of the Pacoima Canyon and May Canyon. The Wilson Canyon Channel watershed is 1,959 acres and has a 3,758 cfs 50-yr storm event discharge (*Master Plan*). The Mansfield Channel watershed is 455 acres and has a 932 cfs 50-yr storm event discharge (*Master Plan*).

As discussed, the existing site does not appear to include water quality or stormwater controls, such as stormwater BMPs, LID features, or hydromodification management facilities. Additionally, stormwater detention and other flood control features were not observed on-site. Instead, the existing site manages rainfall and stormwater runoff with vertical roof drains, catch basins and drain inlets, underground storm drain systems, curbs, gutters, overland sheet flow, driveways, and other means of conveyance into the on-site and off-site storm drain system.

Impervious cover at the site is 65% in Tier 1, thus LID techniques will employ tactics that utilize the availability of undeveloped land. Additionally, stormwater management and runoff is typical of urbanized runoff from other sites with a similar period of construction. According to the preliminary geotechnical survey "Storm water catch basins and drains were observed throughout the site during the site reconnaissance. Storm water channels trending north-south were observed at the western and eastern ends of the site."

Stormwater runoff for proposed undeveloped conditions from Wilson Canyon drainage area and the Olive View Drive storm drainage area in Tier 1 is estimated at 37.2 inches (in), or 1.0 in/year, based on continuous simulation analysis of the period of record from 1970 – 2006 (37 years). For existing conditions, stormwater runoff is 184.5 in (5.0 in/yr) for the same time-frame due to the high percentage of impervious area (65%) in Tier 1. Details on the hydrologic modeling performed for this project are included in the Hydrologic Analysis section below.

Due to the high percentage of undeveloped land at the Olive View site there is a high probability of erosion and sedimentation coming from the northern portion of the site where the campus meets the Angeles Forest. Visual observation at the site noted prior attempts to mitigate erosion and direct flows through the use of dirt mounds and k-rails.

HYDRAULICS

From the *Master Plan* and visual observations during site reconnaissance, the existing storm drain system for the Olive View - UCLA Medical Center campus utilizes vertical roof drains, underground storm drain pipes, overland sheet flow, curbs, gutters, catch basins, and driveways to convey stormwater runoff to the existing public system owned and operated by Los Angeles County Flood Control District (LACFCD).

As observed by the *Master Plan,* the City of Los Angeles owns and maintains the Olive View Drive storm drain that ranges in size from 30-inches to 60-inches and discharges to a Los Angeles County Flood Control District's Foothill Freeway 5.0' x 5.0' Reinforced Concrete Box. There are currently two (2) storm drain laterals to the site. One ties into the catch basin downstream of Mansfield Channel and the other ties into an existing 36-inch reinforced concrete pipe from the hospital site. The Olive View Drive storm drain system is estimated to have a minimum existing capacity of 26 cfs. The Olive View Drive storm drain system is assumed to have adequate capacity for existing peak discharges from the site. The Schoolhouse Debris Basin, tied into the Mansfield Channel is designed to store 19 acre-feet of debris and drain an area of 0.28 square miles. The Wilson Debris Basin is designed to store 84 acre-feet (ac-ft) of debris and drain an area of 2.6 square miles.

Since hydrology and hydraulics models for the open channel systems were not provided by the County, the existing capacity of these systems is not known from available data. However, the 100-year, 24-hour design storm event is mapped in an approximate Zone A as being contained within the Wilson Canyon drain. The Schoolhouse Canyon drain is not a FEMA-studied stream and information on capacity is not available. The open channel systems are assumed to have adequate capacity for existing peak discharges from the site.

In the event that sheet flow leaves the project site, inlets are regularly spaced within the public roadways bordering the campus. As shown in the photos included in Appendix I, some of these inlets include the benefits provided by grates that help prevent trash from entering the storm drain system and the Los Angeles River watershed.

Flooding and Hazards

Flood Plain

The project site is located within Zone X on the FEMA Flood Insurance Rate Map. The site is located on Panel 1075F, updated September 28, 2008. The area is located between the Wilson Canyon and Schoolhouse drainage channels which have a 1% annual chance of flood discharge.

However, the area due north of the site is labeled as Zone D, meaning there are possible but undetermined flood hazards due to lack of analysis of the area.

There is no flood plain or flood fill proposed as part of this project and no houses, buildings, or structures will be placed within the 100-year flood plain as a result of this project. The 100-year flood plain is shown in Exhibit 13. A hydraulic model was not developed for this project.

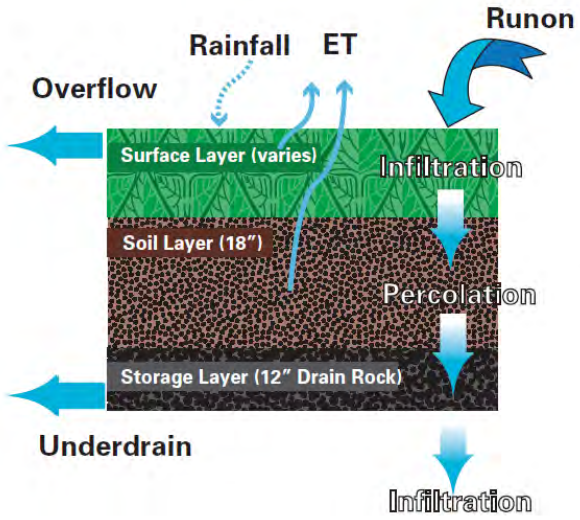
Dam Failure and Other Hazards

As shown in the Dam Hazard Inundation map included in Appendix J from the City of Los Angeles *Hazard Mitigation Plan*, dated January, 2011 and adopted July, 2011, the project site is not located within a potential inundation area for dam failure. The nearest dam is the Pacoima Dam, and possible inundation area is located east of the Olive View site, as noted in Figure M-1 of Appendix I. Similarly, the project site is not located within a potential tsunami inundation area or seiche (Figure O-1). However, due to its foothill location, the site is potentially subject to liquefaction/landslides (Exhibit 12).

HYDROLOGIC ANALYSIS

The U.S. Environmental Protection Agency's (EPA)'s Storm Water Management Model (SWMM) 5.1 was utilized for the LID design storm and continuous simulation modeling in this project. The current version of SWMM includes LID controls and detailed analysis options not previously included in SWMM5. The SWMM model is also a publicly-available model. The SWMM model accounts for infiltration through various LID layers, evapotranspiration, infiltration into the native soil, and overflows and discharge from the LID facilities as illustrated in Figure 1.

Figure 1: LID Components and Processes Modeled in SWMM



Recent studies by the EPA cited in the report entitled *SUSTAIN – A Framework for Placement of Best Management Practices in Urban Watersheds to Protect Water Quality* found similar results for analysis of aggregated (lumped) LID controls in drainage sub-areas of 100 ac or more as compared to micro-drainage sub-areas for each lot and LID control (distributed approach). For a 128-acre drainage sub-area, the difference in peak flows between the aggregated and distributed approaches computed in the EPA study is four-percent. Similar positive findings with regards to the aggregated approach were also reported by the City of Portland's Bureau of Environmental Services in a paper entitled *Modeling Non-Directly Connected Impervious Areas in Dense Neighborhoods.*

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Since the area of the Olive View - UCLA Medical Center EIR Tier 1 boundary is approximately 72.6 ac with DA1 encompassing 31.1 ac and DA2 encompassing 41.5 ac and well under the threshold for using the aggregated method, the aggregated modeling approach was used for this project to increase modeling efficiencies. Peak flow rates are expected to be within three-percent of those computed using the distributed approach and volumes are expected to be within approximately four-percent (EPA *Sustain* Report Table 3-18). As indicated previously, only Tier 1 is modeled for this study due to the longer time-frame and uncertainty around the extent of future Tier 2 development.

Table 1 in Appendix B lists hydrologic parameters associated with the site. Proposed conditions parameters are based on the LID layout included in the *Master Plan* (Appendix G). Existing and conditions parameters area estimated and may not precisely reflect conditions as soils, topographic, and other detailed data is not available.

According to Ninyo and Moore's *Preliminary Geotechnical Report* dated March 18, 2016, the medical center has varying geology. The upper, elevated northwestern portion of the site is underlain by Tertiary-age Towsley Formation generally comprised of cobble conglomerate and coarse-grained sandstone, and Cretaceous-age metamorphic rocks. Other elevated hillside areas in the western, northern and eastern portions of the site are mapped as being underlain by Pacoima Formation and older alluvium comprised of weakly consolidated sand and gravel. The lower southern portion of the site, where the existing improvements are located, and the eastern portions of the site at the base of Wilson Canyon are mapped as being underlain by young (Holocene) alluvial deposits generally comprised of gravel, sand and clay sediments. A regional geologic map including soil types of the site vicinity is shown on Exhibit 8.

The Green & Ampt method, which is based on physically-measurable soil parameters and has been used successfully on other LID projects in the region, is used to estimate losses due to infiltration. Based on Exhibit 8, native underlying soils at the sites are assumed to be sandy loam with saturated hydraulic conductivity rates of approximately 0.43 inches/hour. The suction head and initial deficit parameters shown in Table 2 are estimated for sandy loam type soil from standard soils texture tables. Since details on the area treated by each LID feature are not included in the *Master Plan* (Appendix G), it was assumed that permeable pavement treats permeable pavement only with no off-site contributing area and that bioretention treats the remainder of each drainage area.

The Olive View - UCLA Medical Center project site is located in the Lower Pacoima wash (Exhibit 5) and within the Sylmar groundwater Basin (Exhibit 9). Exhibit 6A illustrates the existing and proposed drainage areas within the site for the 2 outfall locations. The land use of the area to the North, East and West of the site is vacant/undifferentiated. Land use South of the site consists of freeways/major roads, low-rise apartments, and low-density single family residential (Exhibit 7). The land use of the site itself is classified as Major Medical Health Care Facilities with a roughly 65% impervious cover.

Rainfall hyetographs are developed using the rainfall data downloaded from the Los Angeles County Department of Public Works Hydrology website as shown in Exhibits 12 through 14, and adjusted using the Design Storm Unit Hyetograph table from Appendix A in the Los Angeles County Department of Public Works Hydrology Manual (*Hydrology Manual*), dated January 2006 (Appendix B). Table 1 in Appendix C lists hydrologic parameters associated with the site. Proposed conditions parameters are based on the *Olive View – UCLA Medical Center Campus Master Plan* by SmithGroup (Appendix G) and the assumed LID size and configuration complies with the County of Los Angeles *LID Manual*. Existing conditions parameters are estimated from available data.

The suction head and initial deficit parameters shown in Table 2 of Appendix C are estimated for a sandy loam from standard soils texture tables and further details on data sources are included in this table. Soil types for the project area and watershed drainage areas were determined by using the soil types found in Exhibit 8 (Soil Map) and classifying the predominant soil type as sandy loam. The three types of soil used from the map were Hanford Fine Sandy Loam as sandy loam, Hanford gravelly sandy loam as sandy loam, and Upper Los Angeles River as sandy loam. Green & Ampt parameters for these soils types were also estimated from standard *Sustain* tables in the EPA *Sustain User's Manual*.

Design Storm Results

The two-year, ten-year, and 100-year, 24-hour design storm events are modeled to assess runoff during an event similar to the water quality event, an event representative of storm drain sizing, and an extreme flood control event, respectively. As shown in Table 1 of Appendix C, the two-year, 24-hour, ten-year, 24-hour and 100-year, 24-hour rainfall depths at the site are 2.83, 5.23 and 8.21 in, respectively. Exhibits 12, 13, and 14 each detail the rainfall depths for the respective events. As indicated above, the design storm rainfall data is derived from the Los Angeles County *Hydrology Manual* dated January 2006 (Appendix B). The rainfall hyetographs are used by SWMM to compute the design storm runoff hydrographs from the site.

As shown in Tables 5A and 5B of Appendix C, proposed conditions peak flows in drainage area 1 (DA1) with the bioretention features are 12-percent less than existing flows from the site for the two-year, 24-hour event and 13-percent and 16-percent less than existing for the ten-year, 24-hour and 100-year, 24-hour events, respectively. Specifically, the existing two-year peak flow is 10 cubic feet per second (cfs) and the proposed two-year peak flow is 9 cfs, the ten-year existing peak flow is 20 cfs and the proposed peak flow is 17 cfs, and the 100-year existing peak flow is 36 cfs and the proposed peak flow is 30 cfs.

Proposed conditions peak flows in drainage area 2 (DA2) with the bioretention features are 100-percent less than existing flows from the site for the two-year, 24-hour event and 94-percent and 41-percent less than existing for the ten-year, 24-hour and 100-year, 24-hour events, respectively. Specifically, the existing two-year peak flow is 16 cubic feet per second (cfs) and the proposed two-year peak flow is zero cfs, the ten-year existing peak flow is 32 cfs and the proposed peak flow is 2 cfs, and the 100-year existing peak flow is 57 cfs and the proposed peak flow is 34 cfs.

Figures 2A through 4B depict runoff hydrographs from the site for the 2-year, 24-hour, 10-year, 24-hour and 100-year, 24-hour design storm events, respectively, for DA1 and DA2. As described, the proposed LID conditions peak flows and runoff volumes are illustrated by the maximum value of the runoff hydrographs and the area under the hydrograph curves, respectively. Additionally, the shapes of the proposed LID conditions runoff hydrographs generally match the shapes of the existing conditions runoff hydrographs or fall within the existing conditions runoff hydrographs. As such, the proposed Tier 1 project contributes less excess urban runoff volume that can lead to stream hydromodification than does the existing Tier 1 project area. Note that final modeling and sizing may result in additional hydrograph lagging.

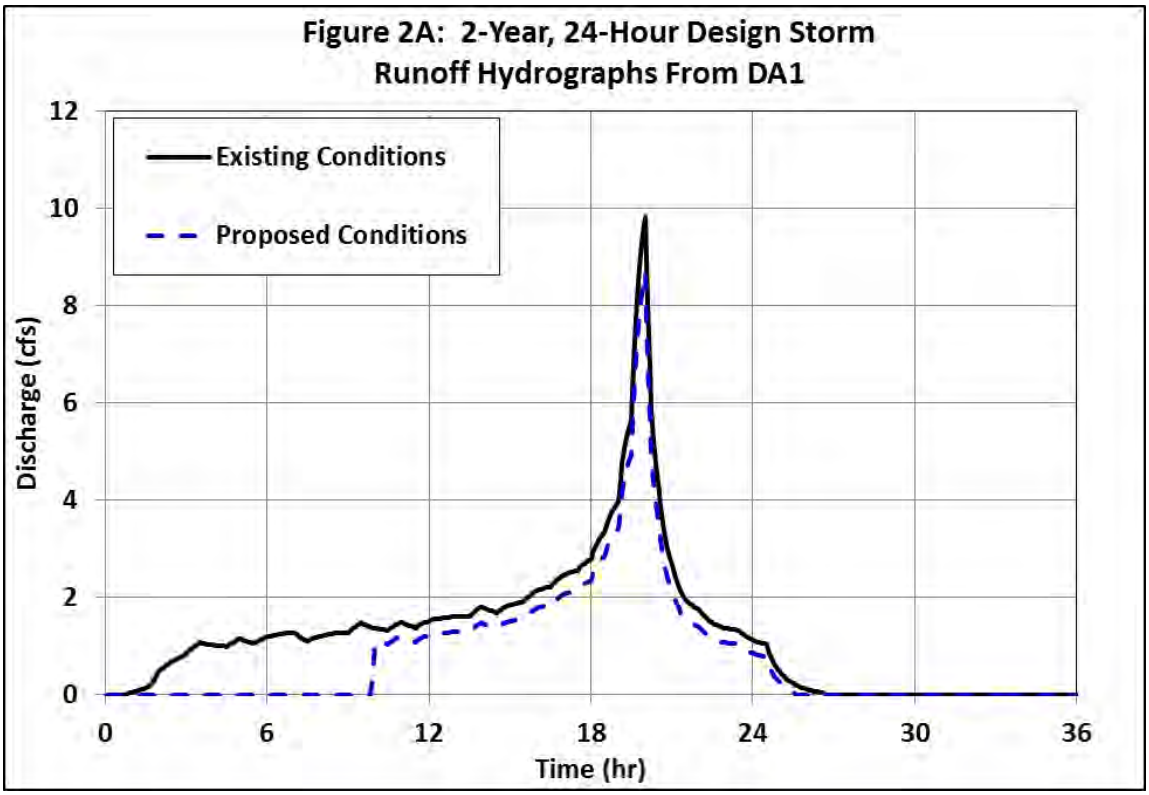


Figure 2A: 2-Year, 24-Hour Design Storm
Runoff Hydrographs From DA1
Existing Conditions
Proposed Conditions
Discharge (cfs)
Time (hr)
0
2
4
6
8
10
12
0
6
12
18
24
30
36

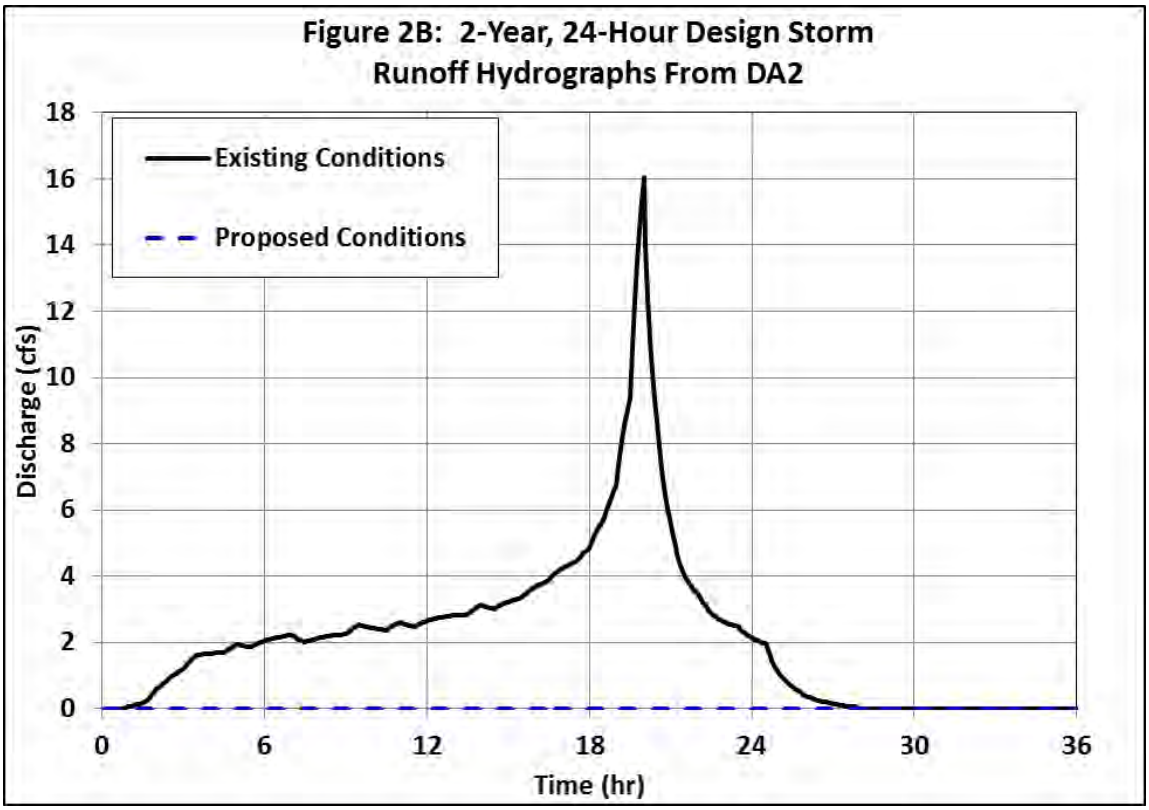


Figure 2B: 2-Year, 24-Hour Design Storm
Runoff Hydrographs From DA2
Existing Conditions
Proposed Conditions
Discharge (cfs)
Time (hr)
0
2
4
6
8
10
12
14
16
18
0
6
12
18
24
30
36

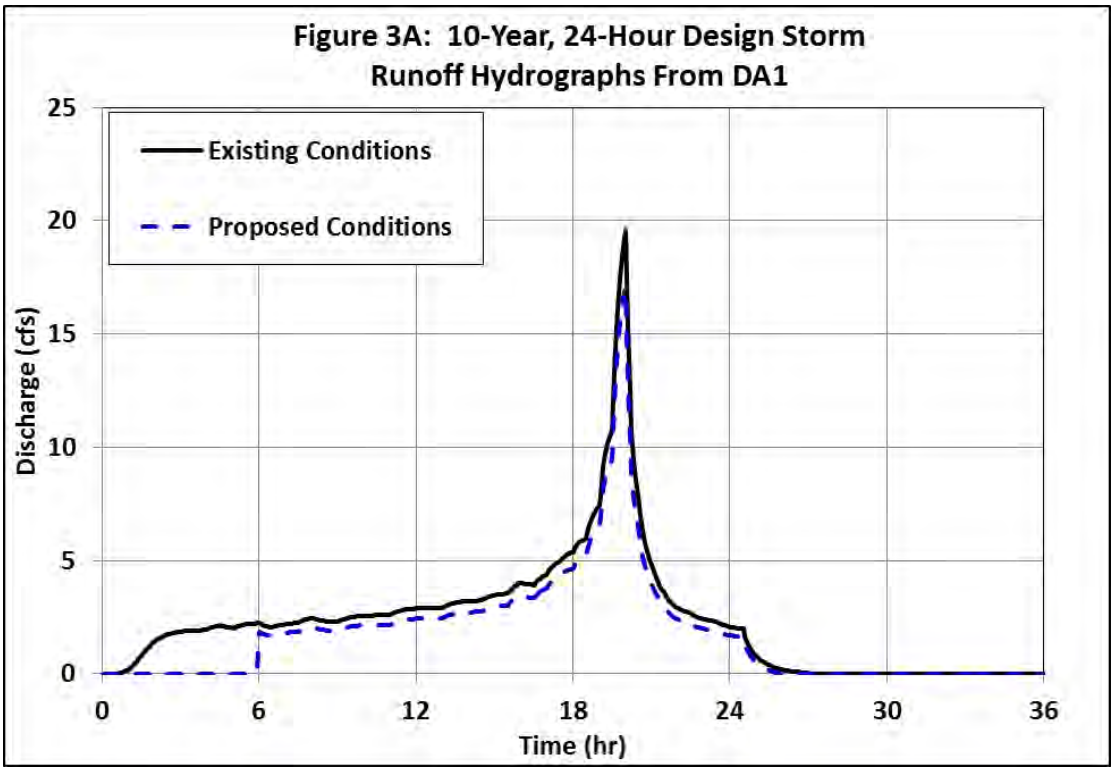


Figure 3A: 10-Year, 24-Hour Design Storm
Runoff Hydrographs From DA1
Existing Conditions
Proposed Conditions
Discharge (cfs)
Time (hr)
0
5
10
15
20
25
0
6
12
18
24
30
36

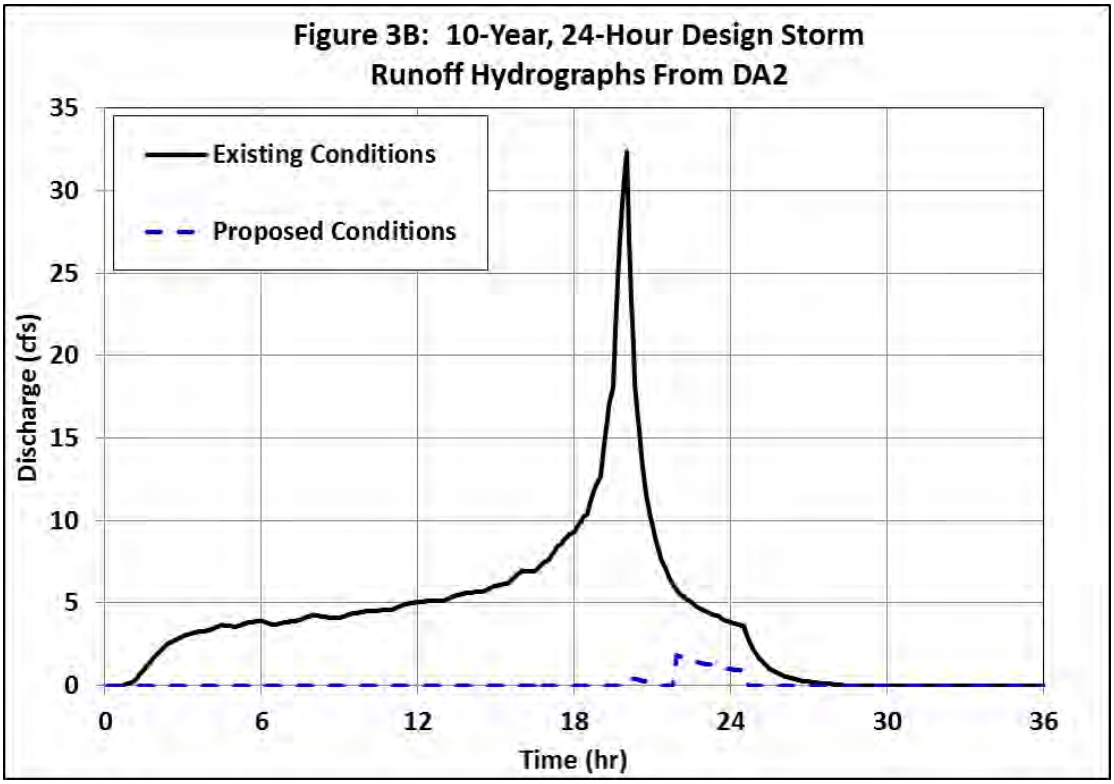


Figure 3B: 10-Year, 24-Hour Design Storm
Runoff Hydrographs From DA2
Existing Conditions
Proposed Conditions
Discharge (cfs)
Time (hr)
0
5
10
15
20
25
30
35
0
6
12
18
24
30
36

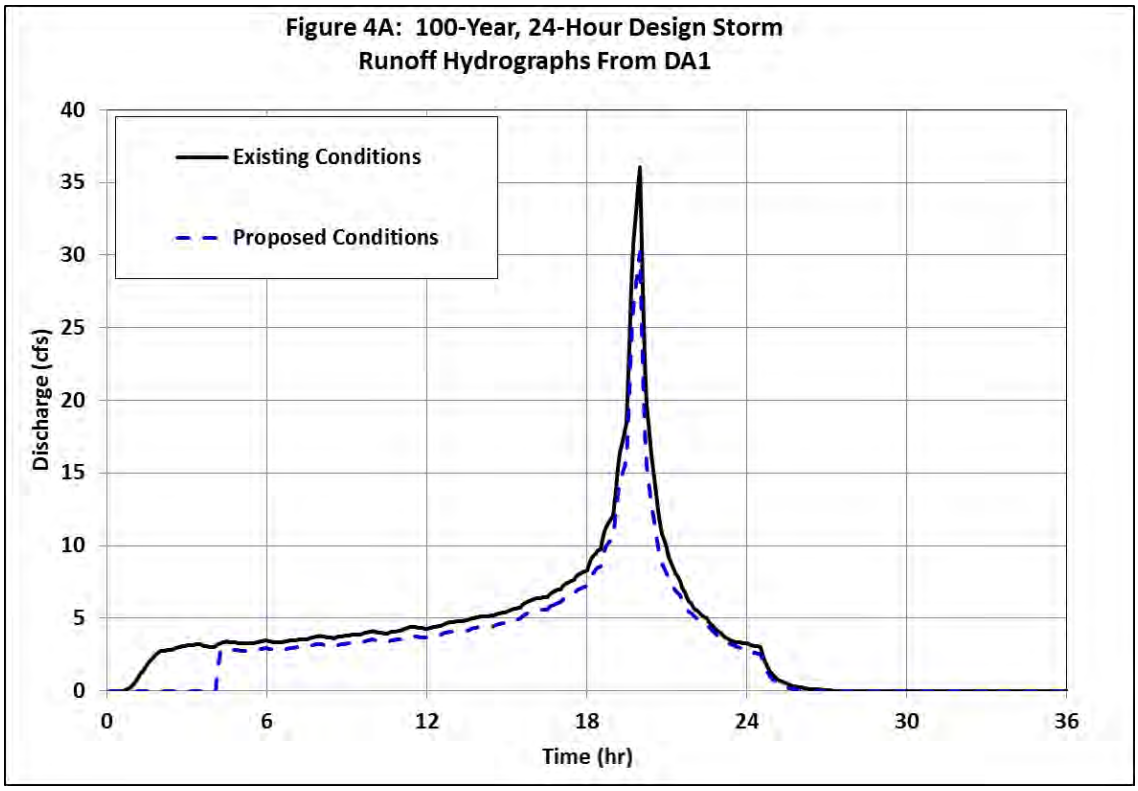


Figure 4A: 100-Year, 24-Hour Design Storm
Runoff Hydrographs From DA1
Existing Conditions
Proposed Conditions
Discharge (cfs)
Time (hr)
0
5
10
15
20
25
30
35
40
0
6
12
18
24
30
36

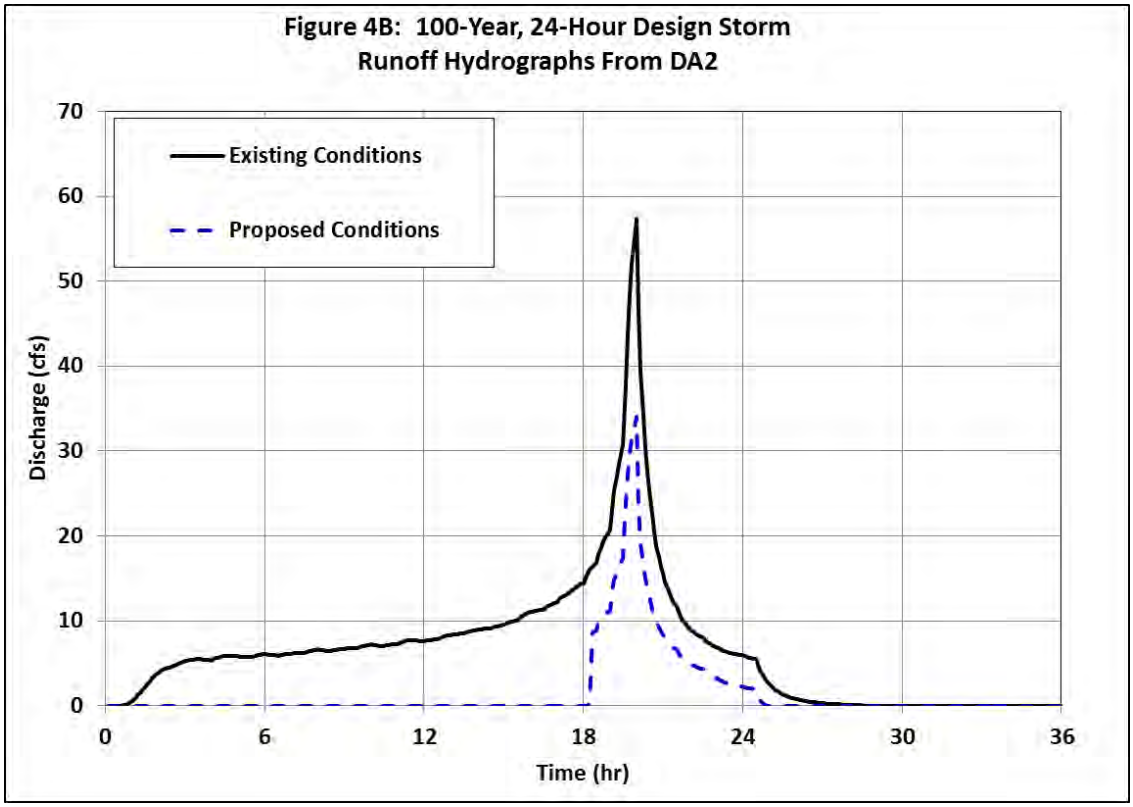


Figure 4B: 100-Year, 24-Hour Design Storm
Runoff Hydrographs From DA2
Existing Conditions
Proposed Conditions
Discharge (cfs)
Time (hr)
0
10
20
30
40
50
60
70
0
6
12
18
24
30
36

Figures 5 through 8 illustrate storage depths within the following layers of the LID feature alternatives at the site:

- 18-inch surface storage layer of bioretention
- 24-inch growing media layer of bioretention (not included in graphs)
- 24-inch gravel (storage reservoir) layer of permeable pavement

While not modeled, dry wells may be substituted for permeable pavement or bioretention in parking lots and is assumed to provide similar performance to meet minimum LID and water quality requirements.

Note that typical assumptions were made regarding the geometric configuration of the LID features (Table 4 of Appendix C). Additionally, assumptions on impervious area treated by the LID feature are listed in Table 3 of Appendix C. During the final design and modeling, it is possible that the hydrologic performance can be improved through changes in geometric configuration of the bioretention and permeable pavement or incorporation of additional LID features. Additionally, the LID features within Tier 1 cover only 2.3-percent of the Tier 1 surface area. Increases in the extent of coverage within Tier 1 will improve the hydrologic and water quality performance of the LID features.

For DA1, the permeable pavement water surface in the drain rock layer reaches a maximum of approximately 8 in in the 2-year event, 10 in in the 10-year event, and about 24 in in the 100-year design storm events. The bioretention surface depth for DA1 is at 18 in with a drain down time of about 41 hours for the 2-year, 10-year event, and 100-year events. Initial storage depths in the permeable pavement gravel storage layer is due to the assumed saturation of 30-percent for the design storm events.

For DA2, the permeable pavement water surface in the drain rock layer also reaches a maximum of approximately 8 in in the 2-year event, 8 in in the 10-year event, and also about 24 in in the 100-year design storm events. The bioretention surface depth for DA2 is about 7 in with a drain down time of about 15 hours for the 2-year, and at 18 in with a drain down time of about 42 hours for the 10-year and 100-year events.

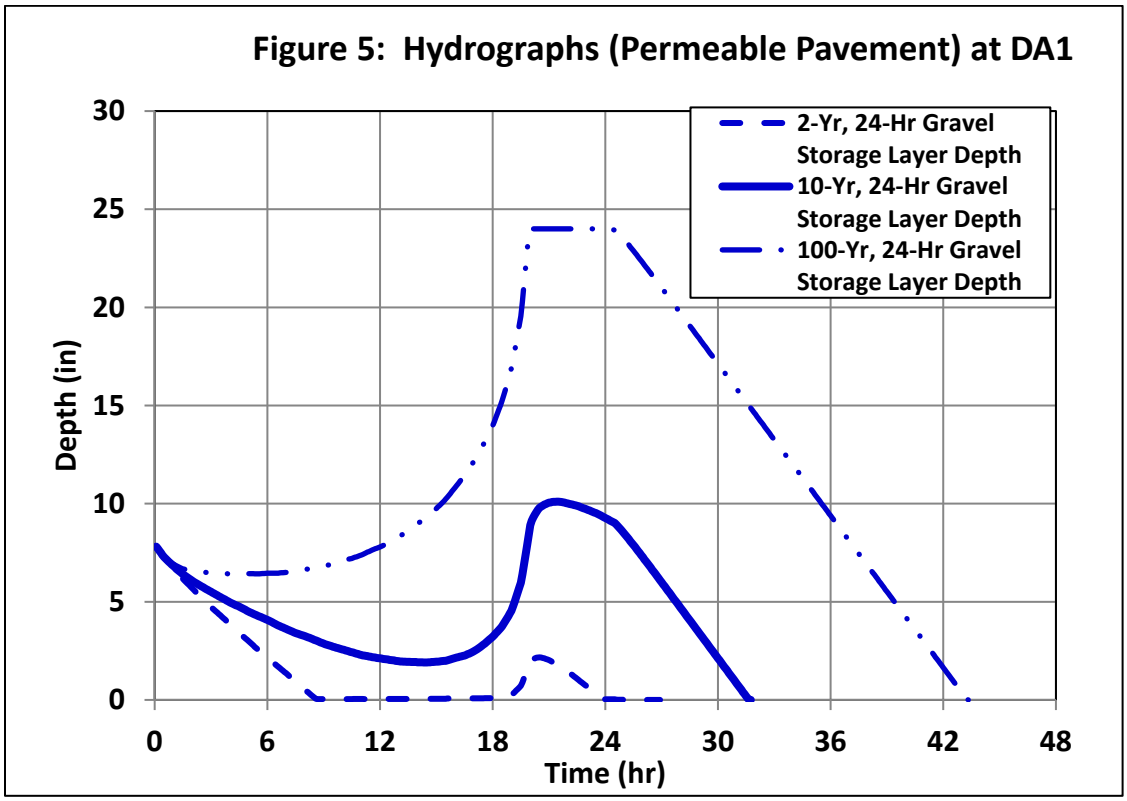


Figure 5: Hydrographs (Permeable Pavement) at DA1
2-Yr, 24-Hr Gravel Storage Layer Depth
10-Yr, 24-Hr Gravel Storage Layer Depth
100-Yr, 24-Hr Gravel Storage Layer Depth
Depth (in)
Time (hr)
0
5
10
15
20
25
30
0
6
12
18
24
30
36
42
48

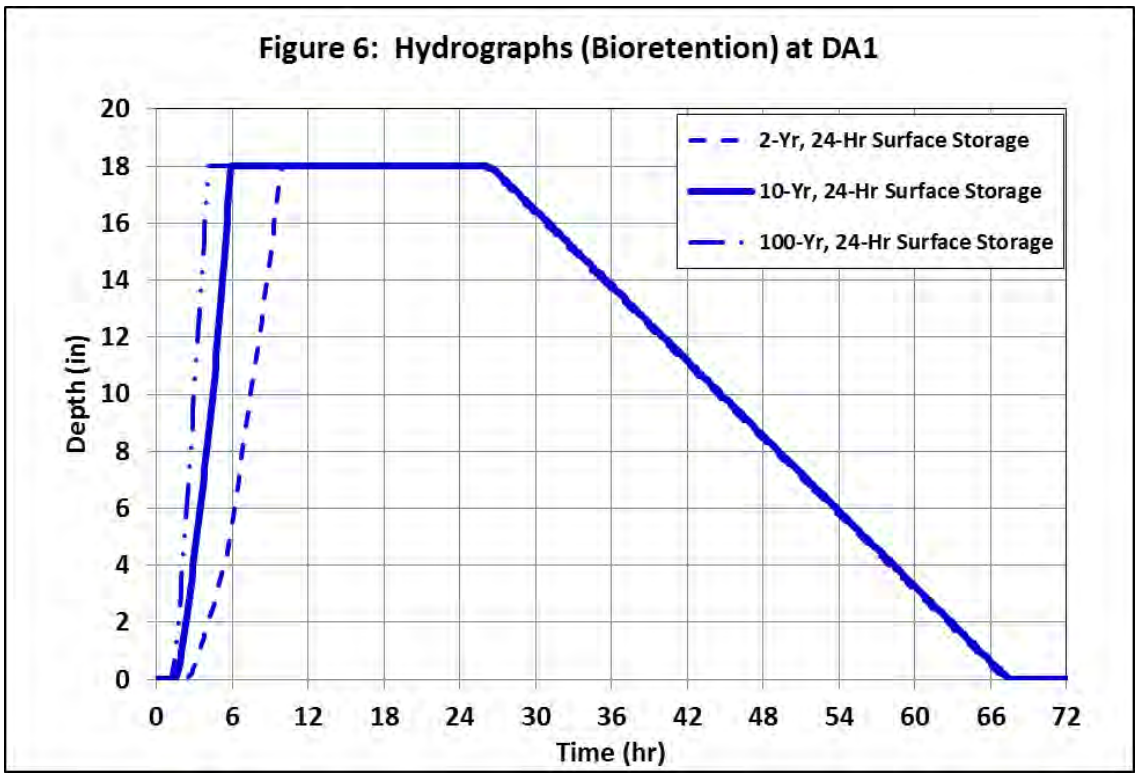


Figure 6: Hydrographs (Bioretention) at DA1
2-Yr, 24-Hr Surface Storage
10-Yr, 24-Hr Surface Storage
100-Yr, 24-Hr Surface Storage
Depth (in)
Time (hr)
0
2
4
6
8
10
12
14
16
18
20
0
6
12
18
24
30
36
42
48
54
60
66
72

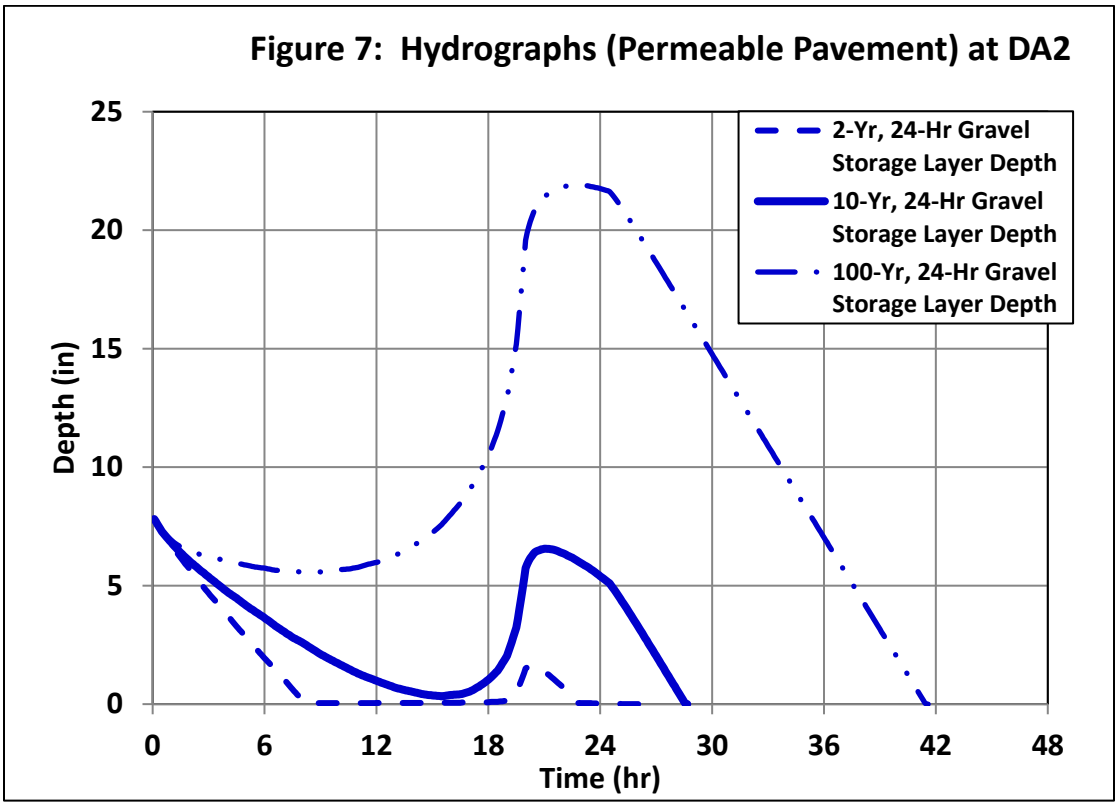


Figure 7: Hydrographs (Permeable Pavement) at DA2
2-Yr, 24-Hr Gravel Storage Layer Depth
10-Yr, 24-Hr Gravel Storage Layer Depth
100-Yr, 24-Hr Gravel Storage Layer Depth
Depth (in)
Time (hr)
0
5
10
15
20
25
0
6
12
18
24
30
36
42
48

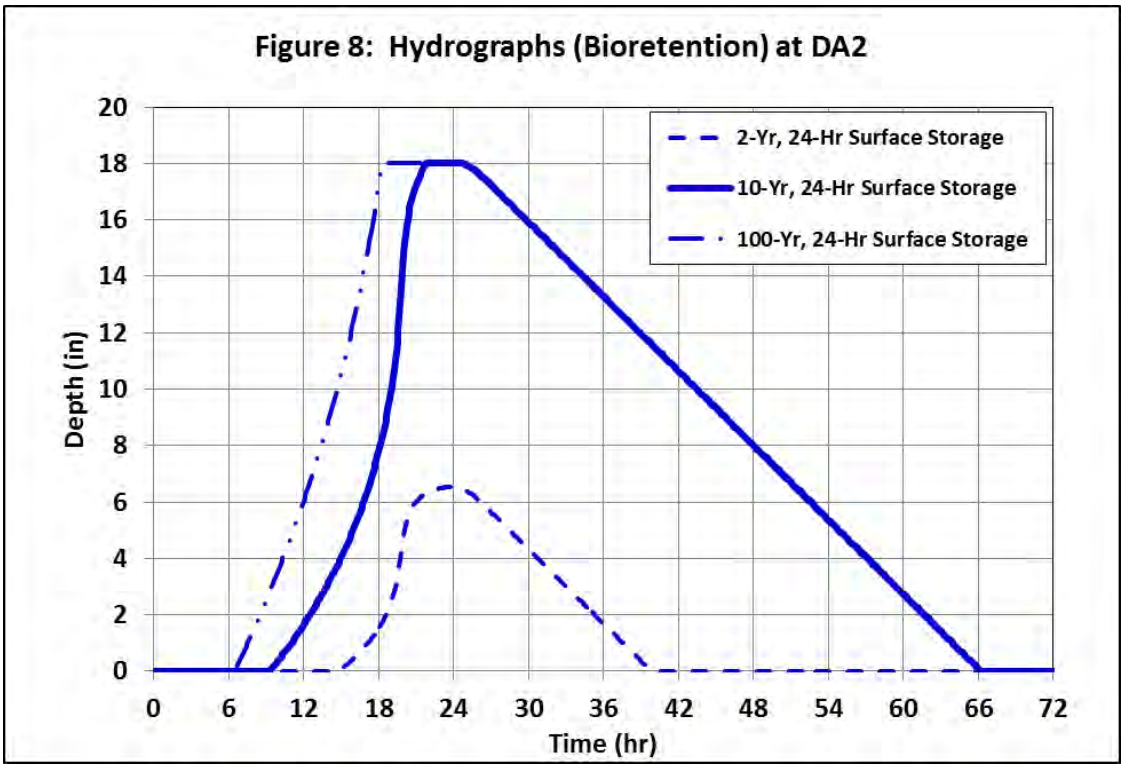
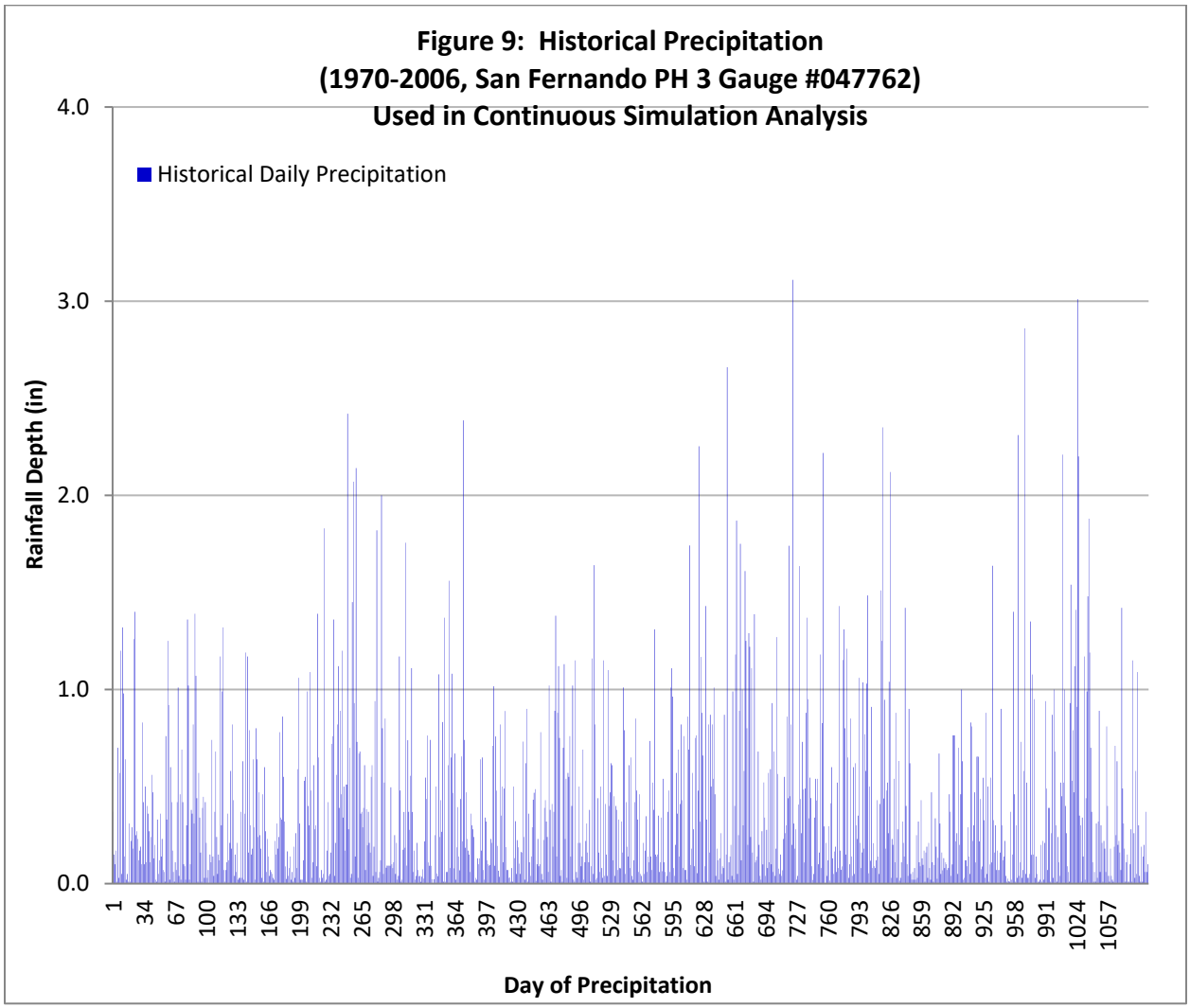


Figure 8: Hydrographs (Bioretention) at DA2
2-Yr, 24-Hr Surface Storage
10-Yr, 24-Hr Surface Storage
100-Yr, 24-Hr Surface Storage
Depth (in)
Time (hr)
0
2
4
6
8
10
12
14
16
18
20
0
6
12
18
24
30
36
42
48
54
60
66
72

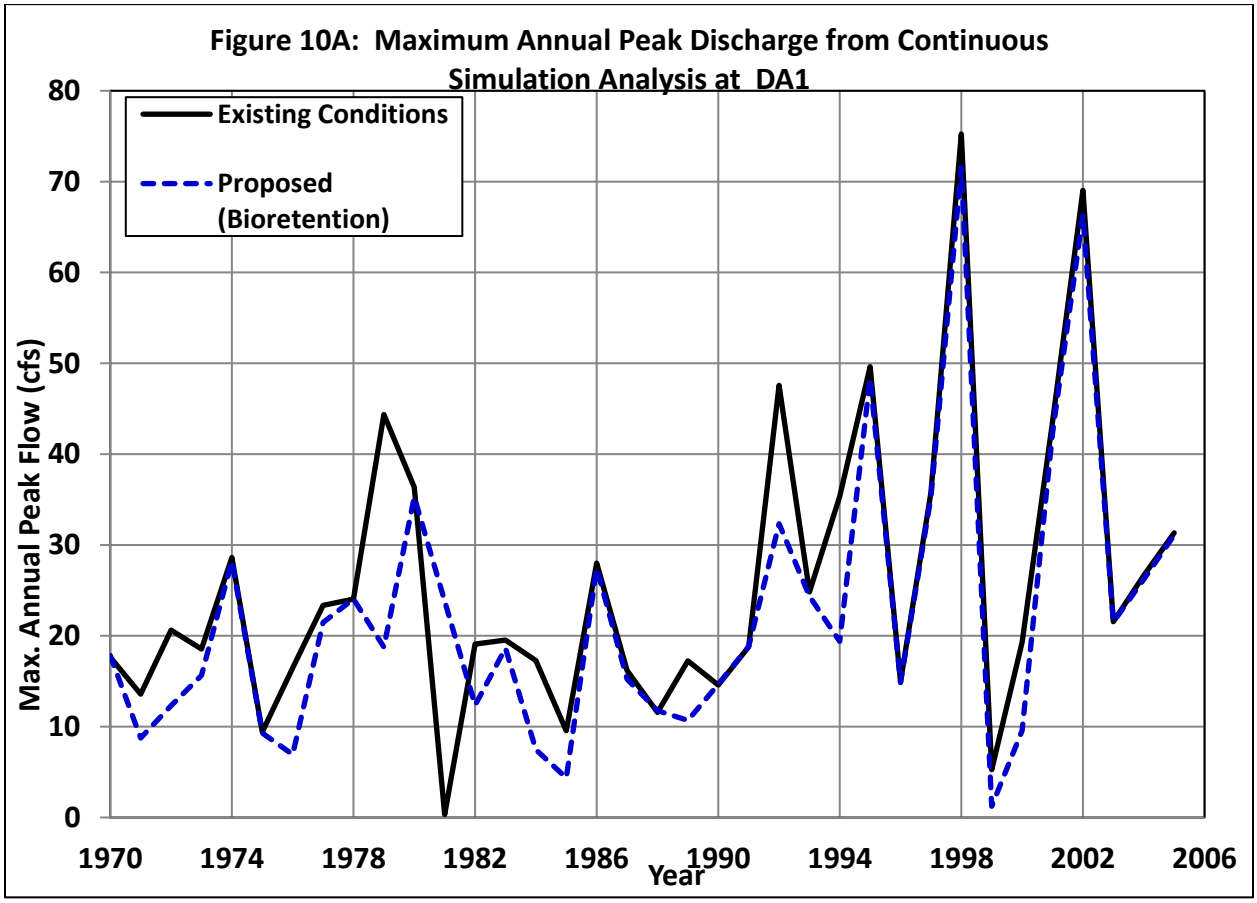
Continuous Simulation Results

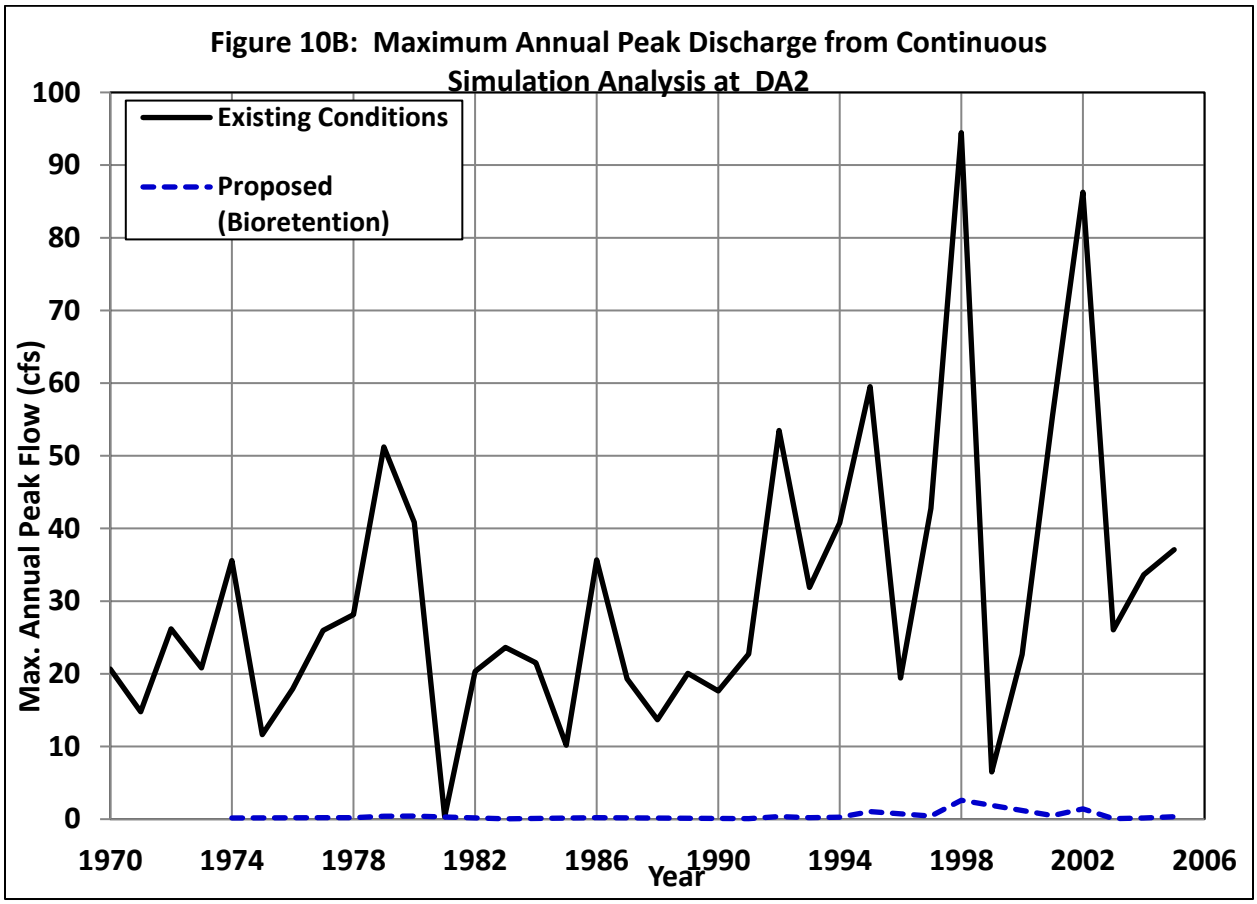
A continuous simulation modeling analysis was performed based on 1970 – 2006 rainfall data obtained from the U.S. EPA's National Stormwater Calculator for the San Fernando Ph 3 gauge, which is located in closest proximity to the site. Average monthly evaporation data is used from Northridge California State gauge. Figure 9 illustrates historical daily rainfall depths during the period of record from 1970 – 2006 recorded at the San Fernando Ph 3 gauge. Days without rain are not shown on this graph and an anomaly of 9.148 on 2/28/1983 23:00 was deleted, as the value is assumed to be an error. Based on a comparison with other regional gauges, it was assumed that rainfall did not occur at this time. While hourly data is used in the continuous simulation modeling analysis, daily events are summarized in this figure.



Tables 6A and 6B in Appendix C includes water balance results for the continuous simulation analysis and summarizes infiltration, runoff, evapotranspiration, and precipitation for DA1 and DA2. During the simulated time-period, 422.25 in of rain occurred. Proposed LID conditions runoff at the site is reduced by 5% as compared to existing conditions for DA1 and reduced 97% for DA2.

Annual maximum peak discharges from the Olive View – UCLA Tier 1 site are depicted in Figure 10A and 10B for the DA1 and DA2 drainage areas. For the entire period of analysis, maximum annual discharges from the site are less than or equal to existing discharges from the site during the period of record between 1970 and 2006. Note that the actual results may change somewhat during final design and modeling depending on the final extent and configuration of LID features and impervious cover within the site.





Figures 11A and 11B graphically illustrates runoff in existing and proposed conditions for Tier 1 within the in DA1 and DA2 drainage areas. Note that the day of runoff (x-axis) is for each event and that the days do not correlate for each event. While, there are additional days of runoff from the proposed alternatives, this is due to the delayed discharge from the various layers of the LID features. The general pattern is that proposed LID peak discharges are less than existing peak discharges.

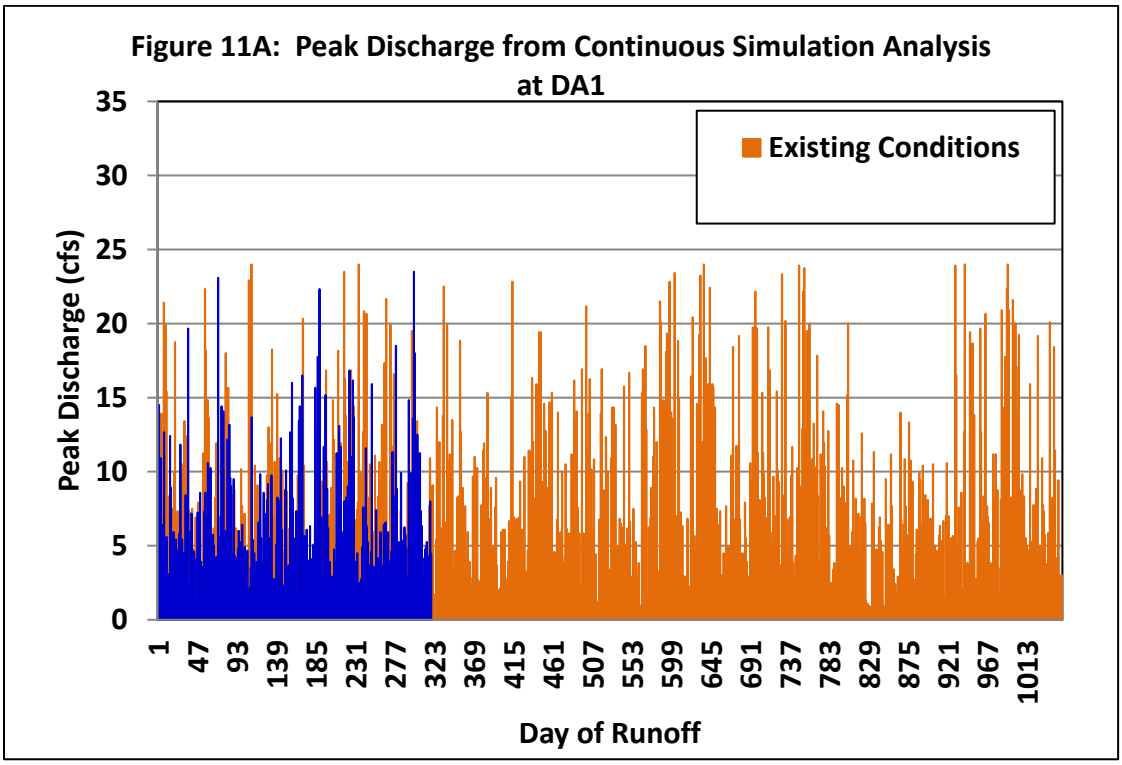


Figure 11A: Peak Discharge from Continuous Simulation Analysis at DA1
Existing Conditions
Peak Discharge (cfs)
35
30
25
20
15
10
5
0
1
47
93
139
185
231
277
323
369
415
461
507
553
599
645
691
737
783
829
875
921
967
1013
Day of Runoff

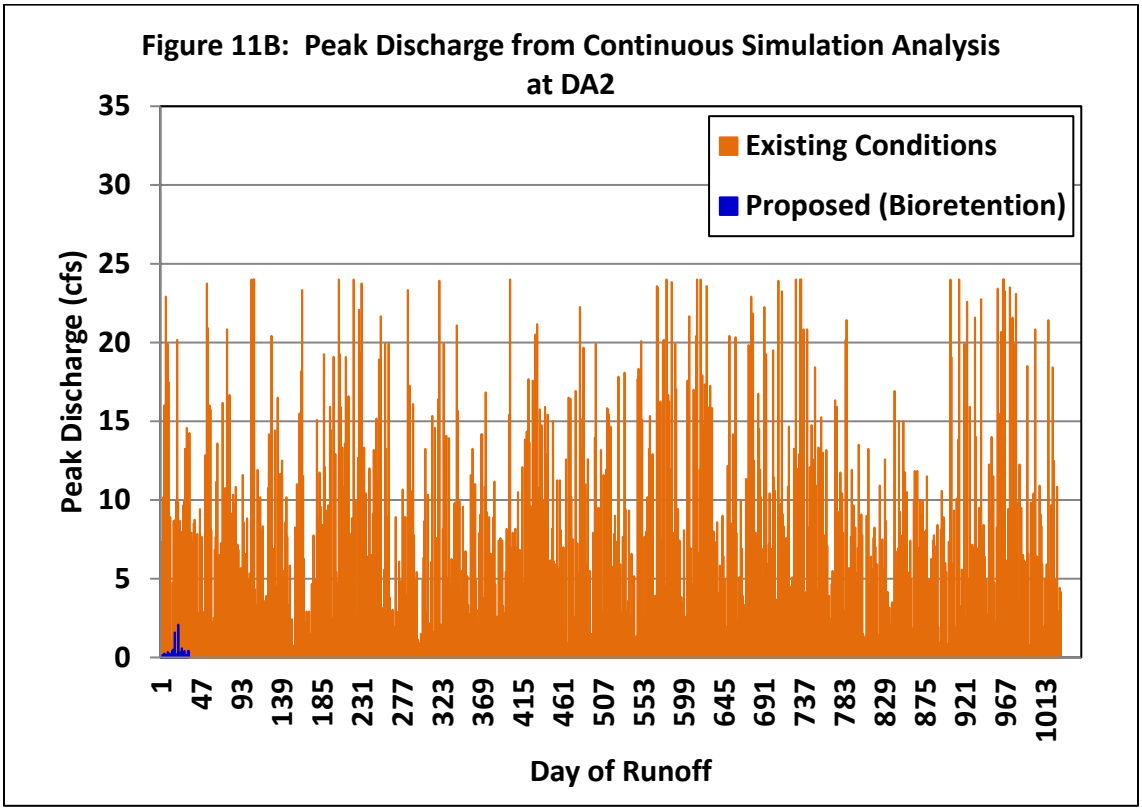
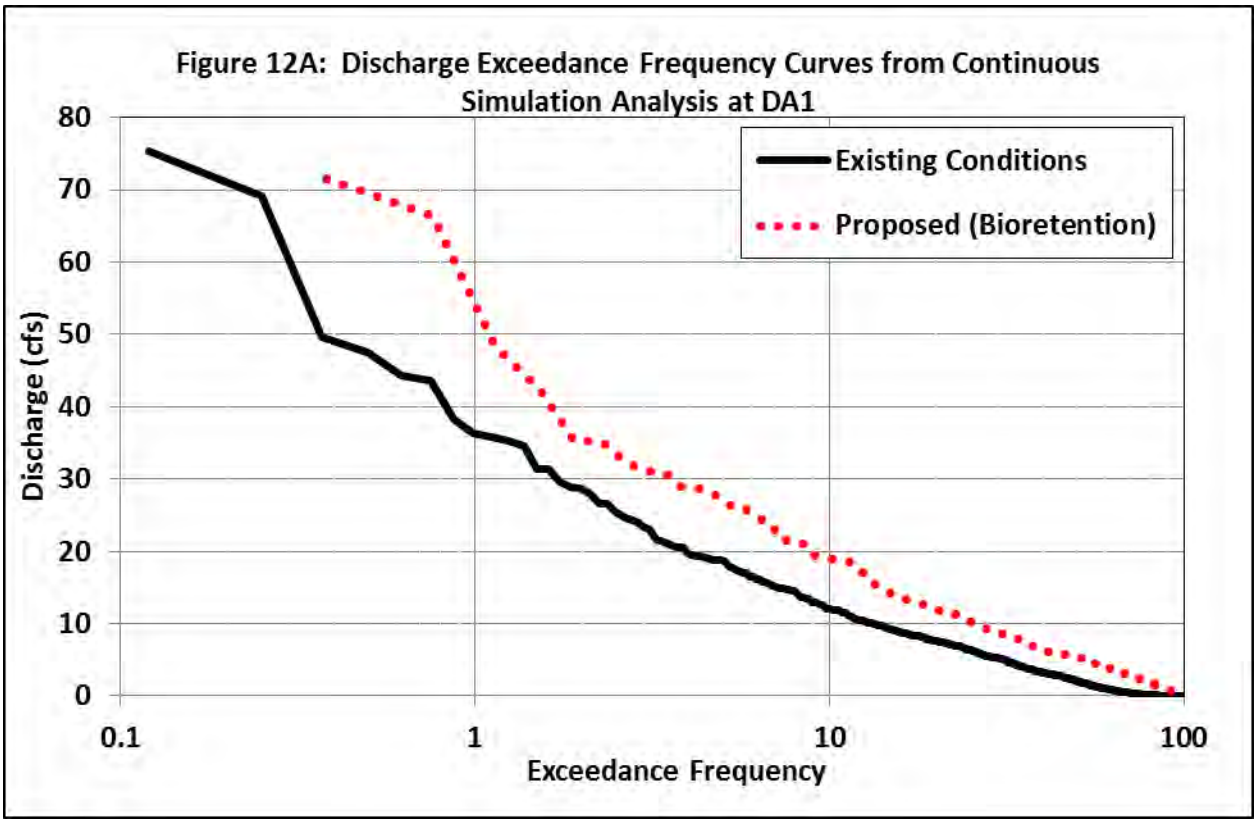


Figure 11B: Peak Discharge from Continuous Simulation Analysis at DA2
Existing Conditions
Proposed (Bioretention)
Peak Discharge (cfs)
35
30
25
20
15
10
5
0
1
47
93
139
185
231
277
323
369
415
461
507
553
599
645
691
737
783
829
875
921
967
1013
Day of Runoff

While a full hydromodification hydrology and hydraulics (HEC-RAS) frequency analysis is beyond the scope of this study, peak discharge impacts in the two-, ten-, and 100-year events are evaluated in the design storm section and continuous simulation modeling results are evaluated for maximum annual peak discharges and exceedance frequency curves. Additionally, the final design is required to comply with hydromodification hydrology and hydraulics (HEC-RAS) analyses for multiple design storm events (two-, five-, ten-, 25-, and 50-year) as specified in the City's *LID Handbook*.

Discharge exceedance frequency curves and flow duration graphs are provided in Figures 12A and 13A for DA1, and 12B and 13B for DA2. As illustrated in the discharge exceedance frequency curves, proposed LID conditions flows from the site are equal or less than existing conditions for the range of events contained within the historical 1970 – 2006 rainfall data from the San Fernando Ph 3 gauge for DA2. For DA1, the range of flows exceed the existing conditions discharge rates. However, the receiving system (Wilson Canyon Drain) is concrete-lined and hydromodification is not anticipated within that system. For the flow duration curves, the proposed LID conditions flow durations are generally less than existing conditions except for extreme events in excess of the 100-year event for DA1 due to the increased infiltration provided in the Tier 1 development in proposed conditions.



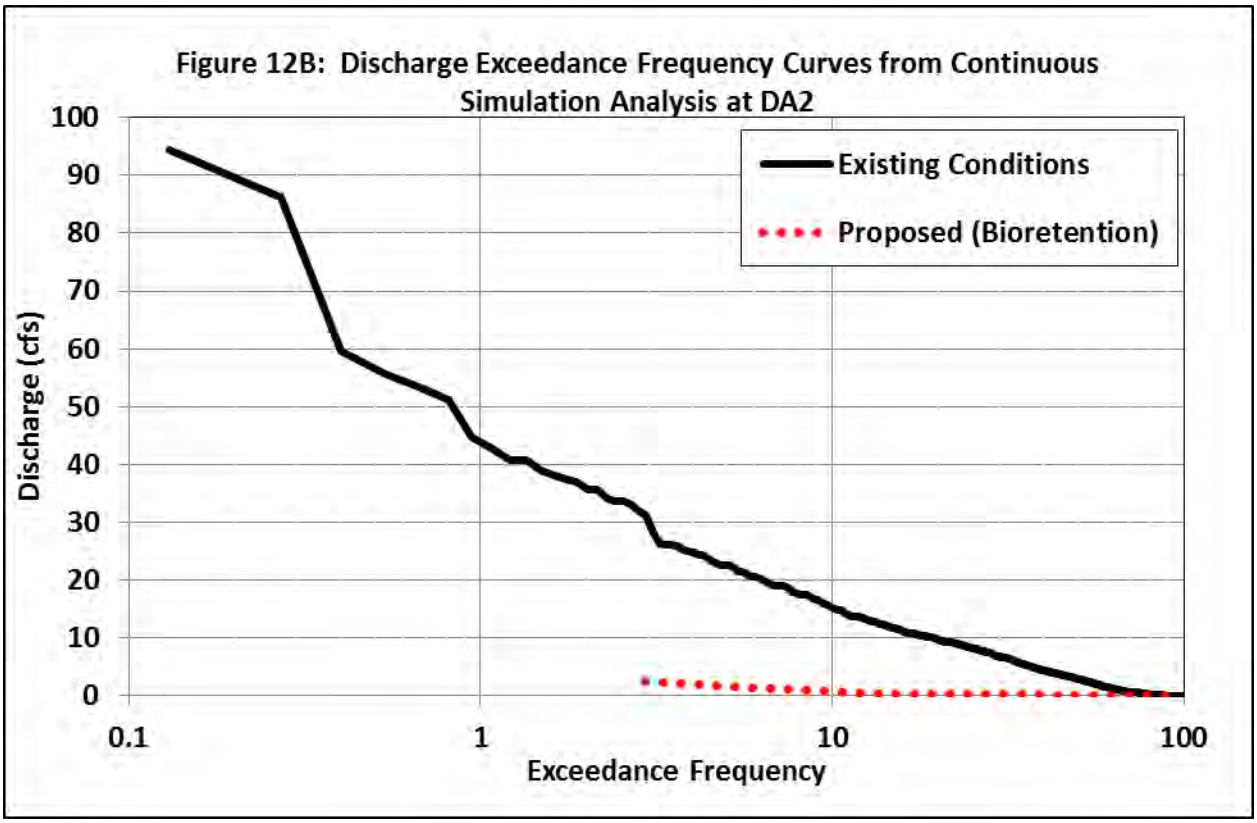


Figure 12B: Discharge Exceedance Frequency Curves from Continuous Simulation Analysis at DA2
Existing Conditions
Proposed (Bioretention)
Discharge (cfs)
100
90
80
70
60
50
40
30
20
10
0
0.1
1
10
100
Exceedance Frequency

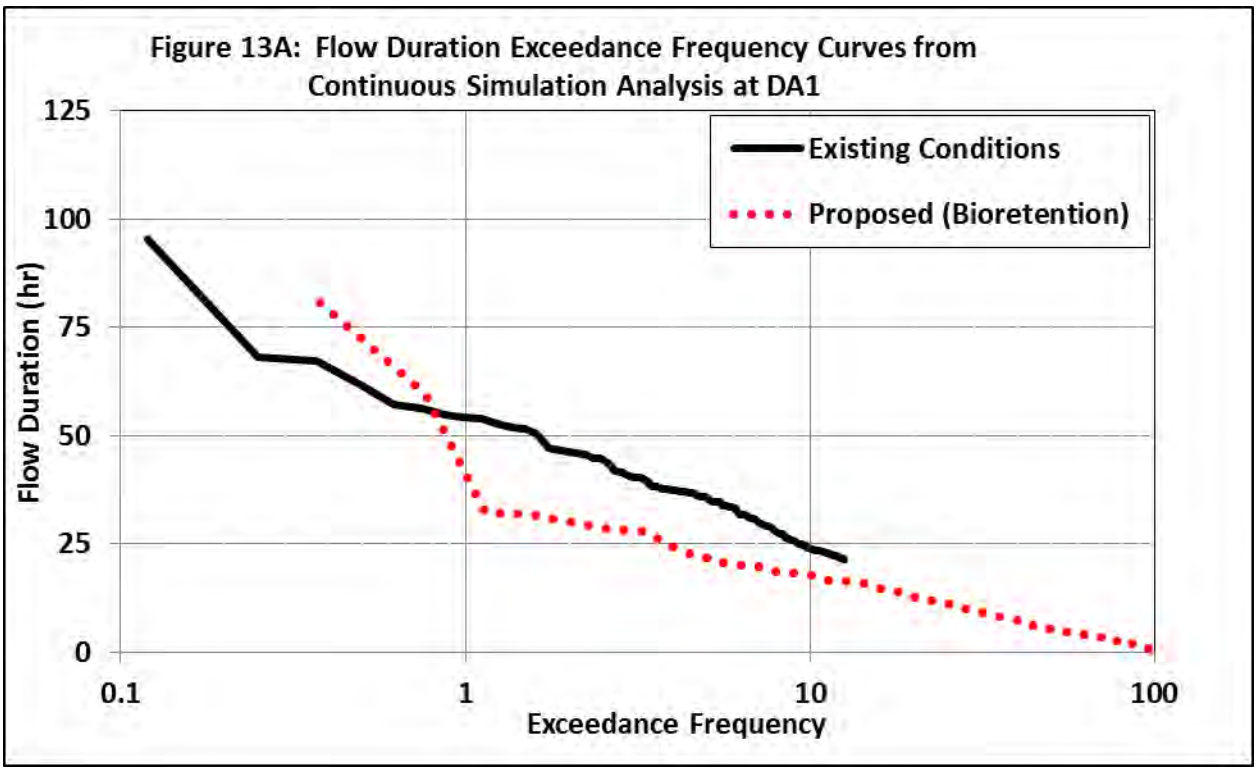
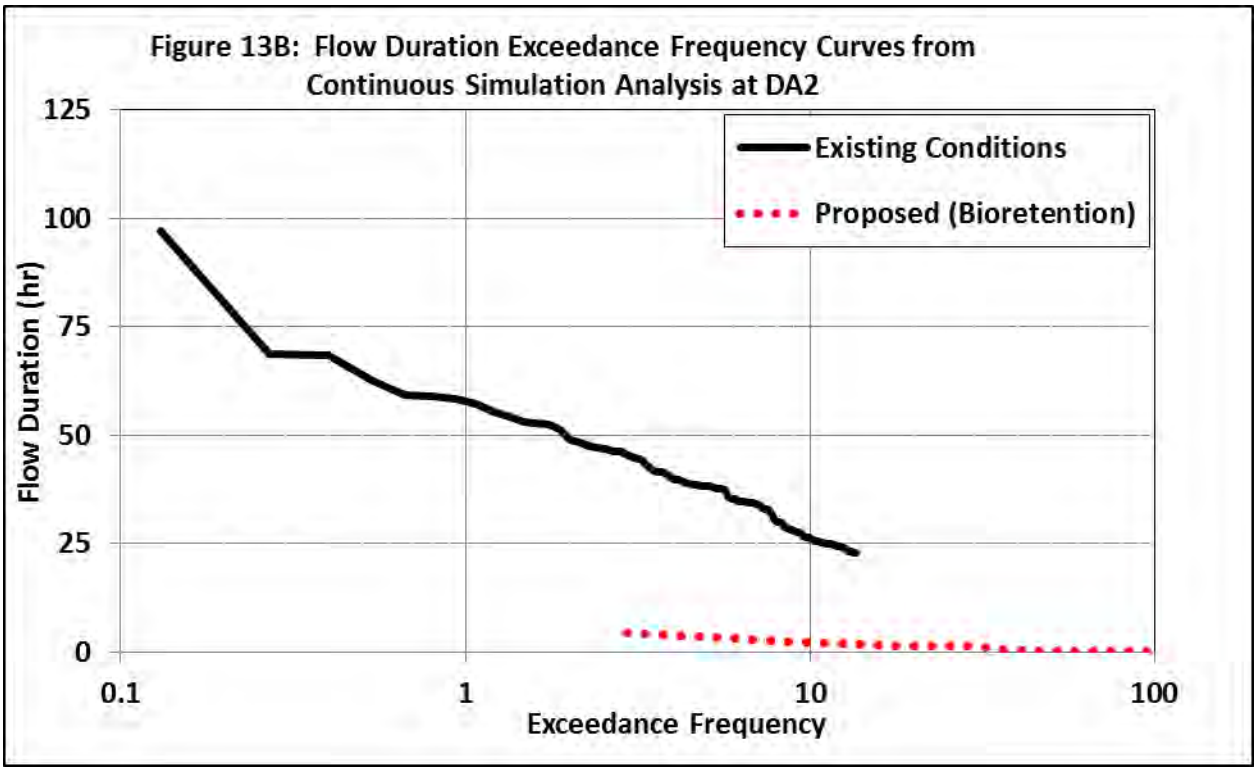


Figure 13A: Flow Duration Exceedance Frequency Curves from Continuous Simulation Analysis at DA1
Existing Conditions
Proposed (Bioretention)
Flow Duration (hr)
125
100
75
50
25
0
0.1
1
10
100
Exceedance Frequency



WATER QUALITY ANALYSIS

Development of the Olive View – UCLA site is anticipated to change the pollutant loading from the site into the receiving waters and mitigation is needed to maintain pollutant loads from the site at or below existing conditions and to meet County of Los Angeles water quality requirements. As described above, LID features are planned to mitigate hydrologic and water quality impacts from the site. This section includes discussions on pollutant removal performance of LID, water quality methodology, and water quality modeling results.

Pollutant Removal Performance of LID

The most significant water quality benefit of LID is removal of stormwater runoff from the storm drain system or receiving waters. The first flush of stormwater runoff during a rainfall event typically contains higher concentrations of pollutants than later rainfall. By directing this runoff through LID features and providing retention, infiltration into the various layers of the LID feature and/or the native soils below the LID, and evapotranspiration, the pollutants do not reach the receiving body of water.

Other pollutant removal processes achieved through LID include physical, chemical, and biological processes. Physical processes include filtering of sediment and pollutants, such as metals absorbed to the sediment. Degradation of fecal coliform bacteria also occurs by drying out and exposure to ultraviolet (UV) light from sun exposure. Biological processes include bioremediation and biodegradation. For example, hydrocarbons may be broken down by soil microorganisms through the process of bioremediation.

Phytoremediation, or pollutant removal by plants, includes pollutant uptake into and bioaccumulation within the plants, release of some pollutants from plants into the atmosphere, and breakdown of pollutants at the soil-plant root interface. For the latter process, mycorrhizal fungi play an important role by attaching to the roots and extending microfilaments into the soil, which significantly increases the functional surface area of plant roots. Because native, or indigenous, plants have evolved to the unique microclimate of an area and typically have deeper roots and greater levels of mycorrhizal fungi, incorporating these elements into LID may represent an increased opportunity for carbon sequestration in mitigating climate change.

The water quality benefits of LID are well documented with regards to TSS, fecal coliform bacteria, metals, hydrocarbons, and other pollutants. LID is also effective at removing nutrients (N and P) provided that background levels in the native soil and growing media are not excessive. Nitrate (NO_3) removal through LID requires specific design modifications to create anaerobic conditions and an energy source (Carbon) required for denitrification.

While the actual pollutant removal performance of LID features varies with pollutant loading, contributing drainage area, magnitude of rainfall event, antecedent moisture conditions, and specific design, typical pollutant removal rates are listed in Table 8 below. Table 7 in Appendix C includes event mean concentration (EMC) values for modeled pollutants for pre-project and post-project land use at the Olive View – UCLA site. The specific pollutant removal rates for the various proposed LID features used in the SWMM modeling are in Table 8 in Appendix C. Additionally, nutrient removal rates may vary substantially due to potential for leaching from growing media and/or underlying soil as well as specific anaerobic conditions required for denitrification required to remove nitrate (NO_3). See Appendix C for all tables of hydrology and water quality modeling data and results.

TABLE 8: TYPICAL POLLUTANT REMOVAL RATES[1] FOR LID FEATURES

LID Features	Pollutant Percent Removal				
	TSS	Nitrogen	Phosphorus	Bacteria	Heavy Metals
Detention Basin (dry)[4]	30-65	13-45	15-45	<30	15-45
Retention Basin[4]	50-80	30-65	30-65	<30	50-80
Constructed Wetlands[4]	50-80	<30	15-45	<30	50-80

LID Features	Pollutant Percent Removal				
	TSS	Nitrogen	Phosphorus	Bacteria	Heavy Metals
Infiltration Basin[4]	50-80	50-80	50-80	65-100	50-80
Infiltration Trench/Dry Wells[4]	50-80	50-80	15-45	65-100	50-80
Permeable Pavement[4]	65-100	65-100	30-65	65-100	65-100
Swales[4]	30-65	15-45	15-45	<30	15-45
Vegetated Filter Strips[4]	50-80	50-80	50-80	<30	30-65
Bioretention[3,5]	85[5]	32-99[3]	72[5]	70-92[3]	54-99[3]

[1]Ranges varying with particle size, pollutant loading and site conditions.
[2]Bioretention rates anticipated to be applicable for Rain Gardens as well.
[3]From selected field and laboratory studies summarized in *Bioretention Technology: Overview of Current Practice and Future Needs* by Davis, Hunt, Traver, and Clar in March, 2009 Journal of Environmental Engineering.
[4]LID percent removal numbers were obtained from the U.S. EPA *Handbook Urban Runoff and Pollution Prevention Planning.*
[5]National Pollutant Removal Database/Other Sources Summarized by *Cost and Pollutant Removal of Storm-water Treatment Practices by* Weiss, Gulliver, and Erickson in May/June, 2007 *ASCE Journal of Water Resources Planning and Management*,

Los Angeles County Water Quality Requirements

The proposed LID features are also planned to meet requirements in the County of Los Angeles Department of Public Works, *Low Impact Development Standards Manual.* The goal of the LID features is to provide stormwater quality benefits and more closely mimic undeveloped site hydrology. LID features are required to retain 100-percent of the stormwater quality design volume (SWQDv) on-site through a combination of infiltration, evapotranspiration, and stormwater harvest and use unless it is demonstrated that it is technically infeasible to do so.

The proposed LID features are infiltration systems. If possible, the Tier 1 LID features should be located outside of the area of liquefaction or mitigation measures should be included within the structural design of the LID features. Additionally, infiltration testing is needed prior to the final design to determine the saturated hydraulic conductivity rate at the site in the areas LID features are proposed as the values used in this study are estimated from standard soils tables.

For this project, the SWQDv is approximately 0.75 in which is the 85th percentile, 24-hour event obtained from the County of Los Angeles Department of Public Works *LID Handbook* for the project site location. Based on the LID features illustrated in the *Master Plan* (Appendix G) and

assumed configurations documented in Table 4 in Appendix C, the proposed Tier 1 LID features seem adequate to meet SWQDv (Table 4A, Appendix C). The total storage provided within bioretention is estimated at 4.3 acre-feet (ac-ft), while the required SWQDv is calculated at 2.1 ac-ft. With the addition of the permeable pavement gravel storage layer, there is an additional 2.8 ac-ft of storage, or 7.1 ac-ft total.

Additional LID features are not needed to meet requirements. Additionally, note that retention, harvest and use on-site, or infiltration must be provided for the total SWQDv and the size and configuration of the LID features may need to be modified to meet this requirement. Regardless, the proposed site will be required to meet SWQDv requirements and the LID extent may be revised as needed during the Tier 1 and Tier 2 phases of development.

Water Quality Modeling Methodology

Pollutants selected and modeled for this report were based on the EPA's 303(d) list of pollutants of concern, those pollutants requiring a TMDL and pollutants of concern that were measured in previous Los Angeles River watershed studies. The most common of the pollutants with available data for pollutant loads from commercial/retail and open space/vacant land use as well as available LID pollutant removal rates were selected for modeling. The following pollutants were modeled in the EPA SWMM model of the UCLA-Olive site:

- total suspended solids (TSS);
- total nitrogen;
- total copper;
- total lead;
- total zinc;
- fecal coliform.

While selenium was listed as a pollutant of concern for the Los Angeles River, it was assumed that it would be similar to other metals modeled in this report as data was not readily available on removal rates. While trash is also a pollutant of concern with a TMDL for the Los Angeles River, changes in trash generation are not expected between pre- and post-construction. Additionally, data is not readily available on trash removal rates and generation rates.

Table 9 below lists the Event Mean Concentration (EMC) and Table 10 lists the pollutant percent removal values for each pollutant modeled included in the water quality analysis. Both the two-year design storm event and the 37-year continuous simulation modeling runs were used for the water quality analysis. While representative, the two-year event is larger than the "water quality" event, and may overestimate pollutant loading that would occur in the "water quality" event. The two-year rainfall event is 2.83 in in the project area at the Olive View – UCLA site, which is significantly larger than the 0.75-inch depth water quality event indicated in the June, 2011 County of Los Angeles *LID Manual.*

TABLE 9: PRE-PROJECT AND POST-PROJECTEVENT MEAN CONCENTRATION VALUES

Pollutant	Retail/ Commercial	Open/Non-Urban
Total Suspended Solids (TSS) (mg/L)	67.4 [1]	70 [2]
Total Nitrogen (µg/l)	3.4 [1]	0.97 [2]
Total Copper (µg/l)	34.8 [1]	9.1 [1]
Total Lead (µg/l)	11.5 [2]	30 [2]
Total Zinc (µg/l)	238.5 [1]	195 [2]
Fecal Coliform (MPN/L)	10,716,565 [1]	21,748 [1]

[1]Event Mean Concentration (EMC) values are from Table 7, *The Green Visions Plan* for 21st Century Southern California, 2006.
[2]EMC values are from Table 4-1, the EPA Guide to Urban Stormwater Pollutant Concentrations, 2006.
[3]Modeled washoff exponent = 1.0 for all pollutants

TABLE 10: POLLUTANT REMOVAL BY TIER 1 LID FEATURES

Pollutant	% Removal	
	Bioretention[1]	Permeable Pavement[1,2]
Total Suspended Solids (TSS)	85	91
Total Nitrogen	40	27
Total Copper	66	42
Total Lead	63	74
Total Zinc	68	81
Fecal Coliform	81	82.5

[1]Removal rates for bioretention and permeable pavement, except for fecal coliform for permeable pavement, are based on The Green Visions Plan for 21st Century Southern California prepared by the University of Southern California, dated April, 2006.
[2]Fecal coliform removal rates for permeable pavement were obtained from the average value included the U.S. EPA Handbook Urban Runoff and Pollution Prevention Planning.

Water Quality Modeling Results

Tables 9A and 9B in Appendix C shows the pollutant effluent concentrations from the site with proposed conditions compared to the concentrations associated with existing conditions for the two modeled drainage areas. For DA1, TSS decreases are 92-percent lower in the two-year event and 96-percent less in the continuous simulation. Nitrogen is 57-percent less in the two-year event and 76-percent less annually. Copper is 69-percent less in the two-year event and 82-percent less annually. Lead is 78-percent less in the two-year event and 87-percent less annually. Zinc is 85-percent less in the two-year event and 91-percent less annually. Fecal Coliform has a 7-percent decrease in proposed conditions for the two-year event, and decreases 8-percent annually

For DA2, TSS, Nitrogen, Copper, Lead, and Zinc decreases 100-percent in both the two-year and annual events. Fecal Coliform has a 130-percent decrease in proposed conditions for the two-year event, and decreases 28-percent annually

IMPACTS ANALYSIS

Methods

The following analysis evaluates potential hydrology and water quality impacts that could result from implementation of the proposed project. It assesses impacts as compared to existing conditions and determines whether they would exceed any of the thresholds listed below. The potential for Tier 1 impacts is evaluated in detail and the potential for Tier 2 impacts is evaluated on a conceptual level due to the longer time-frame for Tier 2 improvements.

Thresholds of Significance

For the purposes of the analysis in this EIR, and in accordance with Appendix G of the State California Environmental Quality Act (CEQA) Guidelines, the proposed project would have a significant environmental impact if it would:

HYD-1 Violate any water quality standards or waste discharge requirements.

HYD-2 Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted).

HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site.

HYD-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site.

HYD-5 Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
HYD-6 Otherwise substantially degrade water quality.
HYD-7 Contribute to inundation by seiche, tsunami, or mudflow.
HYD-8 Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam.
HYD-9 Place housing within a 100-year flood hazard area, as mapped on a Federal Flood Hazard Boundary Map or Flood Insurance Rate Map or other flood hazard delineation map.
HYD-10 Place within a 100-year flood hazard area structures that would impede or redirect flood flows.

IMPACTS AND MITIGATION MEASURES

Impact HYD-1: Would the Proposed Project Violate Any Water Quality Standards or Waste Discharge Requirements?

Construction

The Tier 1 proposed project site soil is predominantly Hanford fine sandy loam with a zone of Hanford gravelly sandy loam in the eastern corner (Exhibit 8). The soil is underlain by poorly consolidated alluvium (Ninyo and Moore Prelim Geotech). Both the soils and the underlying geology are susceptible to erosion. Slopes along the northern edge of the proposed Tier 1 project site range from approximately 5 to 13%, further increasing the site susceptibility to erosion (Exhibit 4). The Tier 2 proposed project site has similar slopes and soils as Tier 1.

During construction, site grading activities and exposed surfaces could cause erosion, temporarily increasing the amount of suspended solids in sheet flow or runoff, which would enter the storm drain system. However, the proposed project would be required to obtain and comply with the Construction General Permit from the SWRCB. This permit and associated NPDES requirements include development and implementation of a SWPPP, with associated monitoring and reporting. Stormwater BMPs are required to limit erosion, minimize sedimentation, and control stormwater runoff water quality during construction activities. Additional source-control BMPs would also be required to prevent runoff contamination by potentially hazardous materials and eliminate non-stormwater discharges.

Compliance with the Construction General Permit, SWPPP, NPDES requirements, and local regulations that require construction-phase BMPs would ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters.

Construction-related activities could include the use of materials such as fuels, lubricating fluids, solvents, and other materials that could result in polluted runoff. However, the potential consequences of any spill or release of these types of materials would generally be small because of the localized, short-term nature of the releases. Furthermore, the NPDES Construction General Permit and SWPPP require measures regarding the handling of these types of materials and protocols for actions taken if a spill or release does occur (see mitigation measure MM-HYD-1). Therefore, impacts associated with these types of pollutants would be less than significant with mitigation incorporated for both Tier 1 and Tier 2.

Operation

Similar to existing conditions, stormwater runoff from the site after project implementation would be typical of urbanized areas and would include pollutants such as sediment, hydrocarbons, oil, grease, heavy metals, nutrients, herbicides, pesticides, fecal coliform bacteria, and trash. The *Master Plan* incorporates the use of bioretention and permeable pavement LID features. The features would meet the requirements found in the County of Los Angeles *LID Manual*.

Tier 1 of the proposed project contains two drainage areas (Exhibit 6). The eastern half of Tier 1 drains to Wilson Canyon open channel. The western half drains into Olive View Drive storm drain system, which Tier 2 also drains into, and ends in the Mansfield channel. Tier 1 pollutant effluent concentrations were modeled for both drainage areas. Total suspended solids (TSS), total nitrogen, copper, lead, zinc and fecal coliform were modeled for 2-yr, 24-hour design storm event and a 37-year continuous simulation model to represent average annual conditions. The results for Wilson Canyon drainage (DA1) and Olive View Drive storm drainage (DA2) are in Tables 9a and 9b in Appendix C. All pollutants concentrations decreased under both model scenarios and in certain cases, such as nitrogen and lead in DA2, were completely removed. According to the County of Los Angeles *LID Manual, t*he minimum storage required for bioretention is 2.1 acre-ft. Tier 1 had 4.3 acre-ft of bioretention storage. Thus, it is less than significant that the proposed Tier 1 project post-construction will impact water quality.

Drainage area discharge model results for 2-year, 10-year and 100-year, 24-hour storm events are in Tables 5a and 5b in Appendix C. Discharge model results for continuous simulation runs are in Tables 6a and 6b. The Wilson Canyon drainage peak discharge flow rates decrease between 12% and 20% with the greatest decrease occurring in the 100-year, 24-hour design storm event. The Olive View Drive storm drain system Tier 1 drainage peak discharge flow decreases between 40% and 100% with the greatest decrease from the 2-year, 24-hour design storm event. No models resulted in an increase in discharge. Impacts on discharge from Tier 1 post-construction are less than significant.

Tier 2 also plans for bioretention and permeable pavement. Based on the performance of Tier 1 water quality and discharge results, it is likely Tier 2 will also have less than significant impacts on water quality and discharge. However, Tier 2 will also drain into the Olive View Drive storm drain system. Further analyses are needed prior to Tier 2 development to ensure effluent and discharge from Tier 2 is not compounded by drainage from the western half of Tier 1.

Once the project is operational, materials such as fuels or solvents may be stored on-site, similar to existing conditions. This is not anticipated to be a source of polluted stormwater runoff or dry-weather runoff. As under existing conditions, the medical center would continue to adhere to all applicable regulations. Consequently, impacts would be less than significant.

Mitigation Measures

The following measures are proposed to mitigate Impact HYD-1, above.

MM-HYD-1: Construction activity (clearing, grading, excavation, stockpiling, and reconstruction of existing facilities involving removal and replacement) resulting in a land disturbance of one or more acre, or less than one-acre but part of the larger Master Plan for the campus must obtain the Construction Activities Storm Water General Permit. Prior to beginning any construction activity, the County shall require the contractor(s) to develop the SWPPP, Construction Activities Storm Water General Permit, erosion/sediment control plan, and submit these plans for approval by the governing regulatory agency. The contractor(s) shall then perform all construction activity in accordance with the recommendations in the SWPPP, the Construction Activities Storm Water General Permit, and erosion/sediment control plan. The contractor's erosion control plan must comply with the California Stormwater Best Management Practices Handbook and meet the requirements of the statewide Construction General Permit.

Level of Significance after Mitigation

Less than significant.

Impact HYD-2: Would the Proposed Project Substantially Deplete Groundwater Supplies or Interfere Substantially with Groundwater Recharge?

Construction

The groundwater table 1.5 miles south of the project site ranged from 125 to 200 ft over a 20-year period (Ninyo and Moore Preliminary Geotechnical Report, 2016). The Olive View - UCLA Medical Center is located at the base of the San Gabriel foothills where the valley alluvium meets the mountains. It is possible the groundwater is shallower than 125 ft within the Tier 1 project boundary. The northeastern section of Tier 1 is identified in the *Preliminary Geotechnical Report* by Ninyo and Moore (2016) as a zone that may have groundwater within 50 ft. This area of the project is mapped as potentially liquefiable (Exhibit 11), and coincides with the Sylmar groundwater basin (Exhibit 9). This suggests the groundwater may be significantly shallower at this location.

The Sylmar groundwater basin is restricted to the southern edge in the proposed Tier 2 project boundary. It is located in an area that will be primarily landscaping. Impacts on groundwater supplies or groundwater recharge are not expected to occur during the construction phase of Tier 2.

Any discharges into groundwater during construction would be in compliance with applicable NPDES permit requirements. The project would also comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for a release of contaminants into the groundwater as a result of project construction. Thus, construction activities would not degrade groundwater quality or interfere with recharge. Water use may temporarily increase to a limited extent during the construction phase. Therefore, construction-phase impacts would be less than significant.

Operation

Although greater than 50% of the Tier 1 proposed project area is within the Sylmar groundwater basin (Exhibit 9), much of the north/northwestern portions of the Tier 2 project area do not fall within a groundwater basin. Water supply from groundwater ranges from 15% to as high as 30% in drought years (LADWP 2013); however, the Sylmar Groundwater Basin accounts for less than five-percent of the LADWP's potable water supply. After Tier 1 completion, impermeable surfaces will decrease from 65% to 50%. Landscaped areas (including LID bioretention) in Tier 1 will increase by 50%. Infiltration from Tier 1 will increase by 3.7 in across the 72.6-acre Tier 1 area or by 23 ac-ft.

According to the *Master Plan*, drought-tolerant and California native plants would be used at the site. The use of plant species with high to moderate water needs would be limited. Furthermore, low-maintenance vegetation would be used. In the *Master Plan* use of drip irrigation is specified to further reduce irrigation needs. Even with water conservation efforts, due to the large increase in irrigated landscape in Tier 1, water demands for irrigation in Tier 1 are expected to increase by approximately 34 ac-ft per year. The increase in Tier 1 irrigation demands will exceed the increase in infiltration by approximately 11 ac-ft per year.

The updated and new buildings will increase the number of people on-site, increasing water demand. The *Master Plan* calls for low-flow indoor plumbing features, water metering, graywater use, and cooling tower optimization are also in the master plan. Additionally, indoor fixtures would comply with Los Angeles Municipal Code requirements related to reducing indoor water consumption. The City of Los Angeles Plumbing Code (Chapter IX, Article 4, of the Los Angeles Municipal Code) references the California Plumbing Code, which establishes maximum flow rates for indoor water fixtures. City Ordinance No. 180,822 further establishes water efficiency requirements for renovation, redevelopment, and new development and mandates the installation of high-efficiency plumbing fixtures in residential and commercial buildings (Los Angeles Municipal Code, April 2012). These requirements would limit potential increases in indoor water usage at the project site.

Further, the County of Los Angeles requires achievement of Leadership in Energy and Environmental Design (LEED) Silver on all new construction. To meet LEED standards, new construction and renovations will reduce water at minimum 35% from baseline (*Master Plan*). Due to the increase in development, indoor water demand after Tier 1 completion is expected to increase by approximately 51 ac-ft/year. The indoor water demand after Tier 2 completed (including Tier 1) is expected to increase by approximately 70 ac-ft/year. Completion of Tier 1

would increase the water demand from the Sylmar Groundwater Basin by approximately less than 0.1% and increase the demand from the LAWDP water supply by approximately less than 0.01%. Completion through Tier 2 would increase the water demand from the Sylmar Groundwater Basin by approximately less than 0.1% and increase the demand from the LAWDP water supply by approximately less than 0.01%. Thus, the project would not lead to significant increase in the demand for potable water for indoor use in the region.

The decrease in impermeable surfaces will mitigate interference with groundwater discharge. However, the increase in water demand for irrigation in Tier 1 coupled with the increase in indoor water use for Tier 1 and 2 may impact groundwater depletion. By incorporating reclaimed water, gray water, and harvested rainwater for irrigation, the increased demand for groundwater for irrigation could be reduced. For these reasons, water demand associated with the proposed project would not deplete groundwater supplies substantially. The project would increase groundwater recharge and would not interfere substantially with recharge. Therefore, the impacts on groundwater supplies or recharge during operation would be less than significant. Additionally, to further reduce potential impacts, irrigation water demand above existing irrigation demands would be met by alternative supply sources to the maximum extent possible as included in MM HYD-3.

Mitigation Measures

The following measures are proposed to minimize potential groundwater impacts identified in Impact HYD-2, above.

MM-HYD-2: Where groundwater seepage could occur, permanent monitoring wells shall be installed during construction within and around the perimeter of each building to monitor the groundwater level and evaluate the performance of the dewatering system. Before starting dewatering operations, a baseline conditions survey shall be made of all adjacent foundations and structures to assess the impact of deep excavation dewatering on adjacent structures. All signs of existing distress shall be recorded.

MM-HYD-3: Irrigation water demands above existing irrigation demands shall be met by alternative supply sources to the maximum extent technically feasible. The use of alternative water supply sources for irrigation shall be maximized to reduce the use of potable water for irrigation and approximate existing irrigation demands. Alternative water supply sources include, but are not limited to, gray water and harvested rainwater (stormwater).

Level of Significance after Mitigation

Less than significant.

HYD-3: Would the Proposed Project Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, in a Manner that Would Result in Substantial Erosion or Siltation On- or Off-Site?

Construction

The Olive View site sits between the Schoolhouse and Wilson Canyon Debris Dams and Basins. Minor alterations of the existing drainage patterns on the project site may occur related to the implementation of the campus-wide stormwater management system and due to construction of new facilities and improvements, but no change to the course of a stream or river would occur. Grading and excavation would be required for building foundations, which could affect drainage on the project site. However, careful design would prevent substantial alterations to drainage patterns and/or erosion within the project site.

The project would not substantially alter the existing drainage pattern of the site or result in substantial erosion or siltation on- or off-site. Standard construction-phase BMPs would decrease the potential for any significant erosion or sedimentation from soil disturbance associated with construction of the project. In addition, standard construction practices related to erosion and sediment control would be required as part of the permitting process.

Potential impacts on water quality arising from erosion and sedimentation are expected to be localized and temporary (i.e., during construction). The project applicant would implement measures to minimize and contain erosion and sedimentation and be required to submit a grading plan to the County for approval prior to the commencement of any construction activities. In addition, because the project would disturb more than one-acre, the project proponent would be required to obtain and comply with the NPDES Construction General Permit. As required by this permit, the project proponent would develop a SWPPP and comply with regional requirements to meet state water quality objectives. Pending revisions, the NPDES permitting process may require development of a rain-event action plan prior to permit approval. Construction-related erosion and sedimentation impacts resulting from soil disturbance would be less than significant after implementation of the SWPPP (see mitigation measure MM-HYD-1) and the BMPs required to control erosion and sedimentation.

Operation

The proposed project would increase and improve storm drainage pipes and install LID features (bioretention and permeable pavement) across Tier 1 and Tier 2 to accommodate the new development. In Tier 1, TSS loads (lbs/year) into the Wilson Canyon drainage are expected to decrease by 92% based on a 2-yr 24-hr storm event and 96% based on 37-yr continuous simulation run. TSS loads (lbs/year) into the Olive View Drive storm drain system are expected to decrease by 100% based on a 2-yr 24-hr storm event and a 37-yr continuous simulation run. Tier 2 will also have a similar proportion of LID features and is expected to also decrease TSS loads.

As discussed in HYD-1, discharge rates would also decrease in Tier 1 and are likely to decrease in Tier 2. Thus, long-term impacts on drainage patterns from increased erosion or increased sedimentation on or off-site are less than significant.

Mitigation Measures

Mitigation measure MM-HYD-1, above, is proposed to mitigate Impact HYD-3.

Level of Significance after Mitigation

Less than significant.

HYD-4: Would the Proposed Project Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner that Would Result in Flooding On- or Off-Site?

Construction

Although grading would occur throughout the site, the resultant ground disturbance would be spread over the site and would not alter the overall topography. Water would be used during the temporary construction phase of the project (e.g., for dust suppression). However, this water would be mechanically and precisely applied and would, in general, infiltrate or evaporate. Therefore, the rate or amount of surface runoff resulting from project construction activities would be similar to the amount under existing conditions. During construction, the pervious nature of the project site would not be significantly altered. As such, the project would not result in a substantial increase in the rate or amount of surface runoff or flooding on- or off-site. Impacts would be less than significant.

Operation

In Tier 1, the proposed plan will decrease peak discharge to the Wilson Canyon drainage and the Olive View Drive storm drainage. Three storm events were modeled for the Tier 1 drainages: 2-year, 10-year and 100-year, 24-hour design storms. The peak discharge to the Wilson Canyon drainage would decrease from 9.8 to 8.7 cfs, 19.6 to 17.1 cfs, and 36.1 to 30.2 cfs, for the 2-year, 10-year and 100-year, 24-hour design storm events, respectively. The peak discharge to the Olive View Drive storm drainage would decrease from 16.0 to 0 cfs, 32.4 to 1.8 cfs, and 57.3 to 34.0 cfs for the 2-year, 10-year and 100-year, 24-hour storm events, respectively. Tier 2 was not modeled. However, due to the planned decrease in impervious surfaces and the planned LID features, Tier 2 will also likely have reduced peak discharge. Thus, the proposed project would not result in flooding on or off-site due to increased surface run-off.

The storm drainage system on-site will undergo improved storm drainage modifications. The modifications will be primarily adding new storm drain pipes in order to accommodate the increased infrastructure. Some of the existing storm drain pipes will be demolished. However,

the outfall locations discharging the storm water into the public systems will not be changed according to the *Master Plan*. In Tier 1 impervious cover will decrease from 67% to 50%. The improved storm drainage system, LID features, and decreased impervious cover in Tier 1 will not cause substantial alterations to the existing drainage pattern of Tier 1. Tier 2 will also receive storm drainage improvements, LIDs and will likely decrease in impervious cover.

The proposed project would improve stormwater drainage on the site and reduce peak discharges from the site due to the decrease in impervious cover and use of LID features. Water quality of discharges from the site is improved over existing conditions. Additionally, the proposed discharge locations will remain unchanged from the existing discharge locations. As such, the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

HYD-5: Would the Proposed Project Create or Contribute Runoff Water that Would Exceed the Capacity of Existing or Planned Stormwater Drainage Systems or Provide Substantial Additional Sources of Polluted Runoff?

Construction

During construction, erosion of surface materials could increase TSS and other pollutants, as mentioned in HYD-1. Sedimentation and siltation of runoff during the construction period would be addressed through the implementation of standard construction-phase BMPs. The amount of impervious cover would not increase during construction, and at various stages of construction, it would even be less than the existing amount. This would be considered a less-than-significant impact.

Operation

Impervious surfaces are proposed to decrease in the Wilson Canyon drainage from 50.7% to 52.3% during Tier 1. Impervious surfaces in the Olive View Drive storm drainage in Tier 1 are proposed to decrease from 74.9% to 46.2%. Peak flow rates to the Wilson Canyon drainage would be reduced from existing conditions by 12%, 16%, and 20%, for the 2-year, 10-year and 100-year, 24-hour storm events, respectively. Peak flow rates to the Olive View Drive storm drainage from Tier 1 would be reduced from existing conditions by 100%, 94%, and 40% for the 2-year, 10-year and 100-year, 24-hour storm events, respectively. Tier 2 peak flows were not modeled. However, Tier 2 proposed peak flows are expected to be equivalent or reduced from existing conditions.

Pollutant loads into Wilson Canyon drainage and Olive View Drive storm drainage from proposed conditions in Tier 1 would not increase, as discussed in HYD-1 and seen in Tables 9a

and 9b in Exhibit C. Modeled pollutant loads for a 2-yr 24-hr storm event into the Wilson Canyon drainage would decrease for TSS, nitrogen, copper, lead and zinc would decrease by 92%, 57%, 69% and 78%, respectively. Modeled pollutant loads for a 2-yr 24-hr storm event into the Olive View Drive storm drainage from Tier 1 would decrease by 100% during a 2-year, 24-hour modeled storm event for TSS, nitrogen, copper, lead and zinc. Fecal coliform would decrease by 7.4% and 130% for a 2-year, 24-hour modeled storm event into Wilson Canyon drainage and Olive View Drive storm drainage, respectively. Annual pollutant loads were based on a 37-yr continuous simulation model. Annual pollutant loads into the Wilson Canyon drainage would decrease by 96%, 76%, 82%, 87%, 91% and 8% for TSS, nitrogen, copper, lead, zinc and fecal coliform, respectively. Annual pollutant loads into the Olive View Drive storm drainage would decrease by 100% for TSS, nitrogen, copper, lead, and zinc. Fecal coliform would decrease by 28%. Tier 2 pollutant loadings were not modeled, but are expected to remain at existing levels or to decrease below existing levels.

In addition to the decreased peak discharge and pollutant loadings, drainage from proposed site improvements would be conveyed through a new storm drain system that would be sized for proposed stormwater runoff from the site. The proposed project would not significantly affect the capacity or hydraulic integrity of the proposed on-site storm drain system, the existing Olive View Drive storm drain system, or the Wilson Canyon or Schoolhouse Canyon Drain open channel systems or provide substantial additional sources of pollution to these receiving systems.

Mitigation Measures

Impacts would be less than significant. No mitigation measures are required.

HYD-6: Would the Proposed Project Otherwise Substantially Degrade Water Quality?

Construction

As discussed above, the proposed project would include improvements to stormwater quality through the implementation of a campus-wide stormwater management system. Furthermore, construction-phase BMPs would be implemented in accordance with the County of Los Angeles Department of Public Works *Construction Site BMPs Manual* (2007) and the SWPPP that would be prepared in accordance with the requirements of the NPDES Stormwater General Permit. Construction-phase BMPs for the proposed project may involve scheduling, silt fencing, street sweeping and vacuuming, storm drain protection, stabilized construction entrances/exits, water conservation practices, paving and grinding operations, as well as procedures and practices pertaining to vehicle equipment cleaning, vehicle equipment fueling, and vehicle equipment maintenance.

Operation

Impacts HYD-1 to HYD-5 discusses potential impacts associated with the degradation of water quality during operation. Prior to the commencement of construction activities, the project proponent would be required to prepare and submit drainage plans to the city or County, which

would include post-construction structural and nonstructural BMPs. Routine structural BMPs are intended to address water quality impacts related to drainage, which are inherent in development.

As discussed previously, the LID features will mitigate pollutant loadings into the storm drainage system. However, maintenance will be required to sustain the effectiveness and extend the life-cycle of the LID features. For most LID features, sediment removal is one of the most important and significant maintenance activities. Once LID features clog or reach the end of their life-cycle, major rehabilitation or reconstruction may be needed. Regular inspection of LID features is also a key component of a successful Operations and Maintenance (O&M) Plan.

Bioretention maintenance requirements include removing sediment, trash, and debris to maintain the infiltration capacity. Additionally, shredded hardwood mulch should be removed and replaced annually to remove sediment and any accumulated metals captured by the mulch. Vegetation may require pruning as well as replanting of dead vegetation. Additionally, irrigation is typically required during the summer months. Because bioretention provides stormwater quality benefits, weeding should be done by hand and fertilizers, pesticides, and herbicides should not be used. Additionally, mulch and compost should not contain any manure or other animal products that may contribute nutrients to the stormwater runoff.

The maintenance activities associated with permeable pavement are geared towards removal of sediment and debris that may clog the pavement. Sweeping of leaf litter, debris, and sediment is needed to prevent organic materials from decomposing and clogging the pavement. For minor clogging, pressure washing may be used, while vacuum sweeping is recommended twice annually or more for areas with high sediment loads. Any weeds within the permeable pavement should be removed manually and herbicides should not be used.

While it is preferable to avoid constructing LID features in areas of potential liquefaction, some Tier 1 LID features could fall within a liquefaction risk area. Any LID features within or adjacent to liquefaction zones should include structural design modifications to ensure continued hydrologic and water quality performance after a liquefaction event. In the event, the LID features are damaged by a liquefaction event, repair, maintenance, and/or reconstruction may be needed based on the results of a field inspection of the LID features.

There are no other methods by which water quality could be degraded as a result of operations on the project site. Therefore, with implementation of mitigation measures MM-HYD-1 through MM-HYD-5, impacts associated with degrading water quality during operation would be less than significant.

Mitigation Measures
In addition to mitigation measures HYD-1 and HYD-2 as they pertain to water quality, the following measures are proposed to mitigate Impact HYD-6, above.

MM-HYD-4: An O&M Plan shall be developed for LID features at the site during the design of the initial development projects and expanded as development progresses and different LID features are added. The plan shall consider impacts on water quality and address issues related to

Integrated Pest Management (IPM) or organic maintenance practices, including those for hand weeding.

MM-HYD-5: For any proposed LID features located within an area of potential liquefaction, structural design modifications should be included to mitigate the potential impacts of liquefaction on the performance and operation of the LID features and to maintain the water quality performance as originally design. The O&M Plan should include provision for inspection, repair, maintenance, and/or reconstruction after liquefaction events for any LID features located within an area of potential liquefaction

Level of Significance after Mitigation

Less than significant.

HYD-7: Would the Proposed Project Contribute to Inundation by Seiche, Tsunami, or Mudflow?

Construction and Operation

The project site is located approximately 28 miles from the Pacific Ocean, so there is negligible risk to the site from tsunamis. The Pacoima Reservoir, located 4.5 miles east of campus, is unlikely to produce seiches that would affect the project site. The site is nestled against the San Gabriel Mountains. Several areas at the northern border of the project site are landslide hazard areas, as seen in Exhibit 11. The Wilson Canyon drainage, which transects the Tier 1 proposed project site, is mapped as containing liquefaction hazards within the project area and landslide hazards directly upstream of the Tier 1 project border. Areas susceptible to liquefaction in Tier 1 are primarily landscaped regions, tree-lined streets and parking lots. The eastern corner of the proposed administration building and portions of the Restorative Care Village facilities fall within the mapped liquefaction hazard area. This makes mudflows a potential hazard to the site. Mitigation of mudflows upstream of the project is already in place via the Wilson Canyon Debris Dam and Basin upstream of the project site.

The landslide hazard areas immediately to the north of the project site could potentially produce mudflows. New construction along the northern edge could result in further landslide, and thus mudflow, hazards. In the *Master Plan*, retaining walls (eight-foot maximum) and grade breaks are proposed along the northern project border, which would both protect the site from mudflow and make contributions to mudflow generation less than significant. Further, proposed landscaping and site stabilization within the site is likely to decrease erosion potential and may reduce contributions to mudflow as compared to existing conditions.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

HYD-8: Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Construction and Operation

Given that the area in which the proposed project would be located is outside the 100-year flood plain, the proposed project would not result in increased exposure to loss, injury, or death involving flooding. The nearest large body of water is the Pacoima Reservoir, nestled in the San Gabriel Mountains approximately three miles to the east. The Olive View – UCLA project site is located outside of the Pacoima Dam inundation area (Appendix J).

There may be risk of exposing people and structures to flooding in the Tier 1 proposed project area if the Wilson Debris Dam and Basin failed. The dam outflow transects the eastern half of Tier 1. The primary proposed areas that would be affected are landscaping and parking, which are present in existing conditions as well.

The outflow from the Schoolhouse Debris Dam and Basin borders the western side of the Tier 2 proposed project site. The area within the project site that could be affected by dam failure of the Schoolhouse Debris Dam would be a woodland preserve and trailhead view deck landscape areas. The existing site on the western edge is landscaped and vacant.

The project region at greatest risk from debris dam failure is Tier 1. The proposed Tier 1 would not add significant structures to the areas that would be affected by debris dam failure. In addition, peak flows and impervious surfaces will be decreased, as previously discussed. Thus Tier 1 would not add to discharge in the Wilson Canyon, were flooding due to debris dam failure would occur. Due to the limited land use change in the regions that would be impacted by a debris flow, and the decreased peak flow and impervious areas within the proposed project site, there is less than a significant risk from flooding due to debris dam failure. Additionally, the risk of loss, injury, or death involving flooding is not increased as compared to existing conditions at the site.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

HYD-9: Place housing within a 100-year flood hazard area, as mapped on a Federal Flood Hazard Boundary Map or Flood Insurance Rate Map or other flood hazard delineation map.

Construction and Operation

In eastern side of Tier 1, the Wilson Canyon drainage runs north to south. The southern half of the drainage within Tier 1 is mapped as having a 100-year floodplain (Exhibit 3). Parking lots will be within 100 feet of the drainage. The 100-year floodplain it is contained within the channel. The entire Olive View – UCLA project site (Tier 1 and Tier 2) is delineated as an X (unshaded) flood zone by FEMA, which is defined as minimal risk of flood hazard. Housing is not proposed within a mapped flood hazard zone or the 100-year floodplain.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

HYD-10: Place within a 100-year flood hazard area structures that would impede or redirect flood flows.

Construction and Operation

As discussed in HYD-9, there are parking lots to the west and east of the Wilson Canyon drainage 100-year floodplain, located in Tier 1. The floodplain is contained within the channel. There are no mapped 100-year floodplains within Tier 2. No structures are proposed within the 100-year floodplain during Tier 1 or Tier 2 development and no impediment or redirection of flood flows is expected.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Less than significant.

Cumulative Impacts

The geographic scope for cumulative impacts related to water quality and hydrology encompasses the project site and the land uses within a one-mile radius of the project site. There

are no other known projects currently planned near the Olive View - UCLA Medical Center project site.

CONCLUSIONS

Compliance with the Construction General Permit, SWPPP, NPDES requirements, and local regulations that require construction-phase BMPs would ensure that construction activities would not degrade the surface water quality of receiving waters to levels below standards considered acceptable by the Los Angeles RWQCB or other regulatory agencies or impair the beneficial uses of the receiving waters. Construction would not result in a violation of any water quality standards or waste discharge requirements, would not provide substantial additional sources of polluted runoff, and would not substantially degrade water quality. In Tier 1, pollutant loadings from the proposed site into the Wilson Canyon drainage and the Olive View Drive storm drainage would decrease as modeled for a 2-year, 24-hour storm event and annual continuous simulation. Pollutant loadings from the proposed Tier 2 project site are also expected to decrease.

Groundwater recharge is likely to increase based on the decrease of impervious surfaces in both Tier 1 drainage areas. A significant portion of Tier 2 falls outside of the Sylmar groundwater basin. In addition, the Tier 2 proposed impervious cover will decrease as compared to existing conditions. Groundwater contamination would not be a factor during construction or during operation. The project would be required to comply with all applicable federal, state, and local requirements concerning the handling, storage, and disposal of hazardous materials to reduce the potential for the release contaminants into groundwater because of project construction. Thus, construction activities would not degrade groundwater quality or interfere with recharge. During operation, groundwater contamination is not expected to occur based on the LID features and decrease in impervious surfaces allowing for more infiltration into native soil and thus filtration.

Indoor water usage for the project site is proposed to increase by approximately 51 ac-ft/year after Tier 1 completion and by 70 ac-ft/year after Tier 2 completion, including the implementation of water conservation features. Outdoor water use in Tier 1 is expected to increase by 51 ac-ft/year. Outdoor water use in Tier 2 is expected to increase by 70 ac-ft/year, including Tier 1 outdoor water use.

During construction, surface run-off would not increase discharges. Water applications would be precise and the fill material and native soil exposed during construction are very permeable, allowing for infiltration during construction. Localized erosion and sedimentation may occur during construction activities. Standard construction-phase BMPs would decrease the potential for any significant erosion or sedimentation from soil disturbance associated with construction of the project. In addition, standard construction practices related to erosion and sediment control would be required as part of the permitting process. Discharge from both drainages would decrease in Tier 1 and would be expected to decrease in Tier 2. TSS would decrease in Tier 1 due to the decrease in impervious surfaces and the implementation of bioretention and permeable pavement LID features and is expected to decrease during Tier 2

The *Master Plan* proposes new and additional storm drain pipes within Tier 1 and Tier 2. The storm drainage outflow locations in Tier 1 and Tier 2 would not change. The updated storm drainage system would be appropriately sized to handle proposed stormwater discharge generated within Tier 1 and Tier 2. However, due to the decrease in peak discharge in Tier 1 and the expected decrease in peak discharge in Tier 2, impacts to storm drainage discharge from the project into the receiving systems are not expected.

The Wilson Canyon 100-year floodplain within Tier 1 is confined to the drainage channels and does not pose a flooding risk to existing or proposed structures. No drainage structural changes or increases in peak discharge will occur with the proposed project that would affect the Wilson Canyon 100-yr floodplain extent. There are no floodplains present in Tier 2. Flooding due to reservoir dam failure will also not occur at the project site as it is outside of the dam failure hazard zone for Pacoima Reservoir, the nearest dammed body of water. There are two debris basins, Wilson Canyon Debris Basin upslope from Tier 1 and Schoolhouse Drainage Debris Basin upslope from the western border of Tier 2. Failure of the debris basin dams could result in flooding and sediment loading, affecting primarily the Tier 1 Wilson Canyon drainage. The debris basin dams will not be structurally influenced by the proposed construction or operation.

The project site is well outside of the tsunami inundation areas for the Los Angeles region (Appendix J) and there is no risk of sieche in the existing or proposed site. In the Tier 1 Wilson Canyon drainage area, there are areas mapped as susceptible to liquefaction (Exhibit 11). There are also several areas immediately upslope of Tier 1 and Tier 2 mapped as susceptible to landslides (Exhibit 11). Development within the liquefaction zones and adjacent to the landslide zones may contribute to potential mudflows. Appropriate structural design and BMPs techniques would be utilized to reduce the potential impacts of mudflows.

The Olive View - UCLA Medical Center project meets established project goals:

- ✓ Meet County of Los Angeles LID and stormwater treatment criteria;
- ✓ Use LID to reduce proposed conditions peak flows and runoff volumes to below existing conditions;
- ✓ Simulate undeveloped conditions through use of infiltration and groundwater recharge across the project site.

Detailed water budget modeling results from EPA SWMM are included in Appendix C. To ensure the long-term functionality of the LID features and performance of the site, development of and compliance with an Operations & Maintenance (O&M) Plan is critical. Additionally, proper construction sequencing is critical to avoid premature sedimentation of the facilities.

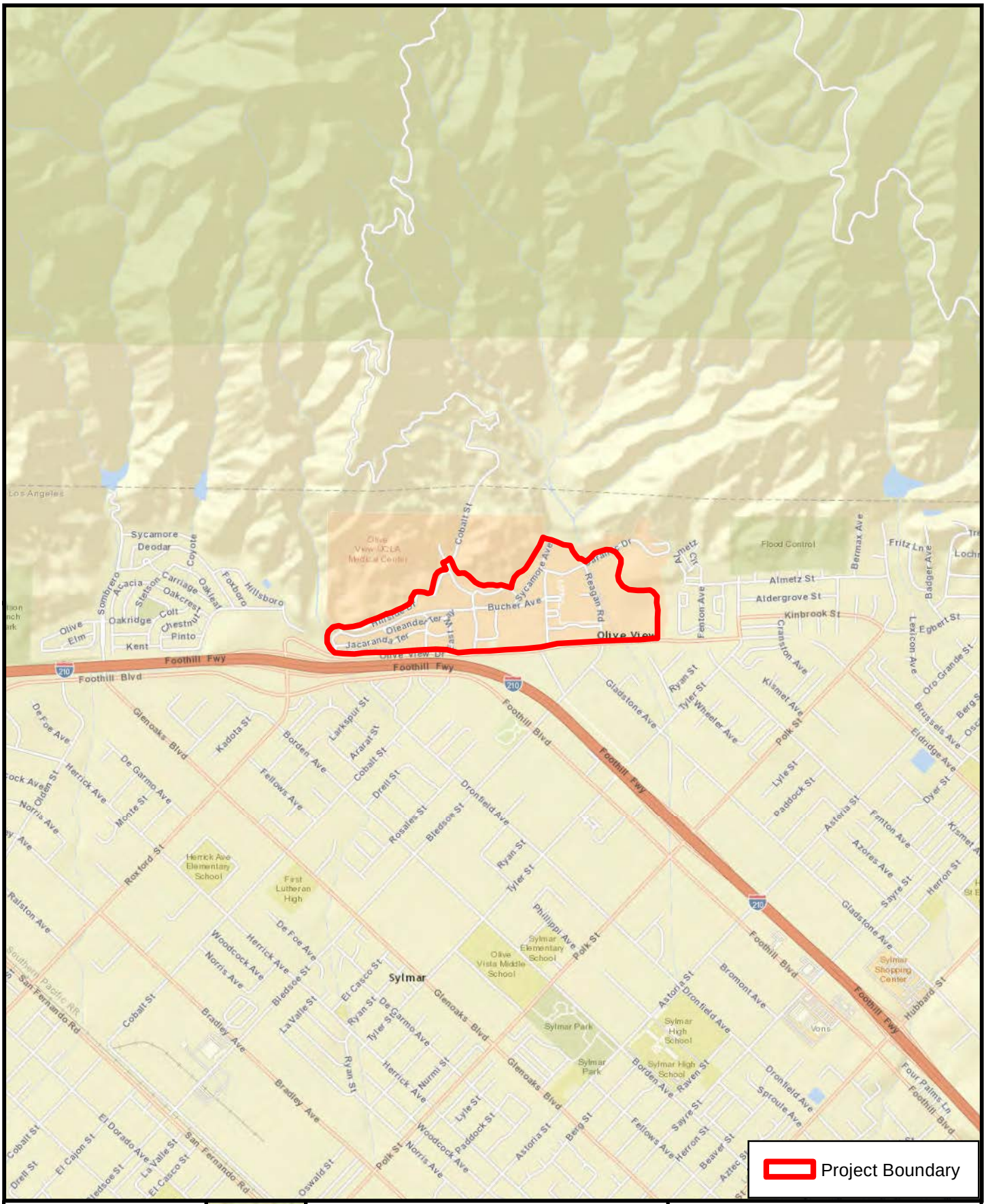
Redevelopment of the UCLA Medical Center-Olive View site represents a significant opportunity for sustainability and LID retrofits within a densely urbanized area and for implementation of Green Infrastructure and LID for Los Angeles County. Thank-you for the opportunity to collaborate on this visionary project.

EXHIBITS

Exhibit 1 – Vicinity Map
Exhibit 2 – Aerial Photograph
Exhibit 3 – FIRM
Exhibit 4 – Topographic Map
Exhibit 5 – Subwatershed Map
Exhibit 6 – Drainage Area Map
Exhibit 7A – Land Use
Exhibit 7B – Existing Landscape
Exhibit 7C – Proposed Landscape
Exhibit 8 – Soil Map
Exhibit 9 – Groundwater Basins Map
Exhibit 10 – Spreading Grounds
Exhibit 11 – Liquefaction Map
Exhibit 12 – 2-Year Rainfall
Exhibit 13 – 10-Year Rainfall
Exhibit 14 – 100-Year Rainfall

APPENDICES

Appendix A-References
Appendix B-Design Storm Unit Hyetograph
Appendix C-Tables of Hydrology Modeling Data and Results
Appendix D-EPA SWMM Water Budget Results
Appendix E-Section 5 of the Los Angeles County 1994-2005 Integrated Receiving Water Impacts Report [Cover]
Appendix F-Water Quality Compliance Master Plan for Urban Runoff
Appendix G-Olive View Campus Master Plan LID Layout/Water quality sheets
Appendix H – EPA Guide to Urban Stormwater Pollutant Concentrations (Tables 4-1 and 4-3)
Appendix I-Site Reconnaissance Photographs
Appendix J-City of Los Angeles Hazard Mitigation Plan (Dam Failure and Tsunami Inundation)
Appendix K – County of Los Angeles Low Impact Development Handbook TMDL Data
Appendix L – Preliminary Geotechnical Evaluation
Appendix M – Los Angeles RWQCB Basin Plan (Chapter 7) [Cover]
Appendix N – The Green Visions Plan for 21st Century Southern California (Table 7)



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OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

VICINITY MAP

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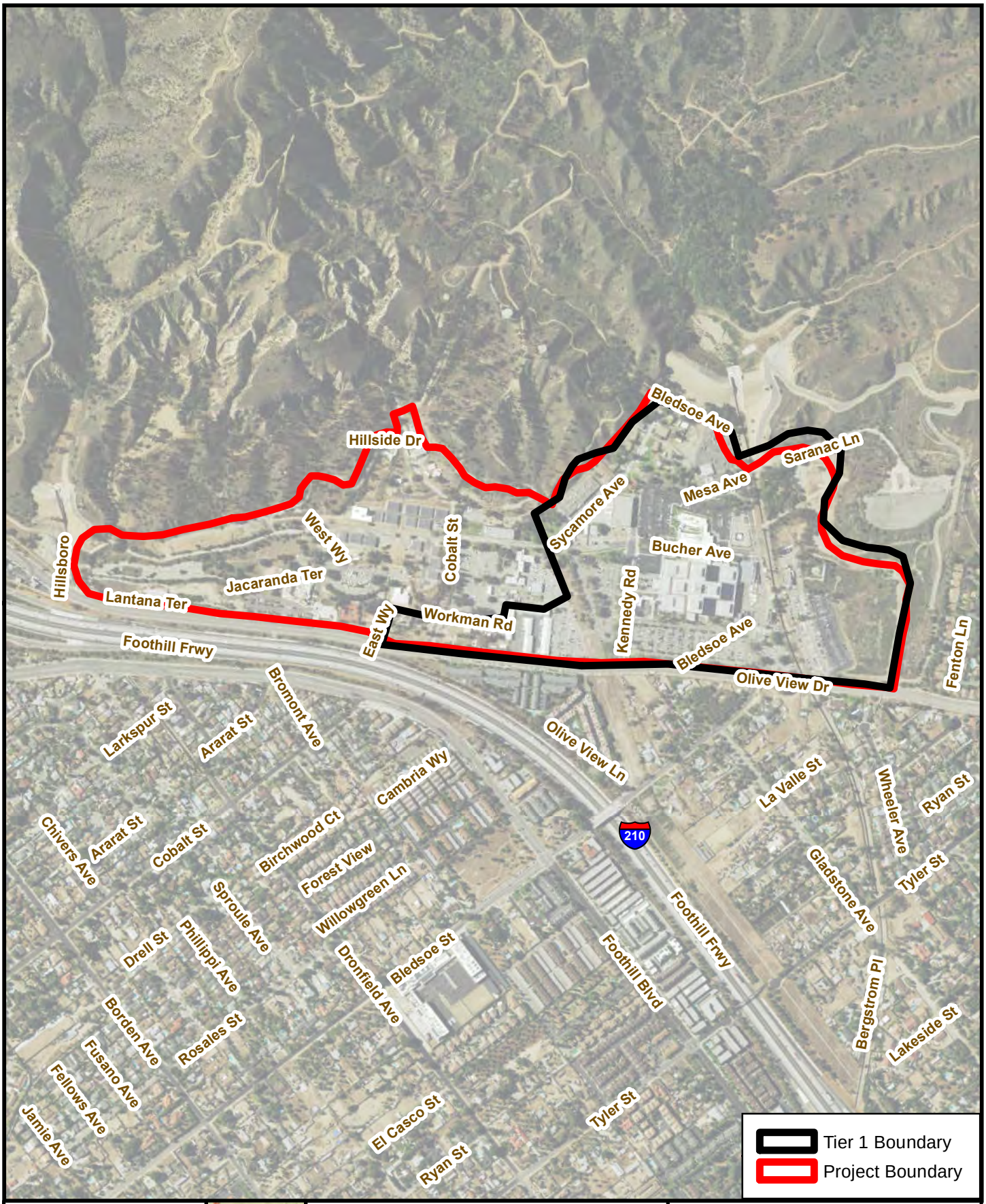
Date: Jun 26, 2016

Exhibit 1



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OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA
AERIAL MAP

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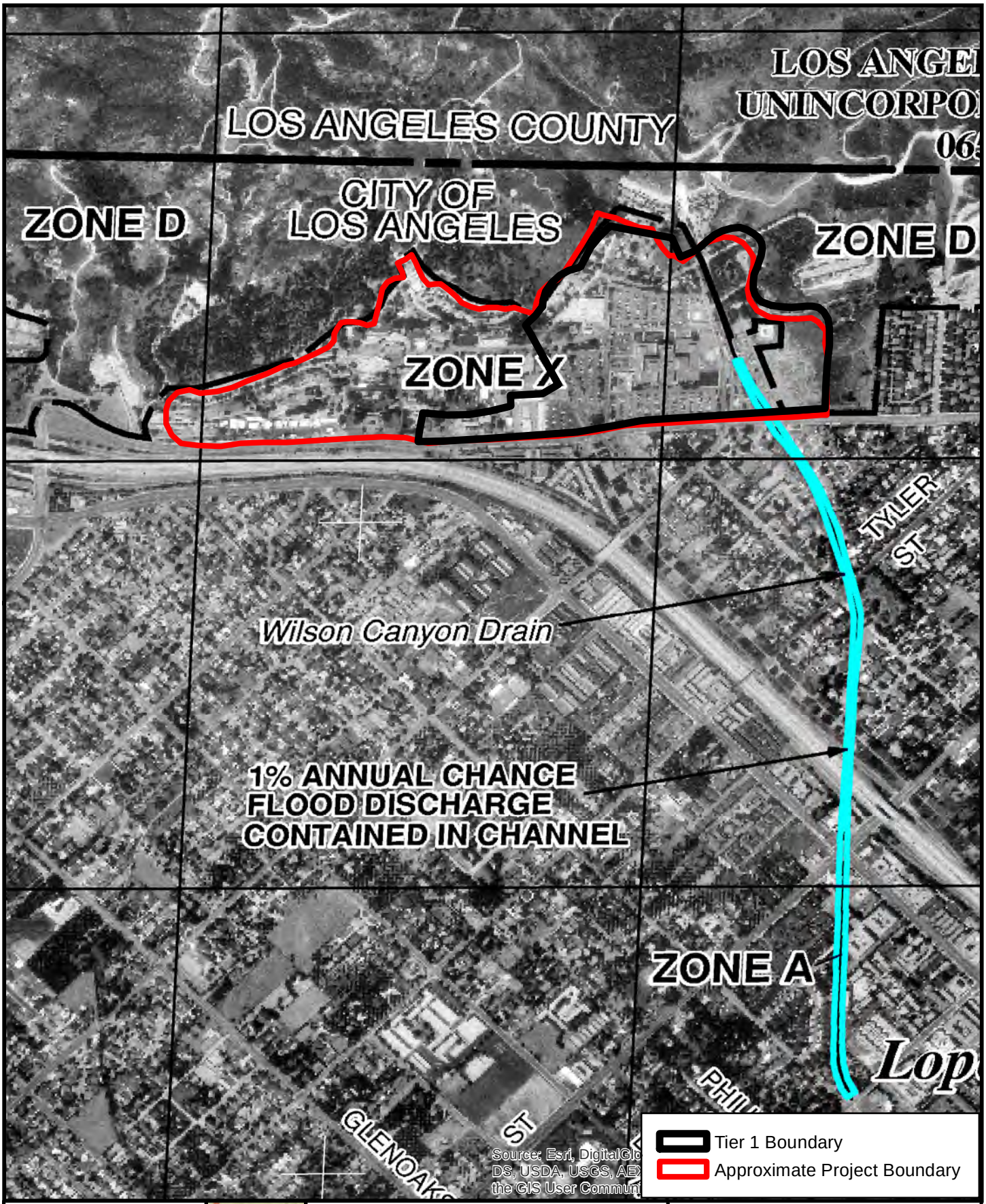
Date: Jun 26, 2016

Exhibit 2



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OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN EIR

FEMA FIRM MAP

PANEL NO. 06037C1075F
(EFFECTIVE SEPTEMBER 26, 2008)

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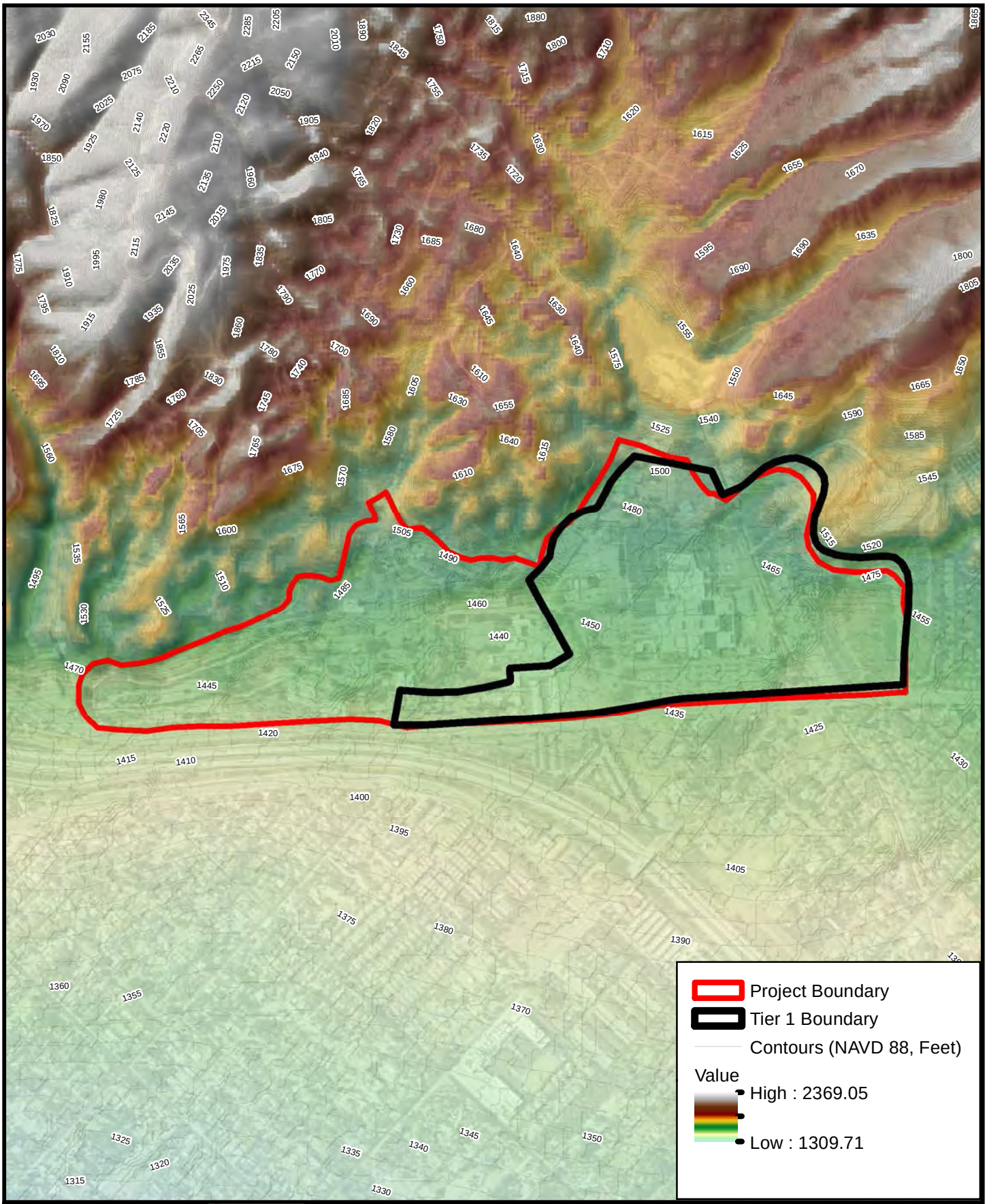
Date: Jul 01, 2016

Exhibit 3



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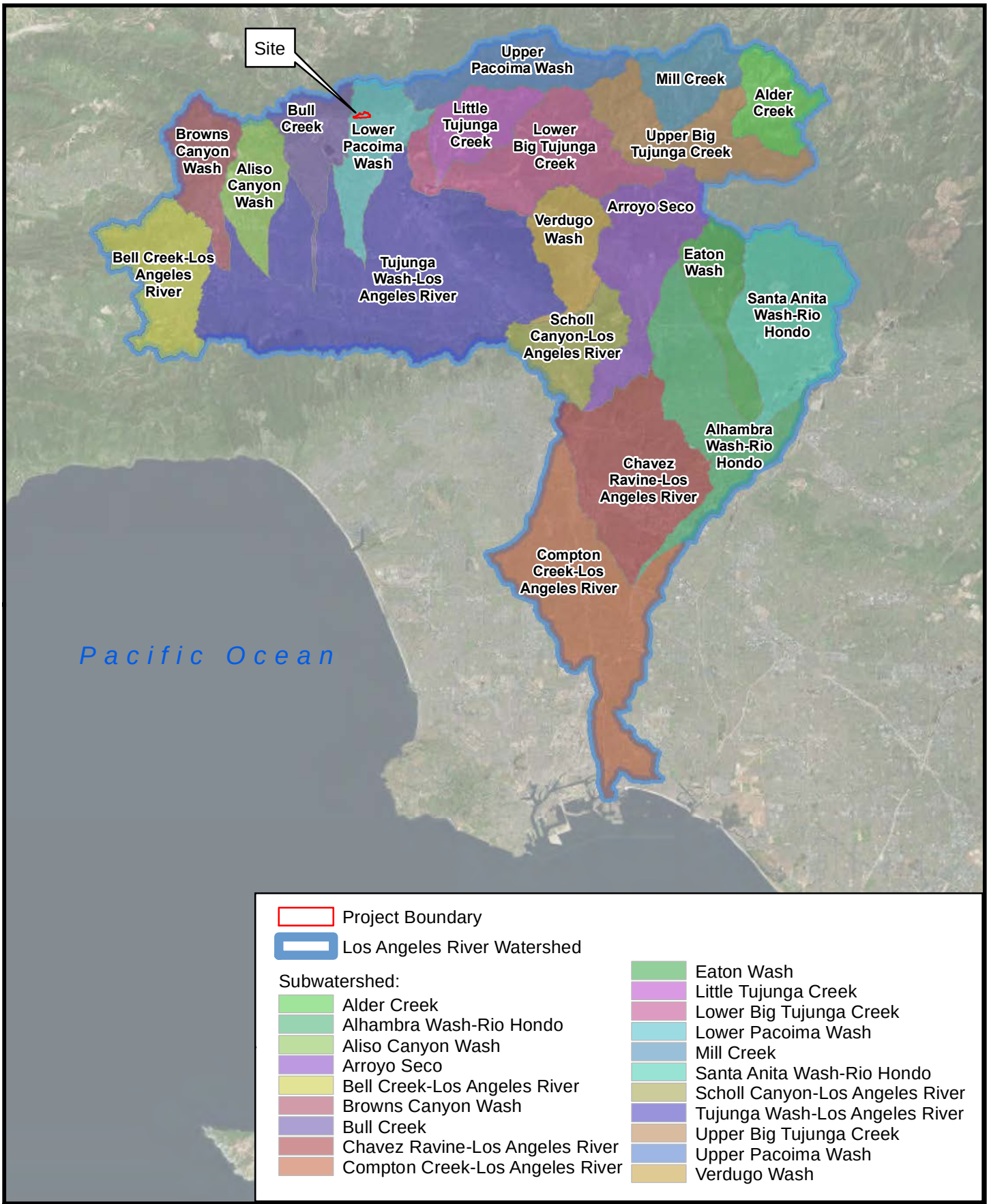
OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA
TOPOGRAPHIC MAP
Elevation data from USGS National Elevation data set

Watearth
Water Resources + Green Infrastructure

Date: Jun 26, 2016

Exhibit 4



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OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

SUBWATERSHED MAP

Subwater Shed data from USGS National Hydrology Data Set

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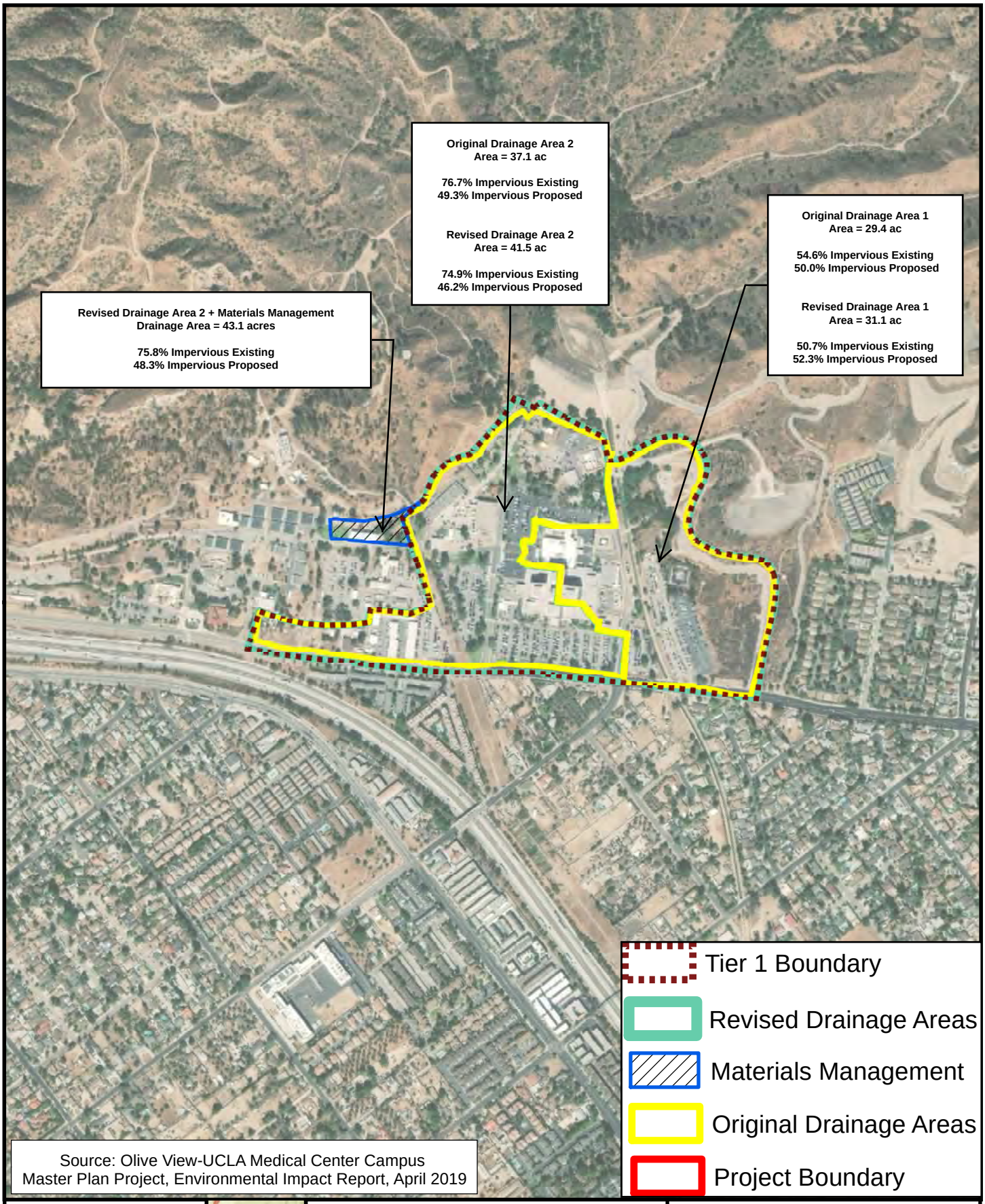
Water Resources + Green Infrastructure

Date: Jun 26, 2016

Exhibit 5



Source: Olive View-UCLA Medical Center Campus
Master Plan Project, Environmental Impact Report, April 2019

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OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

DRAINAGE AREA MAP

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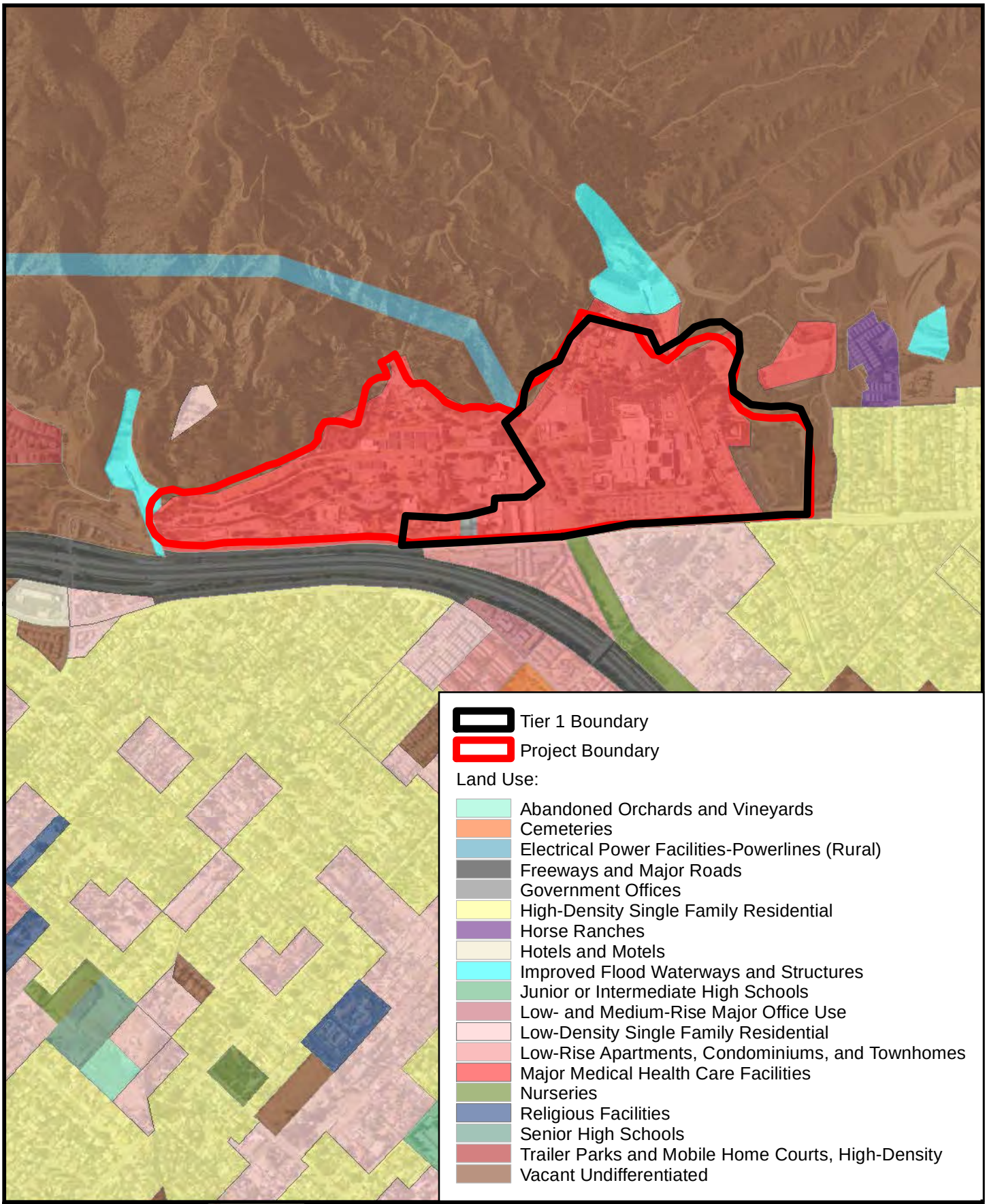
Date: Apr 26, 2019

Exhibit 6



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OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

LAND USE MAP

Land Use data from Los Angeles County Department of Public Works

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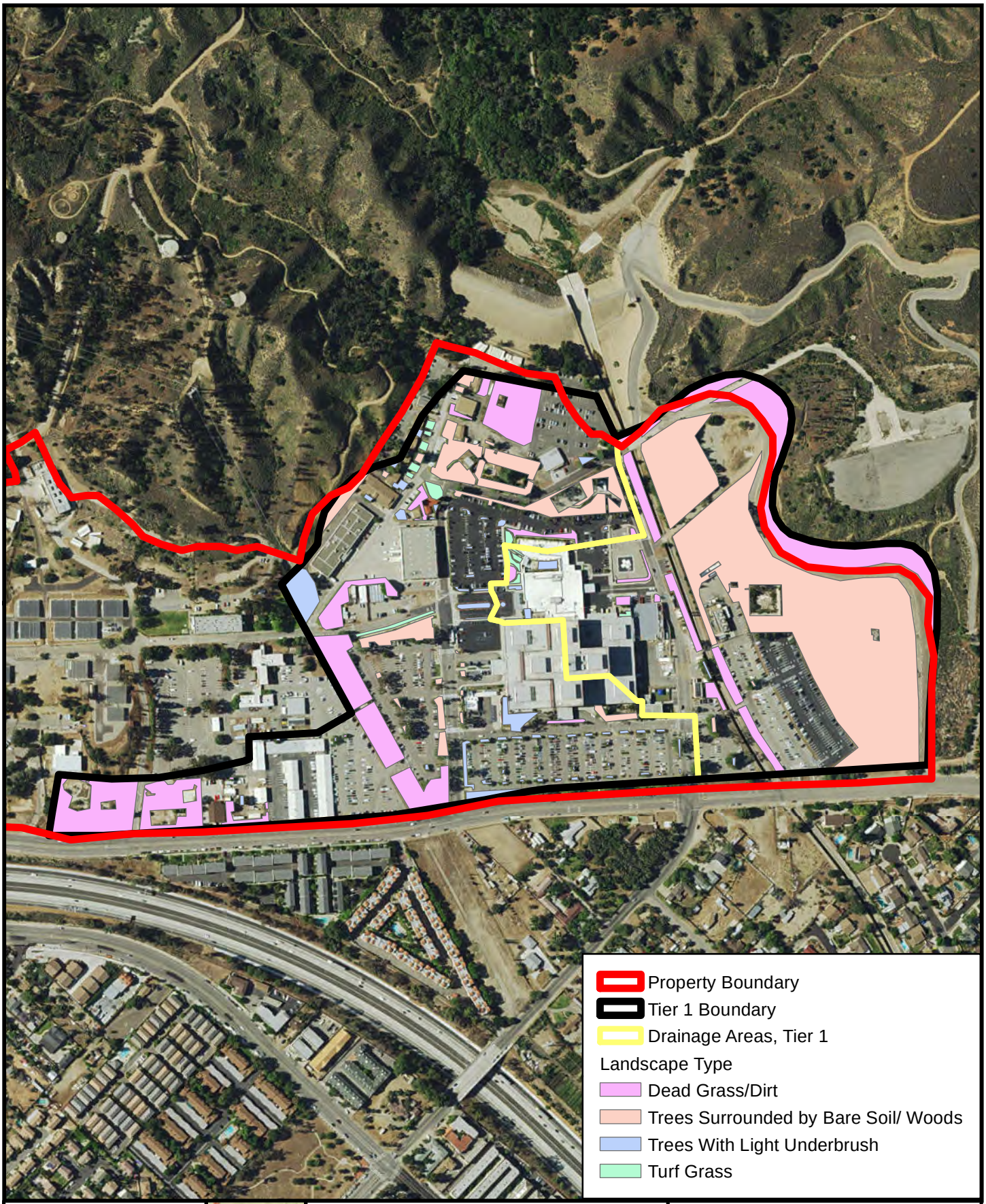
Date: Jun 26, 2016

Exhibit 7



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Datum: NAD83
Units: US Feet

OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA
EXISTING LANDSCAPE

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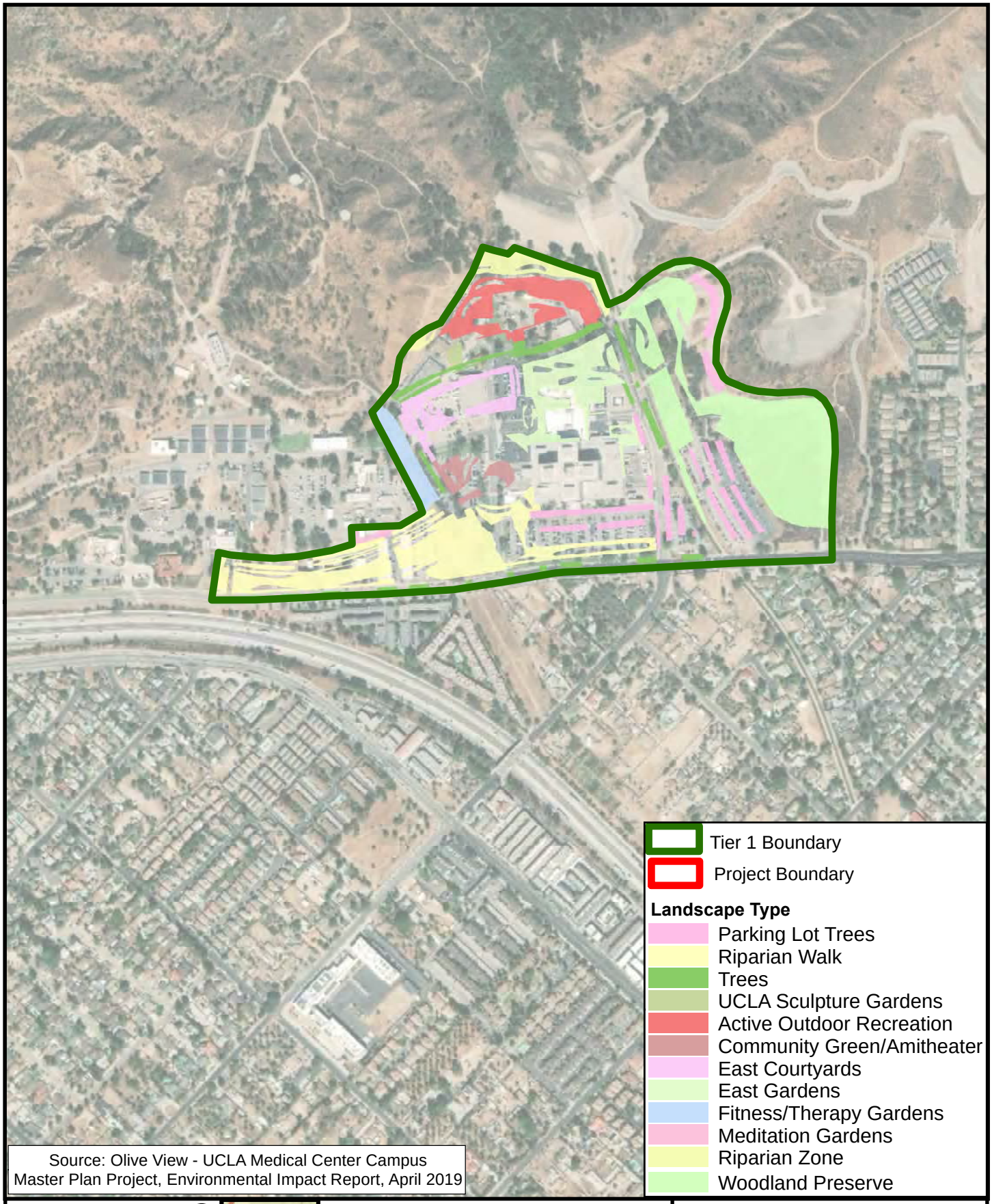
Date: Jul 01, 2016

Exhibit 7B



Source: Olive View - UCLA Medical Center Campus Master Plan Project, Environmental Impact Report, April 2019

0 1 " = 700 Feet 1,000
Feet

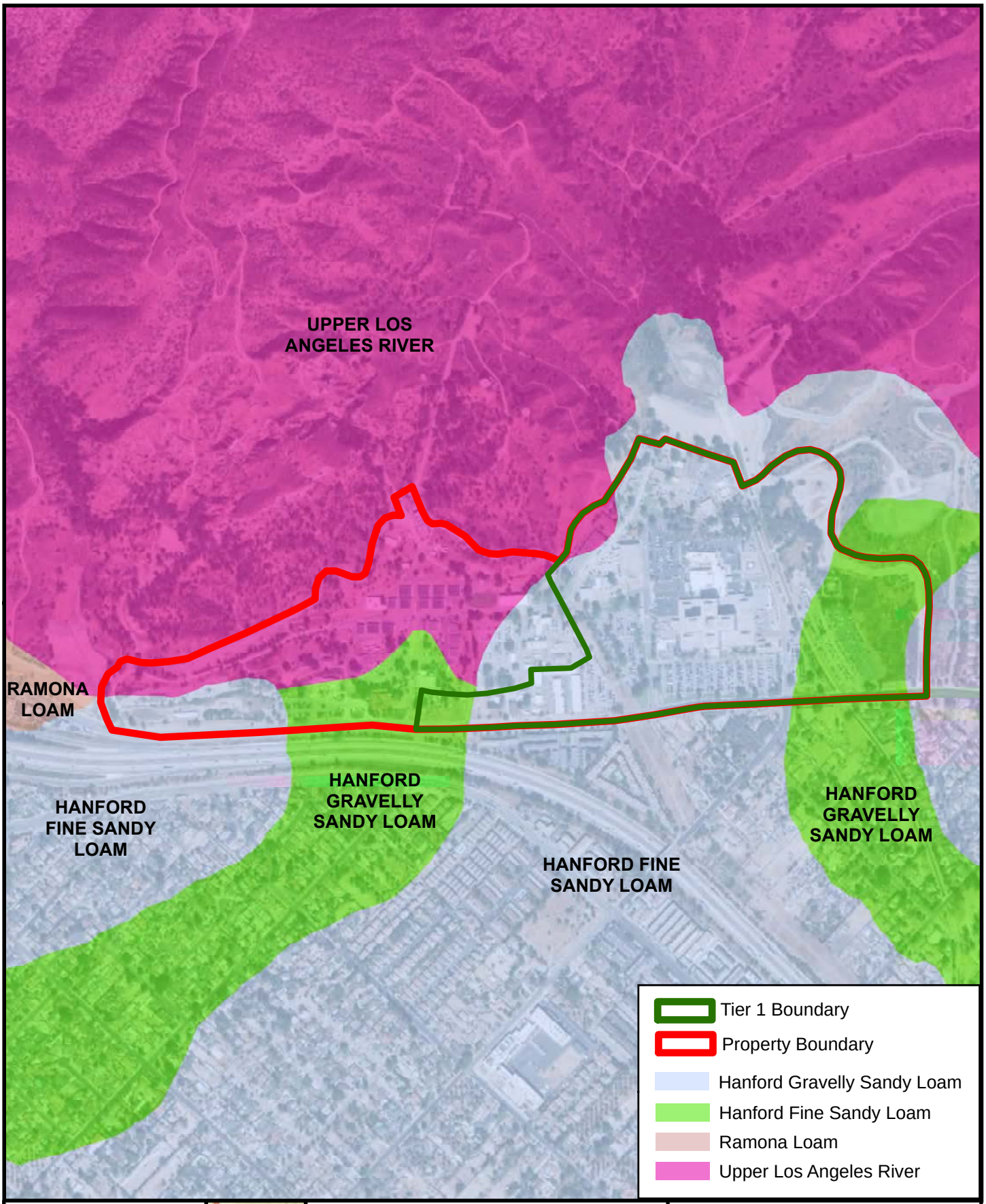
Datum: NAD83
Units: US Feet

OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA
PROPOSED LANDSCAPE

Watearth™
Water Resources + Green Infrastructure

Date: May 7, 2019

Exhibit 7C



1 " = 800 Feet

0 800

Feet

Datum: NAD83
Units: US Feet

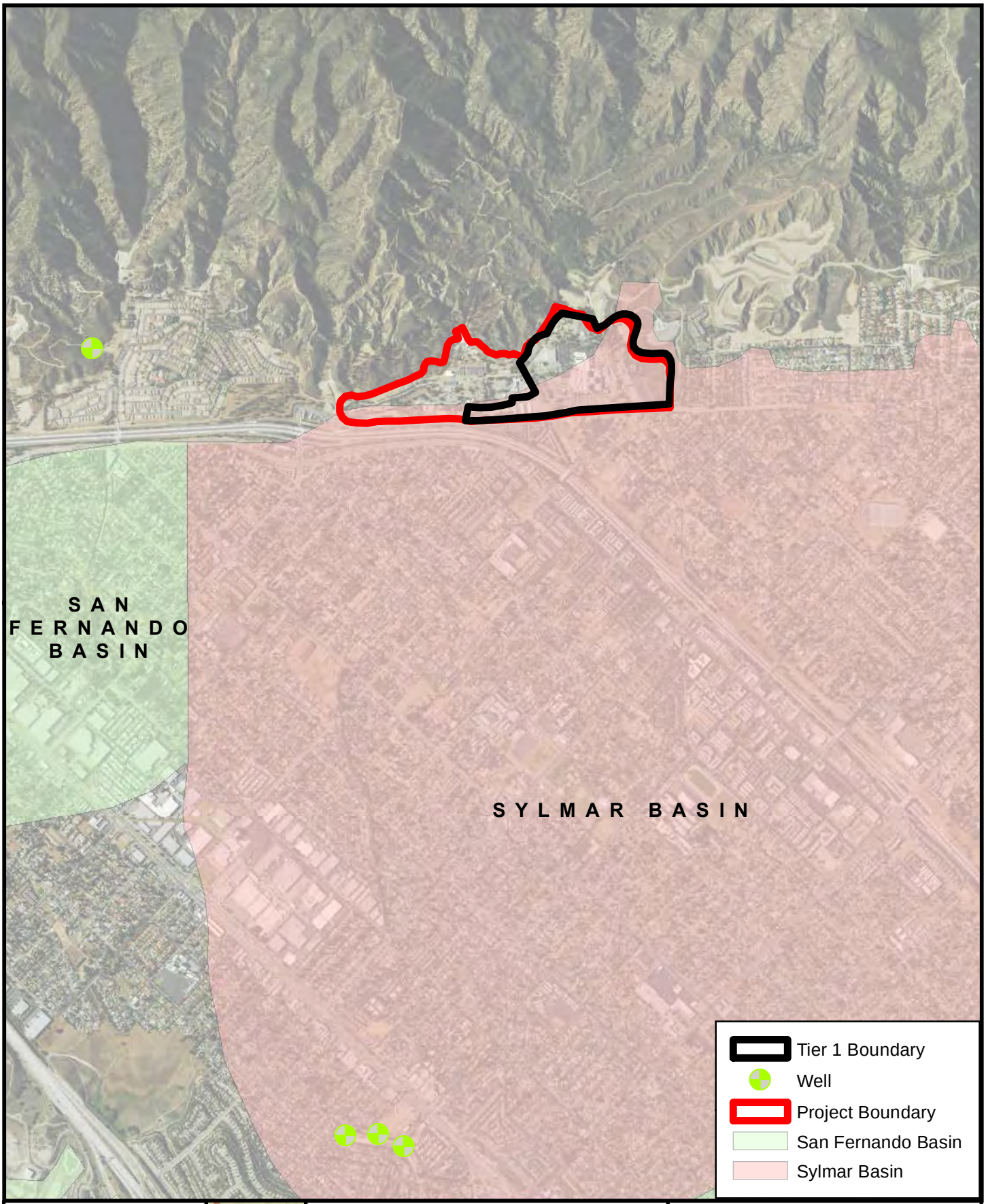
OLIVE VIEW
UCLA - LOS ANGELES
CALIFORNIA
SOIL MAP

Soil types data from Los Angeles County Department of Public Works

Watearth™
Water Resources + Green Infrastructure

Date: Apr 26, 2019

Exhibit 8



1 " = 2,000 Feet

0 2,000

Feet

Datum: NAD83
Units: US Feet

OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

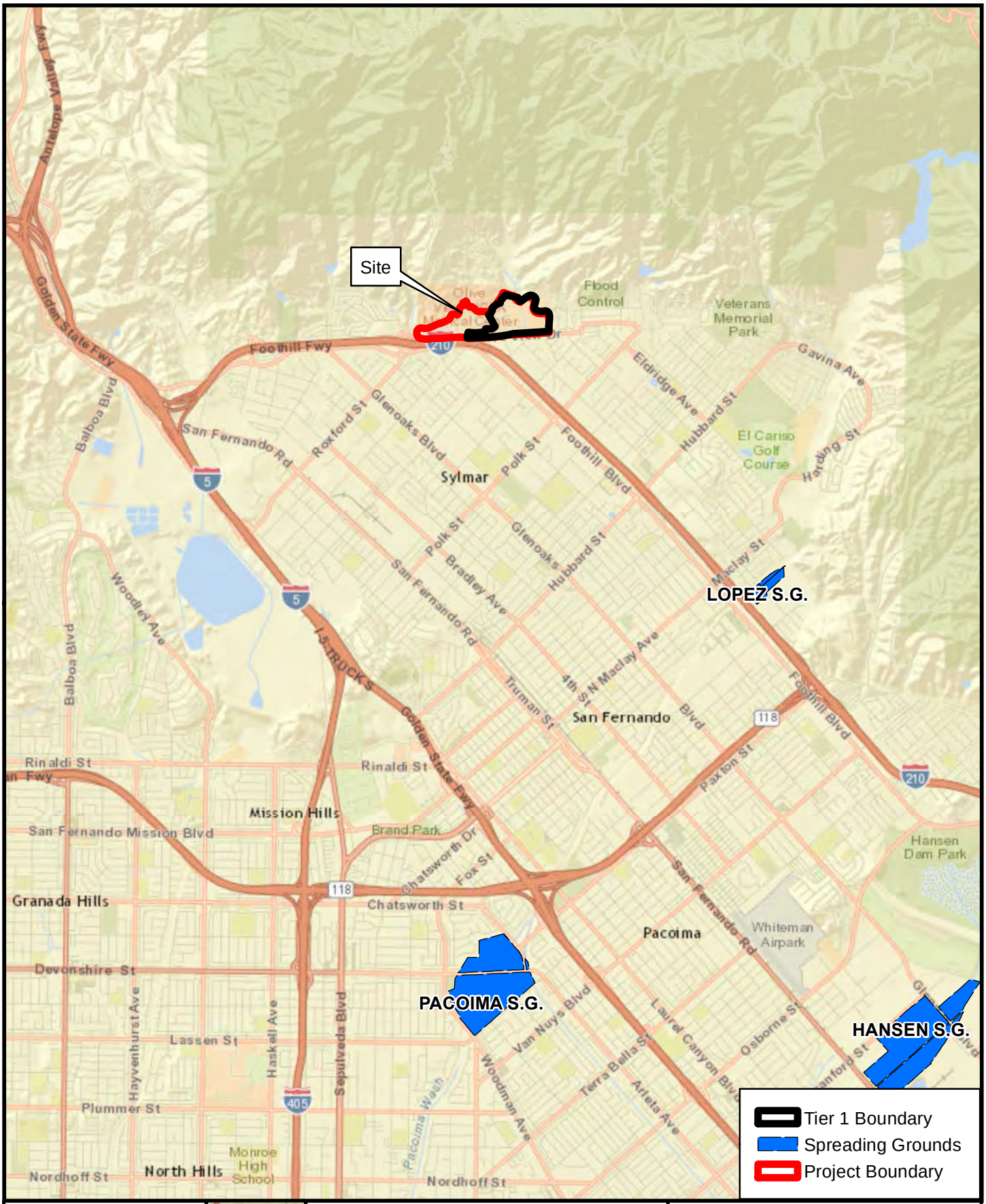
GROUNDWATER MAP

Groundwater data from Los Angeles County Department of Public Works

Watearth™
Water Resources + Green Infrastructure

Date: Jun 26, 2016

Exhibit 9



1 " = 5,000 Feet

0 5,000

Feet

Datum: NAD83
Units: US Feet

OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

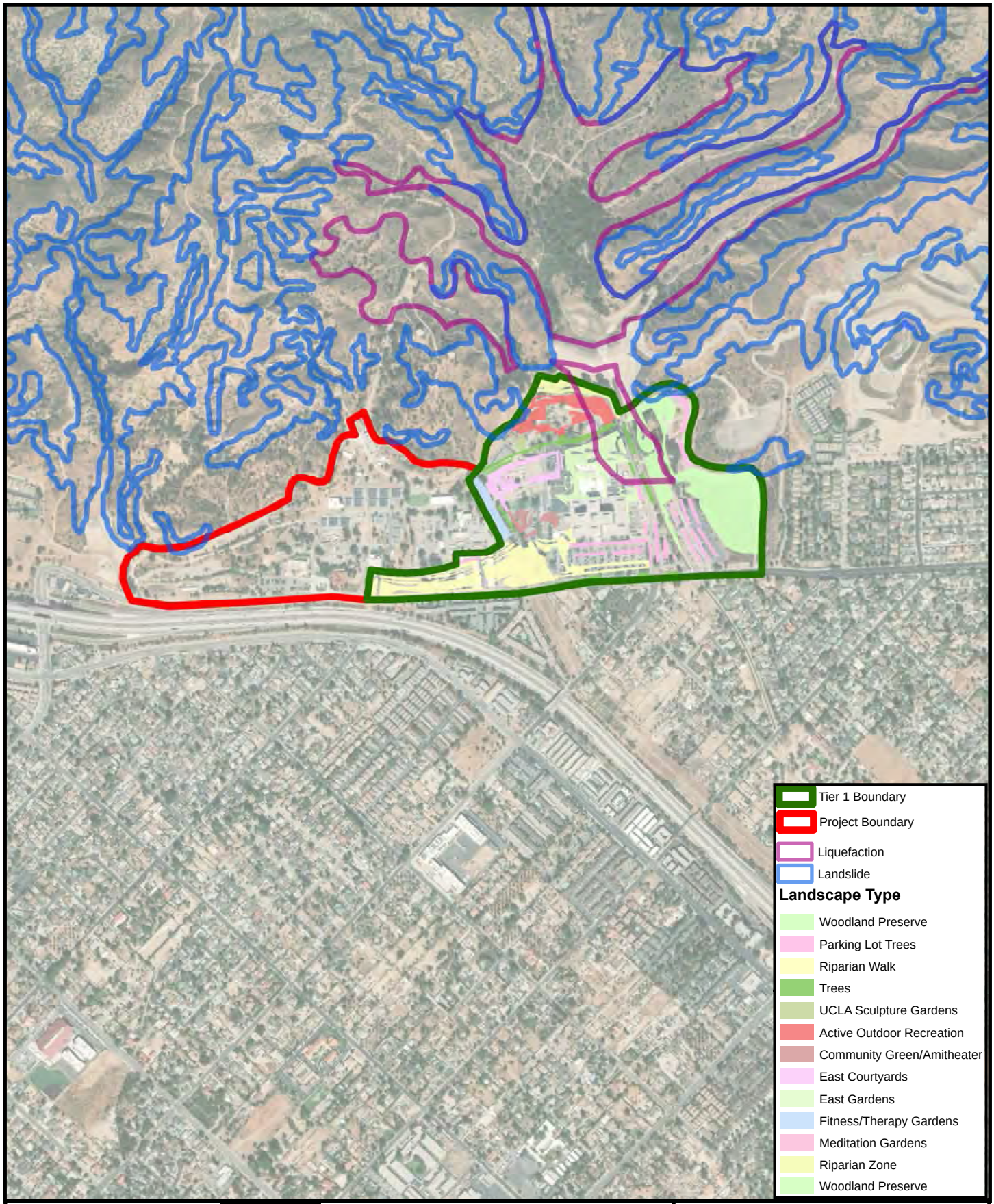
STORMWATER SPREADING GROUNDS

Spreading Grounds data from Los Angeles Co. Department of Public Works

Watearth
Water Resources + Green Infrastructure

Date: Jun 26, 2016

Exhibit 5



0 1 " = 1,000 Feet 1,000
Feet

Datum: NAD83
Units: US Feet

OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

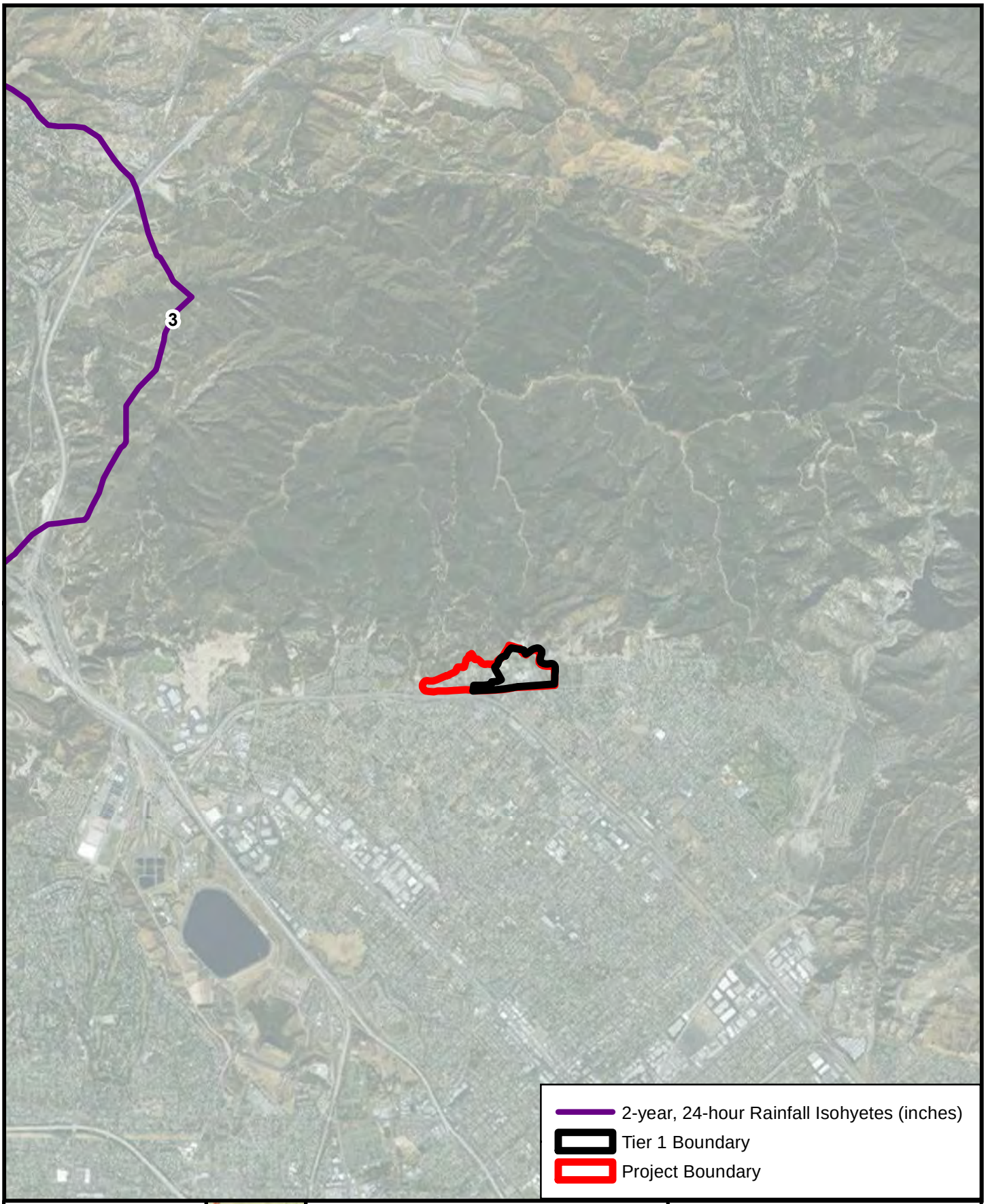
LIQUEFACTION MAP

Liquefaction data from California State Department of Conservation

Watearth™
Water Resources + Green Infrastructure

Date: May 07, 2019

Exhibit 11



1 " = 5,000 Feet

0 5,000

Feet

Datum: NAD83
Units: US Feet

OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

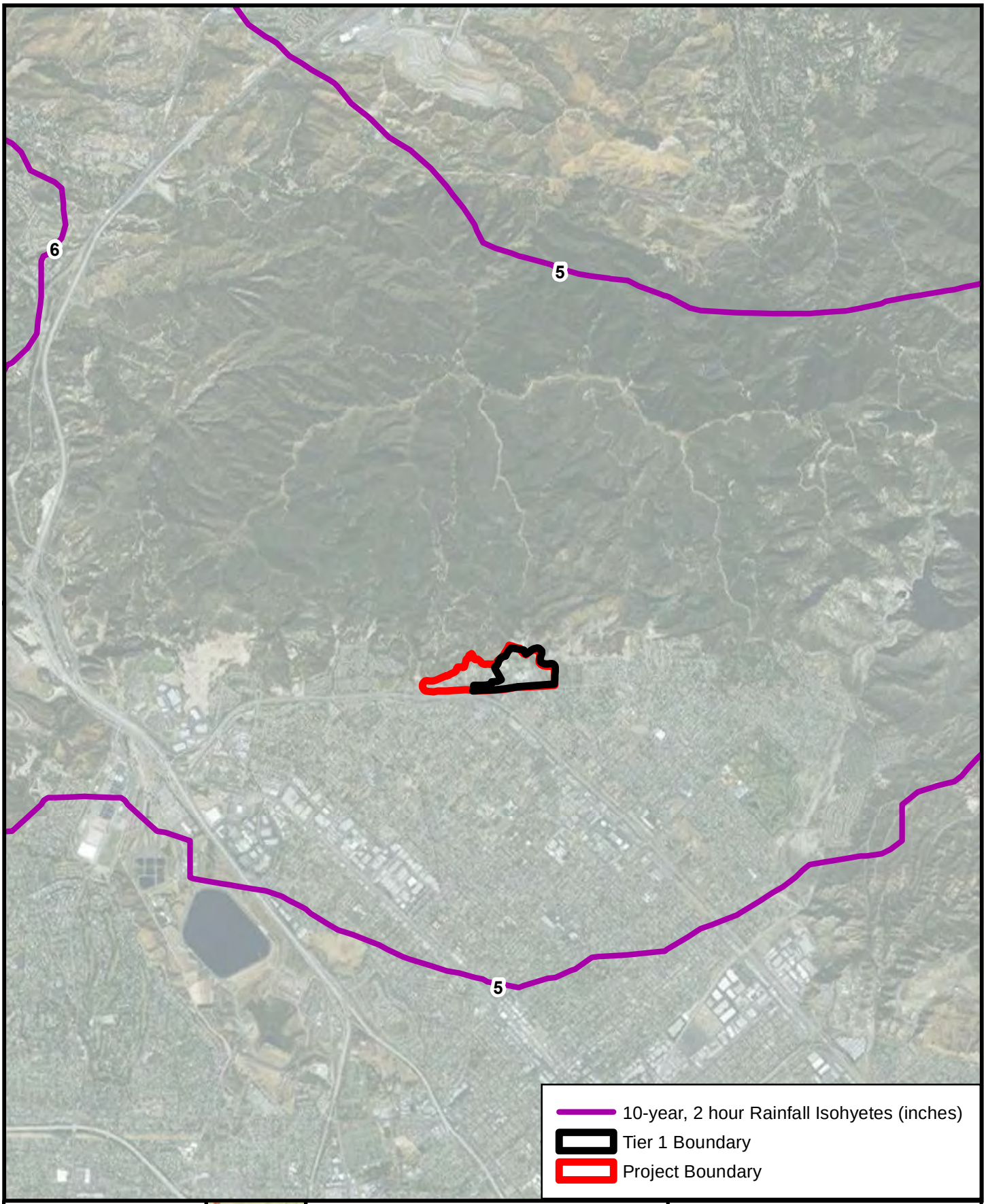
RAINFALL 2-YEAR

Rainfall data from Los Angeles County Department of Public Works

Watearth™
Water Resources + Green Infrastructure

Date: Jun 26, 2016

Exhibit 13



1 " = 5,000 Feet

0 5,000

Feet

Datum: NAD83
Units: US Feet

OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

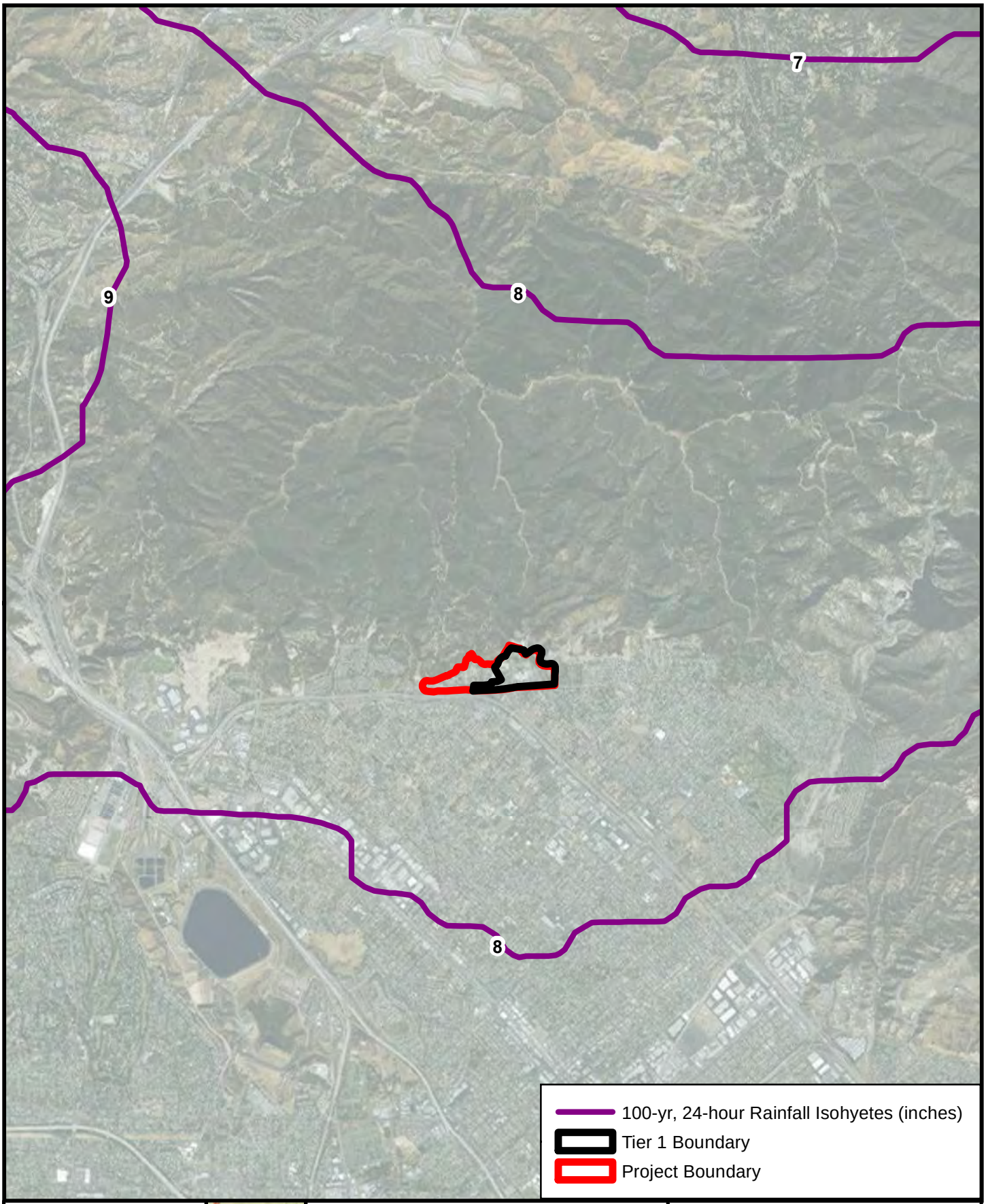
RAINFALL 10-YEAR

Rainfall data from Los Angeles County Department of Public Works

Watearth™
Water Resources + Green Infrastructure

Date: Jun 26, 2016

Exhibit 13



1 " = 5,000 Feet

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Feet

Datum: NAD83
Units: US Feet

OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

RAINFALL 100-YEAR

Rainfall data from Los Angeles County Department of Public Works

Watearth™
Water Resources + Green Infrastructure

Date: Jun 26, 2016

Exhibit 13

APPENDIX A-REFERENCES

California Stormwater Quality Association, Stormwater Best Management Practices Handbook, Industrial/Commercial. 2003

City of Los Angeles Department of Public Works, Developed Best Management Practices Handbook, Low Impact Development Manual, Part B Planning Activities, 4th Edition. June 2011

City of Los Angeles Department of Public Works, Water Quality Compliance Master Plan for Urban Runoff, Clean Stormwater/Urban Runoff Master Plan. May 2009.

City of Los Angeles Emergency Management Department, Hazard Mitigation Plan. January, 2011, adopted July, 2011.

City of Los Angeles Granada Hills-Knollwood & Sylmar Community Plans Draft EIR, Oct 2012.

County of Los Angeles Department of Public Works Construction Site BMPs Manual. 2007.

County of Los Angeles Department of Public Works, Low Impact Development Standards Manual. February 2014.

Davis, Hunt, Traver and Clark, Bioretention Technology: Overview of Current Practice and Future Needs. March, 2009 Journal of Environmental Engineering.

Huber, W. and Cannon, L., Modeling Non-Directly Connected Impervious Areas in Dense Neighborhoods. Global Solutions for Urban Drainage: pp. 1-12. 2002

Los Angeles County Department of Public Works, Hydrology Manual. 2006

Ninyo and Moore, Phase 1 Hazardous Material Assessment, March 2016

Ninyo and Moore, Preliminary Geotechnical Report, March 2016

Sayre, J. M., J. S. Devinny, and J. P. Wilson, Green Visions Plan for 21st Century Southern California. University of Southern California GIS Research Laboratory and Center for Sustainable Cities, Los Angeles, California. 2006

SmithGroup JJR, Olive View-UCLA Medical Center Campus Master Plan, August 2015

SmithGroup JJR, Olive View-UCLA Medical Center EIR, May 2016

Southern California Coastal Water Research Project, Land Use Specific Storm Water Monitoring Data http://www.sccwrp.org/aboutsccwrp/ResearchPlan.aspx

Southern California Water Dialogue, Groundwater Assessment Study for the Metropolitan Water District of Southern California. May 2008

State of California Environmental Quality Act (CEQA), Statutes and Guidelines. 2016

State Water Resources Control Board, Technical Manual for Stormwater Best Management Practices in the County of Los Angeles. February 2004

State Water Resources Control Board, List of Adopted TMDLs.
http://www.waterboards.ca.gov/losangeles/water_issues/programs/tmdl/

State Water Resources Control Board, Los Angeles County MS4 Permit
http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/

U.S. Environmental Protection Agency (EPA) approved 303(d) Final List, 2010

U.S. Environmental Protection Agency (EPA), SUSTAIN - A Framework for Placement of Best Management Practices in Urban Watersheds to Protect Water Quality Report. September, 2009.

U.S. Environmental Protection Agency (EPA), Guide to Urban Stormwater Pollutant Concentrations. 2006.

U.S. Environmental Protection Agency (EPA), Handbook on Urban Runoff and Pollution Prevention Planning. 1993

U.S. Environmental Protection Agency (EPA), Storm Water Management Model (SWMM) 5.1. August 2015

U.S. Environmental Protection Agency (EPA). Guide to Stormwater Pollutant Concentrations. 2006

Upper Los Angeles River Area (ULARA) Watermaster.
http://ularawatermaster.com/index.html?page_id=915

Weiss, Gulliver, and Erickson, Cost and Pollutant Removal of Storm-water Treatment Practices. May/June, 2007 ASCE Journal of Water Resources Planning and Management,

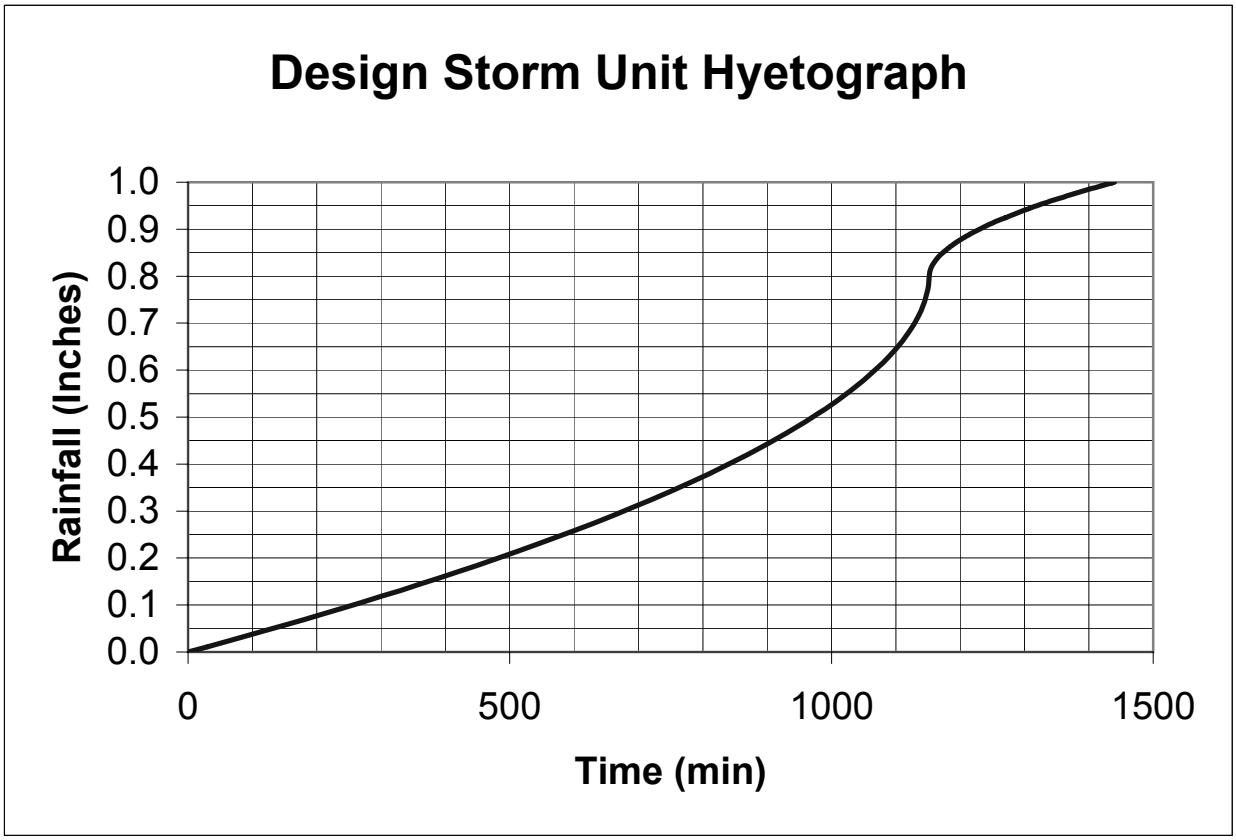
Weston Solutions, Inc. Los Angeles River Water Shed Final Report, Section 5. August 2005

APPENDIX B-DESIGN STORM UNIT HYETOGRAPH

Temporal Distribution of Unit Hyetograph

(Time in minutes, Depth in inches)

Time	Depth	Time	Depth	Time	Depth	Time	Depth
0	0.000000	1110	0.661694	1185	0.863440	1232	0.901435
30	0.011110	1115	0.670680	1186	0.864452	1233	0.902105
60	0.022361	1120	0.680257	1187	0.865450	1234	0.902772
90	0.033758	1125	0.690568	1188	0.866434	1235	0.903434
120	0.045307	1130	0.701824	1189	0.867406	1240	0.906691
150	0.057015	1135	0.714364	1190	0.868366	1245	0.909862
180	0.068889	1136	0.717072	1191	0.869313	1250	0.912954
210	0.080937	1137	0.719860	1192	0.870250	1255	0.915973
240	0.093166	1138	0.722738	1193	0.871175	1260	0.918923
270	0.105586	1139	0.725713	1194	0.872090	1265	0.921810
300	0.118206	1140	0.728799	1195	0.872995	1270	0.924638
330	0.131037	1145	0.746492	1196	0.873889	1275	0.927409
360	0.144090	1150	0.772454	1197	0.874775	1280	0.930129
390	0.157377	1151	0.780923	1198	0.875651	1285	0.932799
420	0.170913	1152	0.800000	1199	0.876518	1290	0.935422
450	0.184711	1153	0.809944	1200	0.877377	1295	0.938000
480	0.198790	1154	0.814358	1201	0.878227	1300	0.940537
510	0.213168	1155	0.817800	1202	0.879069	1305	0.943034
540	0.227865	1156	0.820732	1203	0.879903	1310	0.945492
570	0.242905	1157	0.823335	1204	0.880730	1315	0.947915
600	0.258314	1158	0.825702	1205	0.881549	1320	0.950302
630	0.274121	1159	0.827890	1206	0.882361	1325	0.952657
660	0.290362	1160	0.829936	1207	0.883166	1330	0.954980
690	0.307075	1161	0.831864	1208	0.883964	1335	0.957272
720	0.324307	1162	0.833694	1209	0.884755	1340	0.959535
750	0.342111	1163	0.835440	1210	0.885540	1345	0.961770
780	0.360552	1164	0.837112	1211	0.886318	1350	0.963978
810	0.379705	1165	0.838721	1212	0.887091	1355	0.966159
840	0.399666	1166	0.840272	1213	0.887857	1360	0.968316
870	0.420552	1167	0.841772	1214	0.888618	1365	0.970448
900	0.442511	1168	0.843225	1215	0.889372	1370	0.972558
930	0.465738	1169	0.844636	1216	0.890121	1375	0.974644
960	0.490493	1170	0.846009	1217	0.890865	1380	0.976709
970	0.499144	1171	0.847347	1218	0.891603	1385	0.978752
980	0.508022	1172	0.848652	1219	0.892336	1390	0.980775
990	0.517145	1173	0.849926	1220	0.893064	1395	0.982778
1000	0.526538	1174	0.851172	1221	0.893787	1400	0.984761
1010	0.536225	1175	0.852392	1222	0.894505	1405	0.986726
1020	0.546239	1176	0.853588	1223	0.895218	1410	0.988673
1030	0.556617	1177	0.854760	1224	0.895926	1415	0.990602
1040	0.567402	1178	0.855910	1225	0.896630	1420	0.992514
1050	0.578651	1179	0.857039	1226	0.897330	1425	0.994410
1060	0.590431	1180	0.858149	1227	0.898024	1430	0.996289
1070	0.602830	1181	0.859241	1228	0.898715	1435	0.998152
1080	0.615962	1182	0.860315	1229	0.899401	1440	1.000000
1090	0.629985	1183	0.861372	1230	0.900083		
1100	0.645118	1184	0.862414	1231	0.900761		


Design Storm Unit Hyetograph
Rainfall (Inches)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0
500
1000
1500
Time (min)

APPENDIX C-TABLES OF HYDROLOGY MODELS AND RESULTS

TABLE 1: SUMMARY OF HYDROLOGIC PARAMETERS FOR SITE

Hydrologic Parameters																		
Drainage Area	Area (ac)	24-hr Rainfall Data (in.)			Impervious Cover (%)		Overland Flow Length (ft)		Width (A/L) (ft)		Slope		Depression Storage (in)		Manning's n-value Impervious	Manning's n-value Pervious	
		2-yr	10-yr	100-yr	Exist	Prop	Exist	Prop	Exist	Prop	Exist	Prop	Impervious	Pervious		Exist	Prop
DA1	31.1	2.83	5.23	8.21	50.7	52.3	1500	1500	200	200	5%	5%	0.06	0.25	0.012	0.186	0.361
DA2	41.5	2.83	5.23	8.21	74.9	46.2	1000	1000	200	200	5%	5%	0.06	0.25	0.012	0.163	0.310

Notes:

1. Hydrologic modeling performed in EPA SWMM 5.1.
2. Site assumed to route to outlet in existing and proposed conditions with 0% disconnected impervious cover.
3. Evaporation data based on the EPA National Storwater Calculator, Northridge Cal State Station Gauge.
4. Existing Site's Manning's n-value for pervious assumed based on ground cover from aerial. Proposed Site's Manning's n-value for pervious assumed based on Master Plan.
5. Continuous simulation model based on 1970 - 2006 data from Gauge San Fernando Ph 3 Station ID 047762 obtained from the EPA National Stormwater Calculator.
6. 24-hour rainfall data and hyetograph obtained from LA County.

TABLE 2: GREEN & AMPT SOILS PARAMETERS

Site	Native Soil Green & Ampt Parameters			Growing Media Green & Ampt Parameters							
	Suction Head (in)	Conductivity (in/hr)	Initial Deficit	Media Depth (in)	Suction Head (in)	Conductivity (in/hr)	Initial Deficit	Field Capacity	Effective Porosity	Wilting Point	Conductivity Slope
Site	4.330	0.430	0.358	18	2.4	1.18	0.312	0.105	0.437	0.047	8.0

Notes:

1. Native soil based on underlying soil type data from Los Angeles County Department of Public Works.
2. The soil is a combination of Handford Fine Sandy Loam, Hanford Gravelly Sandy Loam, and Upper Los Angeles River. Sandy loam soil type is used as the predominant soil group.
3. Saturated hydraulic conductivity and suction head for native soil based on sandy clay values from EPA *SUSTAIN User's Manual* .
4. Initial moisture deficit for Western U.S. assumed from www.water-research.net.
5. Suction head values assumed for growing media from EPA *SUSTAIN User's Manual* . The conductivity value was selected to simulate long-term saturated hydraulic conductivity in the event of loss of capacity over time.
6. Loamy sand classification assumed for growing media.
7. Conductivity slope assumed from standard tables in SWMM5.0.021 User's Manual based on sandy loam growing media.

TABLE 3: LID FEATURES AREAS AND CONTRIBUTING AREAS FOR SITE

Drainage Area	LID Feature	LID Area (sq. ft.[1])	LID % of Site	Drainage Area (sq. ft.)	Initially Saturated %[2]	% Impervious Area Treated[3]	Outflow to Pervious
DA1	Bioretention	13,282	1.0%	623,057	0/30	97%	No
DA1	Permeable Pavement	16,856	1.3%	16,856	0/33	3%	No
DA2	Bioretention	112,470	7.0%	691,368	0/30	87%	No
DA2	Permeable Pavement	104,576	6.5%	104,576	0/33	13%	No

Notes:

1. The total surface area of the LID features are used in SWMM modeling. The BMPs exceed the minimum surface area requirements of 6,000 sq. ft. for Drainage Area 1 and 125,715 sq. ft. for Drainage Area 2 (including Bioretention and Permeable Pavement), and based on the water quality requirements in the City of Los Angeles Development Best Management Practices Handbook, Low Impact Development Manual, June 2011.
2. The % initially saturated for the LID growing media is 0% for the continuous simulation and 30%/33% for the design storm
3. % impervious area treated for bioretention is percent of entire impervious area minus the permeable pavement in the project drainage areas The Permeable Pavement is treating its own area only.

TABLE 4: LID CONFIGURATIONS FOR SITE

Drainage Area	LID Feature	Avg. Surface Depth (in)	Surface Slope (%)	Average Top Width (ft)	Side Slope (H:V)	Surface Veg. Volume Fraction	Manning's n-value	Depth Soil Media (in)	Initial Media Saturation (%)	Storage/Drain Rock (in)	Void Ratio	Underdrain?	Drain Coefficent
DA1	Bioretention	18	0.00%	25	---	0	0.40	24	30	0.0001	0.5	No	---
DA1	Permeable Pavement	---	2.00%	100	---	---	0.011	---	33	24	0.5	No	---
DA2	Bioretention	18	0.00%	25	---	0	0.40	24	30	0.0001	0.5	No	---
DA2	Permeable Pavement	---	2.00%	100	---	---	0.011	---	33	24	0.5	No	---

Notes:

1. Green & Ampt hydraulic parameters for growing media (amended soil) based on sandy loam with a hydraulic conductivity of 1.18 in/hr (see Table 2 for details).
2. For the lined bioretention and planter box alte

Notes:

2. For the lined bioretention and planter box alternatives, the saturated hydraulic conductivity of 0.00 in/hr assumed for underlying (native) soil (see Table 2 for details).
3. Initial media saturation used for design storm ε

3. Initial media saturation used for design storm events only and not continuous simulation model.
4. Bioretention modeled with 0% slope due to SW

4. Bioretention modeled with 0% slope due to SWMM model requirements.
5. There is no storage/drain rock for bioretention; however, SWMM requires a value greater than zero to run, so a value of 0.0001 is used to mimic a near zero value

TABLE 5A: DESIGN STORM EVENTS RESULTS FOR DRAINAGE AREA 1 (DA1)

System Results	2-yr, 24-hr Design Storm			10-yr, 24-hr Design Storm			100-yr, 24-hr Design Storm		
	Exist.	Prop.	Prop. vs Exist.	Exist.	Prop.	Prop. vs Exist.	Exist.	Prop.	Prop. vs Exist.
Precipitation (in)	2.83	2.83	0%	5.23	5.23	0%	8.21	8.21	0%
Surface Runoff (in)	1.50	0.99	-34%	2.83	2.16	-24%	4.75	3.82	-20%
Infiltration (in)	1.28	1.77	38%	2.35	3.00	28%	3.41	4.29	26%
Evaporation (in)	0.04	0.04	0%	0.04	0.04	0%	0.04	0.05	25%
Peak Flows (cfs)	9.81	8.68	-12%	19.59	17.11	-13%	36.07	30.17	-16%

TABLE 5B: DESIGN STORM EVENTS RESULTS FOR DRAINAGE AREA 2 (DA2)

System Results	2-yr, 24-hr Design Storm			10-yr, 24-hr Design Storm			100-yr, 24-hr Design Storm		
	Exist.	Prop.	Prop. vs Exist.	Exist.	Prop.	Prop. vs Exist.	Exist.	Prop.	Prop. vs Exist.
Precipitation (in)	2.83	2.83	0%	5.23	5.23	0%	8.21	8.21	0%
Surface Runoff (in)	2.10	0.00	-100%	3.96	0.11	-97%	6.42	1.55	-76%
Infiltration (in)	0.66	2.51	280%	1.20	4.78	298%	1.72	6.32	267%
Evaporation (in)	0.07	0.07	0%	0.07	0.07	0%	0.07	0.07	0%
Peak Flows (cfs)	16.04	0.00	-100%	32.38	1.84	-94%	57.34	33.98	-41%

TABLE 6A: DRAINAGE AREA 1 (DA1)
CONTINUOUS SIMULATION WATER BALANCE OUTPUT

System Results	Analysis Period Results			
	Exist.	Prop.	Prop. vs Exist.	Prop. vs Exist. (%)
Precipitation (in)	422.25	422.25	0.00	0%
Surface Runoff (in)	182.20	69.04	-113.16	-62%
Infiltration (in)	191.29	296.63	105.34	55%
Evaporation (in)	51.85	59.61	7.76	15%
Maximum Peak Flow (cfs)	75.24	71.56	-3.68	-5%

Notes:
1. Water balance output is for full continuous simulation run.
2. Initial saturation of 0% (wilting point) used for growing media at start of continuous simulation run.
3. Rainfall data edited at hour 23:00 in yea r1983 to remove 9.148-inch depth as no rainfall was recorded at that time-step in nearby gauge.

TABLE 6B: DRAINAGE AREA 2 (DA2)
CONTINUOUS SIMULATION WATER BALANCE OUTPUT

System Results	Analysis Period Results			
	Exist.	Prop.	Prop. vs Exist.	Prop. vs Exist. (%)
Precipitation (in)	422.25	422.25	0.00	0%
Surface Runoff (in)	249.94	0.10	-249.84	-100%
Infiltration (in)	98.12	316.94	218.82	223%
Evaporation (in)	76.49	107.79	31.30	41%
Maximum Peak Flow (cfs)	94.46	2.60	-91.86	-97%

Notes:
1. Water balance output is for full continuous simulation run.
2. Initial saturation of 0% (wilting point) used for growing media at start of continuous simulation run.
3. Rainfall data edited at hour 23:00 in yea r1983 to remove 9.148-inch depth as no rainfall was recorded at that time-step in nearby gauge.

TABLE 7: PRE-PROJECT AND POST-PROJECT EVENT MEAN CONCENTRATION VALUES

Pollutant	Retail/ Commercial	Open/Non-Urban
Total Suspended Solids (TSS) (mg/L)	67.4 [1]	70 [2]
Total Nitrogen (µg/l)	3.4 [1]	0.97 [2]
Total Copper (µg/l)	34.8 [1]	9.1 [1]
Total Lead (µg/l)	11.5 [2]	30 [2]
Total Zinc (µg/l)	238.5 [1]	195 [2]
Fecal Coliform (MPN/L)	10,716,565 [1]	21,748 [1]

[1] Event Mean Concentration (EMC) values are from Table 7, The Green Visions Plan for 21st Century Southern California, 2006.

[2] EMC values are from Table 4-1, the EPA Guide to Urban Stormwater Pollutant Concentrations, 2006.

[3] Modeled washoff exponent = 1.0 for all pollutants

TABLE 8: POLLUTANT REMOVAL BY VARIOUS BIOFILTRATION PRACTICES

Pollutant	% Removal	
	Bioretention[1]	Permeable Pavement[1,2]
Total Suspended Solids (TSS)	85	91
Total Nitrogen	40	27
Total Copper	66	42
Total Lead	63	74
Total Zinc	68	81
Fecal Coliform	81	82.5

Notes

1. Removal rates for bioretention and permeable pavement, except for fecal coliform for permeable pavement, are based on The Green Visions Plan for 21st Century Southern California prepared by the University of Southern California, dated April, 2006.
2. Fecal coliform removal rates for permeable pavement were obtained from the U.S. EPA *Handbook Urban Runoff and Pollution Prevention Planning* .

TABLE 9A: WATER QUALITY RESULTS FOR DRAINAGE AREA 1 (DA1)

	Pollutant Effluent Concentration											
	TSS		Nitrogen		Copper		Lead		Zinc		Fecal Coliform	
	2-Year	Annual	2-Year	Annual	2-Year	Annual	2-Year	Annual	2-Year	Annual	2-Year	Annual
Model	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	LogN	LogN
Existing	686.9	2237.5	0.0	0.1	0.2	0.8	0.2	0.6	2.2	7.1	13.4	0.4
Proposed	52.1	98.8	0.0	0.0	0.1	0.1	0.0	0.1	0.3	0.6	12.4	0.4
Difference	-634.7	-2138.7	0.0	-0.1	-0.2	-0.6	-0.2	-0.6	-1.9	-6.5	-1.0	0.0
% Difference	-92.4	-95.6	-56.5	-75.7	-68.7	-81.7	-77.9	-87.0	-84.5	-91.0	-7.4	-8.0

Notes:

1. Water balance output is for 2-year, 24-hour design storm and annual continuous simulation run.
2. Continuous simulation model based on 1970 - 2006 data from San Fernando PH 3 Station ID 047762 obtained from the EPA National Stormwater Calculator
3. Proposed conditions includes bioretention and pervious pavement.

TABLE 9B: WATER QUALITY RESULTS FOR DRAINAGE AREA 2 (DA2)

	Pollutant Effluent Concentration											
	TSS		Nitrogen		Copper		Lead		Zinc		Fecal Coliform	
	2-Year	Annual	2-Year	Annual	2-Year	Annual	2-Year	Annual	2-Year	Annual	2-Year	Annual
Model	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	LogN	LogN
Existing	1202.0	3845.6	0.1	0.2	0.5	1.6	0.3	0.9	4.0	12.9	13.8	0.4
Proposed	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-4.1	0.3
Difference	-1202.0	-3845.4	-0.1	-0.2	-0.5	-1.6	-0.3	-0.9	-4.0	-12.9	-17.9	-0.1
% Difference	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0	-100.0	-129.6	-27.8

Notes:

1. Water balance output is for 2-year, 24-hour design storm and annual continuous simulation run.
2. Continuous simulation model based on 1970 - 2006 data from San Fernando PH 3 Station ID 047762 obtained from the EPA National Stormwater Calculator
3. Proposed conditions includes bioretention and pervious pavement.

APPENDIX D-EPA SWMM WATER BUDGET RESULTS

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... YES
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************        Volume         Depth
Runoff Quantity Continuity     acre-feet        inches
```

2-Year Model, Existing Conditions (DA1)

```
**************************     ---------     -------
Total Precipitation ......        6.933        2.830
Evaporation Loss .........        0.099        0.040
Infiltration Loss ........        3.148        1.285
Surface Runoff ...........        3.687        1.505
Final Storage ............        0.000        0.000
Continuity Error (%) .....       -0.007
```

```
**************************          TSS     Nitrogen       Copper         Lead         Zinc
Runoff Quality Continuity          lbs          lbs          lbs          lbs          lbs
**************************    ----------   ----------   ----------   ----------   ----------
Initial Buildup ..........        0.000        0.000        0.000        0.000        0.000
Surface Buildup ..........      686.851        0.023        0.233        0.199        2.193
Wet Deposition ...........        0.000        0.000        0.000        0.000        0.000
Sweeping Removal .........        0.000        0.000        0.000        0.000        0.000
Infiltration Loss ........        0.000        0.000        0.000        0.000        0.000
BMP Removal ..............        0.000        0.000        0.000        0.000        0.000
Surface Runoff ...........      686.851        0.023        0.233        0.199        2.193
Remaining Buildup ........        0.000        0.000        0.000        0.000        0.000
Continuity Error (%) .....        0.000        0.000        0.000        0.000        0.000
```

```
************************** FecalColiform
Runoff Quality Continuity          LogN
**************************    ----------
Initial Buildup ..........        0.000
Surface Buildup ..........       13.429
Wet Deposition ...........        0.000
Sweeping Removal .........        0.000
Infiltration Loss ........        0.000
BMP Removal ..............        0.000
Surface Runoff ...........       13.429
```

Remaining Buildup 0.000
Continuity Error (%) ..... -0.000

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA1	2.83	0.00	0.04	1.28	1.50	1.20	9.81	0.532

****
Subcatchment Washoff Summary
****

Subcatchment	TSS lbs	Nitrogen lbs	Copper lbs	Lead lbs	Zinc lbs	FecalColiform LogN
DA1	686.851	0.023	0.233	0.199	2.193	13.429
System	686.851	0.023	0.233	0.199	2.193	13.429

Analysis begun on: Sat Jul 02 11:32:09 2016
Analysis ended on: Sat Jul 02 11:32:09 2016
Total elapsed time: < 1 sec

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************        Volume         Depth
Runoff Quantity Continuity     acre-feet        inches
```

```
**************************     ---------     -------
Total Precipitation ......       12.814        5.230
Evaporation Loss .........        0.103        0.042
Infiltration Loss ........        5.767        2.354
Surface Runoff ...........        6.944        2.834
Final Storage ............        0.000        0.000
Continuity Error (%) .....       -0.010


**************************
Subcatchment Runoff Summary
**************************

-------------------------------------------------------------------------------------------------
                 Total     Total     Total     Total     Total     Total    Peak  Runoff
                Precip     Runon      Evap     Infil    Runoff    Runoff  Runoff  Coeff
Subcatchment         in        in        in        in        in   10^6 gal     CFS
-------------------------------------------------------------------------------------------------
DA1                5.23      0.00      0.04      2.35      2.83      2.26   19.59   0.542


Analysis begun on:  Fri Jul 01 10:19:31 2016
Analysis ended on:  Fri Jul 01 10:19:31 2016
Total elapsed time: < 1 sec
```

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************     Volume         Depth
Runoff Quantity Continuity     acre-feet       inches
```

**********	---------	-------
Total Precipitation	20.114	8.210
Evaporation Loss	0.108	0.044
Infiltration Loss	8.362	3.413
Surface Runoff	11.649	4.755
Final Storage	0.000	0.000
Continuity Error (%)	-0.017	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA1	8.21	0.00	0.04	3.41	4.75	3.80	36.07	0.579

Analysis begun on: Fri Jul 01 10:20:10 2016
Analysis ended on: Fri Jul 01 10:20:10 2016
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
047762	JAN-09-1970	DEC-27-2006	5 min	7665	0	0

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  RDII ..... NO
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... YES
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-09-1970 00:00:00

Ending Date DEC-27-2006 06:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

**********	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
**********	---	---
Total Precipitation	1034.517	422.252
Evaporation Loss	127.023	51.846
Infiltration Loss	468.657	191.289
Surface Runoff	446.391	182.200
Final Storage	0.029	0.012
Continuity Error (%)	-0.733	

**********	TSS	Nitrogen	Copper	Lead	Zinc
Runoff Quality Continuity	lbs	lbs	lbs	lbs	lbs
**********	---	---	---	---	---
Initial Buildup	0.000	0.000	0.000	0.000	0.000
Surface Buildup	82787.247	2.785	28.053	23.935	264.317
Wet Deposition	0.000	0.000	0.000	0.000	0.000
Sweeping Removal	0.000	0.000	0.000	0.000	0.000
Infiltration Loss	0.000	0.000	0.000	0.000	0.000
BMP Removal	0.000	0.000	0.000	0.000	0.000
Surface Runoff	82787.247	2.785	28.053	23.935	264.317
Remaining Buildup	0.000	0.000	0.000	0.000	0.000
Continuity Error (%)	0.000	0.000	0.000	0.000	0.000

********** FecalColiform

```
Runoff Quality Continuity          LogN
**************************    ----------
Initial Buildup ..........        0.000
Surface Buildup ..........       15.510
Wet Deposition ...........        0.000
Sweeping Removal .........        0.000
Infiltration Loss ........        0.000
BMP Removal ..............        0.000
Surface Runoff ...........       15.510
Remaining Buildup ........        0.000
Continuity Error (%) .....       -0.000


***************************
Subcatchment Runoff Summary
***************************

-----------------------------------------------------------------------------------------------
                  Total     Total     Total     Total     Total     Total    Peak  Runoff
                 Precip     Runon      Evap     Infil    Runoff    Runoff   Runoff   Coeff
Subcatchment         in        in        in        in        in   10^6 gal     CFS
-----------------------------------------------------------------------------------------------
DA1               422.25      0.00     51.85    191.29    182.20    145.45   75.24   0.431


****************************
Subcatchment Washoff Summary
****************************

-----------------------------------------------------------------------------------------------
                     TSS    Nitrogen      Copper        Lead        Zinc FecalColiform
Subcatchment         lbs         lbs         lbs         lbs         lbs        LogN
-----------------------------------------------------------------------------------------------
```

DA1	82787.247	2.785	28.053	23.935	264.317	15.510
System	82787.247	2.785	28.053	23.935	264.317	15.510

Analysis begun on: Fri Jul 01 10:20:34 2016
Analysis ended on: Fri Jul 01 10:20:42 2016
Total elapsed time: 00:00:08

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... YES
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************     Volume         Depth
Runoff Quantity Continuity     acre-feet       inches
```

```
**************************     ---------     -------
Initial LID Storage ......       0.185       0.076
Total Precipitation ......       6.933       2.830
Evaporation Loss .........       0.099       0.041
Infiltration Loss ........       4.332       1.768
Surface Runoff ...........       2.425       0.990
Final Storage ............       0.263       0.107
Continuity Error (%) .....      -0.007
```

```
**************************          TSS     Nitrogen      Copper        Lead        Zinc
Runoff Quality Continuity          lbs         lbs         lbs         lbs         lbs
**************************    ----------  ----------  ----------  ----------  ----------
Initial Buildup ..........       0.000       0.000       0.000       0.000       0.000
Surface Buildup ..........     615.780       0.020       0.197       0.186       1.943
Wet Deposition ...........       0.000       0.000       0.000       0.000       0.000
Sweeping Removal .........       0.000       0.000       0.000       0.000       0.000
Infiltration Loss ........       0.000       0.000       0.000       0.000       0.000
BMP Removal ..............     563.672       0.010       0.124       0.142       1.604
Surface Runoff ...........      52.108       0.010       0.073       0.044       0.339
Remaining Buildup ........       0.000       0.000       0.000       0.000       0.000
Continuity Error (%) .....       0.000       0.000       0.000       0.000       0.000
```

```
************************** FecalColiform
Runoff Quality Continuity        LogN
**************************    ----------
Initial Buildup ..........       0.000
Surface Buildup ..........      13.339
Wet Deposition ...........       0.000
Sweeping Removal .........       0.000
Infiltration Loss ........       0.000
BMP Removal ..............      13.282
```

Surface Runoff 12.429
Remaining Buildup 0.000
Continuity Error (%) 0.000

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA1	2.83	0.00	0.04	1.77	0.99	0.79	8.68	0.350

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Initial Storage in	Final Storage in	Continuity Error %
DA1	PermeablePavement	5.90	0.00	8.54	0.00	0.00	2.64	0.00	-0.00
DA1	Bioretention	128.79	0.52	26.42	95.43	0.00	3.94	10.36	-0.00

****
Subcatchment Washoff Summary
****

2-Year Model, Proposed Conditions (DA1)

Subcatchment	TSS lbs	Nitrogen lbs	Copper lbs	Lead lbs	Zinc lbs	FecalColiform LogN
DA1	52.108	0.010	0.073	0.044	0.339	12.429
System	52.108	0.010	0.073	0.044	0.339	12.429

Analysis begun on: Fri Jul 01 10:48:08 2016
Analysis ended on: Fri Jul 01 10:48:08 2016
Total elapsed time: < 1 sec

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************        Volume         Depth
Runoff Quantity Continuity     acre-feet        inches
```

```
**************************     ---------      -------
Initial LID Storage ......        0.185        0.076
Total Precipitation ......       12.814        5.230
Evaporation Loss .........        0.103        0.042
Infiltration Loss ........       7.353        3.001
Surface Runoff ...........       5.281        2.155
Final Storage ............       0.263        0.107
Continuity Error (%) .....      -0.009
```

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA1	5.23	0.00	0.04	3.00	2.16	1.72	17.11	0.412

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Initial Storage in	Final Storage in	Continuity Error %
DA1	PermeablePavement	10.97	0.00	13.61	0.00	0.00	2.64	0.00	-0.00
DA1	Bioretention	240.67	0.52	27.02	206.71	0.00	3.94	10.35	-0.00

Analysis begun on: Fri Jul 01 10:49:13 2016
Analysis ended on: Fri Jul 01 10:49:13 2016
Total elapsed time: < 1 sec

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************        Volume         Depth
Runoff Quantity Continuity     acre-feet        inches
```

**********	---------	-------
Initial LID Storage	0.185	0.076
Total Precipitation	20.114	8.210
Evaporation Loss	0.112	0.046
Infiltration Loss	10.519	4.293
Surface Runoff	9.367	3.823
Final Storage	0.263	0.107
Continuity Error (%)	0.190	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA1	8.21	0.00	0.05	4.29	3.82	3.05	30.17	0.466

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Initial Storage in	Final Storage in	Continuity Error %
DA1	PermeablePavement	17.26	0.00	18.61	0.00	0.00	2.64	0.00	6.50
DA1	Bioretention	379.69	0.52	27.35	345.41	0.00	3.94	10.35	-0.00

Analysis begun on: Fri Jul 01 10:51:09 2016
Analysis ended on: Fri Jul 01 10:51:09 2016
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
047762	JAN-09-1970	DEC-27-2006	5 min	7665	0	0

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  RDII ..... NO
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... YES
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-09-1970 00:00:00

Ending Date DEC-27-2006 06:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

********** Runoff Quantity Continuity **********	Volume acre-feet ---------	Depth inches -------
Initial LID Storage	0.029	0.012
Total Precipitation	1034.517	422.252
Evaporation Loss	146.032	59.605
Infiltration Loss	726.753	296.634
Surface Runoff	169.149	69.040
Final Storage	0.264	0.108
Continuity Error (%)	-0.740	

********** Runoff Quality Continuity **********	TSS lbs ----------	Nitrogen lbs ----------	Copper lbs ----------	Lead lbs ----------	Zinc lbs ----------
Initial Buildup	0.000	0.000	0.000	0.000	0.000
Surface Buildup	74438.493	2.368	23.783	22.483	234.855
Wet Deposition	0.000	0.000	0.000	0.000	0.000
Sweeping Removal	0.000	0.000	0.000	0.000	0.000
Infiltration Loss	0.000	0.000	0.000	0.000	0.000
BMP Removal	70783.008	1.691	18.647	19.374	211.086
Surface Runoff	3655.485	0.676	5.137	3.109	23.769
Remaining Buildup	0.000	0.000	0.000	0.000	0.000
Continuity Error (%)	0.000	0.000	0.000	0.000	0.000

```
************************** FecalColiform
Runoff Quality Continuity          LogN
**************************    ----------
Initial Buildup ..........        0.000
Surface Buildup ..........       15.422
Wet Deposition ...........        0.000
Sweeping Removal .........        0.000
Infiltration Loss ........        0.000
BMP Removal ..............       15.390
Surface Runoff ...........       14.275
Remaining Buildup ........        0.000
Continuity Error (%) .....       -0.000


***************************
Subcatchment Runoff Summary
***************************

-------------------------------------------------------------------------------------------------
                 Total     Total     Total     Total     Total     Total    Peak  Runoff
                Precip     Runon      Evap     Infil    Runoff    Runoff  Runoff  Coeff
Subcatchment        in        in        in        in        in   10^6 gal     CFS
-------------------------------------------------------------------------------------------------
DA1               422.25      0.00     59.61    296.63     69.04     55.12   71.56   0.164


***********************
LID Performance Summary
***********************

-------------------------------------------------------------------------------------------------
                         Total     Evap    Infil  Surface   Drain   Initial    Final  Continuity
                        Inflow     Loss     Loss  Outflow  Outflow  Storage  Storage      Error
```

Subcatchment	LID Control	in	in	in	in	in	in	in	%
DA1	PermeablePavement	794.96	0.00	794.96	0.00	0.00	0.00	0.00	-0.00
DA1	Bioretention	15716.01	1310.61	7750.56	6647.34	0.00	1.13	9.38	-0.00

****
Subcatchment Washoff Summary
****

Subcatchment	TSS lbs	Nitrogen lbs	Copper lbs	Lead lbs	Zinc lbs	FecalColiform LogN
DA1	3655.485	0.676	5.137	3.109	23.769	14.275
System	3655.485	0.676	5.137	3.109	23.769	14.275

Analysis begun on: Fri Jul 01 10:52:10 2016
Analysis ended on: Fri Jul 01 10:53:12 2016
Total elapsed time: 00:01:02

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... YES
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************     Volume         Depth
Runoff Quantity Continuity     acre-feet       inches
```

2-Year Model, Existing Conditions (DA2)

```
**************************     ---------      -------
Total Precipitation ......        8.749        2.830
Evaporation Loss .........        0.205        0.066
Infiltration Loss ........        2.039        0.659
Surface Runoff ...........        6.506        2.104
Final Storage ............        0.000        0.000
Continuity Error (%) .....       -0.007
```

********** Runoff Quality Continuity	TSS lbs	Nitrogen lbs	Copper lbs	Lead lbs	Zinc lbs
Initial Buildup	0.000	0.000	0.000	0.000	0.000
Surface Buildup	1201.991	0.050	0.511	0.278	4.039
Wet Deposition	0.000	0.000	0.000	0.000	0.000
Sweeping Removal	0.000	0.000	0.000	0.000	0.000
Infiltration Loss	0.000	0.000	0.000	0.000	0.000
BMP Removal	0.000	0.000	0.000	0.000	0.000
Surface Runoff	1201.991	0.050	0.511	0.278	4.039
Remaining Buildup	0.000	0.000	0.000	0.000	0.000
Continuity Error (%)	0.000	0.000	0.000	0.000	0.000

********** Runoff Quality Continuity	FecalColiform LogN
Initial Buildup	0.000
Surface Buildup	13.821
Wet Deposition	0.000
Sweeping Removal	0.000
Infiltration Loss	0.000
BMP Removal	0.000
Surface Runoff	13.821

Remaining Buildup 0.000
Continuity Error (%) ..... -0.000

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA2	2.83	0.00	0.07	0.66	2.10	2.12	16.04	0.744

****
Subcatchment Washoff Summary
****

Subcatchment	TSS lbs	Nitrogen lbs	Copper lbs	Lead lbs	Zinc lbs	FecalColiform LogN
DA2	1201.991	0.050	0.511	0.278	4.039	13.821
System	1201.991	0.050	0.511	0.278	4.039	13.821

Analysis begun on: Fri Jul 01 10:59:58 2016
Analysis ended on: Fri Jul 01 10:59:58 2016
Total elapsed time: < 1 sec

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************     Volume         Depth
Runoff Quantity Continuity     acre-feet       inches
```

**********	---------	-------
Total Precipitation	16.169	5.230
Evaporation Loss	0.215	0.070
Infiltration Loss	3.714	1.201
Surface Runoff	12.242	3.960
Final Storage	0.000	0.000
Continuity Error (%)	-0.010	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA2	5.23	0.00	0.07	1.20	3.96	3.99	32.38	0.757

Analysis begun on: Fri Jul 01 11:00:46 2016
Analysis ended on: Fri Jul 01 11:00:46 2016
Total elapsed time: < 1 sec

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************        Volume         Depth
Runoff Quantity Continuity     acre-feet        inches
```

**********	---------	-------
Total Precipitation	25.383	8.210
Evaporation Loss	0.221	0.071
Infiltration Loss	5.304	1.716
Surface Runoff	19.861	6.424
Final Storage	0.000	0.000
Continuity Error (%)	-0.013	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA2	8.21	0.00	0.07	1.72	6.42	6.47	57.34	0.782

Analysis begun on: Fri Jul 01 11:01:11 2016
Analysis ended on: Fri Jul 01 11:01:11 2016
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
047762	JAN-09-1970	DEC-27-2006	5 min	7665	0	0

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  RDII ..... NO
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... YES
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-09-1970 00:00:00

Ending Date DEC-27-2006 06:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

**********	Volume	Depth
Runoff Quantity Continuity	acre-feet	inches
**********	---	---
Total Precipitation	1305.462	422.252
Evaporation Loss	236.467	76.485
Infiltration Loss	303.358	98.121
Surface Runoff	772.737	249.942
Final Storage	0.053	0.017
Continuity Error (%)	-0.548	

**********	TSS	Nitrogen	Copper	Lead	Zinc
Runoff Quality Continuity	lbs	lbs	lbs	lbs	lbs
**********	---	---	---	---	---
Initial Buildup	0.000	0.000	0.000	0.000	0.000
Surface Buildup	142286.698	5.945	60.451	32.968	478.129
Wet Deposition	0.000	0.000	0.000	0.000	0.000
Sweeping Removal	0.000	0.000	0.000	0.000	0.000
Infiltration Loss	0.000	0.000	0.000	0.000	0.000
BMP Removal	0.000	0.000	0.000	0.000	0.000
Surface Runoff	142286.698	5.945	60.451	32.968	478.129
Remaining Buildup	0.000	0.000	0.000	0.000	0.000
Continuity Error (%)	0.000	0.000	0.000	0.000	0.000

********** FecalColiform

```
Runoff Quality Continuity          LogN
**************************    ----------
Initial Buildup ..........        0.000
Surface Buildup ..........       15.894
Wet Deposition ...........        0.000
Sweeping Removal .........        0.000
Infiltration Loss ........        0.000
BMP Removal ..............        0.000
Surface Runoff ...........       15.894
Remaining Buildup ........        0.000
Continuity Error (%) .....        0.000


***************************
Subcatchment Runoff Summary
***************************

-----------------------------------------------------------------------------------------------
                  Total     Total     Total     Total     Total     Total    Peak  Runoff
                  Precip    Runon     Evap      Infil     Runoff    Runoff   Runoff  Coeff
Subcatchment         in        in        in        in        in  10^6 gal      CFS
-----------------------------------------------------------------------------------------------
DA2               422.25      0.00     76.49     98.12    249.94    251.79    94.46  0.592


****************************
Subcatchment Washoff Summary
****************************

-----------------------------------------------------------------------------------------------
                     TSS    Nitrogen      Copper        Lead        Zinc FecalColiform
Subcatchment         lbs         lbs         lbs         lbs         lbs        LogN
-----------------------------------------------------------------------------------------------
```

DA2	142286.698	5.945	60.451	32.968	478.129	15.894
System	142286.698	5.945	60.451	32.968	478.129	15.894

Analysis begun on: Fri Jul 01 11:01:34 2016
Analysis ended on: Fri Jul 01 11:01:41 2016
Total elapsed time: 00:00:07

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... YES
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************     Volume         Depth
Runoff Quantity Continuity     acre-feet       inches
```

```
**************************     ---------     -------
Initial LID Storage ......        1.375        0.445
Total Precipitation ......        8.749        2.830
Evaporation Loss .........        0.209        0.068
Infiltration Loss ........        7.748        2.506
Surface Runoff ...........        0.000        0.000
Final Storage ............        2.169        0.701
Continuity Error (%) .....       -0.008
```

```
**************************          TSS     Nitrogen       Copper         Lead         Zinc
Runoff Quality Continuity          lbs          lbs          lbs          lbs          lbs
**************************    ----------   ----------   ----------   ----------   ----------
Initial Buildup ..........        0.000        0.000        0.000        0.000        0.000
Surface Buildup ..........      679.034        0.021        0.214        0.207        2.137
Wet Deposition ...........        0.000        0.000        0.000        0.000        0.000
Sweeping Removal .........        0.000        0.000        0.000        0.000        0.000
Infiltration Loss ........        0.000        0.000        0.000        0.000        0.000
BMP Removal ..............      679.034        0.021        0.214        0.207        2.137
Surface Runoff ...........        0.000        0.000        0.000        0.000        0.000
Remaining Buildup ........        0.000        0.000        0.000        0.000        0.000
Continuity Error (%) .....        0.000        0.000        0.000        0.000        0.000
```

```
************************** FecalColiform
Runoff Quality Continuity         LogN
**************************    ----------
Initial Buildup ..........        0.000
Surface Buildup ..........       13.373
Wet Deposition ...........        0.000
Sweeping Removal .........        0.000
Infiltration Loss ........        0.000
BMP Removal ..............       13.373
```

Surface Runoff ..... -4.095
Remaining Buildup 0.000
Continuity Error (%) ..... -0.000

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA2	2.83	0.00	0.07	2.51	0.00	0.00	0.00	0.000

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Initial Storage in	Final Storage in	Continuity Error %
DA2	PermeablePavement	5.19	0.00	7.83	0.00	0.00	2.64	0.00	-0.00
DA2	Bioretention	17.54	0.52	10.88	0.00	0.00	3.94	10.08	-0.01

****
Subcatchment Washoff Summary
****

Subcatchment	TSS lbs	Nitrogen lbs	Copper lbs	Lead lbs	Zinc lbs	FecalColiform LogN
DA2	0.000	0.000	0.000	0.000	0.000	-4.095
System	0.000	0.000	0.000	0.000	0.000	-4.095

Analysis begun on: Fri Jul 01 11:02:36 2016
Analysis ended on: Fri Jul 01 11:02:36 2016
Total elapsed time: < 1 sec

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************     Volume         Depth
Runoff Quantity Continuity     acre-feet       inches
```

**********	---------	-------
Initial LID Storage	1.375	0.445
Total Precipitation	16.169	5.230
Evaporation Loss	0.213	0.069
Infiltration Loss	14.780	4.781
Surface Runoff	0.325	0.105
Final Storage	2.228	0.721
Continuity Error (%)	-0.009	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA2	5.23	0.00	0.07	4.78	0.11	0.11	1.84	0.020

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Initial Storage in	Final Storage in	Continuity Error %
DA2	PermeablePavement	9.65	0.00	12.29	0.00	0.00	2.64	0.00	-0.00
DA2	Bioretention	32.73	0.52	24.45	1.35	0.00	3.94	10.35	-0.00

Analysis begun on: Fri Jul 01 11:03:49 2016
Analysis ended on: Fri Jul 01 11:03:49 2016
Total elapsed time: < 1 sec

```
EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)
--------------------------------------------------------------

*******************************************************
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
*******************************************************

****************
Analysis Options
****************
Flow Units ............... CFS
Process Models:
  Rainfall/Runoff ........ YES
  RDII ................... NO
  Snowmelt ............... NO
  Groundwater ............ NO
  Flow Routing ........... NO
  Water Quality .......... NO
Infiltration Method ...... GREEN_AMPT
Starting Date ............ APR-13-2016 00:00:00
Ending Date .............. APR-16-2016 06:00:00
Antecedent Dry Days ...... 0.0
Report Time Step ......... 00:05:00
Wet Time Step ............ 00:05:00
Dry Time Step ............ 00:05:00


**************************        Volume         Depth
Runoff Quantity Continuity     acre-feet        inches
```

**********	---------	-------
Initial LID Storage	1.375	0.445
Total Precipitation	25.383	8.210
Evaporation Loss	0.222	0.072
Infiltration Loss	19.532	6.318
Surface Runoff	4.777	1.545
Final Storage	2.229	0.721
Continuity Error (%)	-0.013	

****
Subcatchment Runoff Summary
****

Subcatchment	Total Precip in	Total Runon in	Total Evap in	Total Infil in	Total Runoff in	Total Runoff 10^6 gal	Peak Runoff CFS	Runoff Coeff
DA2	8.21	0.00	0.07	6.32	1.55	1.56	33.98	0.188

****
LID Performance Summary
****

Subcatchment	LID Control	Total Inflow in	Evap Loss in	Infil Loss in	Surface Outflow in	Drain Outflow in	Initial Storage in	Final Storage in	Continuity Error %
DA2	PermeablePavement	15.18	0.00	17.82	0.00	0.00	2.64	0.00	-0.00
DA2	Bioretention	51.60	0.52	25.74	18.92	0.00	3.94	10.36	-0.00

Analysis begun on: Fri Jul 01 11:04:32 2016
Analysis ended on: Fri Jul 01 11:04:32 2016
Total elapsed time: < 1 sec

EPA STORM WATER MANAGEMENT MODEL - VERSION 5.1 (Build 5.1.010)

****
Rainfall File Summary
****

Station ID	First Date	Last Date	Recording Frequency	Periods w/Precip	Periods Missing	Periods Malfunc.
047762	JAN-09-1970	DEC-27-2006	5 min	7665	0	0

****
NOTE: The summary statistics displayed in this report are
based on results found at every computational time step,
not just on results from each reporting time step.
****

****
Analysis Options
****
Flow Units ..... CFS
Process Models:
  Rainfall/Runoff ..... YES
  RDII ..... NO
  Snowmelt ..... NO
  Groundwater ..... NO
  Flow Routing ..... NO
  Water Quality ..... YES
Infiltration Method ..... GREEN_AMPT
Starting Date JAN-09-1970 00:00:00

Ending Date DEC-27-2006 06:00:00
Antecedent Dry Days 0.0
Report Time Step 00:05:00
Wet Time Step 00:05:00
Dry Time Step 00:05:00

********** Runoff Quantity Continuity **********	Volume acre-feet ---------	Depth inches -------
Initial LID Storage	0.243	0.078
Total Precipitation	1305.462	422.252
Evaporation Loss	333.239	107.786
Infiltration Loss	979.880	316.942
Surface Runoff	0.309	0.100
Final Storage	0.375	0.121
Continuity Error (%)	-0.620	

********** Runoff Quality Continuity **********	TSS lbs ----------	Nitrogen lbs ----------	Copper lbs ----------	Lead lbs ----------	Zinc lbs ----------
Initial Buildup	0.000	0.000	0.000	0.000	0.000
Surface Buildup	81722.055	2.569	25.795	24.894	257.220
Wet Deposition	0.000	0.000	0.000	0.000	0.000
Sweeping Removal	0.000	0.000	0.000	0.000	0.000
Infiltration Loss	0.000	0.000	0.000	0.000	0.000
BMP Removal	81716.202	2.568	25.787	24.889	257.182
Surface Runoff	5.853	0.001	0.008	0.005	0.038
Remaining Buildup	0.000	0.000	0.000	0.000	0.000
Continuity Error (%)	0.000	0.000	0.000	0.000	0.000

```
************************** FecalColiform
Runoff Quality Continuity        LogN
**************************    ----------
Initial Buildup ..........      0.000
Surface Buildup ..........     15.453
Wet Deposition ...........      0.000
Sweeping Removal .........      0.000
Infiltration Loss ........      0.000
BMP Removal ..............     15.453
Surface Runoff ...........     11.468
Remaining Buildup ........      0.000
Continuity Error (%) .....      0.000


***************************
Subcatchment Runoff Summary
***************************

-------------------------------------------------------------------------------------------
                 Total    Total    Total    Total    Total    Total   Peak  Runoff
                 Precip   Runon    Evap     Infil    Runoff   Runoff  Runoff  Coeff
Subcatchment        in       in       in       in       in  10^6 gal     CFS
-------------------------------------------------------------------------------------------
DA2              422.25     0.00   107.79   316.94     0.10     0.10    2.60  0.000


***********************
LID Performance Summary
***********************

-------------------------------------------------------------------------------------------
                         Total    Evap   Infil  Surface   Drain  Initial   Final  Continuity
                        Inflow    Loss    Loss  Outflow  Outflow  Storage  Storage       Error
```

Subcatchment	LID Control	in	in	in	in	in	in	in	%
DA2	PermeablePavement	708.26	0.00	708.26	0.00	0.00	0.00	0.00	-0.00
DA2	Bioretention	2201.94	965.78	1237.47	0.00	0.00	1.13	1.61	-0.08

****
Subcatchment Washoff Summary
****

Subcatchment	TSS lbs	Nitrogen lbs	Copper lbs	Lead lbs	Zinc lbs	FecalColiform LogN
DA2	5.853	0.001	0.008	0.005	0.038	11.468
System	5.853	0.001	0.008	0.005	0.038	11.468

Analysis begun on: Fri Jul 01 11:05:13 2016
Analysis ended on: Fri Jul 01 11:06:11 2016
Total elapsed time: 00:00:58

APPENDIX E-SECTION 5 OF THE LOS ANGELES RIVER WATERSHED REPORT

Los Angeles County 1994-2005

Integrated Receiving Water Impacts Report

Final Report - August 2005

CD Contents

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Section 1 - Introduction

Section 2 - Regional Study Area

Section 3 - Methods

Section 4 - San Gabriel River WMA

Section 5 - Los Angeles River WMA

Section 6 - Dominguez Channel WMA

Section 7 - Ballona Creek WMA

Section 8 - Malibu Creek WMA

Section 9 - Santa Clara River WMA

Section 10 - Regional Assessment

Section 11 - Regional Monitoring & Special Studies

Section 12 - Conclusions

Section 13 - Recommendations

Section 14 - References

APPENDICES

Appendix A

Appendix B

Appendix C

Appendix D

Appendix E

Appendix F

Appendix G

Appendix H

Appendix I

APPENDIX F-WATER QUALITY COMPLIANCE MASTER PLAN FOR URBAN RUNOFF

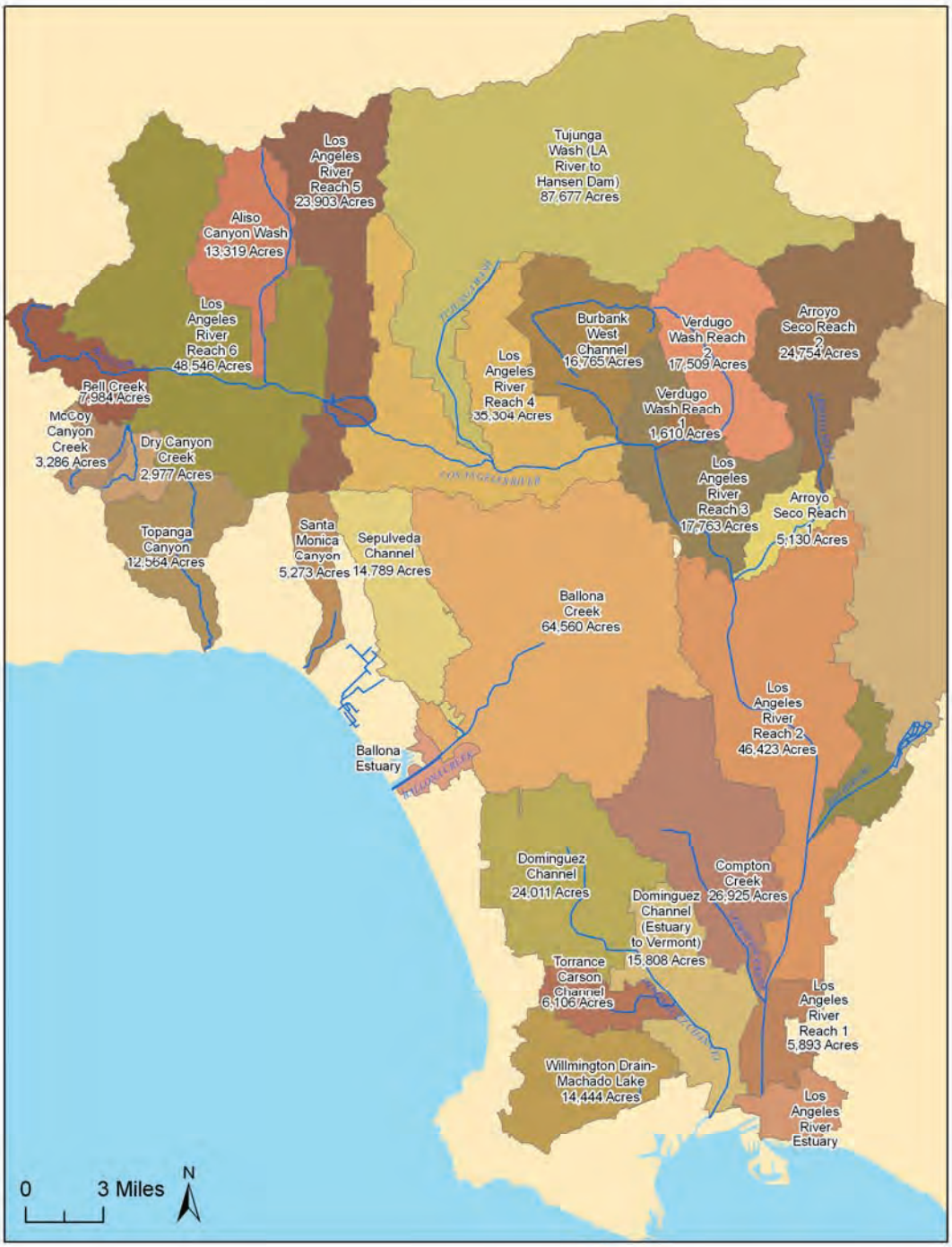


Figure 2-6
Los Angeles Area: 303(d) List-Impaired Subwatersheds and Reaches
Many of sub-watershed boundaries of the Los Angeles River, Dominguez Channel and Ballona Creek watersheds are illustrated above.

APPENDIX G-OLIVE VIEW MEDICAL CENTER CAMPUS MASTER PLAN

w Impact Development – Bioretention Plan

LOW IMPACT DEVELOPMENT

Being at such a key point in the greater Los An
Basin watershed, the management of runoff i
critical and should be slowed and treated at e
opportunity. Using Low Impact Development
strategies, wherever possible, the new design
helps water flow from the adjacent mountain
vegetated bioswales, allowing water to return
ground, filtered by plants and soil. Bioswales
mitigate runoff, improving groundwater qual
while taking advantage of the natural flow, u
shape of the land to direct water to the lands
and reducing the need for irrigation. The reve
areas at the base of the mountains, allow wat
to slow and infiltrate the ground before it rea
the campus perimeter, also naturally stabilizi
slope, minimizing erosion.

Once geotechnical determinations are made a
should the soil be found suitable for infiltratio
LID methodology should be further establishe
applied. Methods may include use of permea
paving in parking and hardscape areas.

Vegetated Bioretention Swales

Drainage Tributary Swale Distributi

Permeable Paving

APPENDIX H-EPA GUIDE TO STORMWATER RUNOFF

Table 4-1. Median Event Mean Concentrations for Urban Land Uses

Pollutant	Units	Residential		Mixed		Commercial		Open/ Non-Urban	
		Median	COV	Median	COV	Median	COV	Median	COV
BOD	mg/l	10	0.41	7.8	0.52	9.3	0.31	--	--
COD	mg/l	73	0.55	65	0.58	57	0.39	40	0.78
TSS	mg/l	101	0.96	67	1.14	69	0.85	70	2.92
Total Lead	µg/l	144	0.75	114	1.35	104	0.68	30	1.52
Total Copper	µg/l	33	0.99	27	1.32	29	0.81	--	--
Total Zinc	µg/l	135	0.84	154	0.78	226	1.07	195	0.66
Total Kjeldahl Nitrogen	µg/l	1900	0.73	1288	0.50	1179	0.43	965	1.00
Nitrate + Nitrite	µg/l	736	0.83	558	0.67	572	0.48	543	0.91
Total Phosphorus	µg/l	383	0.69	263	0.75	201	0.67	121	1.66
Soluble Phosphorus	µg/l	143	0.46	56	0.75	80	0.71	26	2.11

COV: Coefficient of variation
Source: Nationwide Urban Runoff Program (US EPA 1983)

Results from NURP indicate that there is not a significant difference in pollutant concentrations in runoff from different urban land use categories. There is a significant difference, however, in pollutant concentrations in runoff from urban sources than that produced from non-urban areas.

The pollutants that are found in urban storm water runoff originate from a variety of sources. The major sources include contaminants from residential and commercial areas, industrial activities, construction, streets and parking lots, and atmospheric deposition. Contaminants commonly found in storm water runoff and their likely sources are summarized in Table 4-2.

Table 4-3. Typical Pollutant Loadings from Runoff by Urban Land Use (lbs/acre-yr)

Land Use	TSS	TP	TKN	NH_3-N	NO_2+NO_3-N	BOD	COD	Pb	Zn	Cu
Commercial	1000	1.5	6.7	1.9	3.1	62	420	2.7	2.1	0.4
Parking Lot	400	0.7	5.1	2	2.9	47	270	0.8	0.8	0.04
HDR	420	1	4.2	0.8	2	27	170	0.8	0.7	0.03
MDR	190	0.5	2.5	0.5	1.4	13	72	0.2	0.2	0.14
LDR	10	0.04	0.03	0.02	0.1	NA	NA	0.01	0.04	0.01
Freeway	880	0.9	7.9	1.5	4.2	NA	NA	4.5	2.1	0.37
Industrial	860	1.3	3.8	0.2	1.3	NA	NA	2.4	7.3	0.5
Park	3	0.03	1.5	NA	0.3	NA	2	0	NA	NA
Construction	6000	80	NA	NA	NA	NA	NA	NA	NA	NA

HDR: High Density Residential, MDR: Medium Density Residential, LDR: Low Density Residential
NA: Not available; insufficient data to characterize loadings
Source: Horner et al, 1994

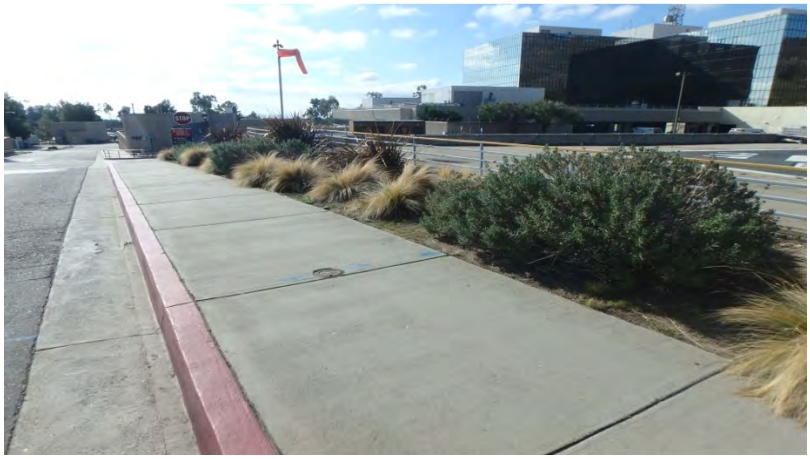
As indicated in Table 4-3, urban storm water runoff can contain significant concentrations of solids, nutrients, organics and metals. A comparison of the concentration of water quality parameters in urban runoff with the concentrations in domestic wastewater is shown in Table 4-4.

APPENDIX I-SITE RECONNAISSANCE PHOTOGRAPHS

Olive View Site Visit 1/20/2016

Curb drainage throughout site

Wilson Canyon drainage



Landscaping around campus

More Landscaping

Outlet for Wilson Canyon Debris Basin

Front of Wilson Canyon Debris Basin

Water and sediment in Wilson Canyon drain line, upstream

Parking lot, top of campus, adjacent to Wilson Canyon

Buildings and vegetation, walking top of property line

Embankment, moving west along northern extent of property

K-rails to control mud flow

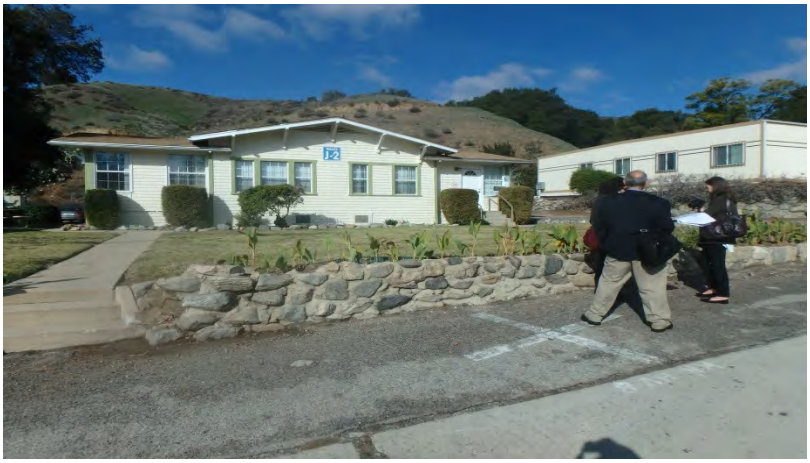
Vegetation at Northern edge of property

Mound constructed to control mud flows

Continuation of mound (roughly 5’x40’)

Backside of mound

Backside of mound (reinforced by concrete)



Vegetation, buildings fronting Sycamore Rd.

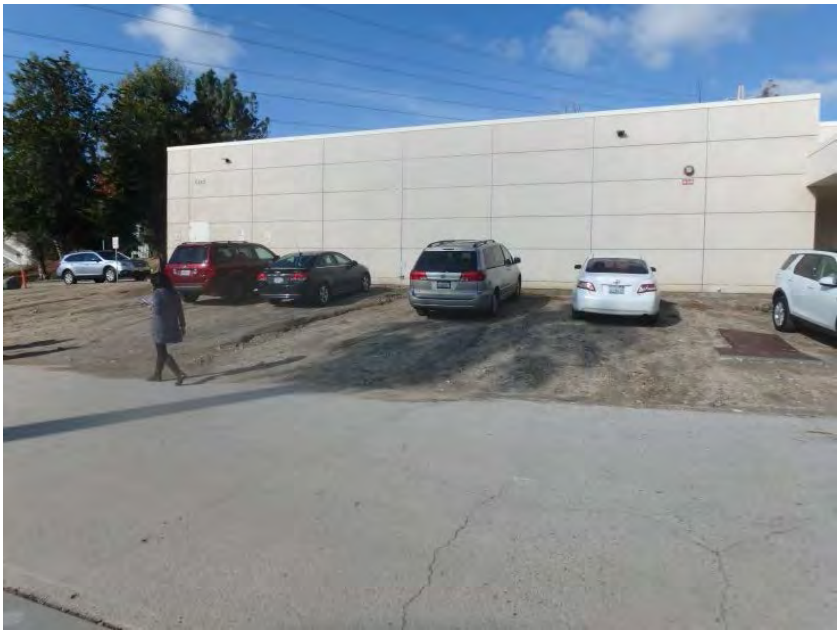
Close up of vegetation

Up Sycamore Rd.

Buildings fronting Sycamore Rd.

Ground Vegetation in planters on Sycamore Rd.

Soil erosion in dirt parking lot on Sycamore Rd.



Wide shot of soil erosion in parking lot

Drainage inlets around corner of Sycamore and Bucher Rd.

Corner of Sycamore and Bucher Ave.

Drainage inlets on corner of Sycamore and Bucher

Drainage and picnic area (Sycamore and Bucher)

Outlet on Bucher Ave.

Drain, moving west on Bucher Rd.

Open grass field along northwestern sector of campus

Sandbags used around drains to prevent excess runoff

North Campus bordering forest

Drains along walkways, west edge of campus

Alternate angle of drains

Soil erosion near northwest edge of campus

Road drain, unclear if leading anywhere

Newly constructed basin (post 2008 fires) Northwest campus

Alternate angle of basin

K-Rails used to control mud flow

Vacant parking lot, west edge of campus

Soil erosion affecting pavement

Pavement along west edge of campus

Connected Impervious Drainage

Protected oak tree

Low watering vegetation outside new Child Care Center

Example of new campus construction, Child Care Center

New vegetation adjacent to Child Care Center

Fire line, Olive View Drive

Ocean storm drain inlet along Olive View Drive

Entrance to parking long on Olive View Drive

Drain inlet to Wilson Creek Channel

Feed into Wilson Canyon Creek

More Wilson Canyon (from road)

Grated drain into Wilson Creek

Drainage feeding into Wilson Canyon Channel

Upstream, Wilson Channel

Soil erosion along Wilson Creek

Schoolhouse Debris Basin

Schoolhouse Debris runoff upstream

Downstream Schoolhouse drainage area

WILSON CANYON DEBRIS BASIN (5-25-2015)

Looking into basin

Wilson Canyon Debris Basin

Wilson Canyon Debris Basin

Wilson Canyon Debris Basin

Wilson Canyon Creek, from top of debris basin, downstream

County sign entering debris basin

APPENDIX J-CITY OF LOS ANGELES HAARD MITIGATION PLAN (DAM FAILURE AND TSUNAMI INNUNDATION)

City *of* Los Angeles

Hazard Mitigation Plan

REVISED
January 2011

ADOPTED
July 2011

These assets are included on Figure M-1 along with the Dam Inundation area. The replacement values of critical response facilities and their contents that fall in the hazard areas are in the following section, "Estimating Potential Losses".

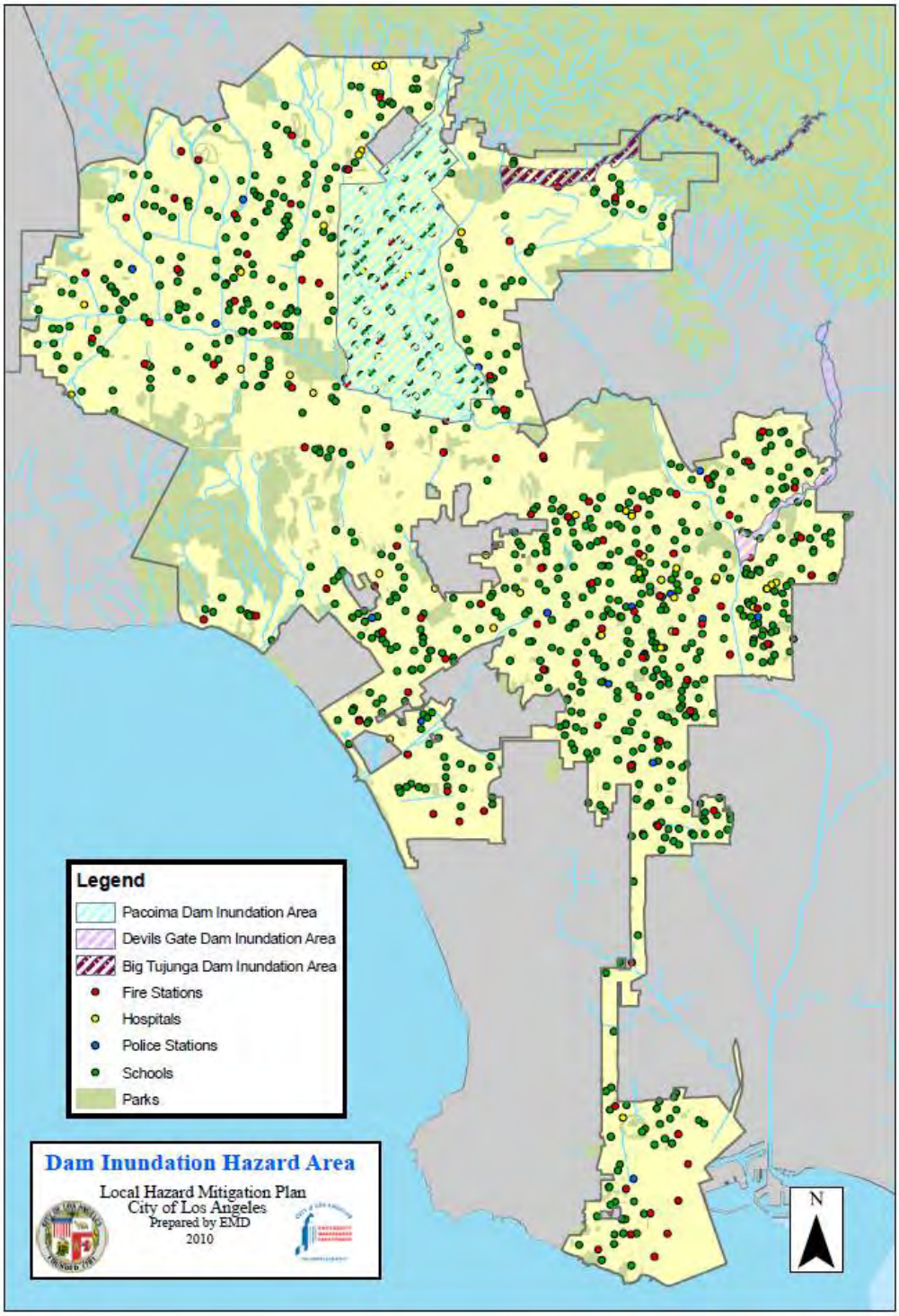


Figure M-1. Critical Response Facilities identified in the Dam Inundation Hazard area.

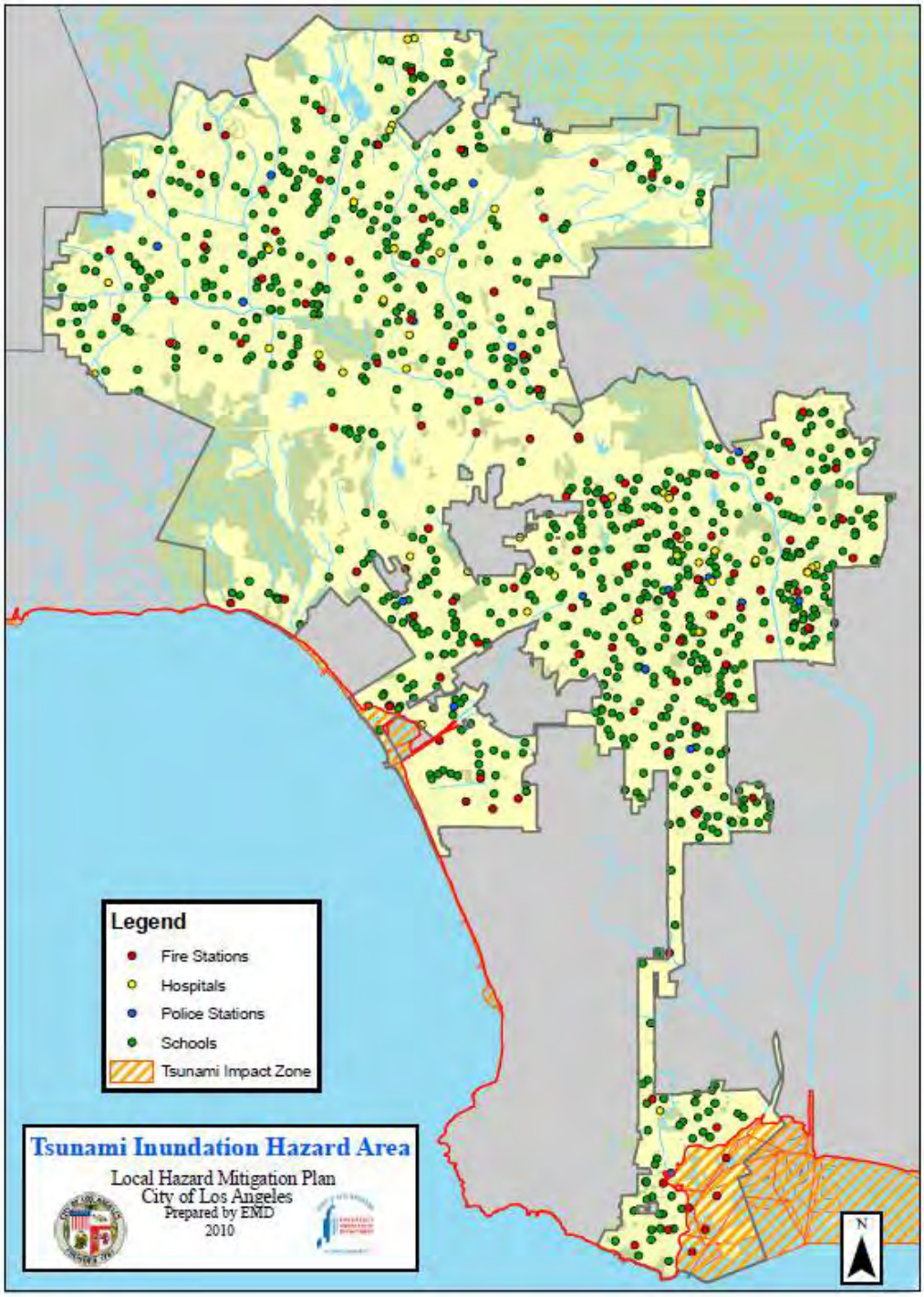


Figure O-1. Critical Response Facilities identified in the Tsunami Inundation Hazard area. Tsunami inundation data provided by the USGS.

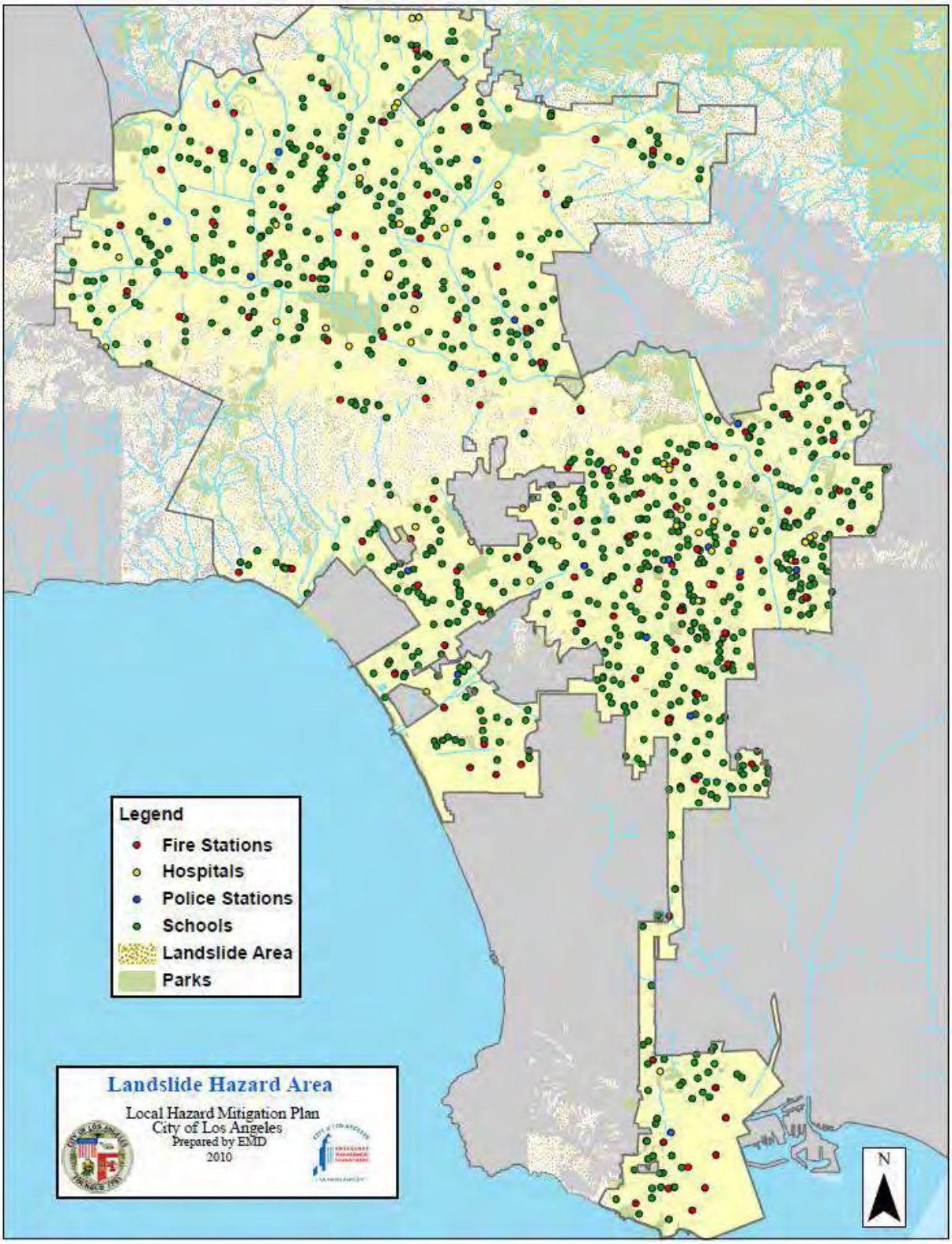


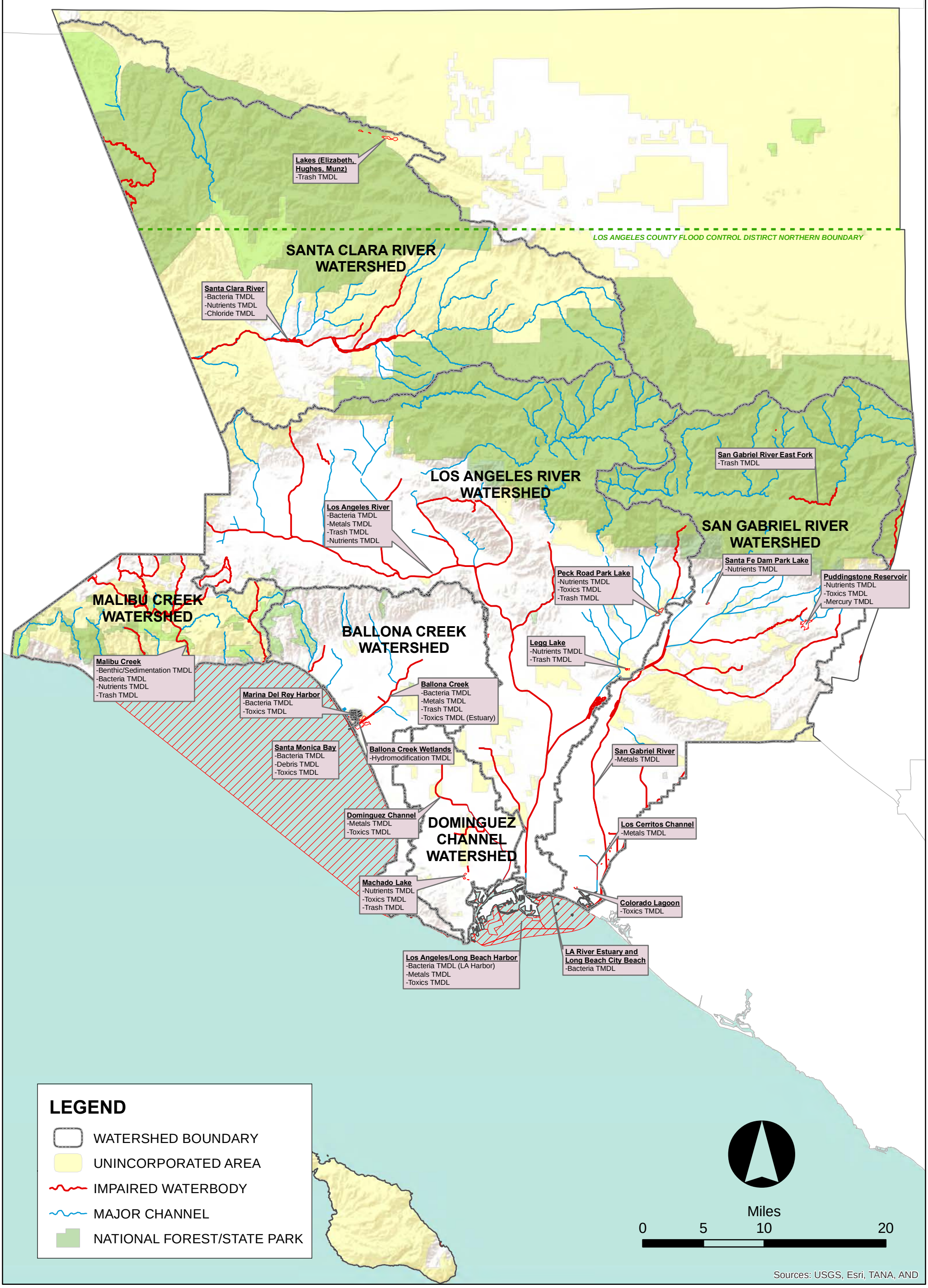
Figure P-1. Critical Response Facilities identified in the Landslide Hazard Area in the City of Los Angeles.

APPENDIX K-COUNTY OF LOS ANGELES LOW IMPACT DEVELOPMENT HANDBOOK TMDL DATA

COUNTY OF LOS ANGELES

MAJOR WATERSHEDS and EFFECTIVE TOTAL MAXIMUM DAILY LOADS

(as of October 2013)



APPENDIX B

Tier 3 Pollutants of Concern

BALLONA CREEK WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Cyanide, Total Recoverable
E. coli Bacteria	Copper, Total Recoverable
Total Coliform Bacteria[1]	Lead, Total Recoverable
Fecal Coliform Bacteria[1]	Mercury, Total Recoverable
Enterococcus Bacteria[1]	Selenium, Total Recoverable

[1] Apply only to discharges to the estuary and the ocean

DOMINGUEZ CHANNEL WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Cyanide, Total Recoverable
E. coli Bacteria	Copper, Total Recoverable
Total Coliform Bacteria[1]	Lead, Total Recoverable
Fecal Coliform Bacteria[1]	Mercury, Total Recoverable
Enterococcus Bacteria[1]	Selenium, Total Recoverable

[1] Apply only to discharges to the estuary and the ocean

LOS ANGELES RIVER WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Total Dissolved Solids
E. coli Bacteria	Turbidity
Total Coliform Bacteria[1]	Aluminum, Total Recoverable
Fecal Coliform Bacteria[1]	Cyanide, Total Recoverable
Enterococcus Bacteria[1]	Copper, Total Recoverable
Chloride	Mercury, Total Recoverable
Nitrite Nitrogen, Total (as N)	Selenium, Total Recoverable
Sulfate	

[1] Apply only to discharges to the estuary and the ocean

MALIBU CREEK WATERSHED MANAGEMENT AREA

Parameter	Parameter
E. coli Bacteria	Total Dissolved Solids
Cyanide, Total Recoverable	
Mercury, Total Recoverable	
Selenium, Total Recoverable	
Sulfate	

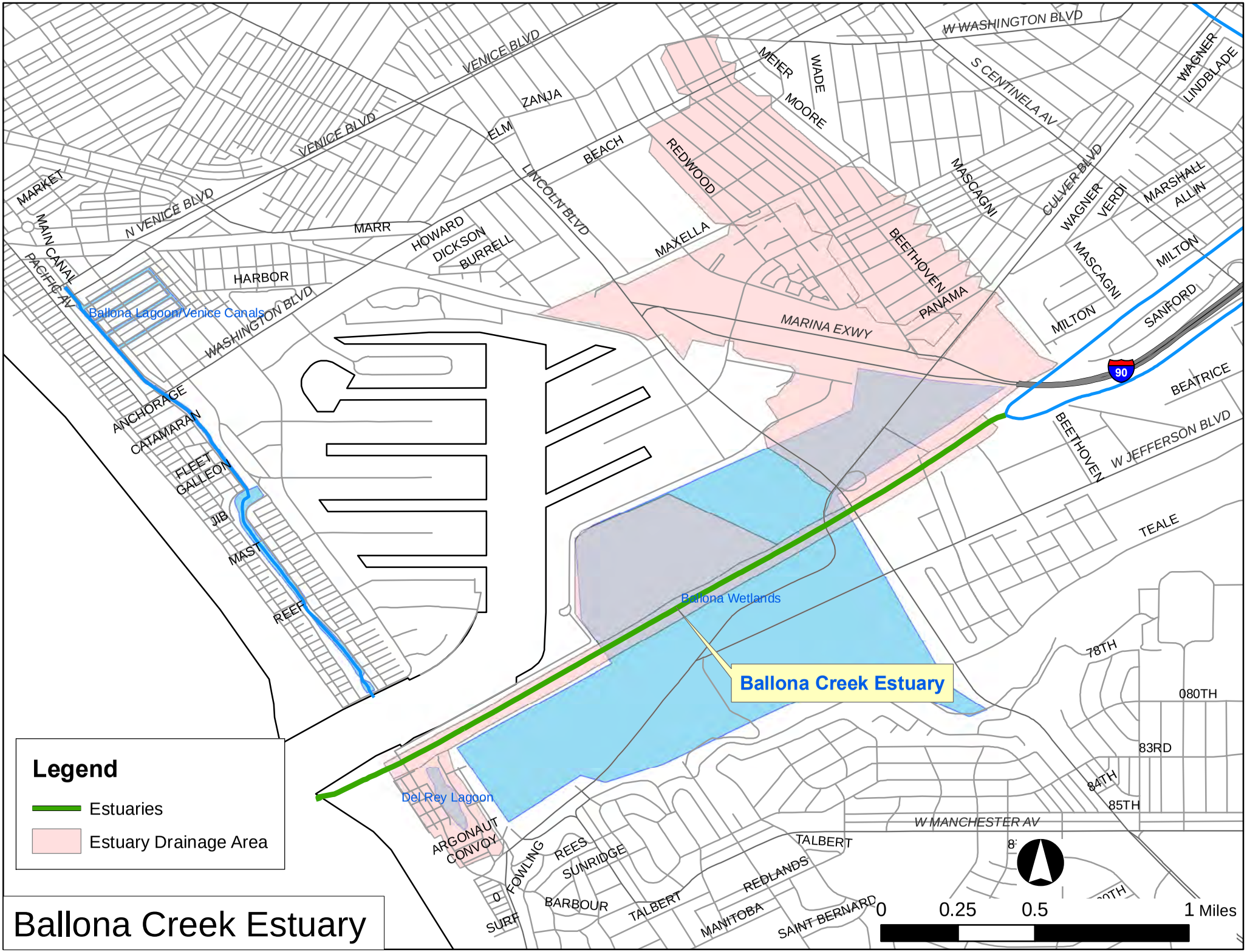
SAN GABRIEL RIVER WATERSHED MANAGEMENT AREA

Parameter	Parameter
pH	Cyanide, Total Recoverable
E. coli Bacteria	Cadmium, Total Recoverable
Total Coliform Bacteria[1]	Copper, Total Recoverable
Fecal Coliform Bacteria[1]	Lead, Total Recoverable
Enterococcus Bacteria[1]	Mercury, Total Recoverable
Chloride	Nickel, Total Recoverable
Nitrate Nitrogen, Total (as N)	Selenium, Total Recoverable
Sulfate	Silver, Total Recoverable
Total Dissolved Solids	Zinc, Total Recoverable
Aluminum, Total Recoverable	

[1] Apply only to discharges to the estuary and the ocean

SANTA CLARA RIVER WATERSHED AREA (LA County portion only)

Parameter	Parameter
E. coli Bacteria	Aluminum, Total Recoverable
Chloride	Cyanide, Total Recoverable
Sulfate	Copper, Total Recoverable
Total Dissolved Solids	Mercury, Total Recoverable
Methylene Blue Active Substances	Selenium, Total Recoverable



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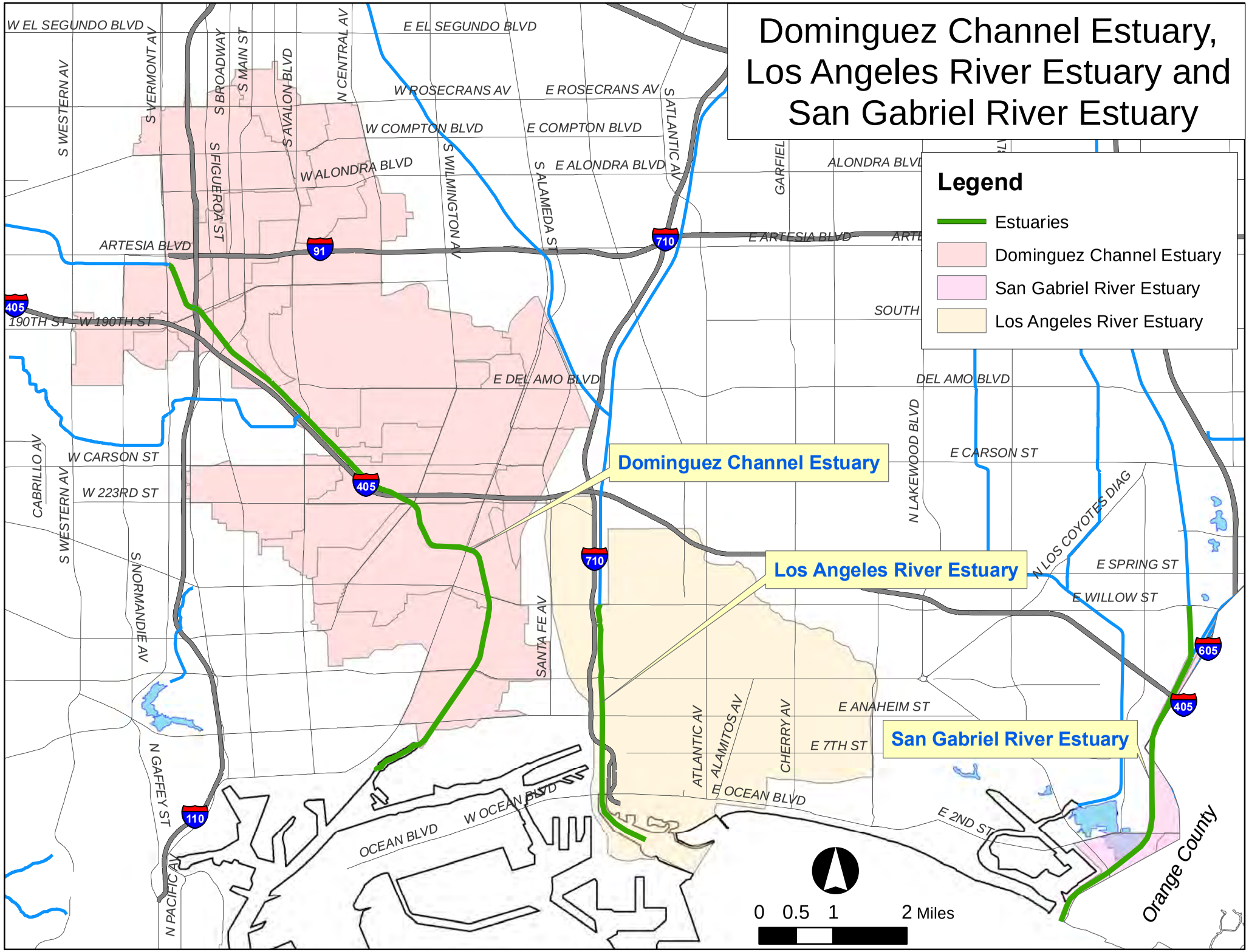

Document Name: Basin Plan_LAR-DC

APPENDIX L-PRELIMINARY GEOTECHNICAL EVALUATION

PRELIMINARY GEOTECHNICAL EVALUATION
OLIVE VIEW – UCLA MEDICAL CENTER MASTER PLAN
LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

PREPARED FOR:
ICF International
601 W. Fifth Street, Suite 900
Los Angeles, California 90071

PREPARED BY:
Ninyo & Moore
Geotechnical and Environmental Sciences Consultants
475 Goddard, Suite 200
Irvine, California 92618

March 18, 2016
Project No. 209600002

March 18, 2016
Project No. 209600002

Mr. Lee Lisecki
ICF International
601 W. Fifth Street, Suite 900
Los Angeles, California 90071

Subject: Preliminary Geotechnical Evaluation
Olive View – UCLA Medical Center Master Plan
Los Angeles County Department of Public Works
14445 Olive View Drive
Sylmar, California

Dear Mr. Lisecki:

In accordance with your request and authorization, Ninyo & Moore has performed a preliminary geotechnical evaluation for the Olive View – UCLA Medical Center Master Plan project located at 14445 Olive View Drive in Sylmar, California. Our evaluation was conducted in general accordance with the scope of services presented in our proposal dated February 2, 2015. This report presents our findings and conclusions regarding the subject site. We understand that the results of this evaluation will be utilized in the preparation of an Environmental Impact Report for the project.

We appreciate the opportunity to provide geotechnical consulting services for this project.

Sincerely,
NINYO & MOORE

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ZH/MER/CAP/SG/sc

Distribution: (1) Addressee (via e-mail)

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Figure 5 – Earthquake Fault Zones
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1. INTRODUCTION

In accordance with your request and authorization, we have performed a preliminary geotechnical evaluation for the Olive View – UCLA Medical Center Master Plan project (project) located at 14445 Olive View Drive in Sylmar, California (Figure 1). This Los Angeles County Department of Public Works (LACDPW) project involves development of a master plan that includes renovation of existing buildings and construction of a new hospital building, administrative building, central utility plant and other structures. We have performed a geotechnical evaluation of the site geologic conditions and the impacts associated with potential geologic and seismic hazards for inclusion in the Environmental Impact Report (EIR) for the project.

The purpose of our evaluation was to assess the geologic conditions at the site and develop preliminary conclusions regarding potential geologic and seismic impacts associated with the project in accordance with the California Environmental Quality Act (CEQA). Where appropriate, recommendations to mitigate potential geologic hazards, as noted in this report, have been provided. Our evaluation was based on review of readily available geologic and seismic data, geotechnical literature and reports, and site reconnaissance. Subsurface exploration was not conducted as part of our evaluation.

The Olive View – UCLA Medical Center site is located in a State of California (1979) Earthquake Fault Zone (EFZ, formerly Alquist-Priolo Special Studies Zone) related to surface ruptures caused by the 1971 San Fernando (Sylmar) Earthquake. Significant damage occurred to the buildings at the site in 1971 due to ground shaking from the San Fernando Earthquake. The potential for surface rupture to occur at the site due to future earthquakes is a potentially significant hazard to existing and planned structures. Fault trenching studies to evaluate the presence and relative activity of faulting at the site have been conducted by other geotechnical consultants. We understand that additional trenching studies will be needed in the future to evaluate buildable zones for the master planning scheme.

2. SCOPE OF SERVICES

Ninyo & Moore's scope of services has included review of geotechnical background materials, geologic reconnaissance of the project area, and geotechnical analysis. Specifically, we have performed the following tasks:

- Review of readily available topographic and geologic maps, published geotechnical literature, geologic and seismic data, groundwater data, and aerial photographs.
- Review of the referenced fault rupture hazard reports provided by ICF International that were obtained from the LACDPW.
- Review of the geotechnical aspects of LACDPW project planning documents, including a description of the master plan elements and brief overview of the fault rupture hazard investigations that have been conducted at the site.
- Geotechnical reconnaissance by a representative from Ninyo & Moore conducted on February 4, 2016, to observe and document the existing surface conditions at the project site.
- Compilation and analysis of existing geotechnical data pertaining to the site.
- Assessment of the general geologic conditions and seismic hazards affecting the area and evaluation of their potential impacts on the project.
- Preparation of this report presenting the results of our study, as well as our conclusions regarding the geologic and seismic impacts on the project, and preliminary recommendations to address the impacts to be included in the EIR.

3. PROJECT DESCRIPTION

Based on our review of the preliminary plans (SmithGroup JJR, 2015), we understand that the proposed project involves the development of a new long-term master plan to guide future medical campus development and delivery of health care services and health-related community programs. Future development under the master plan would include a new ambulatory care center, a replacement central utility plant, renovation of the existing inpatient hospital, outpatient clinics, research and development, education facilities, as well as community/public service areas. The master plan includes eventual replacement of the main hospital building. Other planned improvements include site utilities, hardscape, pavements, landscaping, and low impact development (LID) practices for on-site stormwater management/infiltration.

4. SITE DESCRIPTION

The Olive View – UCLA Medical Center is located north of Interstate 210 and east of Interstate 5 in the Sylmar community of the City of Los Angeles (Figure 1). The medical center campus is situated on the northern edge of the San Fernando Valley at the base of the San Gabriel Mountains (Figures 1 and 2). The campus is approximately 235 acres and is bounded by the Angeles National Forest and the Wilson Debris Basin to the north, Olive View Drive on the south, Wilson Canyon Channel on the east, and Bucher Avenue on the west (Figure 2). The project site is currently improved with an inpatient hospital, outpatient clinics, research/development and education facilities, and community/public service areas. The site is also improved with paved roads and parking areas, landscaped areas, retaining walls, developed pedestrian open space, and undeveloped hillside and canyon areas, unpaved roads and trails.

The project site includes both developed and undeveloped areas. The developed portion of the campus is located in the southern, low-lying portion of the site and west of the Wilson Canyon Channel. The undeveloped portion of the site is located in the elevated northern portion of the site and to the east of the Wilson Canyon Channel. Topography and surface gradients are variable across the site. The topography of the developed portion of the campus slopes gently down toward the west and south, varying from an approximate elevation of 1,500 feet above mean sea level (MSL) near the northeast part of the project area to an approximate elevation of 1,430 feet above MSL along the south part of the project area. The elevations in the hillside areas in the northern portion of the site range from approximately 1,850 feet above MSL to approximately 1,500 feet above MSL.

5. GEOLOGY

5.1. Regional Geology

The project site is located on the northern edge of the San Fernando Valley, a Tertiary-Quaternary period sediment-filled basin within the Transverse Ranges geomorphic province of southern California (Norris and Webb, 1990). Rock units in the province include older Precambrian-era and Jurassic-period metavolcanic, metasedimentary and igneous rocks.

Cretaceous-age marine and non-marine sedimentary and metasedimentary rocks and younger Tertiary-age rocks comprised of volcanic, marine, and non-marine sediments overlie the older rocks (Norris and Webb, 1990). More recent Quaternary sediments, primarily of alluvial origin, comprise the low-lying valley and drainage areas within the region, including the area where the Olive View – UCLA Medical Center Campus project site is located.

The rock formations in the province have been folded and uplifted due to compression and rotation associated with a restraining bend on the San Andreas Fault. The folding and uplifting of the region led to characteristic east-to-west trending structural troughs and mountain ranges. The San Fernando Valley formed as sediment infilled a subsiding basin between the San Gabriel Mountains to the north and the Santa Monica Mountains to the south (Norris and Webb, 1990).

5.2. Site Geology

The medical center is situated on a gently sloping alluvial fan and rock formations at the margin between the northern San Fernando Valley and western end of the San Gabriel Mountains. Regional geologic maps indicate that the upper, elevated northwestern portion of the site is underlain by Tertiary-age Towsley Formation generally comprised of cobble conglomerate and coarse-grained sandstone, and Cretaceous-age metamorphic rocks (Dibblee, 1991). Other elevated hillside areas in the western, northern and eastern portions of the site are mapped as being underlain by Pacoima Formation and older alluvium comprised of weakly consolidated sand and gravel. The lower southern portion of the site, where the existing improvements are located, and the eastern portions of the site at the base of Wilson Canyon are mapped as being underlain by young (Holocene) alluvial deposits generally comprised of gravel, sand and clay sediments. A regional geologic map of the site vicinity is shown on Figure 3.

5.3. Santa Susana (Olive View) Fault

Previous geologic mapping and references indicate the presence of a roughly east-west trending fault (the Olive View Fault) across the northwestern portion of the site (Figure 3).

Although not labeled on the referenced map (Dibblee, 1991) used for Figure 3, the fault has been named as the Olive View fault by others (California Department of Conservation, Division of Mines and Geology [CDMG], 1975; URS, 2010). The United States Geological Survey (USGS) has designated the fault as the eastern extension of the active Santa Susana Fault Zone (USGS, 2014a). This active fault was associated with surface ruptures at the project site caused by the 1971 San Fernando (Sylmar) Earthquake (CDMG, 1975; State of California, 1979).

5.4. Groundwater

The site is located within the San Fernando Valley Groundwater Basin (State of California, 2016). Historic groundwater monitoring well data from the State of California Water Resources Control Board's GeoTracker website (State of California, 2016) were reviewed for our evaluation. Monitoring well data were not available for the medical center site, but were reviewed for commercial properties located in the Sylmar community south of the site. These properties were involved in environmental clean-up activities where monitoring wells were installed and groundwater data from LACDPW wells were utilized. Based on the groundwater information reviewed from the GeoTracker website, groundwater levels from 1993 to 2013 in the Sylmar community approximately 1½ miles south of the project site have ranged from approximately 125 to 200 feet below the ground surface. The historic high groundwater mapped by the California Geological Survey (CGS) near the southern portion of the medical center site is approximately 120 feet deep (CDMG, 1998).

Groundwater levels may be influenced by seasonal variations, precipitation, subsurface stratification, groundwater pumping, irrigation practices, and other factors and are subject to fluctuations. Shallow perched conditions may be present.

6. FAULTING AND SEISMICITY

6.1. Regional Fault Setting

The Olive View-UCLA medical center project site is located in a seismically active area, as is the majority of southern California, and the potential for strong ground motion at the site

is considered significant. Table 1 lists selected principal known active faults within approximately 50 kilometers of the project area and the maximum moment magnitude (M_{max}) as published by the USGS (2008 and 2014a) in general accordance with the Uniform California Earthquake Rupture Forecast, version 3 (UCERF) (Field, et al., 2013). The approximate fault-to-site distances listed in Table 1, measured from the existing hospital building, were calculated using the USGS web-based program (USGS, 2008).

Table 1 – Principal Regional Active Faults

Fault	Approximate Fault-to-Site Distance [1] miles (kilometers)	Maximum Moment Magnitude [1] (M_{max})
Santa Susana [2]	<0.1 (<0.1)	6.9
Northridge Blind Thrust	0.5 (0.8)	6.9
Sierra Madre (San Fernando)	1.7 (2.8)	7.3
San Gabriel	3.2 (5.2)	7.3
Verdugo	4.7 (7.5)	6.9
Holser	8.6 (13.9)	6.8
Simi-Santa Rosa	14.4 (23.2)	6.9
Hollywood	16.2 (26.0)	6.7
Oak Ridge	16.6 (26.8)	7.4
Upper Elysian Park Blind Thrust	17.0 (27.3)	6.7
Santa Monica	17.3 (27.9)	7.4
Raymond	19.0 (30.5)	6.8
San Cayetano	19.6 (31.6)	7.2
Newport-Inglewood (Los Angeles Basin)	19.7 (31.8)	7.5
Malibu Coast	21.0 (33.8)	7.0
Puente Hills Blind Thrust (LA)	21.2 (34.1)	7.0
Anacapa-Dume	21.9 (35.3)	7.2
San Andreas	22.0 (35.3)	8.2
Palos Verdes	25.3 (40.8)	7.7
Clamshell-Sawpit Canyon	27.5 (44.3)	6.7

Notes:
[1] USGS, 2008
[2] USGS, 2014a

The fault-to-site distance web-based calculator for faults in California is not available as part of the 2014 National Seismic Hazard Map database. However, the 2014 National Seismic

Hazard Map itself shows the Santa Susana fault crossing through the northern portion of the site (USGS, 2014a). Accordingly, the Santa Susana fault is considered to be in the immediate vicinity of the campus site and the fault-to-site distance in Table 1 is shown as less than 0.1 mile. The active Santa Susana fault was not mapped as crossing the project site as part of the USGS 2008 National Seismic Hazard Map (USGS, 2008) database, and is shown to be located approximately 2.9 miles west of the site.

The numerous faults in southern California include active, potentially active, and inactive faults. As defined by the CGS, active faults are faults that have ruptured within Holocene time, or within approximately the last 11,000 years. Potentially active faults are those that show evidence of movement during Quaternary time (approximately the last 1.6 million years) but for which evidence of Holocene movement has not been established. Inactive faults have not ruptured in the last approximately 1.6 million years. Figure 4 shows the approximate site location relative to the principal faults in the region based on the Fault Activity Map of California (Jennings, C.W., and Bryant, W.A., 2010).

The active Northridge Blind Thrust Fault (source of the 1994 Northridge Earthquake) is located approximately 0.5 mile southwest of the project site. Blind thrust faults are low-angle faults at depths that do not break the surface and are, therefore, not shown on Figure 4. Although blind thrust faults do not have a surface trace, they can be capable of generating damaging earthquakes and are included in Table 1.

6.2. 1971 San Fernando (Sylmar) Earthquake

The Olive View-UCLA Medical Center site was previously subjected to substantial ground shaking, surface rupture and earthquake-related damages resulting from the 1971 San Fernando Earthquake (also known as the Sylmar Earthquake). The Magnitude 6.5 earthquake included roughly 12 miles of surface rupture in the site vicinity and produced a maximum slip of 6 feet. The approximate locations of faults associated with major surface ruptures that were mapped at the project site are shown on Figure 5. Other surface ruptures and landslides that occurred at the site as a result of the 1971 earthquake are shown on references reviewed for this evaluation (CDMG, 1975). Damage to the medical center site

included the collapse of stair towers adjacent to buildings, the partial collapse of medical buildings, and the collapse of parking structures. Some structures damaged in the earthquake were later demolished (Southern California Earthquake Data Center, 2016).

The extensive urban damages and loss of life that resulted from the 1971 San Fernando Earthquake led to the enactment of the Alquist-Priolo Act, signed into California law on December 22, 1972.

6.3. 1972 Alquist-Priolo Earthquake Fault Zoning Act

As presented in the CDMG, Special Publication 42 (Hart, E.W., and Bryant, W.A., 1997), the 1972 Alquist-Priolo Earthquake Fault Zoning Act (AP Act) requires the State Geologist to delineate EFZs along known active faults in California. The AP Act also requires building setbacks to be established from the trace of an active fault. EFZs must meet the requirements of being "sufficiently active" (evidence of movement within the last approximate 11,000 years) and "well-defined" (detectable by a trained geologist). It is known that faults often rupture along a complex zone that may include the movement of multiple splays/strands rather than of a single strand. The EFZs are intended to be sufficiently wide enough on both sides of a known active fault to include these known or unknown splays/strands of the fault. The purpose of the AP Act was to prohibit the location of most structures for human occupancy across the traces of active faults, thus mitigating the hazard of fault rupture.

The project site is located in a State of California (1979) EFZ related to surface ruptures caused by the 1971 San Fernando (Sylmar) Earthquake. Figure 5 shows the site location relative to the mapped EFZ.

7. METHODOLOGY FOR GEOLOGIC IMPACT AND HAZARD ANALYSES

As outlined by the CEQA, the proposed project has been evaluated with respect to potential geologic and seismic impacts associated with the project. Evaluation of impacts due to potential geologic and seismic hazards is based on our review of readily available published geotechnical literature and geologic and seismic data pertinent to the proposed project, and site reconnaissance. The references and data reviewed include, but are not limited to, the following:

- Geologic maps and fault maps from the CDMG, CGS and USGS.
- Topographic maps from the USGS.
- Seismic data from the CGS and USGS.
- Geotechnical publications by the CDMG, CGS and USGS.
- State of California EFZ Maps (formerly Alquist-Priolo Special Studies Zones Maps).
- State of California Seismic Hazards Zones Reports and Maps.
- Fault rupture studies by URS Corporation (URS) and AMEC Environment & Infrastructure, Inc. (AMEC).
- Aerial photographs.
- Safety Element of the Los Angeles City General Plan.

8. THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the CEQA guidelines (California Environmental Resources Evaluation System [CERES], 2005a, 2005b), a project is considered to have a geologic impact if its implementation would result in or expose people/structures to potential substantial adverse effects, including the risk of loss, injury, or death from hazards involving one or more of the geologic conditions presented in Table 2. Table 2 also presents the impact potential as defined by CEQA associated with each of the geologic conditions discussed in the following sections.

Table 2 – Summary of Potential Geologic Impacts/Hazards

Geologic Condition	Impact Potential[1]			
	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
Earthquake Fault Rupture	x			
Strong Seismic Ground Shaking		x		
Seismically Related Ground Failure, Including Liquefaction		x		
Landslides		x		
Substantial Soil Erosion		x		
Subsidence			x	
Compressible/Collapsible Soils		x		
Expansive Soils		x		
Groundwater and Excavations		x		

Note:
[1]Reference: CERES, 2005, Appendix G – Environmental Checklist Form, Final Text, dated October 26. Website: http://ceres.ca.gov/topic/envlaw/ceqa/guidelines/appendices.html

9. CONCLUSIONS AND RECOMMENDATIONS FOR POTENTIAL GEOLOGIC AND SEISMIC IMPACTS/HAZARDS

Based on our review of geologic and seismic background information, and geotechnical reconnaissance, implementation of the proposed master plan project is not anticipated to have a significant impact on the geologic environment. However, future development at the project site may be subjected to potential impacts from geologic and seismic hazards. Potential impacts on the proposed project based on our preliminary evaluation are provided in the following sections.

The potential geologic and seismic hazards described below may be addressed by employing sound engineering practice in the design and construction of the proposed project elements. This practice includes the implementation of appropriate geotechnical recommendations prior to the design and construction of the facilities at the project site. Typical methods to reduce potential hazards that may be encountered during the construction of improvements are described in the following sections. Where appropriate, recommendations to mitigate potential geologic hazards are provided. Prior to design of the planned improvements, detailed subsurface geotechnical evaluation should be performed to address the site-specific conditions at the locations of the planned improvements and to provide detailed recommendations for design and construction.

9.1. Surface Fault Rupture

Surface fault rupture is the offset or rupturing of the ground surface by relative displacement across a fault during an earthquake. There could be potentially significant impacts associated with siting project improvements across the trace of an active fault. Damage due to fault rupture may include offset/damage to foundations and structural elements. As previously discussed, the medical center site was subjected to surface rupture and damage to structures resulting from the 1971 San Fernando Earthquake. Surface ruptures related to faulting were mapped along the trace of the Olive View fault in the northwestern part of the site. In addition, other ground surface ruptures were mapped at various locations within the project site (CDMG, 1975; State of California, 1979). Due to the surface ruptures along the active Olive View fault (Santa Susana Fault Zone) from the 1971 earthquake, an EFZ was established along the fault. Much of the project site is located within the EFZ (Figure 5).

Fault trenching studies to evaluate the presence and relative activity of faulting at portions of the site have been conducted by other geotechnical consultants on behalf of the LACDPW (URS, 2008; URS, 2010; AMEC, 2013). URS conducted a fault trenching study in 2008 for the proposed Psychiatric Urgent Care Facility in the southern part of the site, and conducted a fault trenching study in 2010 for the proposed Day Care Facility in the southern part of the site. Their studies generally involved performance of subsurface trenches and test pits adjacent to the facilities to explore for the presence of active faulting. URS generally concluded that the trenches exposed older (Pleistocene) alluvium that was not cut by active (Holocene epoch [last 11,000 years]) faulting. Based on their conclusions, URS established a "trench shadow corridor" area for the investigated sites that is free of active faulting and feasible for permitting structures intended for human occupancy in accordance with the provisions of the AP Act.

Based on a figure included in the preliminary project plans (SmithGroup JJR, 2015), AMEC prepared a map in 2013 titled "Preliminary Planning Map for Subsurface Fault Rupture Hazards" as part of the master planning study for the medical center site. The map shows a summary of fault trench locations performed by AMEC and other geotechnical consultants at the site. The map illustrates color-coded areas of the project site where fault trenching has "cleared" areas of active faulting for "potential building sites"; and areas where additional fault trenching can be performed and is "required." The map also illustrates many areas of the site located within the EFZ where fault trenching may not be feasible, including the location of the existing hospital building.

The preliminary project plans indicate that additional fault trenching will be needed in the future to evaluate buildable zones for the master planning scheme (SmithGroup JJR, 2015). Future geologic investigations to evaluate the location and relative activity of potentially active fault splays at the site and the feasibility of locating future site improvements should be conducted by geologic consultants for the LACDPW prior to design of structure locations. The fault investigations should be conducted by a California State Certified Engineering Geologist and should typically involve participation by experts in the field of

paleoseismology, geomorphology and soil stratigraphy. The fault investigations should be reviewed by the CGS. Other methods to explore for the presence of active faulting might include geophysical studies such as high resolution seismic reflection, seismic refraction, ground penetrating radar, and gravity and/or magnetic profiling.

Where the fault investigations find that no active fault splays are present at building sites, proposed structures intended for human occupancy may be feasible for permitting in accordance with the provisions of the AP Act. Where active fault splays are found at the project site, the locations may be deemed not feasible for construction of occupied structures, and appropriate building setback zones will need to be established.

The impacts related to surface rupture at the project site are potentially significant, but can be reduced with methods such as detailed fault investigations to clear sites of active faulting, including review by the CGS, and/or development of structural setback zones.

9.2. Seismic Ground Shaking

Earthquake events from one of the regional active or potentially active faults near the project area could result in strong ground shaking which could affect the project site. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking.

The 2013 California Building Code (CBC) recommends that the design of structures be based on spectral response accelerations in the direction of maximum horizontal response (5 percent damped) having a 1 percent probability of collapse in 50 years. Such spectral response accelerations represent the Risk-Targeted Maximum Considered Earthquake (MCE_R) ground motion. The horizontal peak ground acceleration (PGA) that corresponds to the MCE_R for the site was calculated as 1.20g using the USGS (2014b) seismic design tool (web-based). The mapped PGA (PGA_M) which is defined as the Maximum Considered Earthquake Geometric Mean (MCE_G) PGA with adjustment for site class effects in

accordance with the American Society of Civil Engineers (ASCE) 7-10 Standard was estimated to be 1.14g using the USGS (2014b) seismic design tool in accordance with the ASCE 7-10 Standard. These estimates of ground motion do not include near-source factors that may be applicable to the design of structures on site.

This potential level of ground shaking could have high impacts on project improvements without appropriate design mitigation, and should be considered during the detailed design phase of the project. Mitigation of the potential impacts of seismic ground shaking can be achieved through project structural design. Structural elements of planned improvements can be designed to resist or accommodate appropriate site-specific ground motions and to conform to the current seismic design standards, including CBC and County of Los Angeles building regulations. Appropriate structural design and mitigation techniques would reduce the impacts related to seismic ground shaking.

9.3. Liquefaction

Liquefaction is the phenomenon in which loosely deposited granular soils located below the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact due to rapid rise in pore water pressure causing the soil to behave as a fluid for a short period of time. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking. The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of slabs due to sand boiling, buckling of deep foundations due to liquefaction-induced ground settlement.

According to Seismic Hazard Zones Maps published by the State of California (CDMG, 1999), a portion of the project area in the northeastern part of the site near the mouth of Wilson Canyon is located within an area considered susceptible to liquefaction (Figure 6).

This portion of the site within the lower-lying canyon bottom area was mapped as potentially liquefiable due to the tendency for shallower groundwater and loose, younger alluvial sediments to accumulate in canyon bottoms. However, the overall historic high groundwater levels at the site are deep, on the order of 120 feet or more below the ground surface, and much of the project site is not considered susceptible to liquefaction. Areas of the project site mapped as being underlain by rock formations are not susceptible to liquefaction.

Assessment of the liquefaction potential at the project site should be evaluated by subsurface geotechnical exploration prior to detailed design and construction of project improvements and incorporated into the design, as appropriate. Structural design and mitigation techniques should be developed to reduce the potential impacts of liquefaction. Therefore, the potential impacts due to liquefaction are considered to be less than significant with incorporation of techniques such as structural design, in-situ ground modification, or supporting foundations with piles at depths designed specifically for seismically induced settlement.

9.4. Landslides

Landslides, slope failures, and mudflows of earth materials generally occur where slopes are steep and/or the earth materials are too weak to support themselves. Earthquake-induced landslides may also occur due to seismic ground shaking. Landslides can consist of rockfalls, shallow slumps, mudflows and erosional failures, or deeper-seated rotational and block failures. Shallow failures are typically caused by high incident rainfall or concentrated surface runoff conditions that weaken surficial materials. Rotational slides and block-type slides form deeper within the ground, and are generally related to discontinuities in the rock that manifest into a sliding surface. Rainfall and other water infiltration into the ground can exacerbate and initiate these deeper sliding conditions. Landslides can also be caused by construction activities, such as grading that undercuts the toe of a slope or induces loading at the top of a slope.

Existing landslides are not shown on the northern hillside areas of the site on the geologic maps reviewed. However, the northern portion of the project site contains steep, natural

slopes that have been subjected to fires. In addition, portions of the slopes on the northern part of the site have been designated on the State Seismic Hazard Zones Map (Figure 6) as having potential for earthquake–induced landslides (CDMG, 1999). Furthermore, landslides that were caused by earthquake ground shaking were mapped at the site following the 1971 San Fernando Earthquake (CDMG, 1975).

The southern portion of the project site has shallower slope gradients and has been extensively developed and is primarily covered with pavements, hardscape and structures. The developed southern portion of the site includes some graded slopes at shallow gradients associated with landscaping and open space areas.

Due to the presence of steep hillside areas and previously mapped earthquake–induced landslides in the northern portion of the site, there is a potential for landslides, mudflows or seismic slope instability to impact the proposed project site. Detailed assessment of the landslide and mudflow potential in areas of project improvements should be performed prior to design and construction of improvements and incorporated into the design, as appropriate, to reduce the construction and operational impacts related to landslides. Therefore, the potential impacts due to landslides are considered to be low with incorporation of recommendations discussed below.

To evaluate the potential for landslides, surficial slope failures and/or mudflows to affect future planned improvements, evaluation may include review of geologic maps showing the locations of previous mapped landslides and potential earthquake-induced landslide zones relative to these project components. Where appropriate in close proximity to potential landslide areas, surface reconnaissance to map the locations of landslides and/or subsurface evaluation could be performed. Evaluation of the landslide and surficial slope failure hazard would be performed during design and prior to construction so that, in the event the hazard exists, common design and construction practices can be implemented.

Common construction practices for potentially unstable slope conditions and for areas with the potential for landslides and surficial slope failures include: excavating potentially

unstable material resulting in a flatter and more stable slope configuration; reduction of landslide driving forces by removal of earth materials at the top of the landslide; construction of buttress and/or stabilization fills; construction of retaining walls, installation of rock bolts on the face of the slope, or installation of protective wire mesh on the slope face; and/or the construction of debris impact walls at the toe of the slope to contain rock fall debris. Graded slopes created for future developments within the project site should also be designed to reduce the potential for landslides or mudflows.

9.5. Soil Erosion

Erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur at the project site where soil or rock is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses. Review of geologic maps and site reconnaissance indicate that surface exposures at the site are comprised of variable types of soil and rock materials. In addition, the site comprises varied topographic terrain ranging from gentle to steep gradients. In a general sense, steeper slope gradients, such as in the northern portion of the site, provide a higher erosion potential for similar soil types.

Sandy soils typically have low cohesion, and have a relatively higher potential for erosion from surface runoff when exposed in slopes or utilized near the face of fill embankments. Surface soils with higher amounts of clay tend to be less erodible as the clay acts as a binder to hold the soil particles together. Additionally, large portions of the site, including the eastern and northern portions, are currently undeveloped and subject to potential water- and wind-related soil erosion. Soil erosion and soil runoff from natural drainages and non-vegetated areas on the adjacent slopes has the potential to impact the site.

Future construction at the project site would result in ground surface disruption during excavation, grading, and trenching that would create the potential for erosion to occur. However, the erosion potential during construction can be minimized with prudent site

management practices during construction. A Storm Water Pollution Prevention Program (SWPPP) incorporating Best Management Practices (BMPs) for erosion control should be prepared prior to the start of construction in accordance with governing agencies. Following development of site improvements, erosion can be minimized by long-term erosion management practices and drainage provisions incorporated into the design and maintenance of the project. Potential soil erosion related to project site development is considered to have a low impact with incorporation of appropriate design and construction practices.

With the implementation of BMPs incorporated in the project SWPPP during planned construction, water- and wind-related soil erosion can be limited and managed within construction site boundaries. Examples of these procedures could include surface drainage measures for erosion due to water, such as the use of erosion prevention mats or geofabrics, silt fencing, sandbags and plastic sheeting, and temporary drainage devices. Positive surface drainage should be accommodated at project construction sites to allow surface runoff to flow away from site improvements or areas susceptible to erosion. To reduce wind-related erosion, wetting of soil surfaces and/or covering exposed ground areas and soil stockpiles could be considered during construction operations, as appropriate.

During long-term operation of future developments at the project site, soil erosion can be mitigated through site drainage design and maintenance practices. Design procedures can be performed to reduce soil erosion such as appropriate surface drainage design of roadways and facilities to provide for positive surface runoff. Design should address reducing concentrated run-off conditions that could cause erosion and affect the stability of project improvements.

9.6. Subsidence

Subsidence is characterized as a sinking of the ground surface relative to surrounding areas, and can generally occur where deep soil deposits are present. Subsidence in areas of deep soil deposits is typically associated with regional groundwater withdrawal or other fluid withdrawal from the ground such as oil and natural gas. Subsidence can result in the development of ground cracks and damage to site improvements.

The City of Los Angeles and County of Los Angeles references do not indicate mapped areas of subsidence. Historic subsidence is not known to have occurred or been reported in the site region. The Safety Element of the Los Angeles City General Plan (1996) includes information regarding the City's program to preclude potential subsidence within the City. Subsurface extraction activities within the City of Los Angeles are regulated by the Oil Drilling District procedures, which contain provisions for monitoring and imposing measures to preclude subsidence related to oil and gas extraction. Therefore, the potential for subsidence in the Project area is relatively low.

9.7. Compressible/Collapsible Soils

Compressible soils are generally comprised of soils that undergo decrease in volume when exposed to new loading, such as fill or foundation loads. Soil collapse is a phenomenon where the soils undergo a significant decrease in volume upon increase in moisture content, with or without an increase in external loads. Buildings, structures and other improvements may be subject to excessive settlement-related distress when compressible soils or collapsible soils are present.

Based on our background review, the project area is underlain by fill soils, alluvial sediments, and sedimentary rock formations. The alluvial deposits underlying the site are generally unconsolidated to weakly consolidated, based on the young nature of the deposits, reflecting a depositional history without substantial loading, and may be subject to collapse. Older, undocumented fill soils related to previous site development are considered potentially compressible/collapsible. Due to the presence of potentially compressible/collapsible soils at the site, there is a potential for differential settlement to cause damage to project improvements. The potential impacts of settlement are significant without appropriate mitigation during detailed project design and construction.

Since future development within the project area will involve construction of new improvements that would load the existing soils, potential settlement and/or collapsible soils will be a consideration in the detailed design and construction of project improvements. Assessment of soil settlement should be performed prior to detailed design and construction

of project improvements and mitigation techniques should be developed, as appropriate, to reduce the impacts related to settlement.

To evaluate the potential for settlement to affect future project components, surface reconnaissance and subsurface evaluation should be performed. During the detailed design phase of the project, site-specific geotechnical evaluations should be performed to assess the settlement potential of the on-site natural soils and undocumented fill. This may include detailed surface reconnaissance to evaluate site conditions, and drilling of exploratory borings or test pits and laboratory testing of soils, where appropriate, to evaluate site conditions.

Examples of possible mitigation measures for soils with the potential for settlement include removal of the compressible/collapsible soil layers and replacement with compacted fill, surcharging to induce settlement prior to construction of improvements, allowing for a settlement period after or during construction of new fills, and specialized foundation design, including the use of deep foundation systems to support structures. Various in-situ soil improvement techniques are also available, such as dynamic compaction (heavy tamping) or compaction grouting.

9.8. Expansive Soils

Expansive soils include clay minerals that are characterized by their ability to undergo significant volume change (shrink or swell) due to variations in moisture content. Sandy soils are generally not expansive. Changes in soil moisture content can result from rainfall, irrigation, pipeline leakage, surface drainage, perched groundwater, drought, or other factors. Volumetric change of expansive soil may cause excessive cracking and heaving of structures with shallow foundations, concrete slabs-on-grade, or pavements supported on these materials.

Based on our background review and site reconnaissance, the near-surface soils in the project site are predominantly comprised of sandy, coarse-grained materials. These soils typically have a low expansion potential. However, clayey soils may be present in areas of

the project site. Constructing project improvements on expansive soils could have a significant impact on future improvements.

Assessment of the potential for expansive soils should be performed during the design phase of the project through subsurface exploration and mitigation techniques should be developed, as appropriate, to reduce the impacts related to expansive soils. The potential impacts due to expansive soils would be reduced with incorporation of techniques such as over-excavation and replacement with non-expansive soil, soil treatment, moisture management, and/or specific structural design for expansive soil conditions developed during design of the project.

9.9. Groundwater and Excavations

The depth of historic high groundwater at the project site is on the order of 120 feet below the ground surface (CDMG, 1998). Based on the groundwater information reviewed from the GeoTracker website, groundwater levels from 1993 to 2013 in the Sylmar community approximately 1½ miles south of the project site have ranged from approximately 125 to 200 feet below the ground surface (State of California, 2016).

Proposed future improvements at the project site are anticipated to consist of excavations and site grading for new structures. Based on the deep groundwater levels reported in the site region and the anticipated depth of construction activities, groundwater may not have a significant impact on excavations for the planned project improvements. However, areas of shallower perched groundwater may be encountered during excavations, and, if encountered, could have an impact on the construction activities at the sites.

Wet or saturated soil conditions encountered in excavations during construction for the project can cause instability of the excavations, and present a constraint to construction activities. Excavations in areas with shallow perched groundwater may need to be cased/shored and/or dewatered to maintain stability of the excavations and adjacent improvements and provide access for construction.

Groundwater levels may be influenced by seasonal variations, precipitation, irrigation, soil/rock types, groundwater pumping, and other factors and are subject to fluctuations. On-site infiltration of storm water related to LID guidelines may have an impact on existing and planned site improvements and should be evaluated during the detailed design phase of the project.

Further study, including subsurface exploration, should be performed during the detailed design phase of planned improvements to evaluate the presence of seepage and/or perched groundwater, and to evaluate the potential for stormwater infiltration at the site, and the potential impacts on design and construction of project improvements. Mitigation techniques should be developed, as appropriate, to reduce the impacts related to groundwater. The potential impacts due to groundwater would be reduced with incorporation of techniques such as casing, shoring and/or construction dewatering.

10. LIMITATIONS

The purpose of this study was to evaluate geotechnical conditions and potential geologic and seismic hazards at the site using readily available geotechnical data, site reconnaissance, and to provide a preliminary geotechnical report which can be utilized in the preparation of an EIR for the project.

The geotechnical analyses presented in this report have been conducted in general accordance with current engineering practice and the standard of care exercised by reputable geotechnical consultants performing similar tasks in this area. No other warranty, implied or expressed, is made regarding the conclusions, recommendations, and professional opinions expressed in this report. Our preliminary conclusions and recommendations are based on a review of readily available geotechnical literature, geologic and seismic data, and an analysis of the observed conditions. Variations may exist and conditions not observed or described in this report may be encountered.

11. REFERENCES

AMEC Environment & Infrastructure, Inc., 2013, Preliminary Planning Map for Surface Fault Rupture Hazards, Figure 3, Master Planning Study, Olive View-UCLA Medical Center, 14445 Olive View Drive, Sylmar District, Los Angeles, California, dated July 15.

California Building Standards Commission, 2013, California Building Code (CBC): California Code of Regulations, Title 24, Part 2, Volumes 1 and 2.

California Department of Conservation, Division of Mines and Geology (CDMG), State of California, 1975, San Fernando Earthquake of 9 February, 1971, Bulletin.

California Department of Conservation, Division of Mines and Geology, State of California, 1998, Seismic Hazard Evaluation of the San Fernando 7.5-Minute Quadrangle, Los Angeles County, California: Open-File Report 98-06.

California Department of Conservation, Division of Mines and Geology, State of California, 1999, Seismic Hazard Zones Official Map, San Fernando Quadrangle, 7.5-Minute Series: Scale 1:24,000, Open-File Report 98-06, dated March 25.

California Environmental Resources Evaluation System (CERES), 2005a, The California Environmental Quality Act, Title 14; California Code of Regulations, Chapter 3; Guidelines for Implementation of the California Environmental Quality Act, Article 9; Contents of Environmental Impact Reports, Final Text dated May 25, Website: http://ceres.ca.gov/ topic/env_law/ceqa/guidelines/art9.html.

California Environmental Resources Evaluation System (CERES), 2005b, The California Environmental Quality Act, CEQA Guidelines Appendices, Appendix G – Environmental Checklist Form, Final Text dated May 25, Website: http://ceres.ca.gov/topic/env_law/ceqa/guidelines/appendices.html.

Campbell, R.H., Willis, C.J., Irvine, P.J., and Swanson, B.J., 2014, Preliminary Geologic Map of the Los Angeles 30' x 60' Quadrangle, Southern California, Version 2.0: United States Geological Survey, Scale 1:100,000.

County of Los Angeles Department of Regional Planning, 1990, Los Angeles County Safety Element.

County of Los Angeles, Department of Public Works, 2015, Requests for Proposals, Environmental Documentation Services for the Olive View – UCLA Medical Center Campus Master Plan, dated January 15.

Dibblee, T.W., Jr., 1991, Geologic Map of the San Fernando and Van Nuys (North ½) Quadrangles, Los Angeles County, California: Dibblee Foundation, DF-33, Scale 1:24,000.

Field, E.H., Biasi, G.P., Bird, P., Dawson, T.E., Felzer, K.R., Jackson, D.D., Johnson, K.M., Jordan, T.H., Madden, C., Michael, A.J., Milner, K.R., Page, M.T., Parsons, T., Powers, P.M., Shaw, B.E., Thatcher, W.R., Weldon, R.J., II, and Zeng, Y., 2013, Uniform California Earthquake Rupture Forecast, Version 3 (UCERF3) — The time-independent

model: U.S. Geological Survey Open-File Report 2013–1165, California Geological Survey Special Report 228, and Southern California Earthquake Center Publication 1792, http://pubs.usgs.gov/of/2013/1165/.

Google Earth, 2016, Website: http://earth.google.com.

Hart, E.W., and Bryant, W.A., 1997, Fault-Rupture Hazard Zones in California, Alquist-Priolo Special Studies Zone Act of 1972 with Index to Special Studies Zones Maps: California Division of Mines and Geology, Special Publication 42.

Jennings, C.W., and Bryant, W.A., 2010, Fault Activity Map of California: California Division of Mines and Geology, California Geologic Data Map Series, Map No. 6, Scale 1:750,000.

Los Angeles Department of City Planning, 1996, Safety Element of the Los Angeles City General Plan, dated November 26.

Moore, G.L., 2002, Methane and Methane Buffer Zones, City of Los Angeles, City of Los Angeles Bureau of Engineering.

Ninyo & Moore, 2015, Letter of Interest and Qualifications to Provide Environmental Documentation Services for the Olive View – UCLA Medical Center Campus Master Plan, County of Los Angeles, Proposal No. S04-00135, dated February 2.

Norris, R.M., and Webb, R.W., 1990, Geology of California: John Wiley & Sons, 541 pp.

SmithGroup JJR, 2015, Olive View – UCLA Medical Center Campus Master Plan, Appendix, Prepared for the County of Los Angeles, Draft Print dated August 26.

Southern California Earthquake Data Center, 2016, Significant Earthquakes and Faults, San Fernando Earthquake, http://scedc.caltech.edu/significant/sanfernando1971.html.

State of California, 1979, Special Studies Zones, San Fernando Quadrangle, 7.5 Minute Series: Scale 1:24,000, dated January 1.

State of California, State Water Resources Control Board, 2016, GeoTracker Database System, http://geotracker.swrcb.ca.gov/, accessed February 17.

United States Geological Survey, 1966 (Photorevised 1988), San Fernando, California Quadrangle Map, 7.5 Minute Series: Scale 1:24,000.

United States Geological Survey, 2008 National Seismic Hazard Maps – Fault Parameters; http://geohazards.usgs.gov/efusion/hazardfaults_search/hf_search_main.efm.

United States Geological Survey, 2014a, National Seismic Hazard Maps – Interactive Fault Map, http://earthquake.usgs.gov/hazards/qfaults/map/hazfault2014.html.

United States Geological Survey, 2014b, US Seismic Design Maps, US Seismic Design Maps Ground Motion Calculator – Version 3.1.0; http://earthquake.usgs.gov/designmaps/us/application.php.

United States Geological Survey, 2015, San Fernando Quadrangle, California, 7.5 Minute Series: Scale 1:24,000

United States Geological Survey, 2016, Earthquakes Hazards Program, Historic Earthquakes, San Fernando, California, http://earthquake.usgs.gov/earthquakes/states/events/1971_02_09.php.

URS Corporation, 2008, Fault Rupture Hazard Investigation for the Proposed Psychiatric Urgent Care Facility, Olive View-UCLA Medical Center, Southwest Corner of West Way and Jacaranda Terrace, Sylmar, California, dated May 5.

URS Corporation, 2010, Fault Rupture Hazard Investigation for the Proposed Day Care Facility, Olive View-UCLA Medical Center, East of East Way and Comstock Way, Sylmar, California, dated April 28.

REFERENCE: 7.5 MINUTE USGS TOPOGRAPHIC MAP OF SAN FERNANDO, CALIFORNIA QUADRANGLE, DATED 2015, SCALE 1:24000.

N

SCALE IN FEET

0 2,400 4,800

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore		SITE LOCATION	FIGURE
PROJECT NO.	DATE	OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN 14445 OLIVE VIEW DRIVE SYLMAR, CALIFORNIA	1
209600002	3/16		

209600002_SL.dwg 15:39:19 02/19/2016 GK

REFERENCE: SMITH GROUP JJR, 2015, OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN, APPENDIX, PREPARED FOR COUNTY OF LOS ANGELES, DRAFT PRINT DATED AUGUST 26.

LEGEND	
— — · — — · —	SITE BOUNDARY

N

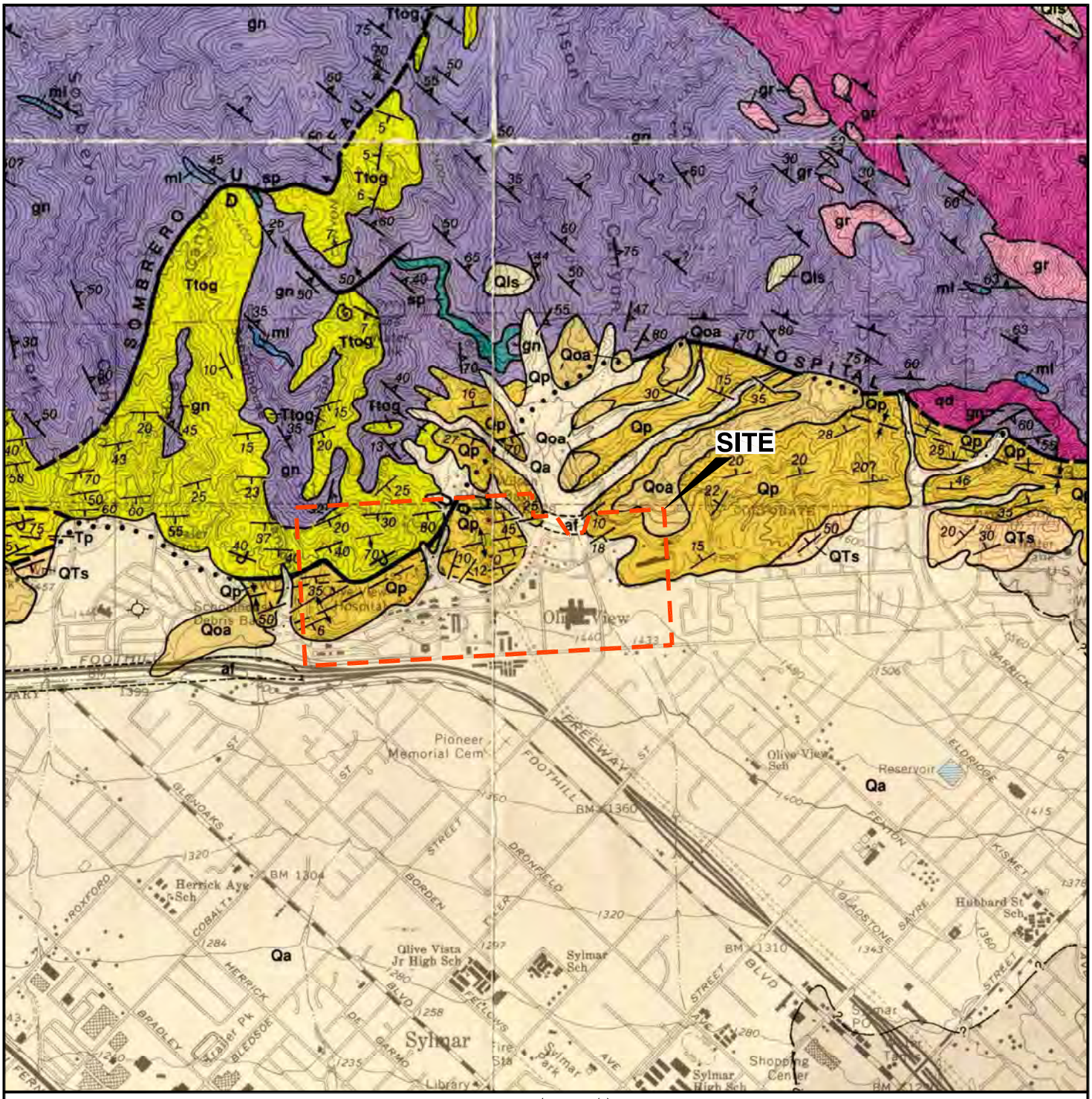
SCALE IN FEET

0 600 1,200

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

Ninyo & Moore		SITE AERIAL VIEW	FIGURE
PROJECT NO.	DATE	OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN 14445 OLIVE VIEW DRIVE SYLMAR, CALIFORNIA	2
209600002	3/16		

209600002_SA.dwg 10:01:22 02/22/2016 GK



REFERENCE: DIBBLEE, T.W., JR., 1991, GEOLOGIC MAP OF THE SAN FERNANDO AND VAN NUYS (NORTH 1/2) QUADRANGLES, LOS ANGELES COUNTY, CALIFORNIA: DIBBLEE FOUNDATION, DF-33.

N

SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

Af	ARTIFICIAL FILL	Ttog	TOWSLEY FORMATION CONGLOMERATE AND SANDSTONE
Qa	ALLUVIUM	gn	MENDENHALL GNEISS
Qoa	OLDER ALLUVIUM		GEOLOGIC CONTACT
Qp	PACOIMA FORMATION GRAVEL AND SAND		FAULT; DOTTED WHERE CONCEALED
		80	STRIKE AND DIP OF BEDDING
			ANTICLINE

Ninyo & Moore

PROJECT NO.	DATE
209600002	3/16

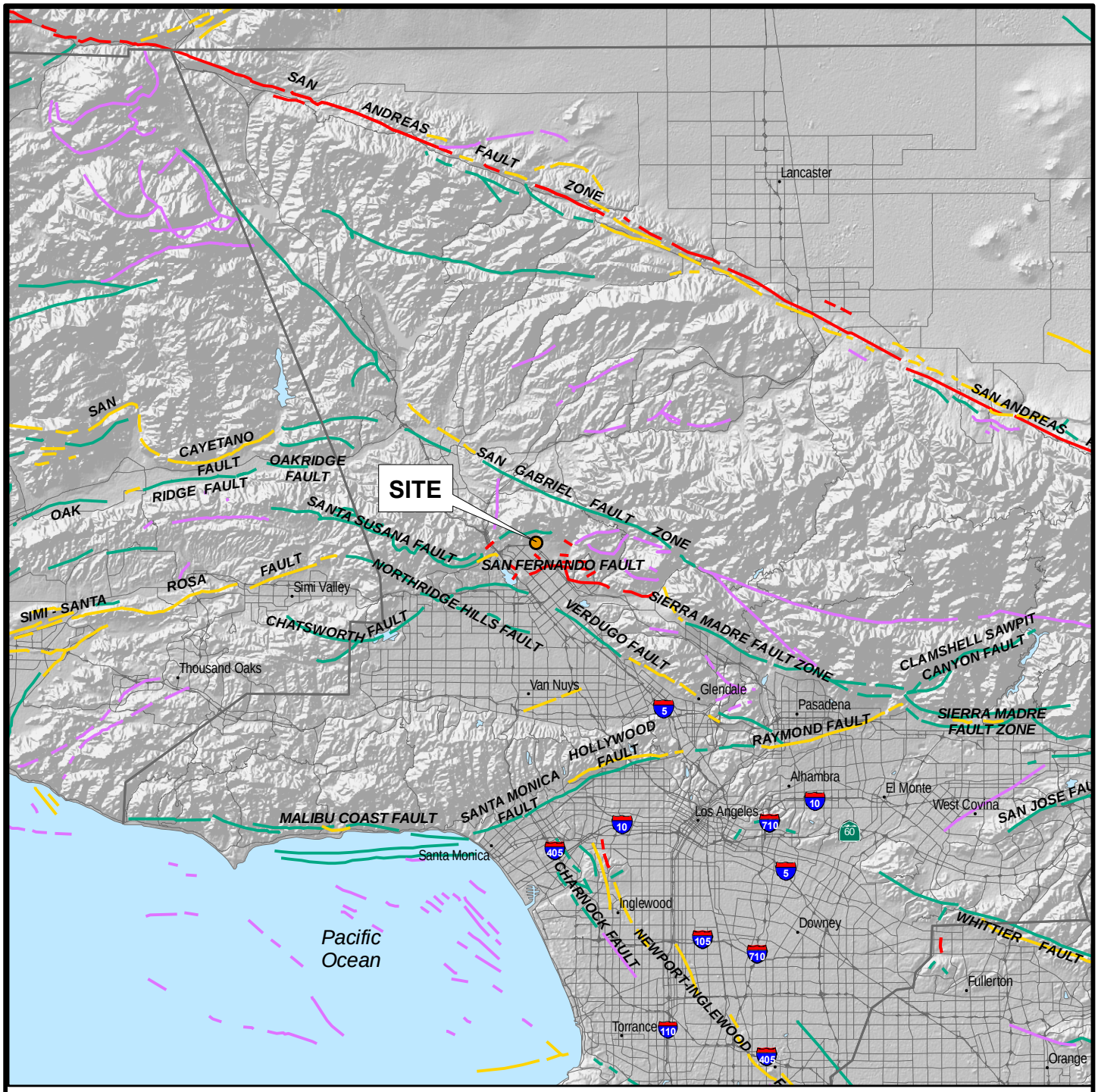
REGIONAL GEOLOGY

OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

FIGURE

3

209600002_RG.dwg 10:16:22 02/22/2016 GK



GIS DATA SOURCE: CALIFORNIA GEOLOGICAL SURVEY (CGS); ENVIRONMENTAL SYSTEMS RESEARCH INSTITUTE (ESRI)
REFERENCE: JENNINGS, C.W. AND BRYANT, W.A., 2010, FAULT ACTIVITY MAP OF CALIFORNIA.

LEGEND

FAULT ACTIVITY:

- HISTORICALLY ACTIVE
- HOLOCENE ACTIVE
- COUNTY BOUNDARIES
- LATE QUATERNARY
- QUATERNARY

N

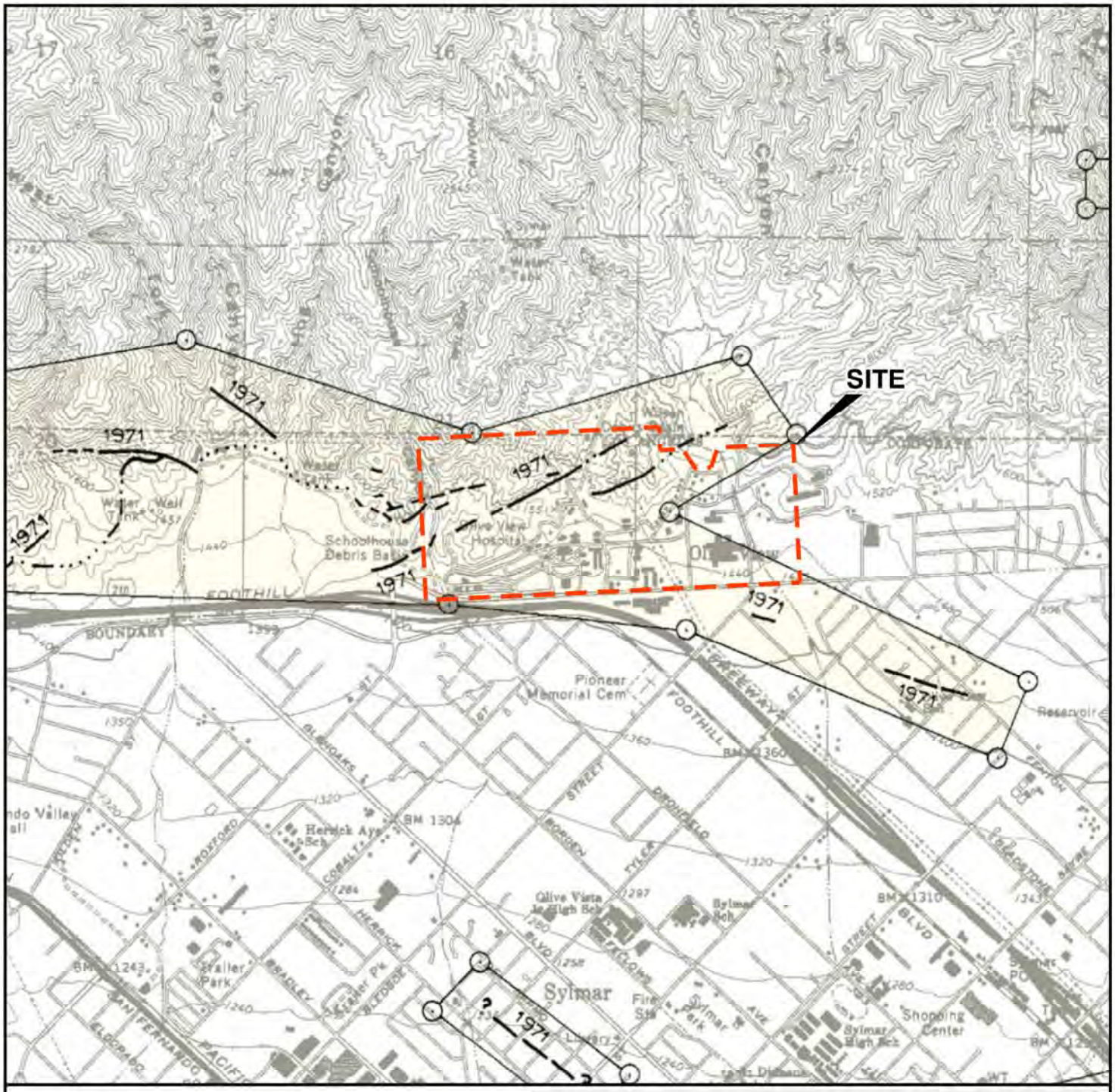
10 0 10

Miles

NOTE: DIMENSIONS, DIRECTIONS, AND LOCATIONS ARE APPROXIMATE

Ninyo & Moore		FAULT LOCATIONS	FIGURE
PROJECT NO.	DATE	OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN 14445 OLIVE VIEW DRIVE SYLMAR, CALIFORNIA	4
209600002	3/16		

209600002_FL.....GK



SAN FERNANDO QUADRANGLE, DATED JANUARY 1,

N

SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

Potentially Active Faults

1906 C

Faults considered to have been active during Holocene time and to have a relatively high potential for surface rupture, solid line where accurately located, long dash where approximately located, short dash where inferred, dotted where concealed; query (?) indicates additional uncertainty. Evidence of historic offset indicated by year of earthquake-associated event or C for displacement caused by creep or possible creep.

Special Studies Zone Boundaries

These are delineated as straight-line segments that connect encircled turning points so as to define special studies zone segments.

Seaward projection of zone boundary.

Ninyo & Moore

PROJECT NO.	DATE
209600002	3/16

EARTHQUAKE FAULT ZONES

OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

FIGURE

5

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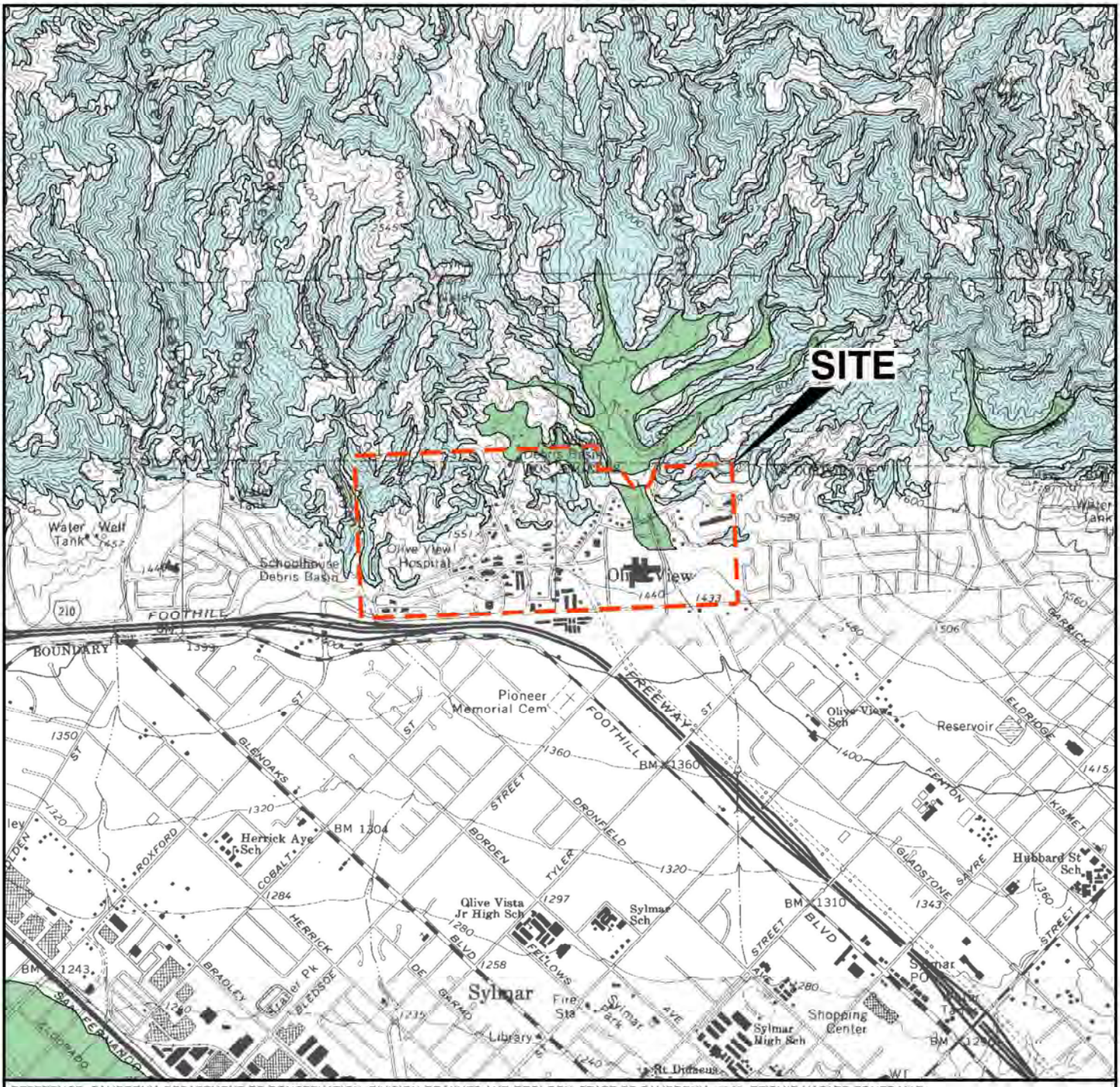

REFERENCE: CALIFORNIA DEPARTMENT OF CONSERVATION, DIVISION OF MINES AND GEOLOGY, STATE OF CALIFORNIA, 1999, SEISMIC HAZARD ZONES MAP SAN FERNANDO QUADRANGLE, 7.5-MINUTE SERIES: SCALE 1:24,000.

N

SCALE IN FEET

0 2,000 4,000

NOTE: DIMENSIONS, DIRECTIONS AND LOCATIONS ARE APPROXIMATE.

LEGEND

EARTHQUAKE-INDUCED LANDSLIDES

Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

LIQUEFACTION:

Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Ninyo & Moore

PROJECT NO.	DATE
209600002	3/16

SEISMIC HAZARD ZONES

OLIVE VIEW - UCLA MEDICAL CENTER MASTER PLAN
14445 OLIVE VIEW DRIVE
SYLMAR, CALIFORNIA

FIGURE

6

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APPENDIX M-LOS ANGELES RWQCB BASIN PLAN (CHAPTER 7) [COVER]

California Regional Water Quality Control Board
Los Angeles Region

Attachment to Resolution No. R11-013

APPENDIX N-THE GREEN VISIONS PLAN FOR 21ST CENTURY SOUTHERN CALIFORNIA (TABLE 7)

Table 7: Average Pollutant Concentrations from Eight Major Land Use Classes (LADPW 2005)

Constituent	High Density Single Family Residential	Light Industrial	Vacant	Retail/ Commercial	Multi-family Residential	Transport-ation	Education	Mixed Residential
Total Suspended Solids (mg/L)	104.7	229.4	164.7	67.4	46.4	75.4	103.0	69.1
Nitrate-N (mg/L)	1.0	0.9	1.1	0.6	1.7	0.8	0.6	0.7
Kjeldahl-N (mg/L)	2.8	3.1	0.8	3.4	1.9	1.8	1.6	2.7
Total Phosphorus (mg/L)	0.4	0.4	0.1	0.4	0.2	0.4	0.3	0.3
Dissolved Copper (ug/L)	8.4	20.2	n/m	14.6	6.8	32.7	12.8	11.5
Dissolved Lead (ug/L)	n/m	n/m	n/m	n/m	n/m	n/m	n/m	n/m
Dissolved Zinc (ug/L)	39.1	460.2	n/m	164.1	75.4	203.9	66.0	125.8
Total Copper (ug/L)	15.3	31.0	9.1	34.8	12.2	51.9	21.5	17.3
Total Lead (ug/L)	9.6	14.9	n/m	11.5	5.1	9.1	4.5	8.7
Total Zinc (ug/L)	80.4	565.6	38.8	238.5	134.9	279.5	123.7	184.9
Fecal Coliform (MPN/100 mL)	1085353.7	653070.4	2174.8	1071656.5	n/m	1340166.7	n/m	n/m

Appendix H2

Hydrology Technical Memorandum Addendum

HYDROLOGY TECHNICAL MEMORANDUM ADDENDUM

Project: **Los Angeles County UCLA-Olive View Medical Center EIR**
Client: ICF International/Los Angeles County
Prepared By: Jennifer J. Walker, P.E., D.WRE, CFM, QSD
Date: April 26, 2019
Purpose: Addendum to Memorandum of Hydrology and Water Quality Results

Note: Draft memorandum released under the authority of Jennifer J. Walker, P.E. (C77079), D.WRE, CFM on 4/26/2019 and should not be used for design or construction.

The purpose of this addendum to the hydrology technical memorandum is to summarize hydrology and water quality potential for impacts related to the revised project description contained in Chapter 2 of the April, 2019 revision to the *Olive View-UCLA Medical Center Campus Master Plan Environmental Impact Report (EIR)*. The primary changes to the project description documented in Chapter 2 of the *Master Plan EIR* are changes in proposed buildings and phasing, as described below. The project description includes refinements to the land use and cover type compared to the original hydrology technical memorandum; however, this did not result in significant changes in proposed project area, Tier 1/Tier 2 boundaries, drainage areas, or type of proposed land use.

For clarity, only those exhibits relevant to the updated project description are included with this addendum to the hydrology memorandum. Exhibit 6 illustrates drainage area boundaries for Drainage Area 1 (DA 1) and Drainage Area 2 (DA 2) within Tier 1 based on current data and the updated project description. Exhibits 7D and 8 illustrate proposed land use within Tier 1 and soils within Tier 1 and Tier 2 of the project.

The goals established for this project remain unchanged and include:

- ✓ Meet City of Los Angeles Low Impact Development (LID) and stormwater treatment criteria;
- ✓ Use LID to reduce proposed conditions peak flows and runoff volumes to below existing conditions;
- ✓ Simulate undeveloped conditions through use of infiltration and groundwater recharge across the project site.

Consistent with the original hydrology technical memorandum, the project proposes to meet minimum LID criteria contained in the City of Los Angeles *Developed Best Management Practices Handbook, Low Impact Development Manual, Part B Planning Activities*, 4th Edition, published June 2011 (*LID Manual*). The Low Impact Development Plan from the *Master Plan* illustrates the location of the following LID features at the site:

- Bioretention;
- Permeable Pavement;
- Dry Wells (now included as a potential parking lot LID feature).

Due to the sandy and relatively well-drained soils within Tier 1 and Tier 2 of the project (Exhibit 8), all three of these LID features are expected to perform similarly in terms of reduction in peak flows and runoff volume to meet minimum LID criteria.

Exhibit 6 compares the original Tier 1, project, and drainage area boundaries to the revised boundaries. Changes in the Tier 1 boundary and Drainage Area 1 (eastern drainage area) are due to refinement of boundary data than at the time of the original study as opposed to proposed project changes. Two versions of Drainage Area 2 are presented, with and without the addition of the Materials Management building to the west of and adjacent to Tier 1 that is included in the proposed project description in Chapter 2 of the *Master Plan EIR*. As shown on Exhibit 6 and in Table 1, the revised drainage area associated with DA 1 is 1.7 ac larger than the original DA 1 and the revised drainage area associated with DA 2 is 4.4 ac greater than the original DA 2.

TABLE 1: ORIGINAL AND REVISED DRAINAGE AREAS AND IMPERVIOUS COVER

Drainage Area	Original			Revised			Difference		
	Area (ac)	% Impervious Existing	% Impervious Proposed	Area (ac)	% Impervious Existing	% Impervious Proposed	Area (ac)	% Impervious Existing	% Impervious Proposed
1	29.4	54.6	50.0	31.1	50.7	52.3	1.7	-3.9	2.3
2	37.1	76.7	49.3	41.5	74.9	46.2	4.4	-1.8	-3.1
2 + Materials Management	37.1	76.7	49.3	43.1	75.8	48.3	6.0	-0.9	-1.0

Given the similar levels of impervious cover in existing and proposed conditions for both drainage areas, the nominal changes in impervious cover ranging from a reduction of 3.9% to an increase in 2.3% will not significantly change peak flows and runoff volumes from the original hydrology study. With the inclusion of proposed LID features, peak flows and runoff volumes will be below existing conditions for the range of events modeled with prior results ranging from a reduction of 12% in the two-year event to 16% in the 100-year event for DA 1 and 41% in the 100-year event and 100% in the two-year event for DA 2.

Likewise, there is no change to pollutants of concern or Total Maximum Daily Loads (TMDLs) for the receiving systems as compared to the original hydrology memorandum. While the revised land use plan included in Chapter 2 of the *Master Plan EIR* shows adjustments to the planned vegetation and location of impervious cover within Tier 1 (Exhibit 7D), there is no change in existing conditions land use and no significant change in the type of proposed land use consistent with a modernized medical center campus. The anticipated pollutant loads from the existing and proposed land use have not changed from the original hydrology study and the anticipated LID performance in terms of water quality and pollutant removal is also consistent with the original hydrology study.

The UCLA Medical Center-Olive View project meets established project goals:

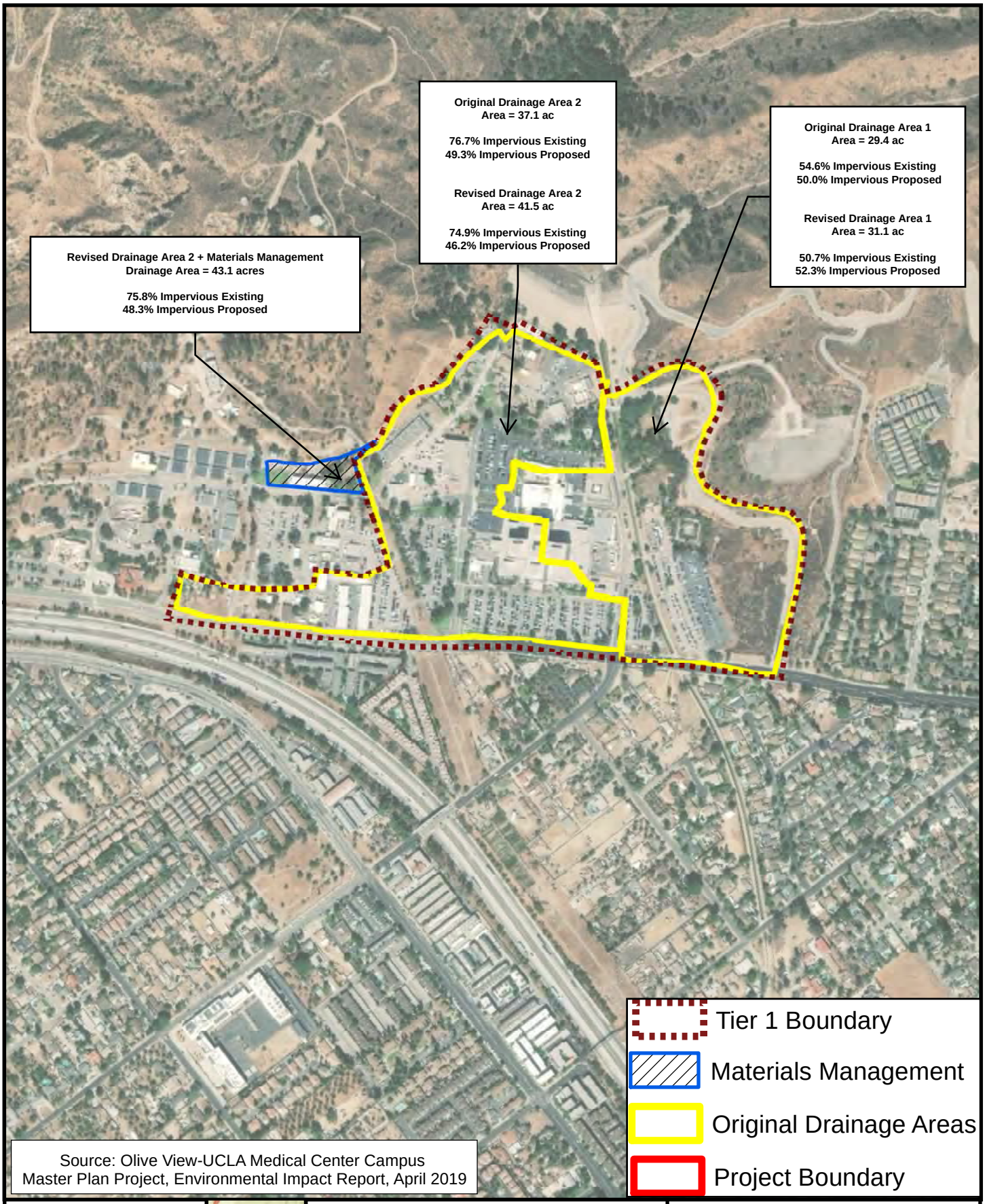
- ✓ Meet City of Los Angeles Low Impact Development (LID) and stormwater treatment criteria;
- ✓ Use LID to reduce proposed conditions peak flows and runoff volumes to below existing conditions;
- ✓ Simulate undeveloped conditions through use of infiltration and groundwater recharge across the project site.

There are no changes to hydrology and water quality thresholds, potential for impacts, or recommendations for the revised project as compared to the original hydrology study. The original recommendations for construction sequencing and Operations & Maintenance (O&M) remain unchanged.

Redevelopment of the UCLA Medical Center-Olive View site represents a significant opportunity for sustainability and LID retrofits within a densely urbanized area and for implementation of Green Infrastructure and LID for Los Angeles County. Thank-you for the opportunity to collaborate on this visionary project.

EXHIBITS

Exhibit 6 – Drainage Area Map
Exhibit 7D – Revised Land Use Map
Exhibit 8 – Soil Map



Source: Olive View-UCLA Medical Center Campus
Master Plan Project, Environmental Impact Report, April 2019

0 1 " = 700 Feet 800
Feet
Datum: NAD83
Units: US Feet

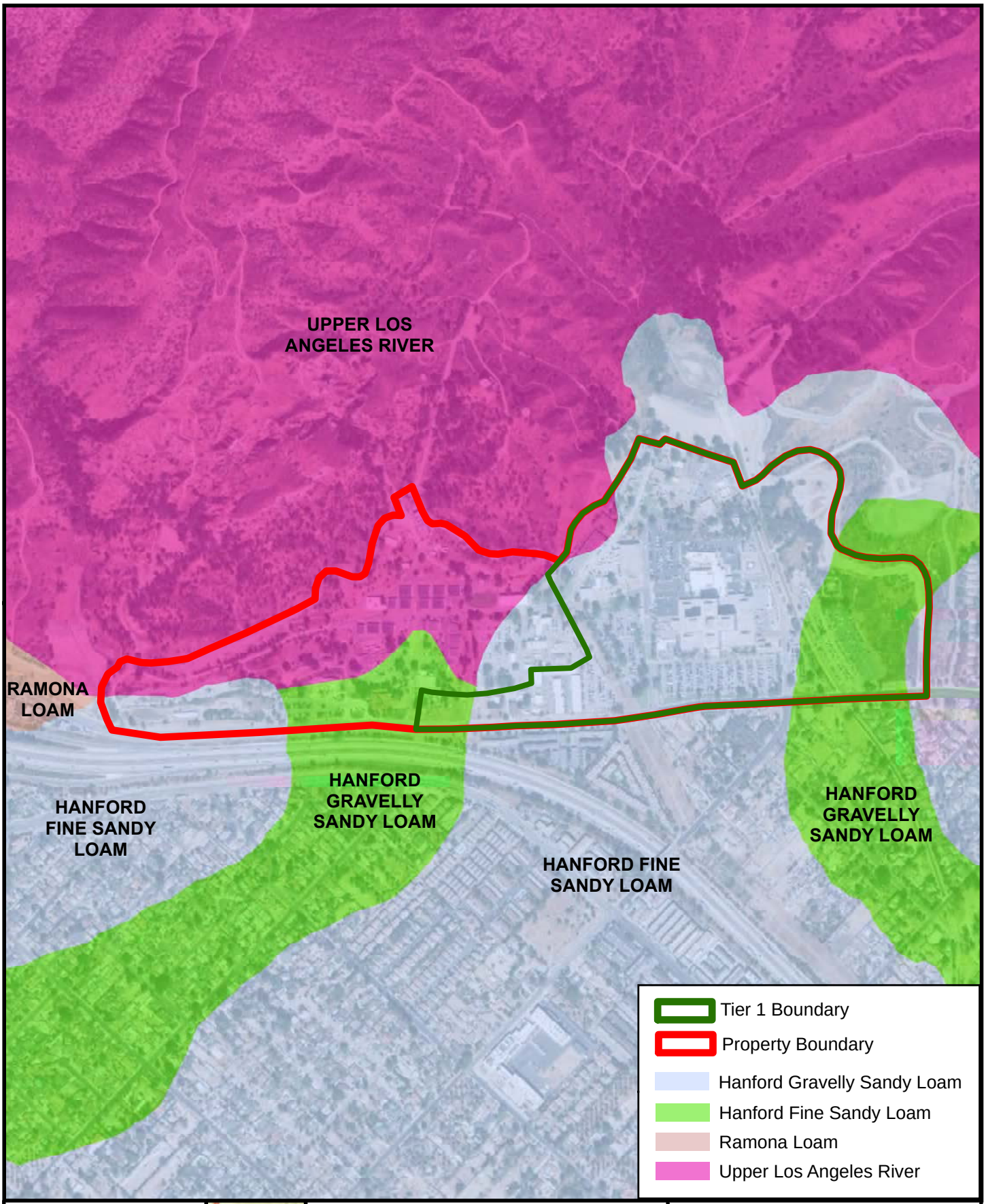
OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA

DRAINAGE AREA MAP

Watearth™
Water Resources + Green Infrastructure

Date: Apr 26, 2019

Exhibit 6



1 " = 800 Feet

0 800

Feet

Datum: NAD83
Units: US Feet

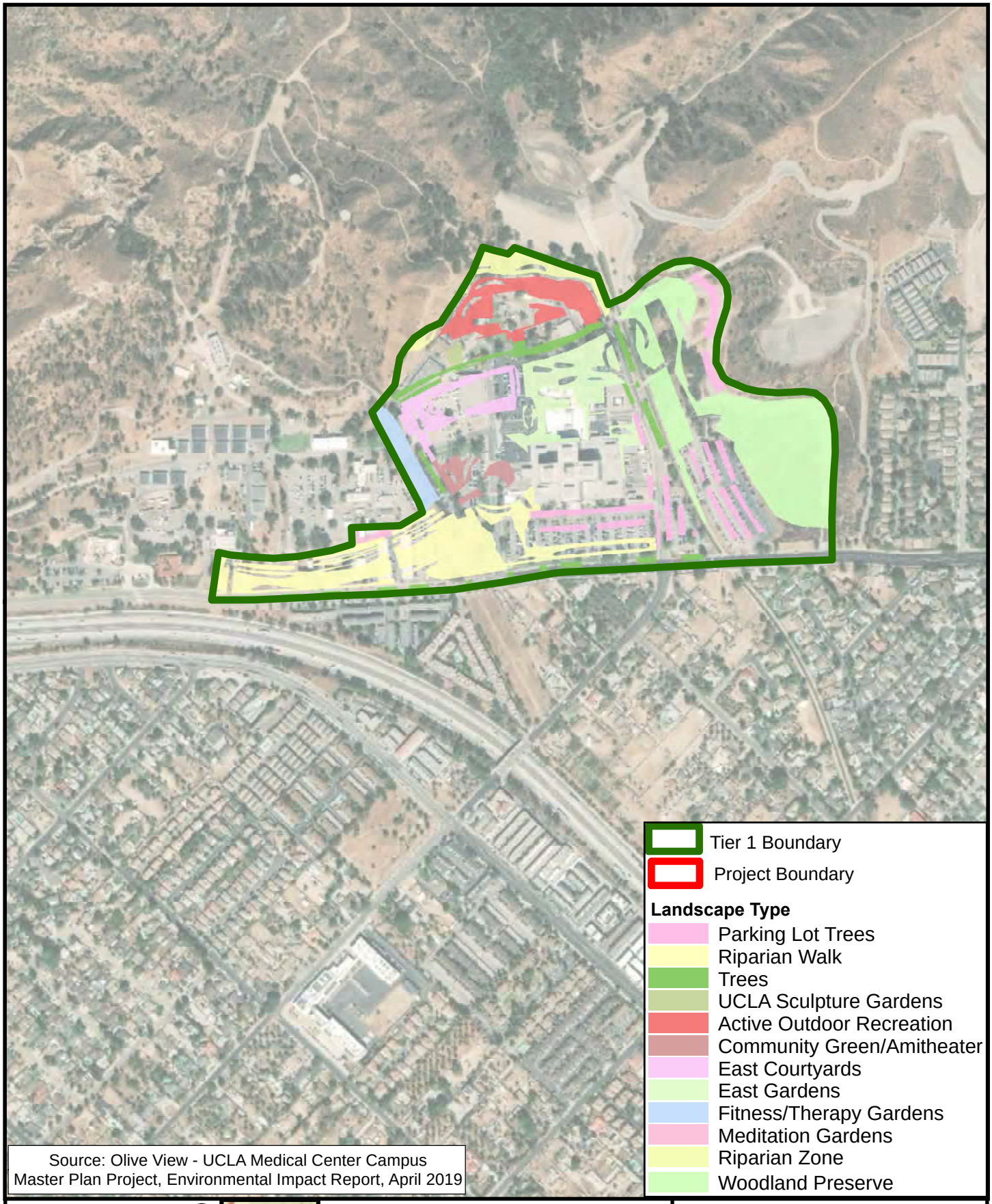
OLIVE VIEW
UCLA - LOS ANGELES
CALIFORNIA
SOIL MAP

Soil types data from Los Angeles County Department of Public Works

Watearth™
Water Resources + Green Infrastructure

Date: Apr 26, 2019

Exhibit 8



Source: Olive View - UCLA Medical Center Campus
Master Plan Project, Environmental Impact Report, April 2019

0 1 " = 700 Feet 1,000
Feet

Datum: NAD83
Units: US Feet

OLIVE VIEW MASTER PLAN
UCLA-LOS ANGELES
CALIFORNIA
REVISED LANDUSE MAP

Watearth™
Water Resources + Green Infrastructure

Date: Apr 26, 2019

Exhibit 7D

Appendix I

Noise Analysis

This spreadsheet calculates traffic noise levels based on TNM Version 2.5 Lookup Tables.

** Type in yellow cells only.

Traffic Data:

- Enter ADT Traffic
- Enter Loudest-hour Traffic

Units:

- Metric
- English

Calculate

Link	Roadway	Segment Location	Hard or Soft Ground (H or S)	BARRIER Present 1=yes	BARRIER Height min. 7 ft. max. 32 ft.	BARRIER Distance 35 ft. or 100 ft.	Total Daily Traffic Volumes (ADT)	Traffic Mix Number #	Traffic Mix Description	Vehicle Speed mph max. 80	Sound Levels at Receiver Locations Distance feet, min. 33 max. 1000	Sound Levels at Receiver Locations dB CNEL	Distance to CNEL Noise Contour (feet) 75 dB	70 dB	65 dB	60 dB
1	Bledsoe St (existing)	N of Olive View Dr	H				2,487	10	Orange County Arterials	25	50	55.4				
2	Bledsoe St (existing)	Olive View Dr to Foothill Blvd	H				4,779	10	Orange County Arterials	25	50	58.0				
3	Bledsoe St (existing)	Foothill Blvd to Glenoaks Blvd	H				4,934	10	Orange County Arterials	35	50	61.4				66
4	Bledsoe St (existing)	S of Glenoaks Blvd	H				6,217	10	Orange County Arterials	35	50	62.4				85
5	Foothill Blvd (existing)	W of Glenoaks Blvd	H				9,432	10	Orange County Arterials	45	50	67.3			82	246
6	Foothill Blvd (existing)	Glenoaks Blvd to Roxford Street	H				6,336	10	Orange County Arterials	45	50	65.6			56	172
7	Foothill Blvd (existing)	Roxford Street to Bledsoe St	H				8,329	10	Orange County Arterials	45	50	66.8			72	220
8	Foothill Blvd (existing)	Bledsoe St to Polk St	H				15,365	10	Orange County Arterials	45	50	69.4		43	131	370
9	Foothill Blvd (existing)	E of Polk St	H				19,524	10	Orange County Arterials	45	50	70.4		55	165	448
10	Glenoaks Blvd (existing)	N of Foothill Blvd	H				2,455	10	Orange County Arterials	35	50	58.5				33
11	Glenoaks Blvd (existing)	Foothill Blvd to Roxford Street	H				5,043	10	Orange County Arterials	35	50	61.5				68
12	Glenoaks Blvd (existing)	Roxford Street to Bledsoe St	H				12,520	10	Orange County Arterials	35	50	65.4			55	170
13	Glenoaks Blvd (existing)	E of Bledsoe St	H				15,590	10	Orange County Arterials	35	50	66.4			65	208
14	Olive View Drive (existing)	W of Bledsoe St	H				5,912	10	Orange County Arterials	40	50	63.8			37	117
15	Olive View Drive (existing)	E of Bledsoe St	H				4,269	10	Orange County Arterials	40	50	62.4				85
16	Polk St (existing)	N of I-210 WB Ramps	H				16,397	10	Orange County Arterials	40	50	68.2			100	296
17	Polk St (existing)	I-210 WB Ramps to I-210 EB Ramps	H				20,065	10	Orange County Arterials	40	50	69.1		40	123	351
18	Polk St (existing)	I-210 EB Ramps to Foothill Blvd	H				25,969	10	Orange County Arterials	40	50	70.2		52	158	432
19	Polk St (existing)	S of Foothill Blvd	H				18,760	10	Orange County Arterials	40	50	68.8		36	116	332
20	Roxford Street (existing)	Olive View Dr to I-210 WB Ramps	H				13,971	10	Orange County Arterials	35	50	65.9			60	188
21	Roxford Street (existing)	I-210 WB Ramps to I-210 EB Ramps	H				13,853	10	Orange County Arterials	35	50	65.8			59	187
22	Roxford Street (existing)	I-210 EB Ramps to Foothill Blvd	H				15,432	10	Orange County Arterials	35	50	66.3			64	206
23	Roxford Street (existing)	Foothill Blvd to Glenoaks Blvd	H				11,340	10	Orange County Arterials	35	50	65.0			50	155
24	Roxford Street (existing)	Glenoaks Blvd to San Fernando Rd	H				15,185	10	Orange County Arterials	35	50	66.2			64	203
25	Roxford Street (existing)	San Fernando Rd to Encinitas Ave/I-	H				18,260	11	Orange County Arterials, 2% Hvy T	35	50	67.7			91	272
26	Roxford Street (existing)	Encinitas Ave/I-5 NB Ramps to I-5 St	H				20,829	11	Orange County Arterials, 2% Hvy T	35	50	68.3			103	305
27	San Fernando Rd (existing)	W of Roxford Street	H				8,472	11	Orange County Arterials, 2% Hvy T	40	50	65.9			60	185
28	San Fernando Rd (existing)	E of Roxford Street	H				10,142	11	Orange County Arterials, 2% Hvy T	40	50	66.6			70	217
29	Bledsoe St (existing + project)	N of Olive View Dr	H				3,702	10	Orange County Arterials	25	50	57.0				
30	Bledsoe St (existing + project)	Olive View Dr to Foothill Blvd	H				5,331	10	Orange County Arterials	25	50	58.5				34
31	Bledsoe St (existing + project)	Foothill Blvd to Glenoaks Blvd	H				4,982	10	Orange County Arterials	35	50	61.5				67
32	Bledsoe St (existing + project)	S of Glenoaks Blvd	H				6,217	10	Orange County Arterials	35	50	62.4				85
33	Foothill Blvd (existing + project)	W of Glenoaks Blvd	H				9,892	10	Orange County Arterials	45	50	67.5			86	256
34	Foothill Blvd (existing + project)	Glenoaks Blvd to Roxford Street	H				6,796	10	Orange County Arterials	45	50	65.9			60	184
35	Foothill Blvd (existing + project)	Roxford Street to Bledsoe St	H				8,329	10	Orange County Arterials	45	50	66.8			72	220
36	Foothill Blvd (existing + project)	Bledsoe St to Polk St	H				15,878	10	Orange County Arterials	45	50	69.5		45	136	379
37	Foothill Blvd (existing + project)	E of Polk St	H				19,665	10	Orange County Arterials	45	50	70.5		55	167	450
38	Glenoaks Blvd (existing + project)	N of Foothill Blvd	H				2,455	10	Orange County Arterials	35	50	58.5				33
39	Glenoaks Blvd (existing + project)	Foothill Blvd to Roxford Street	H				5,043	10	Orange County Arterials	35	50	61.5				68
40	Glenoaks Blvd (existing + project)	Roxford Street to Bledsoe St	H				12,614	10	Orange County Arterials	35	50	65.4			55	171
41	Glenoaks Blvd (existing + project)	E of Bledsoe St	H				15,732	10	Orange County Arterials	35	50	66.4			65	210

42	Olive View Drive (existing + project)	W of Bledsoe St	H		7,870	10	Orange County Arterials	40	50	65.0			50	153
43	Olive View Drive (existing + project)	E of Bledsoe St	H		4,965	10	Orange County Arterials	40	50	63.0				97
44	Polk St (existing + project)	N of I-210 WB Ramps	H		16,585	10	Orange County Arterials	40	50	68.2			102	299
45	Polk St (existing + project)	I-210 WB Ramps to I-210 EB Ramps	H		20,344	10	Orange County Arterials	40	50	69.1		40	125	355
46	Polk St (existing + project)	I-210 EB Ramps to Foothill Blvd	H		26,341	10	Orange County Arterials	40	50	70.2		53	160	437
47	Polk St (existing + project)	S of Foothill Blvd	H		18,760	10	Orange County Arterials	40	50	68.8		36	116	332
48	Roxford Street (existing + project)	Olive View Dr to I-210 WB Ramps	H		17,906	10	Orange County Arterials	35	50	67.0			76	235
49	Roxford Street (existing + project)	I-210 WB Ramps to I-210 EB Ramps	H		16,386	10	Orange County Arterials	35	50	66.6			69	218
50	Roxford Street (existing + project)	I-210 EB Ramps to Foothill Blvd	H		16,552	10	Orange County Arterials	35	50	66.6			70	220
51	Roxford Street (existing + project)	Foothill Blvd to Glenoaks Blvd	H		12,001	10	Orange County Arterials	35	50	65.2			53	163
52	Roxford Street (existing + project)	Glenoaks Blvd to San Fernando Rd	H		15,752	10	Orange County Arterials	35	50	66.4			65	210
53	Roxford Street (existing + project)	San Fernando Rd to Encinitas Ave/I-	H		18,732	11	Orange County Arterials, 2% Hvy T	35	50	67.8			93	278
54	Roxford Street (existing + project)	Encinitas Ave/I-5 NB Ramps to I-5 St	H		21,183	11	Orange County Arterials, 2% Hvy T	35	50	68.4			105	310

Appendix J

Traffic Study Analysis

Draft Traffic Impact Analysis for the Olive View-UCLA Medical Center Master Plan Project

Prepared for:
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March 2019

LA16-2811

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1. INTRODUCTION

This technical report summarizes the results of a traffic study conducted by Fehr & Peers to evaluate the potential traffic impacts of the proposed Olive View-UCLA Medical Center Master Plan project, which is proposed on the site of the existing Olive View-UCLA Medical Center in the Sylmar community of Los Angeles. The location of the project can be seen in Figure 1.

PROJECT DESCRIPTION

The proposed Olive View-UCLA Medical Center Master Plan will guide the future development of improved medical and related support facilities within the current site boundaries. Tier I development would occur through 2035 and Tier II development would occur after 2035. The project includes both the redevelopment of existing facilities and the construction of new facilities. The existing site serves as a primary healthcare facility for County residents and a training center for medical students. The purpose of this project is to enhance the unique, and highly interactive, relationship between the clinical, educational, and research components of the Olive View-UCLA Medical Center Campus and to meet state requirements for seismic safety. The proposed campus site plan with Tier I development is shown in Figure 2 and includes the following changes to the site:

- Construction of a new ambulatory care center and demolition of a portion of the existing hospital
- Construction of a new community center
- Construction of new materials management building
- Expansion of the mental health facilities
- Demolition of campus support buildings, construction of a new administration building and consolidation of administrative activities within the new building
- Demolition of the existing central plant and construction of the new central plant

Project Site

4 Study Intersection

Figure 1

Project site and Study Area

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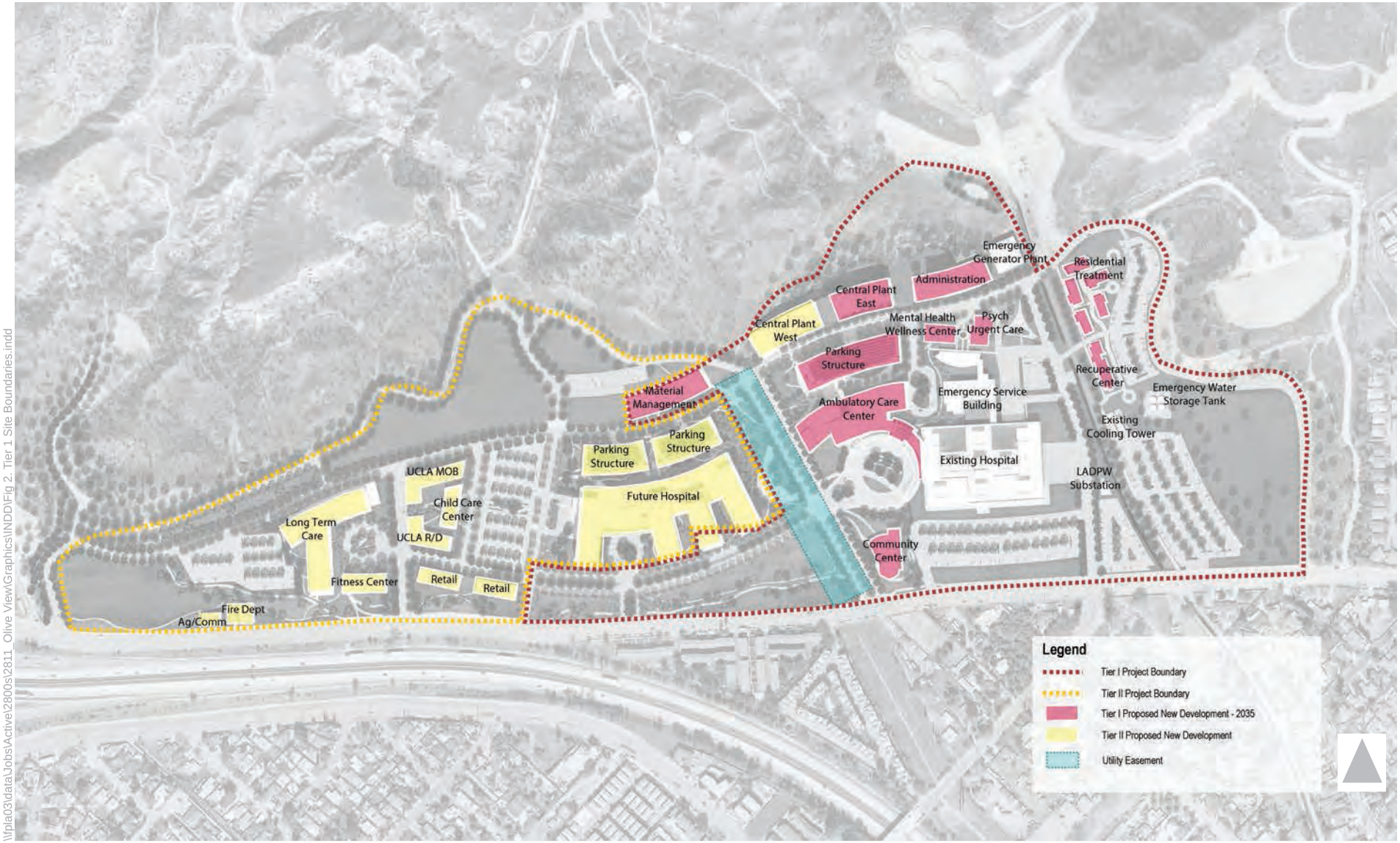


\\pla03\data\Jobs\Active\2800s\2811_Olive View\Graphics\INDD\Fig 2. Tier 1 Site Boundaries.indd

Figure 2

Tier 1 Site Boundaries

Subsequent to the completion of Tier I, Tier II development will include the addition of hospital space, research and development space, retail space, and utility plant and maintenance facilities.

The project will provide additional open space, trails and beautification of the campus as part of Tier I and Tier II. Site access and internal circulation will be reconfigured and new parking provided. This report includes a quantitative analysis for Tier I development and a qualitative analysis of Tier II development beyond 2035.

STUDY SCOPE

This study evaluates the potential for project-related traffic impacts on the street system surrounding the project site. Peak hour traffic impacts for the project were evaluated for the peak hour during typical weekday morning (7:00 to 10:00 AM) and afternoon (3:00 to 6:00 PM) peak periods. The following traffic scenarios were analyzed in the study:

- Existing Conditions – The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. The existing conditions analysis includes a description of the street system serving the site, current traffic volumes, and an assessment of the operating conditions at these locations.
- Existing plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under existing conditions with the addition of project-generated traffic from Tier I development. The direct impacts of the proposed project on existing traffic operating conditions were then identified.
- Cumulative (2035) Base Conditions – Future traffic projections without the proposed project were developed for the year 2035. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth and related projects in the vicinity of the project site by the year 2035.
- Cumulative (2035) plus Project Conditions – This traffic scenario provides projected traffic volumes and an assessment of operating conditions under future conditions with the addition of project-generated traffic from Tier I development. The cumulative impacts of the proposed project on future traffic operating conditions were then identified.

Following extensive coordination with staff from Los Angeles County, Caltrans and City of Los Angeles Department of Transportation, the 14 intersections listed below were selected to be studied as part of the traffic impact analysis for the proposed project. This coordination led to the execution of a formal Memorandum of Understanding (MOU), which is included as an appendix to this study.

1. Foothill Boulevard & Glenoaks Boulevard

2. I-210 Westbound Ramps & Roxford Street
3. I-210 Eastbound Ramps & Roxford Street
4. Foothill Boulevard & Roxford Street
5. Glenoaks Boulevard & Roxford Street
6. San Fernando Road & Roxford Street
7. I-5 Northbound Off-Ramp/Encinitas Avenue & Roxford Street
8. I-5 Southbound Ramps & Roxford Street
9. Olive View Drive & Bledsoe Street
10. Foothill Boulevard & Bledsoe Street
11. Glenoaks Boulevard & Bledsoe Street
12. I-210 Westbound Ramps & Polk Street
13. I-210 Eastbound Ramps & Polk Street
14. Foothill Boulevard & Polk Street

All intersections are controlled by traffic signals, with the exception of Olive View Drive & Bledsoe Street (Intersection 9), which is all-way stop-controlled. Per LADOT guidelines, this location was analyzed to determine the need for signalization. Figure 1 shows the location of the project site and the 14 study intersections. Lane configurations of the study intersections are shown in Appendix A.

ORGANIZATION OF REPORT

This report is divided into eight chapters, including this introduction. Chapter 2 describes the existing transportation conditions including an inventory of the streets, highways, and transit service in the study area, a summary of traffic volumes, and an assessment of operating conditions. The methodologies used to develop traffic forecasts for the scenarios described above and the forecasts themselves are included in Chapter 3. Chapter 4 presents an assessment of potential intersection traffic impacts of the proposed Tier I development under existing, and future conditions. The results of the regional transportation system analysis are provided in Chapter 5 using trip generation for Tier I development. Chapter 6 estimates the active transportation facilities near the project site. Chapter 7 includes trip generation of Tier II development and a qualitative assessment of potential impacts with Tier II development. Chapter 8 contains the study conclusions. Appendices to this report include details of the technical analysis.

2. EXISTING CONDITIONS

A comprehensive data collection effort was undertaken to develop a detailed description of existing conditions in the study area. The assessment of conditions relevant to this study includes a description of the study area, an inventory of the local street system in the vicinity of the project site, a review of traffic volumes on these facilities, an assessment of the resultant operating conditions, and the current transit service in the study area. A detailed description of these elements is presented in this chapter.

STUDY AREA

The proposed project is located at 14445 Olive View Drive in the Sylmar community of Los Angeles. All intersections are located within the City of Los Angeles. Nine driveways along Olive View Drive provide access to the site. The study area extends from the project site southwest to Interstate 5 and southeast to Polk Street.

EXISTING STREET SYSTEM

Primary regional access to the site is provided by Interstate 5 and Interstate 210. Following is a brief description of the streets that serve the site.

Freeways

- Foothill Freeway (I-210) – The Foothill Freeway runs east/west to the south of the project site. Access from the project site to the Foothill Freeway is provided by interchanges at Roxford Street and Polk Street.
- Golden State Freeway (I-5) – The Golden State Freeway runs north/south approximately two miles west of the project site. Access from the project site to the Golden State Freeway is provided by an interchange at Roxford Street and via the Foothill Freeway.

East/West Roadways

- Olive View Drive – Olive View Drive is designated as an Avenue II and is part of the Neighborhood Enhanced Network according to the City of Los Angeles Mobility Plan 2035. The roadway runs east/west immediately adjacent to the project site and provides two travel lanes in each direction and a 2-way left-turn lane. Unrestricted parking is generally available on either side of the street. The posted speed limit is 40 mph.

Northwest/Southeast Roadways

- San Fernando Road – San Fernando Road is designated as an Avenue I and is part of the Bicycle Enhanced Network and the Transit Enhanced Network according to the City of Los Angeles Mobility Plan 2035. The roadway runs northwest/southeast to the south of the project site and provides two travel lanes in each direction and a 2-way left-turn lane. Unrestricted parking is available on many portions of the west side of the street. No parking is allowed adjacent to the Metrolink tracks on the east side of the street. The posted speed limit is 40 mph.

- Glenoaks Boulevard – Glenoaks Boulevard is designated as an Avenue II according to the City of Los Angeles Mobility Plan 2035. The roadway runs northwest/southeast to the south of the project site and provides two travel lanes in each direction with intersection turn lanes on portions of the roadway. Unrestricted parking is available on portions of both sides of the street. The posted speed limit is 35 mph.

- Foothill Boulevard – Foothill Boulevard is designated as an Avenue I according to the City of Los Angeles Mobility Plan 2035. The roadway provides two travel lanes in each direction and a center turn lane north, except between Filbert Street and Bledsoe Street, where there is one travel lane in each direction with a 2-way left-turn lane. There is a bicycle lane between Hubbard Street and Polk Street and between Tyler Street and Balboa Boulevard. Restricted and unrestricted parking is available on portions of both sides of the street. The posted speed limit is 45 mph.

- Encinitas Avenue – Encinitas Avenue is designated as an Avenue II according to the City of Los Angeles Mobility Plan 2035. The roadway runs northwest/southeast approximately two miles to the southwest of the project site. North of Cobalt Street, the roadway provides two travel lanes heading north and one travel lane heading south. South of Cobalt Street, there is one travel lane in each direction. The street also has a 2-way left-turn lane. Restricted and unrestricted parking is available on both sides of the street on portions of the roadway. There is no posted speed limit on the street.

Northeast/Southwest Roadways

- Roxford Street – Roxford Street is designated as an Avenue I according to the City of Los Angeles Mobility Plan 2035. The roadway runs northeast/southwest to the west of the project site. The street provides two travel lanes and a center turn lane in each direction south of Ralston Avenue, and one travel lane in each direction with a center turn lane north of Ralston Avenue. Unrestricted parking is available on either side of the street on portions of the roadway. The posted speed limit is 35 mph.

- Bledsoe Street – Bledsoe Street is designated as an Avenue I west of Glenoaks Boulevard and an Avenue II south of San Fernando Road according to the City of Los Angeles Mobility Plan 2035. The roadway runs northeast/southwest to the south of the project site and provides one vehicle travel lane in each direction. There is a bicycle lane in each direction between San Fernando Road and De Garmo Avenue. Unrestricted parking is available on either side of the street on most portions of the roadway. The posted speed limit is 25 mph north of Foothill Boulevard and 35 mph south of Foothill Boulevard.

- Polk Street – Polk Street is designated as an Avenue I according to the City of Los Angeles Mobility Plan 2035. The roadway runs northeast/southwest to the south of the project site and provides two travel lanes in each direction with a center turn lane. There is a bicycle lane in each direction between Laurel Canyon Boulevard and Sunrise Ridge Road and also between San Fernando Road and Glenoaks Boulevard. Restricted and unrestricted parking is available on either side of the street. The posted speed limit is 35 mph is some locations and 40 mph in others.

EXISTING TRANSIT SERVICE

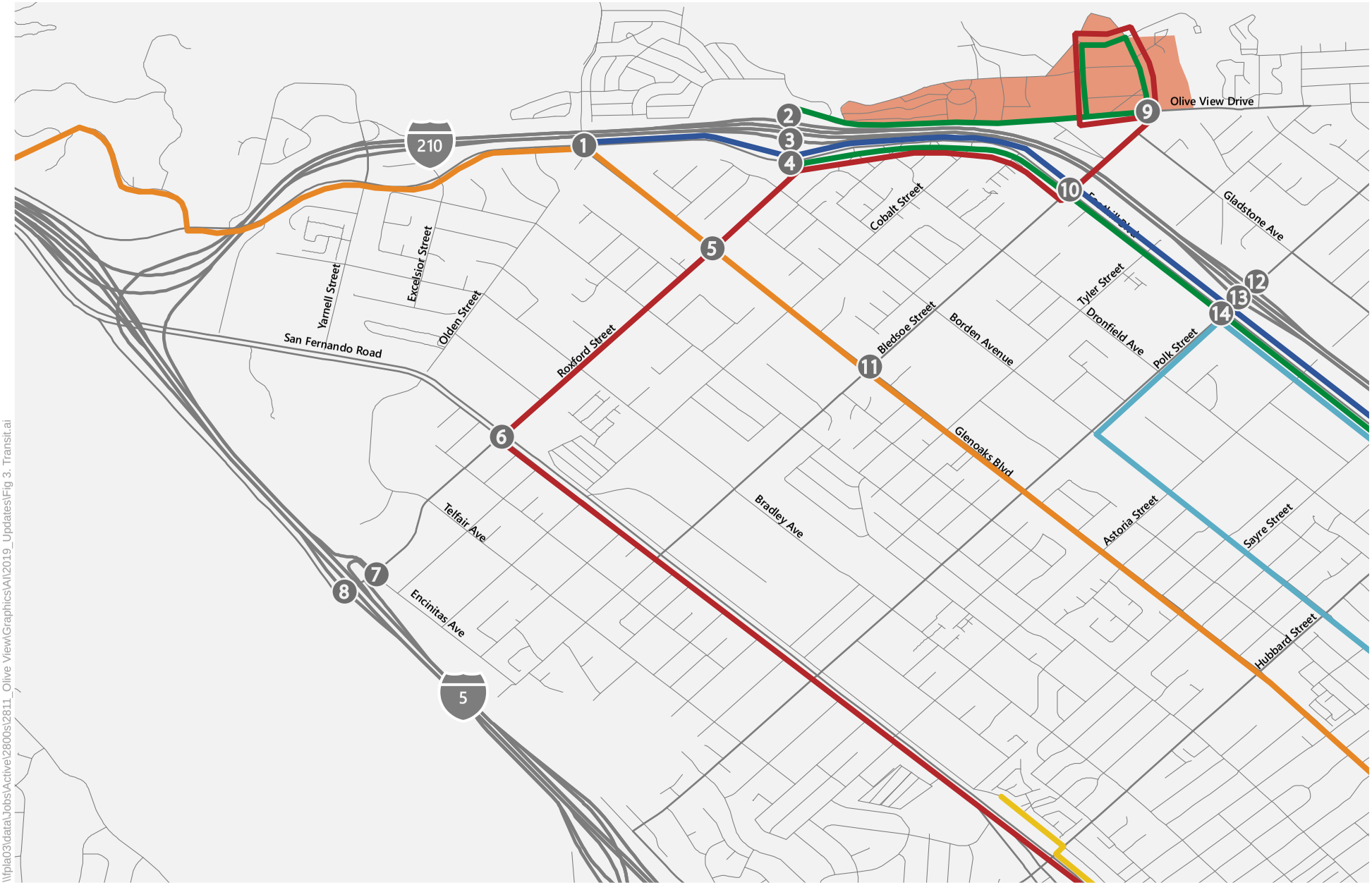
Five bus lines currently operate in the study area. These transit lines are operated by Metro and LADOT. Transit lines are described below and illustrated in Figure 3.

- Metro Line 90 – Line 90 is a north/south line that runs from Downtown Los Angeles to Olive View Medical Center. The line has 30- to 60-minute headways during the AM peak period and 30 to 50 minute headways during the PM peak period. The line runs on Foothill Boulevard, Roxford Street and Olive View Drive within the study area with stops every few blocks, and provides site access via a stop on Reagan Road within the medical center campus.

- Metro Line 224 – Line 224 is a north/south line that runs from the Universal/Studio City Red Line Station to Olive View Medical Center. The line has 8- to 20-minute headways during the AM peak period and 20- to 30-minute headways during the PM peak period. The line runs on San Fernando Road, Roxford Street, Foothill Boulevard, Bledsoe Street, and Olive View Drive within the study area with stops every few blocks. Project site access is provided via the final stop on the line on Kennedy Road within the medical center campus.

- Metro Line 234 – Line 234 is a north/south line that runs from Sherman Oaks to Mission College in Sylmar, with weekend, early morning, and late night service to the Sepulveda Expo Line Station. The line has 15- to 25-minute headways during the AM peak period and 45- to 40-minute headways during the PM peak period. The line runs on Polk Street within the study area with project site access provided via a stop at the intersection of Polk Street & Foothill Boulevard.

- Metro Line 236 – Line 236 is a north/south line that runs from Encino to the Sylmar Metrolink Station. The line has 60- to 65-minute headways during AM and PM peak periods and runs on Foothill Boulevard and Glenoaks Boulevard within the study area. Project site access is provided via a stop at the intersection of Glenoaks Boulevard & Roxford Street.



Project Site

Metro 224

Metro 230

Metro 234

Metro 236

Metro 90

LADOT 409

Figure 3

Existing Transit

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- LADOT Commuter Express 409 – The Commuter Express 409 is a north/south line that runs from Downtown Los Angeles to Foothill Boulevard & Glenoaks Boulevard in Sylmar and provides directional morning and afternoon peak period service on weekdays only. The line has 25- to 40-minute headways during the AM peak period and 15- to 20-minute headways during the PM peak period. During the AM period, all buses run southbound, and during the PM period all buses run northbound. The line runs on Foothill Boulevard within the study area and provides project site access via a stop at Foothill Boulevard & Bledsoe Street.

EXISTING BICYCLE AND PEDESTRIAN FACILITIES

There is limited dedicated bicycle infrastructure within the study area. South of the project site, a bicycle path (Class I facility) runs along San Fernando Road south of Roxford Street. With the exception of a gap between Tyler Street and Bledsoe Street, bicycle lanes (Class II facilities) exist along much of Foothill Boulevard near the project site. There are additional bicycle lanes at the edge of the study area on Bledsoe Street and Polk Street.

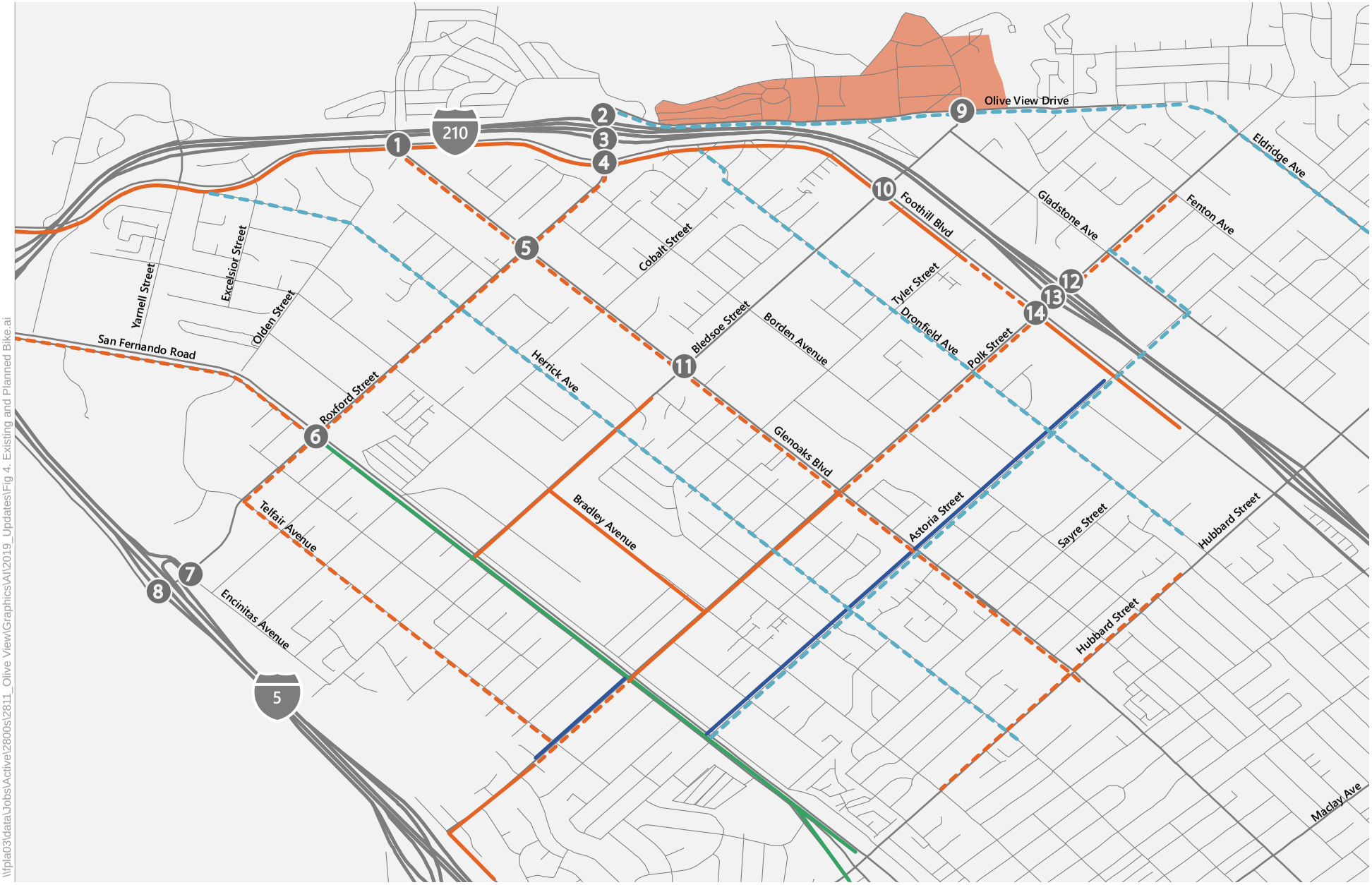
The Los Angeles City Mobility Plan provides for future bicycle lanes within the study area at the following locations:

- Foothill Boulevard between Polk Street and Tyler Street.
- All of Polk Street in the study area
- Roxford Street between Telfair Avenue and Foothill Boulevard
- San Fernando Road north of Roxford Street to the edge of the study area
- All of Glenoaks Boulevard in the study area

In addition, the following segments are part of the neighborhood enhanced network:

- All of Olive View Drive in the study area
- Roxford Street between Foothill Boulevard and Olive View Drive
- All of Herrick Drive in the study area
- All of Dronfield Avenue in the study area
- Gladstone Avenue between Polk Street and Astoria Street
- The entire length of Eldridge Avenue in the study area
- Telfair Avenue east of Roxford Street
- Astoria Street between San Fernando Road and Gladstone Avenue

Figure 4 shows the existing and planned bicycle facilities.



Project Site

Existing Bike Route

Existing Bike Lane

Existing Bike Path

Planned Bike Friendly Street

Planned Bike Lane

Figure 4

Existing and Planned Bicycle Facilities

\\fpla03\data\Jobs\Active\2800s\2811_Olive View\Graphics\All\2019_Updates\Fig 4. Existing and Planned Bike.ai

The pedestrian network in the study area is incomplete. Bledsoe Street does not have sidewalks north of Foothill Boulevard. Olive View Drive has incomplete segments of sidewalk. Sidewalks are generally provided on streets in the of the study area southwest of Foothill Boulevard, but portions of many streets lack sidewalks on one or both sides. Crosswalks exist at signalized intersections are either pre-timed or actuated by push-buttons. The portion of Olive View Drive between Roxford Street and the project site is part of the Enhanced Pedestrian Network in the LA Mobility Plan 2035.

EXISTING TRAFFIC VOLUMES AND LEVELS OF SERVICE

This section presents the existing peak hour turning movement traffic volumes for each of the intersections analyzed in the study, describes the methodology used to assess the traffic conditions at each intersection, and analyzes the resulting operating conditions at each, indicating volume-to-capacity (V/C) ratios and levels of service. Traffic counts are provided in Appendix B.

EXISTING TRAFFIC VOLUMES

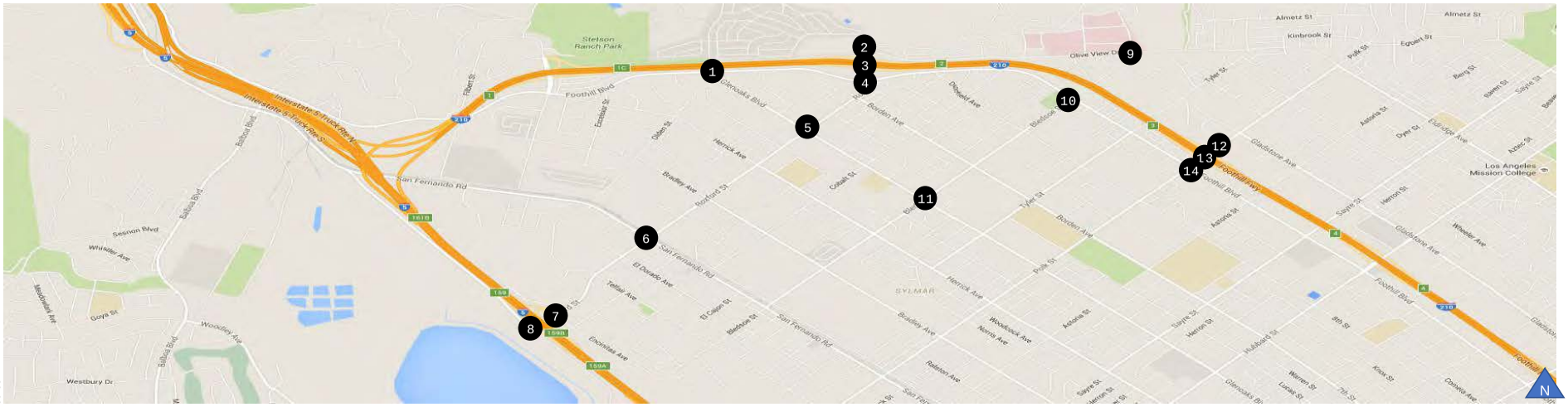
Weekday morning and evening peak period traffic counts were conducted at the 14 analyzed intersections in March and June 2016. Existing peak hour weekday traffic volumes are illustrated in Figure 5. The 2016 volumes were increased by 0.46% per year, the areawide traffic growth factor discussed in Chapter 3, to estimate 2019 volumes for the intersection analysis.

LEVEL OF SERVICE METHODOLOGY

Level of service (LOS) is a qualitative measure used to describe the condition of traffic flow on the street system, ranging from excellent conditions at LOS A to overloaded conditions at LOS F. LOS D is typically recognized as the minimum desirable level of service in urban areas. Table 1 shows levels of service definitions.

The City of Los Angeles requires the use of Critical Movement Analysis (CMA) methodology[1] to evaluate the operations of intersections and this methodology is accepted by the County of Los Angeles, the lead agency for this study. The CMA method of intersection capacity analysis determines the intersection V/C ratio and corresponding LOS for the turning movements and intersection characteristics at signalized intersections. The CALCADB software package developed by Los Angeles Department of Transportation (LADOT) was used to implement the CMA methodology.

[1] *Transportation Research Circular No. 212, Interim Materials on Highway Capacity* (Transportation Research Board, 1980).



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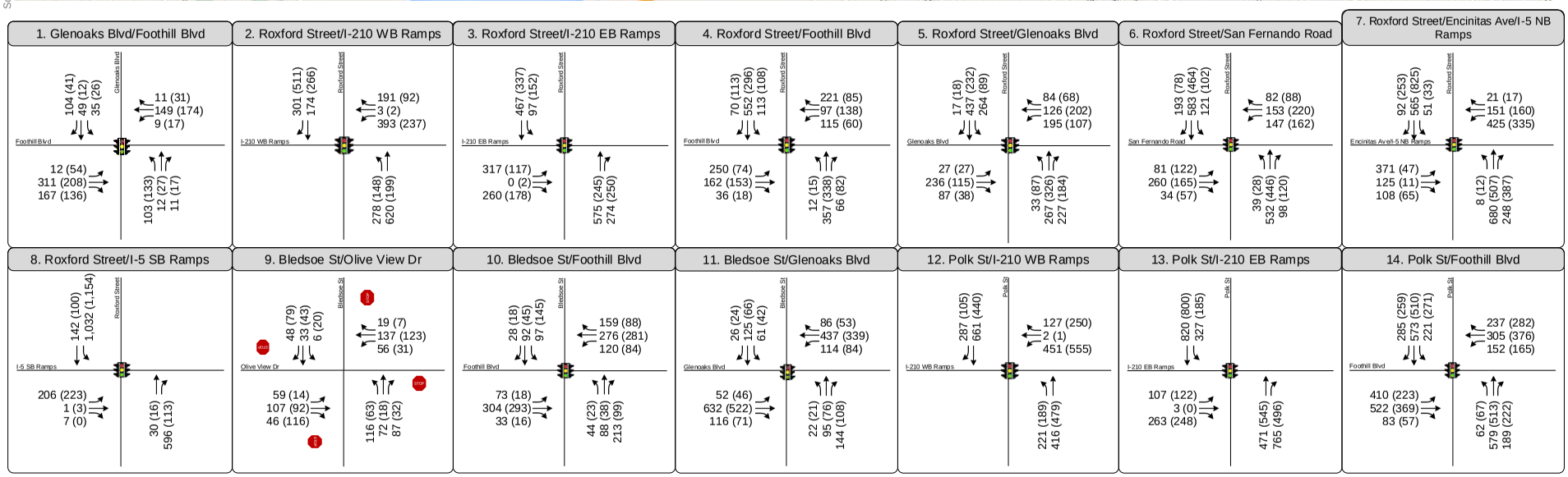

Figure 5
Existing Peak Hour Traffic Volumes

TABLE 1
LEVEL OF SERVICE DEFINITIONS
FOR SIGNALIZED INTERSECTIONS

Level of Service	Intersection Capacity Utilization	Definition
A	0.000-0.600	EXCELLENT. No Vehicle waits longer than one red light and no approach phase is fully used.
B	0.601-0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701-0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801-0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901-1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.

Source: *Transportation Research Circular No. 212, Interim Materials on Highway Capacity,* Transportation Research Board, 1980.

The City of Los Angeles' Automated Traffic Surveillance and Control (ATSAC) system is a computer-based traffic signal control system that monitors traffic conditions and system performance to allow ATSAC-operations to manage signal timing to improve traffic flow conditions. The Adaptive Traffic Control System (ATCS) is an enhancement to ATSAC and provides fully traffic-adaptive signal control based on real-time traffic conditions. All of the signalized study intersections are currently operating under the City's ATSAC and ATCS systems. In accordance with established City of Los Angeles procedures, a 0.07 V/C reduction was applied at each intersection where ATSAC is implemented and an additional 0.03 V/C reduction was applied at each intersection where ATCS is implemented.

SIGNAL WARRANT ANALYSIS

The City of Los Angeles Department of Transportation (LADOT) requires that unsignalized intersections be studied only to determine if there is a need for the installation of a traffic signal. A signal warrant analysis was conducted for Olive View Drive & Bledsoe Street using volumes from the AM and PM peak hours. The warrant analyses were conducted in accordance with the procedures described in Chapter 4C of the California Manual on Uniform Traffic Control Devices 2014 (MUTCD 2014). The warrant for a traffic signal is met if the following conditions exist for the same one hour of an average day:

1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a stop sign equals or exceeds four vehicle-hours for a 1-lane approach or five vehicle-hours for a 2-lane approach.
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes.
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

In order to conduct the signal warrant analysis, the *Highway Capacity Manual* (HCM) (Transportation Research Board, 2010) methodology was used to calculate delay for the unsignalized intersection that is part of the study.

EXISTING LEVELS OF SERVICE

The existing traffic volumes were analyzed using the methodologies described above to determine the current operating conditions at the signalized intersections. Table 2 summarizes the existing (2019) LOS analysis results for the signalized intersections. As shown in the table, all of the intersections are currently operating at LOS D or better during the analyzed peak hours.

Detailed LOS calculation worksheets are presented in Appendix C.

TABLE 2
EXISTING (2016)
INTERSECTION LEVEL OF SERVICE ANALYSIS

ID	North/South Street Name	East/West Street Name	Peak Hour	Existing	
				V/C	LOS
1	Glenoaks Blvd	Foothill Blvd	AM	0.243	A
			PM	0.167	A
2	Roxford Street	I-210 Westbound Ramps	AM	0.474	A
			PM	0.443	A
4	Roxford Street	Foothill Blvd	AM	0.507	A
			PM	0.373	A
5	Roxford Street	Glenoaks Blvd	AM	0.483	A
			PM	0.294	A
6	Roxford Street	San Fernando	AM	0.424	A
			PM	0.374	A
7	Roxford Street	Encinitas Ave/I-5 Northbound	AM	0.633	B
			PM	0.462	A
8	Roxford Street	I-5 Southbound Ramps	AM	0.848	D
			PM	0.572	A
10	Bledsoe St	Foothill Blvd	AM	0.343	A
			PM	0.281	A
11	Bledsoe St	Glenoaks Blvd	AM	0.409	A
			PM	0.281	A
12	Polk St	I-210 Westbound Ramps	AM	0.655	B
			PM	0.569	A
13	Polk St	I-210 Eastbound Ramps	AM	0.791	C
			PM	0.527	A
14	Polk St	Foothill Blvd	AM	0.738	C
			PM	0.653	B

[a] Intersections 3 and 9 are stop controlled and are analyzed only to determine the need for signalization, per LADOT guidelines.

3. TRAFFIC PROJECTIONS

PROJECT TRAFFIC

The development of project traffic estimates for the proposed project is a 3-step process: trip generation, trip distribution, and traffic assignment.

PROJECT TRAFFIC GENERATION

The existing and proposed (Tier I) land uses on the site are shown in Table 3. Overall, development of the proposed project would involve the incremental development listed below.

- Addition of 43,700 square feet (sf) of administrative office space
- Addition of 26,000 sf of new utility plant and maintenance facilities
- Addition of 313,000 sf of new hospital space
- Addition of 18,800 sf of warehouse/storage space
- Removal of 1,000 sf of mental health facilities
- Addition of 128 short-term housing units for special needs patients
- Addition of 20,000 sf of community center space

Vehicle trip generation for the project was estimated using standard rates developed by the ITE and published in *Trip Generation, 10th Edition*[2]. The square footage of each land use was used to estimate trip generation, with the exception of the day care center, where the number of children was used.

Internal trip credits, defined as a reduction that can be applied to the trip generation estimates due to trips made within the site between land uses, are applied at a rate of 10% of the daily and peak hour trips to all land uses on the site. The buildings and activities on the Olive View-UCLA Medical Center campus are related to one another and this will continue as the site adds complementary uses. The internal trip credits were estimated based on the recommended factors provided in *Trip Generation,* review of traffic studies for projects located in the region and consultation with County of Los Angeles and City of Los Angeles staff as part of the Memorandum of Understanding (MOU) process.

[2] *Trip Generation, 10th Edition* (Institute of Transportation Engineers [ITE], 2017).

A 2% transit, walk and bike credit was applied to the all land uses on the site, based on recent data collected by the South Coast Air Quality Management District on travel to work behavior at this site. These credits account for trips to and from the project site using modes other than automobiles. The site is within walking distance to the several Metro bus lines. In addition, a 10% carpool trip credit was taken for the site, also based on data collected by the South Coast Air Quality Management District on travel to work behavior for the site.

Table 3A-3B estimates the trip generation for development during Tier I. The project is expected to generate a net increase of 3,841 daily trips, including 393 trips (288 inbound/105 outbound) during the AM peak hour and 401 trips (101 inbound/300 outbound) during the PM peak hour.

PROJECT TRAFFIC DISTRIBUTION

The geographic distribution of trips generated by the proposed project is dependent on characteristics of the street system serving the project site, the level of accessibility of routes to and from the proposed project site, and the locations of employment and commercial centers to which residents of the project would be drawn. The general distribution pattern for this study was developed in consultation with LADOT and County staff and is illustrated in Figure 6. Aggregated data on existing staff home zip codes and patient home zip codes was used to determine existing origins for trips coming to and leaving from the project.

PROJECT TRAFFIC ASSIGNMENT

The traffic expected to be generated by the proposed project was assigned to the street network using the distribution pattern described in Figure 6. The net increase in project traffic was assigned based on the vehicle access and circulation diagram from the Olive View-UCLA Master Plan, as seen in Figure 7. Figure 8 illustrates the assignment of net new project traffic for the Tier I Development scenario at the 14 intersections analyzed in this study.

EXISTING BASELINE PLUS PROJECT TRAFFIC PROJECTIONS

The estimated project traffic was added to the Existing traffic volumes to estimate Existing plus Project traffic volumes. Existing plus Project traffic volumes, presented in Figure 9, were analyzed to determine the projected V/C ratios and LOS for each intersection. Table 4 summarizes the Existing plus Project LOS. None of the study intersections are projected to operate at LOS E or F during either of the peak hours.

TABLE 3A
PROJECT TRIP GENERATION ESTIMATES
OLIVE VIEW-UCLA MEDICAL CENTER MASTER PLAN TIER I DEVELOPMENT

	Land Use	ITE Land Use Code	Size [a]	Trip Generation Rates [b]							Estimated Trip Generation						
				Daily	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Rate	Rate	% In	% Out	Rate	% In	% Out	Trips	In	Out	Total	In	Out	Total
Existing	**EXISTING USE**																
	Administrative Office	710	108.000 ksf	*[c]*	*[c]*	*86%*	*14%*	*[c]*	*16%*	*84%*	1,143	110	18	128	19	103	122
	Day Care Center	565	82 Students	*4.09*	*[d]*	*53%*	*47%*	*[d]*	*47%*	*53%*	335	34	29	63	29	33	62
	Central Utilities/Industrial /Infrastructure [e]	120	51.000 ksf	*1.5*	*0.51*	*88%*	*12%*	*0.68*	*12%*	*88%*	77	23	3	26	4	31	35
	Hospital/Inpatient	610	534.300 ksf	*10.72*	*[f]*	*68%*	*32%*	*[f]*	*32%*	*68%*	5,728	355	167	522	175	374	549
	Warehouse/Storage	150	49.300 ksf	*[g]*	*[g]*	*77%*	*23%*	*[g]*	*27%*	*73%*	123	24	7	31	9	25	34
	Mental Health	720	11.000 ksf	*[h]*	*[h]*	*78%*	*22%*	*[h]*	*28%*	*72%*	335	24	7	31	11	28	39
	Project Site Subtotal										**7,742**	**570**	**231**	**801**	**247**	**594**	**841**
	Internal Capture (10%) [j]										*-774*	*-57*	-23	*-80*	*-25*	-59	*-84*
	Transit/Walk/Bike Credit (2%) [k]										*-139*	*-10*	-4	*-14*	*-4*	-11	*-15*
	Carpool (10%) [l]										*-697*	*-51*	-21	*-72*	*-22*	-54	*-76*
	Total Existing Trips										**6,132**	**452**	**183**	**635**	**196**	**470**	**666**
Proposed	**PROPOSED PROJECT (TIER 1)**																
	Administrative Office	710	151.700 ksf	*[c]*	*[c]*	*86%*	*14%*	*[c]*	*16%*	*84%*	1,590	145	24	169	27	142	169
	Day Care Center	565	82 Students	*4.09*	*[d]*	*53%*	*47%*	*[d]*	*47%*	*53%*	335	34	29	63	29	33	62
	Central Utilities/Industrial /Infrastructure [e]	120	77.000 ksf	*1.5*	*0.51*	*88%*	*12%*	*0.68*	*12%*	*88%*	116	34	5	39	6	46	52
	Hospital/Inpatient	610	847.000 ksf	*10.72*	*[f]*	*68%*	*32%*	*[f]*	*32%*	*68%*	9,080	512	241	753	260	552	812
	Community Center	495	20.000 ksf	*28.82*	*[i]*	*66%*	*34%*	*[i]*	*47%*	*53%*	576	51	26	77	34	38	72
	Warehouse/Storage	150	68.100 ksf	*[g]*	*[g]*	*77%*	*23%*	*[g]*	*27%*	*73%*	153	25	8	33	10	26	36
	Mental Health	720	10.000 ksf	*[h]*	*[h]*	*78%*	*22%*	*[h]*	*28%*	*72%*	297	23	6	29	10	26	36
	Crisis Residential Housing	[m]	80 Units								306	74	20	94	0	74	74
	Recuperative Housing	[m]	48 Units								48	12	0	12	0	12	12
	Project Site Subtotal										**12,500**	**911**	**359**	**1,270**	**376**	**949**	**1,325**
	Internal Capture (10%) [j]										*-1,215*	*-82*	-34	*-116*	*-38*	-86	*-124*
	Transit/Walk/Bike Credit (2%) [k]										*-219*	*-15*	-6	*-21*	*-7*	-15	*-22*
	Carpool (10%) [l]										*-1,093*	*-74*	-31	*-105*	*-34*	-78	*-112*
	Total Proposed Trips										**9,973**	**740**	**288**	**1,028**	**297**	**770**	**1,067**
Net Change	**Net New Project**										**3,841**	**288**	**105**	**393**	**101**	**300**	**401**

a. Size in thousand square feet (ksf) unless otherwise noted.
b. Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition* , 2018, and *Trip Generation Handbook* (3rd Edition).
c. ITE administrative office trip generation equations used rather than linear trip generation rate:
Daily: Ln(T) = 0.97 * Ln(A) + 2.50, where T = trips, A = area in ksf
AM Peak Hour: T = 0.94(A) + 26.49, where T = trips, A = area in ksf
PM Peak Hour: Ln(T) = 0.95 * Ln(A) + 0.36, where T = trips, A = area in ksf
d. ITE day care center trip generation equation used rather than linear trip generation rate for AM and PM periods:
AM Peak Hour: T = 0.66(X) + 8.42, where T = trips, X = number of students
PM Peak Hour: Ln(T) = 0.87 * Ln(X) + 0.29, where T = trips, X = number of students
e. ITE Code 120 not included in 10th Edition "Trip Generation." Rates and directional distribution taken from ITE 9th Edition code 120, General Heavy Industrial.
f. ITE hospital trip generation equation used rather than linear trip generation rate for AM and PM periods:
AM Peak Hour: T = 0.74(A) + 126.36, where T = trips, A = area in ksf
PM Peak Hour: T = 0.84(A) + 100.56, where T = trips, A = area in ksf
g. ITE warehousing trip generation equation used rather than linear trip generation rate:
Daily: T = 1.58(A) + 45.54, where T = trips, A = area in ksf
AM Peak Hour: T = 0.12(A) + 25.32, where T = trips, A = area in ksf
PM Peak Hour: T = 0.12(A) + 27.82, where T = trips, A = area in ksf
h. ITE medical-dental office building trip generation equation used rather than linear trip generation rate:
Daily: T = 38.42(A) - 87.62, where T = trips, A = area in ksf
AM Peak Hour: Ln(T) = 0.89 * Ln(A) + 1.31, where T = trips, A = area in ksf
PM Peak Hour: T = 3.39(A) + 2.02, where T = trips, A = area in ksf
i. ITE Recreational Community Center trip generation equations used rather than linear trip generation rate:
AM Peak Hour: Ln(T) = 0.54 * Ln(A) + 2.73, where T = trips, A = area in ksf
PM Peak Hour: Ln(T) = 0.76 * Ln(A) + 2.00, where T = trips, A = area in ksf
j. Internal capture represents the percentage of trips between land uses that occur within the site.
k. Transit/Walk/Bike Credit informted by data from the 2016 AQMD survey.
l. Carpool Credit informted by data from the 2016 AQMD survey.
m. See Table 3A for detailed trip generation estimates for this project element.

TABLE 3B

SPECIAL NEEDS HOUSING WEEKDAY TRIP GENERATION ESTIMATES

	Staff	In	Out	Total	Midnight	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30	Noon	12:30	1:00	1:30	2:00	2:30	3:00	3:30	4:00	4:30	5:00	5:30	6:00	6:30	7:00	7:30	8:00	8:30	9:00	9:30	10:00	10:30	11:00	11:30
																			AM	PK																																		
Crisis Res - Clinical	90	74	74	148															IB	74																																		
Crisis Res - Resid Care	10	8	8	16														8																		8																		
Crisis Residential	62	51	51	102																														51																		51	
Crisis Residential	25	20	20	40																20	OB																														20	
Recuperative Care	15	12	12	24															IB	12																																		
Recuperative Care	10	8	8	16		8																														8																		
Recuperative Care	5	4	4	8																		4																																4
				0																																																		
Total Trips [a]		177	177	354	0	8	0	0	0	0	0	0	0	0	0	0	0	8	0	106	0	4	0	0	0	0	0	0	0	0	0	0	0	51	0	16	0	0	86	0	0	0	0	0	0	0	0	0	0	20	51	4

Time Beginning

Wkdy AM Pk Period
7 - 10 AM

Wkdy PM Pk Period
3 - 6 PM

[a] Trip generation estimates based on anticipated staffing levels and shifts provided by Los Angeles County.

Project Site

15% Freeway Distribution

4 Study Intersection

2% Surface Street Distribution

Figure 6

Project Trip Distribution

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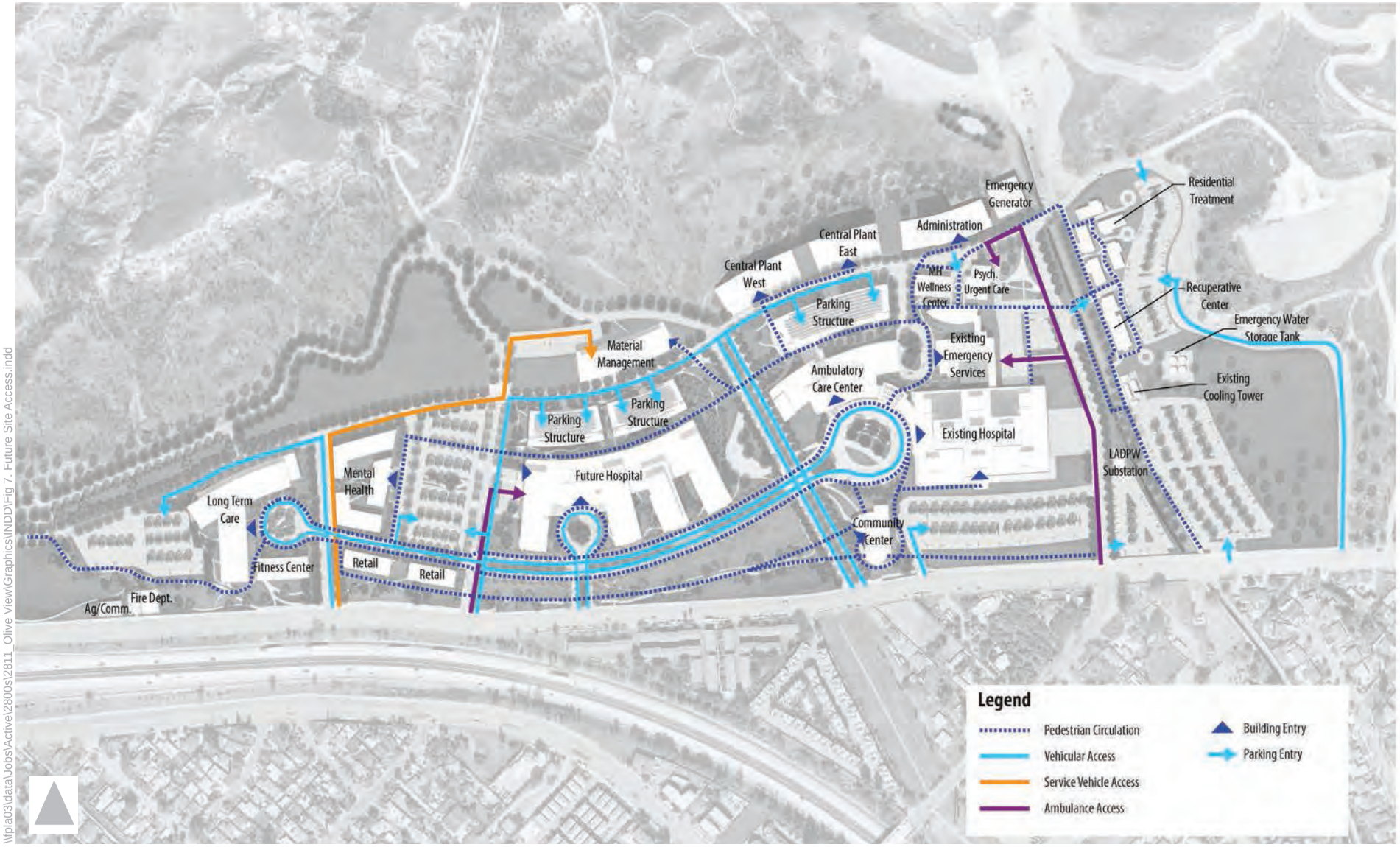

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Figure 7

Future Site Access and Circulation

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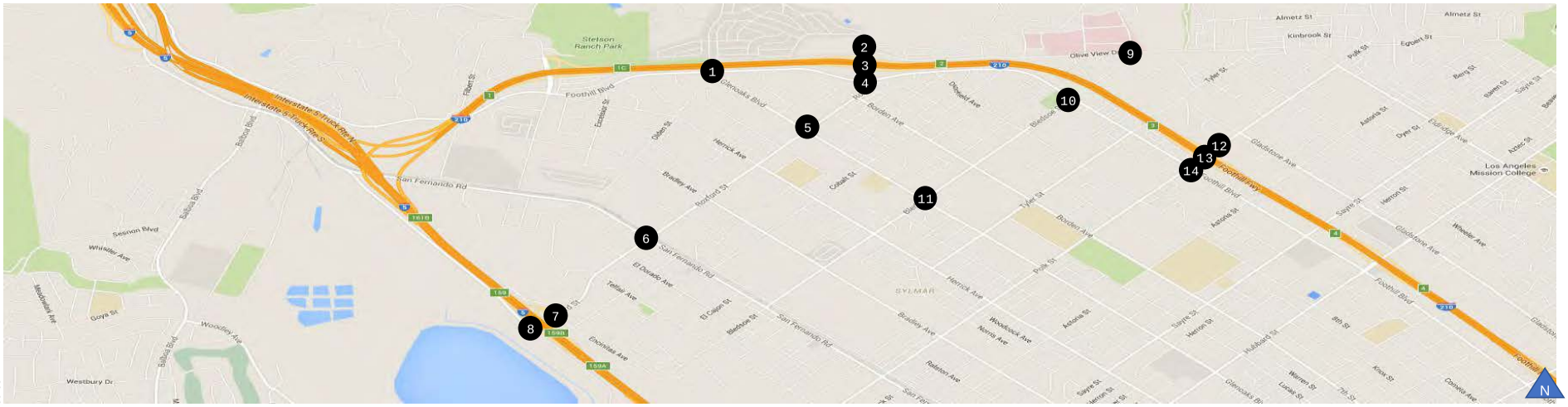


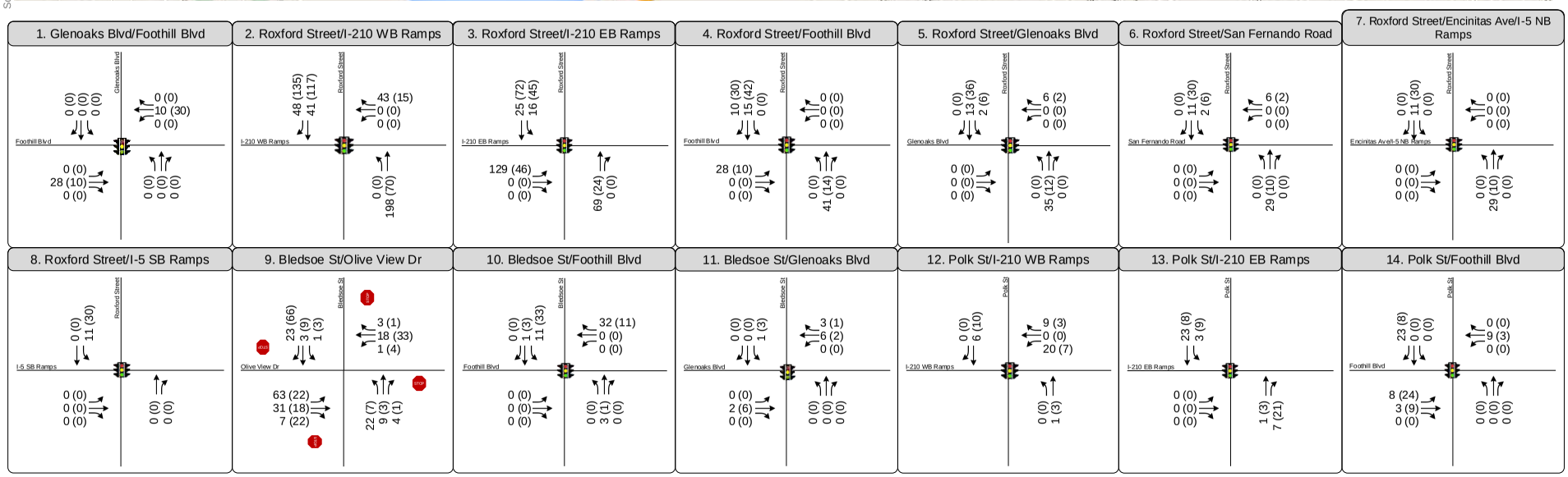
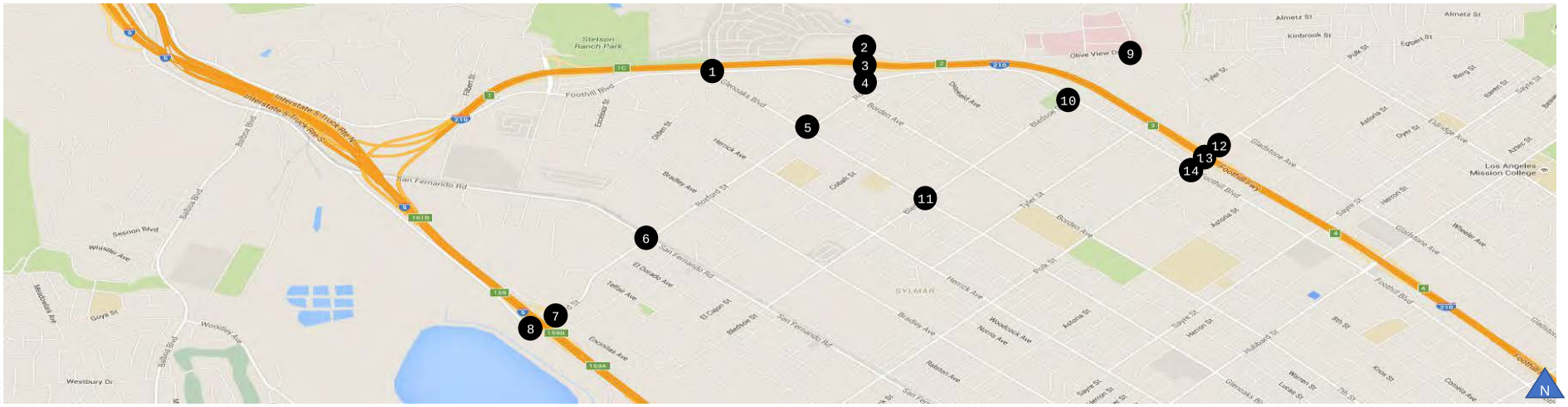


Figure 8
Project Only Peak Hour Traffic Volumes

Source:



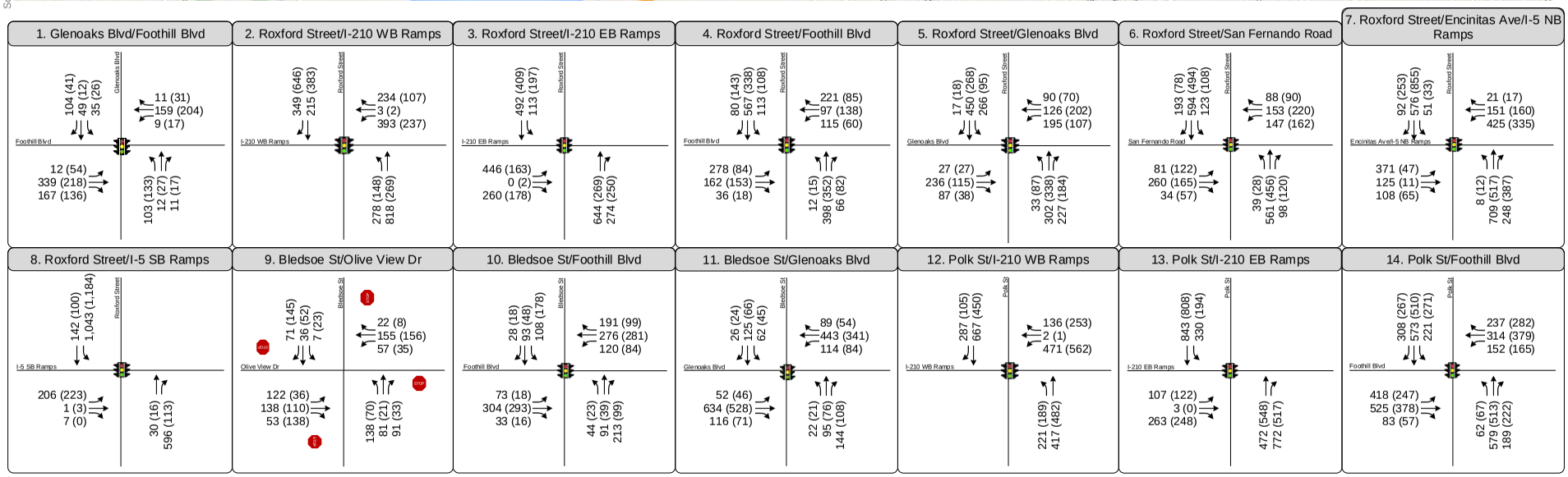


Figure 9
Existing + Project Only Peak Hour Traffic Volumes

TABLE 4
EXISTING PLUS PROJECT
INTERSECTION LEVEL OF SERVICE ANALYSIS

ID [a]	North/South Street Name	East/West Street Name	Peak Hour	Existing V/C	Existing LOS	Existing+Project V/C	Existing+Project LOS	Project Increase In V/C	Significant Impact?
1	Glenoaks Blvd	Foothill Blvd	AM	0.247	A	0.266	A	0.019	NO
			PM	0.171	A	0.191	A	0.020	NO
2	Roxford Street	I-210 Westbound Ramps	AM	0.482	A	0.528	A	0.046	NO
			PM	0.450	A	0.545	A	0.095	NO
3	Roxford Street	I-210 Eastbound Ramps	AM	0.489	A	0.614	B	0.125	NO
			PM	0.307	A	0.346	A	0.039	NO
4	Roxford Street	Foothill Blvd	AM	0.571	A	0.602	B	0.031	NO
			PM	0.379	A	0.396	A	0.017	NO
5	Roxford Street	Glenoaks Blvd	AM	0.492	A	0.517	A	0.025	NO
			PM	0.299	A	0.311	A	0.012	NO
6	Roxford Street	San Fernando Road	AM	0.431	A	0.443	A	0.012	NO
			PM	0.381	A	0.389	A	0.008	NO
7	Roxford Street	Encinitas Ave/I-5 Northbound	AM	0.686	B	0.696	B	0.010	NO
			PM	0.469	A	0.480	A	0.011	NO
8	Roxford Street	I-5 Southbound Ramps	AM	0.861	D	0.866	D	0.005	NO
			PM	0.581	A	0.593	A	0.012	NO
10	Bledsoe St	Foothill Blvd	AM	0.261	A	0.279	A	0.018	NO
			PM	0.194	A	0.216	A	0.022	NO
11	Bledsoe St	Glenoaks Blvd	AM	0.417	A	0.421	A	0.004	NO
			PM	0.287	A	0.291	A	0.004	NO
12	Polk St	I-210 Westbound Ramps	AM	0.665	B	0.681	B	0.016	NO
			PM	0.579	A	0.587	A	0.008	NO
13	Polk St	I-210 Eastbound Ramps	AM	0.803	D	0.810	D	0.007	NO
			PM	0.536	A	0.550	A	0.014	NO
14	Polk St	Foothill Blvd	AM	0.749	C	0.758	C	0.009	NO
			PM	0.664	B	0.683	B	0.019	NO

[a] Intersection 9 is stop controlled and is analyzed only to determine the need for signalization, per LADOT guidelines.

FUTURE STREET NETWORK CHANGES

The Sylmar Community Plan anticipates that an existing 1-block gap between Olive View Drive and Eldridge Avenue will be removed following construction of a new street segment. There are also plans to connect Encinitas Avenue with Laurel Canyon Boulevard and Amboy Avenue with Edgecliff Avenue. The plan also calls for a widening of Roxford Street between Telfair Avenue and Foothill Boulevard to two travel lanes in each direction. According to information from LADOT, a new traffic signal will be installed at the intersection of West Way and Olive View Drive on the western edge of the Olive View-UCLA Medical Center Campus.

CUMULATIVE (2035) BASE TRAFFIC GENERATION

In order to evaluate the potential impact of the proposed project in the future on the surrounding street system, it was necessary to develop estimates of future traffic conditions both with and without the project. Future traffic volumes without the project were first estimated, the Cumulative (2035) base conditions. The trips generated by the proposed project are then estimated and separately assigned to the surrounding street system.

Cumulative (2035) base traffic projections reflect growth in traffic from two primary sources: background or ambient growth in the existing traffic volumes to reflect the effects of overall regional growth both in and outside of the study area, and traffic generated by specific projects in, or in the vicinity of, the study area. These factors are described below.

AREAWIDE TRAFFIC GROWTH

As part of the MOU process with agency staff, an areawide traffic growth of 0.46% per year was agreed upon for the study area, based on data in the most recent Congestion Management Program (CMP) for Los Angeles County. Future increases in the background traffic volumes due to regional growth and development are expected to continue at this rate, at least through 2035. Existing baseline 2016 traffic volumes were adjusted upward by a factor of 9.1% to reflect areawide regional growth up to 2035.

RELATED PROJECTS TRAFFIC GENERATION

As indicated, the second major source of traffic growth in the study area is from specific cumulative development projects, also called related projects, expected to be built in the vicinity of the proposed project site prior to the proposed buildout. Data describing cumulative projects in the area was gathered from LADOT, Los Angeles Department of City Planning (LADCP), Los Angeles County of Department of

Regional Planning, and from recent environmental studies. A total of 14 cumulative projects were identified in the surrounding area and are listed in Table 5. The locations of the related projects are illustrated in Figure 10. Trip generation estimates for these related projects are conservative in that they do not in every case account for either the existing uses to be removed or the possible use of non-motorized travel modes (transit, walking, etc.).

RELATED PROJECTS TRIP DISTRIBUTION AND TRAFFIC ASSIGNMENT

The geographic distribution of the traffic generated by the cumulative projects is dependent on several factors. These factors include the type and density of the proposed land uses, the geographic distribution of population from which the employees and potential patrons of the proposed developments are drawn, and the location of the employment and commercial centers to which residents of residential projects would be drawn, and the location of the projects in relation to the surrounding street system. If available, trip distribution from a cumulative project's traffic study was used in this analysis. When trip distribution was not available for a cumulative project, it was estimated based on the factors described above. Figure 11 shows the traffic generated from the related projects at the study intersections.

CUMULATIVE (2035) BASE TRAFFIC VOLUMES

Related project volumes were added to the cumulative traffic volumes to create the Cumulative (2035) base volumes, illustrated in Figure 12, which represent conditions prior to the addition of project traffic.

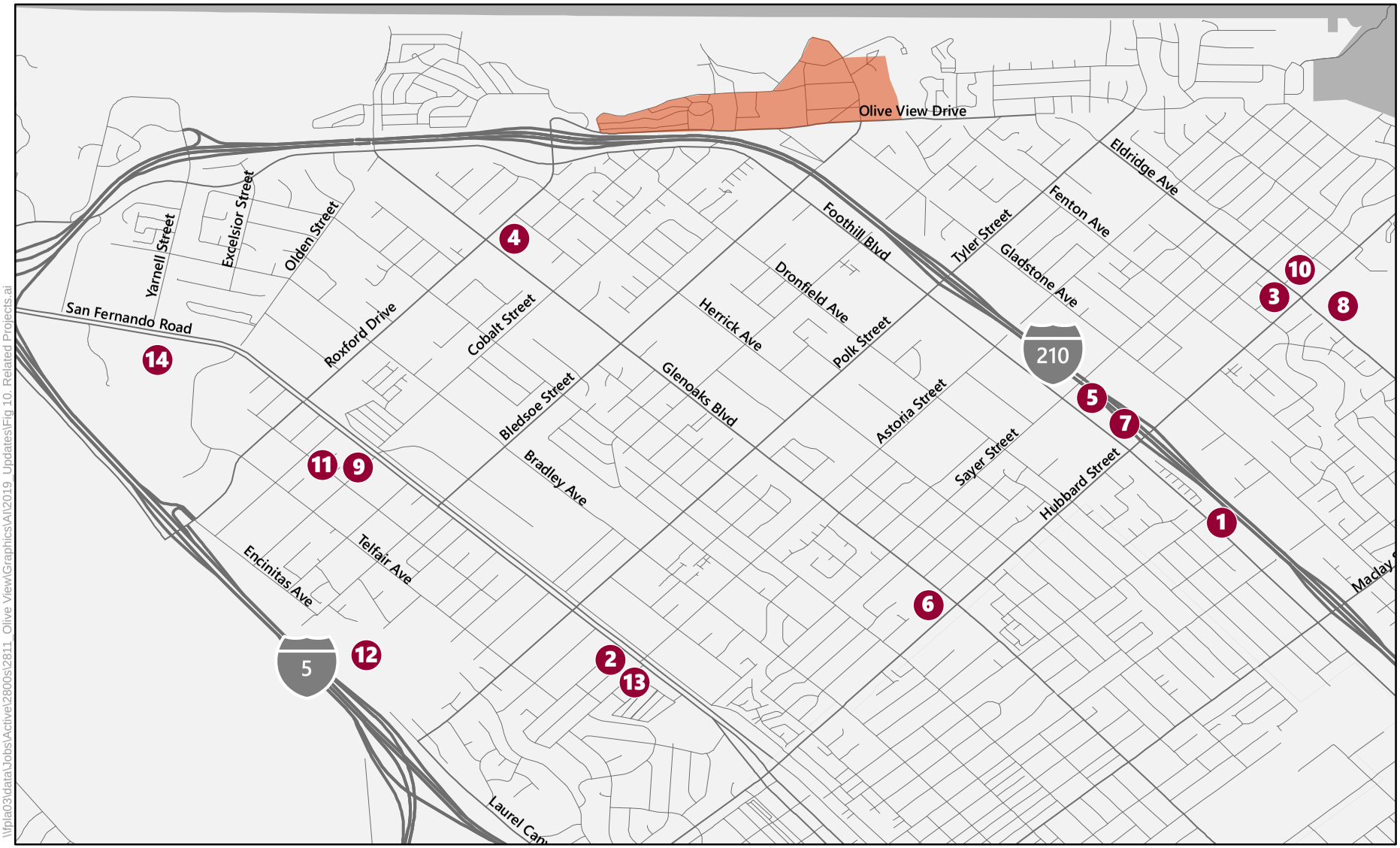
Table 6 summarizes the Cumulative (2035) LOS analysis. Three of the study intersections are projected to operate at LOS E during the AM peak hour:

8. Roxford Street & I-5 Southbound Ramp
9. Polk Street & I-210 Eastbound Ramps
14. Polk Street & Foothill Boulevard

TABLE 5
RELATED PROJECTS TRIP GENERATION ESTIMATES

No.	Project Location or Name	Land Use	Size [a]	Estimated Trip Generation [b]						
				Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Trips	In	Out	Total	In	Out	Total
1	13401 Foothill Boulevard	Condominiums	250 Units	165	19	91	110	87	43	130
2	12415 San Fernando Road*	Senior Housing Medical Office	150 Units 25.000 KSF	1,335	49	19	68	32	68	100
3	13245 Hubbard Street	High School	500 Students	270	109	46	155	62	53	115
4	13530 Glenoaks Boulevard*	Retail	7.486 KSF	5,400	200	130	330	100	100	200
5	13763 Foothill Boulevard	Fast Food	4.150 KSF	435	20	24	44	7	15	22
6	12625 Glenoaks Boulevard*	Gas Station	5 Fueling Positions	843	31	30	61	35	35	70
7	13651 Foothill Boulevard*	Coffee with Drive Thru Specialty Retail	2.240 KSF 7.000 KSF	1,196	61	58	119	31	34	65
8	Los Angeles Mission College Master Plan [c]	College	N/A	N/A	550	105	655	392	231	623
9	15523 W Cobalt St [d]	Single Family Residences	12 Units	114	2	7	9	8	4	12
10	13228 W Aztec St [d]	Single Family Residences	3 Units	29	1	2	2	2	1	3
11	12995 N El Dorado Avenue [d]	Single Family Residences	3 Units	29	1	2	2	2	1	3
12	Lakeside Park	Park	N/A	810	145	38	183	155	160	315
13	12385 San Fernando Rd	Condominiums Single Family Home Shopping Center General Office Auto Care Center	246 Units -1 Unit 9.000 KSF 0.900 KSF -2.000 KSF	1,482	35	81	106	82	53	135
14	13503 San Fernando Rd	Industrial Rec. Facility	225.000 KSF 9.9 acres	4,202	266	71	337	108	277	385

a. KSF is thousands of square feet.
b. Trip Generation estimates for daily trips, Total AM trips and Total PM trips provided by LADOT. Inbound and outbound split based on data in ITE Trip Generation, 9th Edition, 2012, except as noted.
c. Trip Generation provided by Los Angeles Mission College Master Plan and Public Recreation Improvement DEIR (Ocotober 2005). Rates for inbound and outbound trips provided by ITE Trip Generation, 9th Edition, 2012.
d. Projects provided by Los Angeles Department of City Planning (LADCP). Trip generation estimates based on ITE Trip Generation, 9th Edition, 2012.
* Denotes project has been constructed and occupied.



Project Site

Related Project Location

Figure 10

Related Project Locations

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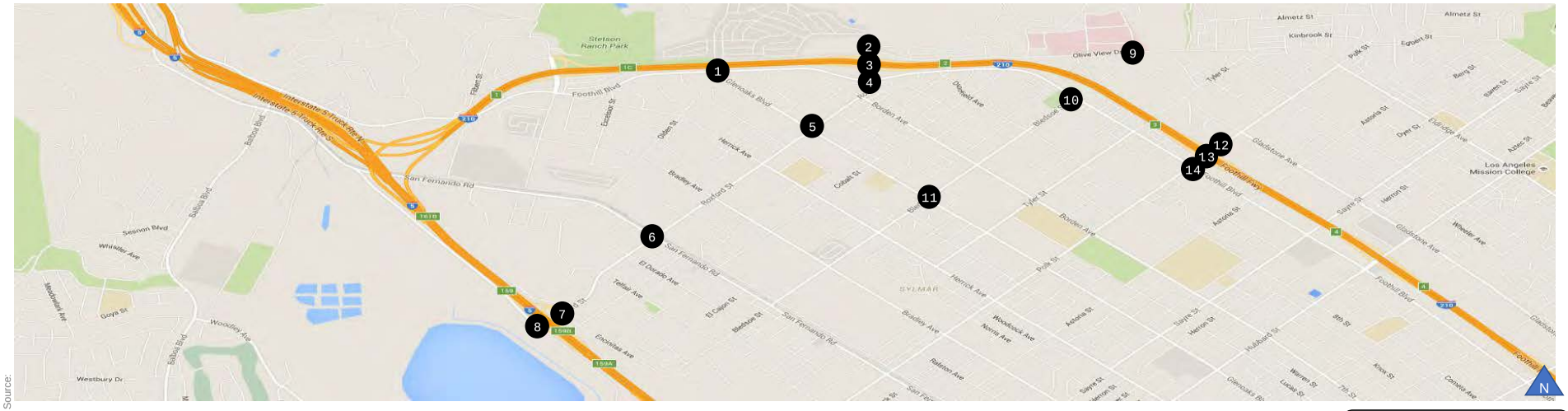

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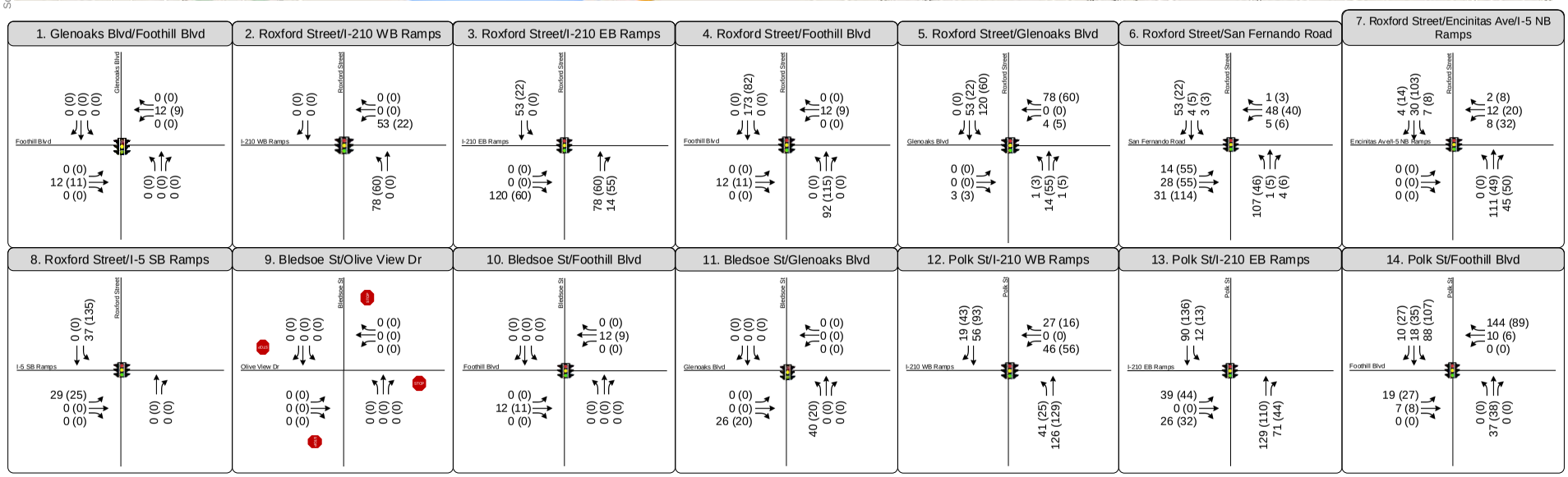
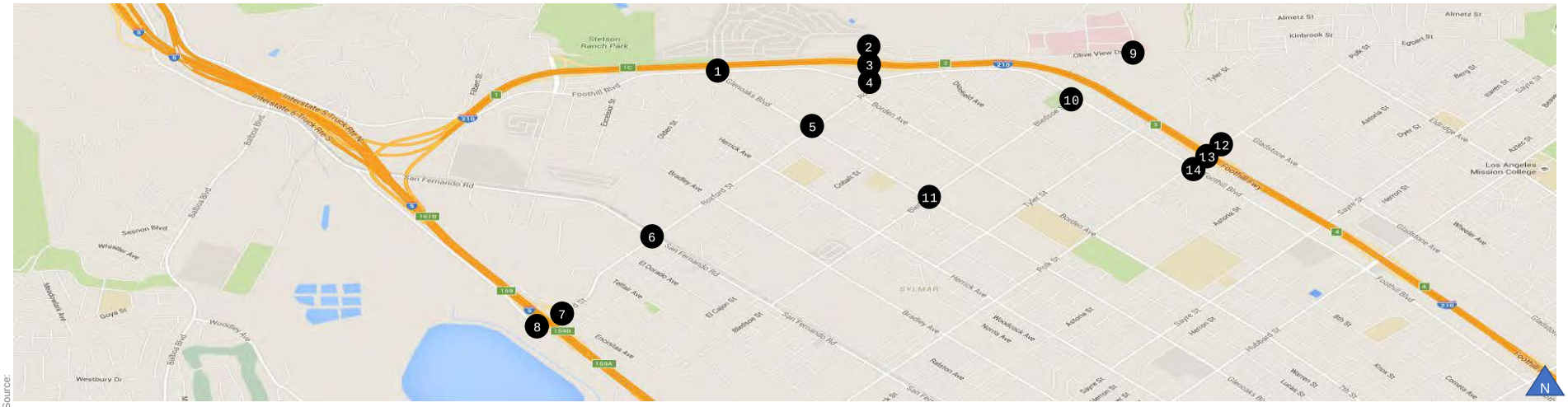


Figure 11
Related Projects Peak Hour Traffic Volumes



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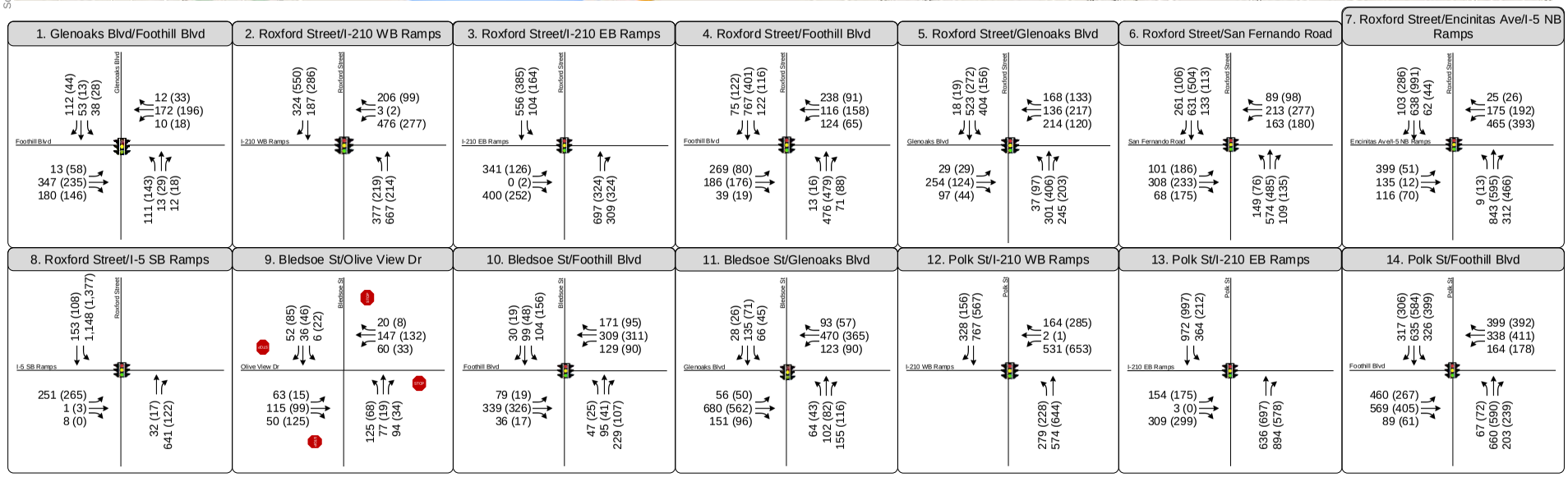


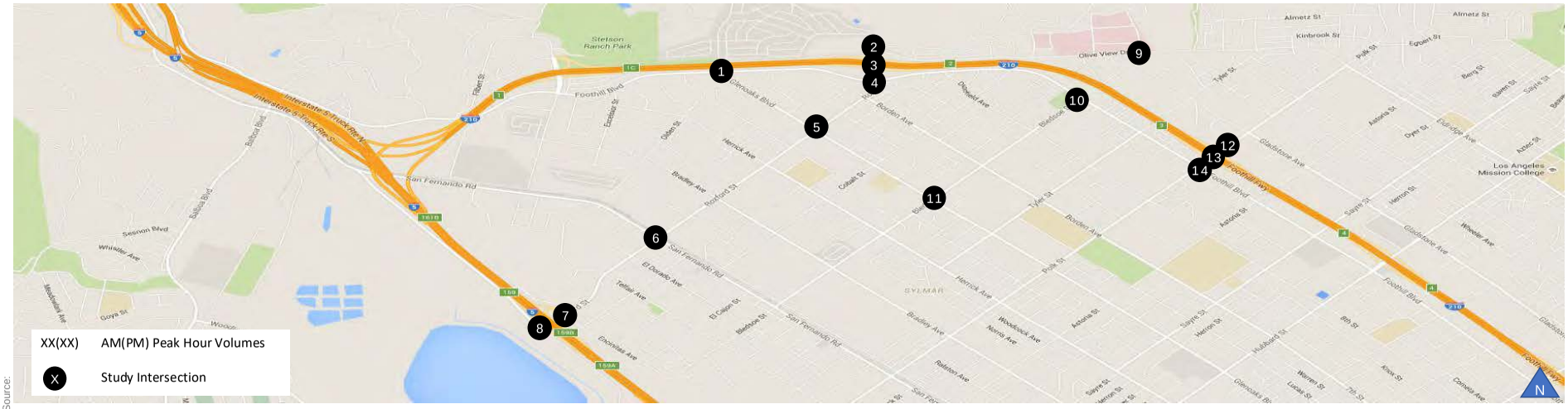
Figure 12
Cumulative (2035) Base Peak Hour Traffic Volumes

CUMULATIVE (2035) PLUS PROJECT TRAFFIC VOLUMES

Estimated project traffic volumes in Figure 8 were added to the Cumulative (2035) Base traffic volumes in Figure 12 to create the Cumulative (2035) plus Project volumes, illustrated in Figure 13. The Cumulative (2035) plus Project scenario presents future traffic conditions following the completion of the proposed project.

Table 6 summarizes the Cumulative (2035) plus Project LOS analysis. Three of the study intersections are projected to operate at LOS E during the AM peak hour:

8. Roxford Street & I-5 Southbound Ramp
13. Polk Street & I-210 Eastbound Ramps
14. Polk Street & Foothill Boulevard



Source:

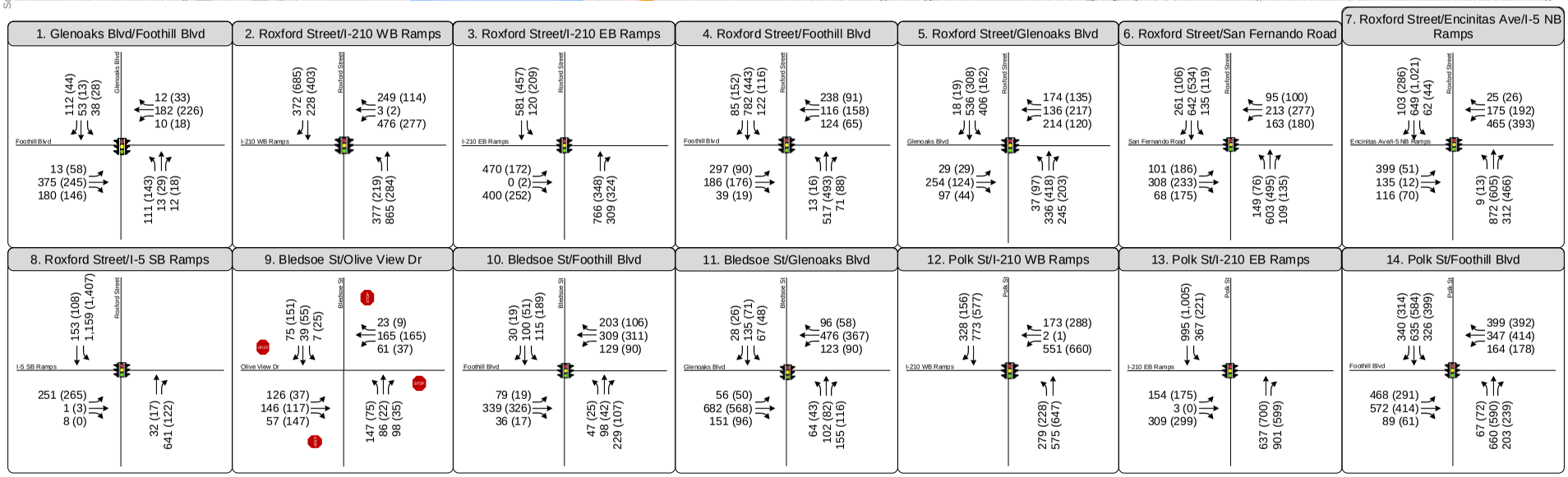


Figure 13
Cumulative (2035) + Project Peak Hour Traffic Volumes

TABLE 6
CUMULATIVE (2035) PLUS PROJECT
INTERSECTION LEVEL OF SERVICE ANALYSIS

ID [a]	North/South Street Name	East/West Street Name	Peak Hour	Cumulative		Cumulative+Project		Project Increase In V/C	Significant Impact?
				V/C	LOS	V/C	LOS		
1	Glenoaks Blvd	Foothill Blvd	AM	0.283	A	0.301	A	0.018	NO
			PM	0.197	A	0.217	A	0.020	NO
2	Roxford Street	I-210 Westbound Ramps	AM	0.596	A	0.642	B	0.046	NO
			PM	0.539	A	0.634	B	0.095	NO
3	Roxford Street	I-210 Eastbound Ramps	AM	0.607	B	0.692	B	0.085	NO
			PM	0.419	A	0.459	A	0.040	NO
4	Roxford Street	Foothill Blvd	AM	0.747	C	0.779	C	0.032	NO
			PM	0.508	A	0.523	A	0.015	NO
5	Roxford Street	Glenoaks Blvd	AM	0.630	B	0.655	B	0.025	NO
			PM	0.411	A	0.423	A	0.012	NO
6	Roxford Street	San Fernando Road	AM	0.588	A	0.592	A	0.004	NO
			PM	0.487	A	0.495	A	0.008	NO
7	Roxford Street	Encinitas Ave/I-5 Northbound	AM	0.809	D	0.819	D	0.010	NO
			PM	0.568	A	0.579	A	0.011	NO
8	Roxford Street	I-5 Southbound Ramps	AM	0.969	E	0.973	E	0.004	NO
			PM	0.703	C	0.715	C	0.012	NO
10	Bledsoe St	Foothill Blvd	AM	0.292	A	0.310	A	0.018	NO
			PM	0.220	A	0.242	A	0.022	NO
11	Bledsoe St	Glenoaks Blvd	AM	0.492	A	0.493	A	0.001	NO
			PM	0.336	A	0.340	A	0.004	NO
12	Polk St	I-210 Westbound Ramps	AM	0.807	D	0.822	D	0.015	NO
			PM	0.729	C	0.737	C	0.008	NO
13	Polk St	I-210 Eastbound Ramps	AM	0.945	E	0.951	E	0.006	NO
			PM	0.666	B	0.680	B	0.014	NO
14	Polk St	Foothill Blvd	AM	0.909	E	0.918	E	0.009	NO
			PM	0.836	D	0.854	D	0.018	NO

[a] Intersection 9 is stop controlled and is analyzed only to determine the need for signalization, per LADOT guidelines.

4. TRAFFIC IMPACT ANALYSIS

This section presents an analysis of the information in the previous chapter to determine the potential traffic impacts of the proposed project on the operating conditions of the surrounding street system. The traffic impact analysis compares the projected LOS at each signalized study intersection under Existing (2019) plus Project conditions to the Existing (2019) conditions and under Cumulative (2035) plus Project conditions to the Cumulative (2035) Base conditions to estimate the incremental increase in the V/C ratio caused by the proposed project. This provides the information needed to assess the potential impact of the project using significance criteria established by local jurisdictions.

SIGNIFICANT TRAFFIC IMPACT CRITERIA

Although the County of Los Angeles is the lead agency for this project, all study intersections are located in the City of Los Angeles. The County defers to the City's threshold of significance for this project.

The City of Los Angeles has established threshold criteria to determine significant traffic impacts of a project in its jurisdiction[3]. Under the LADOT guidelines, an intersection would be significantly impacted if it experienced an increase in V/C ratio equal to or greater than 0.04 for intersections operating at LOS C, equal to or greater than 0.02 for intersections operating at LOS D, and equal to or greater than 0.01 for intersections operating at LOS E or F after the addition of project traffic. Intersections operating at LOS A or B after the addition of the project traffic are not considered significantly impacted regardless of the increase in V/C ratio. The following summarizes the impact criteria:

LOS	Final V/C Ratio	Project-Related Increase in V/C
C	0.701 - 0.800	equal to or greater than 0.040
D	0.801 - 0.900	equal to or greater than 0.020
E or F	> 0.901	equal to or greater than 0.010

[3] *Traffic Study Policies and Procedures* (City of Los Angeles Department of Transportation, December 2016).

EXISTING PLUS PROJECT IMPACT ANALYSIS

The Existing plus Project volumes as estimated in the previous chapter were analyzed to determine potential operating conditions and traffic impacts with the addition of incremental project-generated traffic associated with the Tier I development of Olive View-UCLA Medical Center Master Plan on the Existing conditions. Table 4 shows the results of the analysis. After applying the aforementioned significant impact criteria, it was determined that the proposed project would result in no significant impacts at analyzed intersections under Existing (2019) plus Project conditions. Detailed level of service worksheets are provided in Appendix C.

CUMULATIVE (2035) PLUS PROJECT IMPACT ANALYSIS

The Cumulative (2035) plus Project peak hour traffic volumes were analyzed to determine the projected V/C ratio and LOS for each of the analyzed intersections. Table 6 summarizes the Cumulative (2035) plus Project LOS. As shown in the table, using the criteria for determination of significant impacts, the proposed project would result in no significant impacts at analyzed intersections under Cumulative (2035) plus Project conditions. Detailed level of service worksheets are provided in Appendix C.

MITIGATION MEASURES

The traffic impact analysis determined that the proposed development would not result in significant traffic impacts at any of the analyzed intersections under Existing plus Project or Cumulative (2035) plus Project conditions. Therefore, no mitigations are required.

SIGNAL WARRANT ANALYSIS

Olive View Drive & Bledsoe Street (intersection #9) is currently unsignalized. The City of Los Angeles traffic analysis methodology and significance criteria apply to signalized intersections only. Impact analysis is not conducted for unsignalized intersections. The LADOT Traffic Study Policies & Procedures state that "unsignalized intersections should be evaluated solely to determine the need for the installation of a traffic signal or other traffic control device."

Traffic volumes and lane configurations – using volumes from Figures 5, 9, 12 and 13 – were used to prepare signal warrant analyses at the unsignalized intersections under Existing, Existing plus Project, Cumulative

(2035) Base, and Cumulative (2035) plus Project conditions. The warrant analyses were conducted in accordance with the procedures described in Chapter 4C of the *California Manual on Uniform Traffic Control Devices 2014* (MUTCD 2014). The warrant for a traffic signal is met if the following conditions exist for the same one hour of an average day:

1. The total stopped time delay experienced by the traffic on one minor-street approach (one direction only) controlled by a stop sign equals or exceeds four vehicle-hours for a 1-lane approach or five vehicle-hours for a 2-lane approach.
2. The volume on the same minor-street approach (one direction only) equals or exceeds 100 vehicles per hour for one moving lane of traffic or 150 vehicles per hour for two moving lanes.
3. The total entering volume serviced during the hour equals or exceeds 650 vehicles per hour for intersections with three approaches or 800 vehicles per hour for intersections with four or more approaches.

As shown in Table 7, the Bledsoe Street & Olive View Drive intersection does not meet the signal warrant thresholds. Signal warrant worksheets are included in Appendix E.

TABLE 7
INTERSECTION SIGNAL WARRANT ANALYSIS

ID	N/S Street Name	E/W Street Name	Analyzed Period	Existing	Existing plus Project	Cumulative (2035) Base	Cumulative (2035) plus Project
9 [a]	Bledsoe St	Olive View Dr	AM	NO	NO	NO	NO
			PM	NO	NO	NO	NO

[a] Detailed analysis presented in Appendix E.

5. REGIONAL TRANSPORTATION IMPACT ANALYSIS

This chapter presents an analysis of potential project impacts on the regional transportation system in terms of vehicular and transit service impacts. This analysis was conducted in accordance with the transportation impact analysis (TIA) procedures outlined in *2010 Congestion Management Program for Los Angeles County* (Los Angeles County Metropolitan Transportation Authority, October 2010). The Congestion Management Program (CMP) requires that, when an environmental impact report (EIR) is prepared for a project, traffic and transit impact analyses be conducted for select regional facilities based on the quantity of project traffic expected to use these facilities.

In addition, after consultation with Caltrans, further analyses of State facilities was conducted to determine the potential project impacts. An analysis was conducted for freeway mainline segments, freeway ramp queueing and a signalized intersection involving Caltrans-controlled facilities.

CMP TRAFFIC IMPACT ANALYSIS

CRITERIA FOR ANALYSIS

The CMP guidelines state that the first issue addressed be the determination of the geographic scope of the study area. The criteria for determining the study area for CMP arterial monitoring intersections and for freeway monitoring locations are:

- All CMP arterial monitoring intersections where the proposed project will add 50 or more trips during either the AM or PM weekday peak hours of adjacent street traffic.
- All CMP mainline freeway monitoring locations where the proposed project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

The CMP traffic impact analysis guidelines establish that a significant project impact occurs when the proposed project increases traffic demand on a CMP facility by 2% or more of capacity (V/C 0.02), causing or worsening LOS F (V/C > 1.00).

ARTERIAL MONITORING STATION ANALYSIS

The CMP arterial monitoring stations nearest to the project study area are Sierra Highway & San Fernando Road to the north and Victory Boulevard & Woodman Avenue to the south. These intersections are approximately three and 10 miles from the project site, respectively. Based on the project trip generation estimates and distribution, the proposed project would not add 50 or more vehicle trips through either of these stations. Therefore, no further analysis is required for the CMP arterial intersections.

FREEWAY MAINLINE MONITORING STATION ANALYSIS

This section presents an analysis of potential project impacts on the regional freeway system. This analysis was conducted in accordance with the transportation impact analysis procedures outlined in the CMP. The nearest CMP mainline freeway monitoring locations nearest to the project site are:

- I-5 north of State Route 14 (Station 1008)
- I-5 at Osborne Street (Station 1007)
- I-210 east of Polk Street (1058)

According to the trip generation estimates shown in Table 3 and trip distribution estimates presented in Figure 6, the project would result in an increase of up to 58 inbound trips in the morning and up to 60 outbound trips in the evening peak hour on I-5 north of State Route 14, an increase of up to 129 inbound trips in the morning and up to 135 outbound trips in the evening peak hour on I-5 at Osbourne Street, and an increase of up to 72 inbound trips in the morning and up to 75 outbound trips in the evening peak hour on I-210 east of Polk Street. Since fewer than 150 trips would be added during the AM or PM peak hours in the vicinity of the study area, no further analysis of the freeway segments at these segments is required for CMP purposes. A further analysis of the regional freeway system, using both Caltrans and CMP methodology, for I-210, is discussed below.

REGIONAL TRANSIT IMPACT ANALYSIS

Potential increases in transit person trips generated by the proposed project were estimated as follows. Section D.8.4 of the CMP provides a methodology for estimating the number of transit trips expected to result from a proposed project based on the number of vehicle trips. This methodology assumes an average vehicle ridership (AVR) factor of 1.4 in order to estimate the number of person trips to and from the project and then provides guidelines regarding the percentage of person trips assigned to public transit depending on the type of use (commercial versus residential) and the proximity to transit services. Since the project

site is not located within ¼ mile of a designated CMP transit corridor, the CMP guidelines estimate that approximately 3.5% of total person trips generated might use public transit to travel to and from the site. It should be noted that the trip generation estimates for this project include a more conservative transit estimate of 2% based on existing data collected at the site.

Based on the trip generation shown in Table 3, including transit/walk/bike and carpool credits, the existing site is estimated to generate 6,132 daily trips, and the proposed project is estimated to generate 9,973 daily trips, for a net new daily trips of 3,841. Using this same methodology, there are 393 net new AM trips and 401 net new PM trips. Applying the CMP guidelines by converting the vehicle trips to person trips by multiplying by a 1.4 AVR (393 net AM peak hour trips x 1.4 = 550 and 401 net PM peak hour trips x 1.4 = 561) and applying a 3.5% transit use factor (550 net AM peak hour person trips x 3.5% = 19 and 561 net PM peak hour person trips x 3.5% = 20), results in an estimate of approximately 20 new transit person trips during the weekday AM and PM peak hours.

Within ¼ mile of the project site, Metro operates two local lines and within two miles LADOT operates one express bus. These routes have peak period headways of between 20 and 40 minutes. The bus services have an approximate capacity of approximately 560 persons during the peak hours, based on a seating capacity of 40 persons for a standard bus and 40 persons for an express bus and a policy load factor of 1.0. The proposed project would utilize 4% of available transit capacity during the peak hours. Based on this estimate, the project impact is expected to be less than significant.

ANALYSIS OF STATE HIGHWAY SYSTEM

RAMP QUEUEING ANALYSIS

A freeway ramp queuing analysis was conducted at five freeway ramp terminal intersections in the project vicinity in response to a request from Caltrans:

- I-210 Westbound Off-Ramp at Roxford Street (Exit 2)
- I-210 Eastbound Off-Ramp at Roxford Street (Exit 2)
- I-210 Westbound Off-Ramp at Polk Street (Exit 3)
- I-210 Eastbound Off-Ramp at Polk Street (Exit 3)
- I-5 Northbound Off-Ramp at Roxford Street (Exit 159A)

The Synchro traffic analysis software was used to implement the HCM methodology to calculate the 95th percentile queues at and compare them with the available vehicle storage on these ramps. Traffic signal-related information such as phasing and timing plans (minimum green, maximum green, gap, etc.) were obtained from LADOT for each location and the morning and evening peak hour traffic volumes from this study were used. Additional detail such as turn pocket lengths and ramp lengths was coded based on scaled distances from on-line aerial photographs. Following consultation between County staff and Caltrans staff, it was agreed that for the purposes of this study, an impact would be considered adverse if the off-ramp queue extends beyond the length of the ramp itself onto the mainline of the freeway during the peak arrival period. For the purposes of this project the queueing analysis uses the 85% of the ramp length as the effective length. Detailed queue calculations are provided in Appendix D.

Table 8 presents a summary of the ramp queuing analysis for Existing conditions and the Existing plus Project, and Cumulative (2035) plus Project scenarios. The queue lengths are shown not exceed the available ramp storage at any of the locations.

At the request of Caltrans, the existing and projected traffic queues on the northbound left-turn lane from Roxford Street onto westbound I-210 were calculated. The northbound left-turn lane from Roxford Street onto eastbound I-210 is approximately 180 feet long. Under existing conditions, the 95th percentile queue is calculated to be approximately 230 feet in the AM peak hour and 80 feet in the PM peak hour, increasing under Existing plus Project conditions to 245 feet in the AM peak hour and 145 feet in the PM peak hour. The projected 95th percentile northbound left-turn queue under Cumulative plus Project conditions is approximately 355 feet in the AM peak hour and 180 feet in the PM peak hour. Thus, the available storage length is exceeded under existing and future conditions in the AM peak hour. In the PM peak hour under all scenarios the available storage would not be exceeded. Potential options to increase the queue storage on the northbound approach could include (a) modifying the signal timing to provide more green time for this movement when needed or (b) extending the turn lane by restriping the median and left-turn lane. Queuing on a local street is not identified as significant impact in this study and these options are not recommended as mitigation measures but are provided as information at the request of Caltrans.

FREEWAY MAINLINE ANALYSIS

Morning and afternoon peak hour analysis of two selected freeway mainline segments in the project vicinity was conducted in response to a request from Caltrans:

- I-210 west of SR 118
- I-210 east of I-5

Caltrans Performance Measurement System (PeMS) data from October 2018 was used for highway counts. Project-generated trips were assigned to the regional freeway system as described in Chapter 3. The freeway level of service methodology described in the *Highway Capacity Manual* was used to determine the vehicle density on each analyzed segment (passenger cars per mile per lane) by direction and the corresponding level of service. The level of service definitions used for freeway mainline segments are shown in Table 9.

Following consultation with County staff and Caltrans staff, it was agreed that for the purposes of this study, an impact would be considered adverse if the analyzed freeway segment were found to operate at LOS F and the vehicle to capacity ratio increased by more than 2%. As shown in Table 10, this condition is not met at any of the analyzed freeway segments and the project impact would be considered less than significant.

TABLE 8
PEAK HOUR OFF-RAMP INTERSECTION 95TH PERCENTILE QUEUES

Ramp	Cross Street	Ramp Length (ft) [a]	85% Ramp Length (ft)	Ramp Turn Lanes at Intersection			Control	Existing				Queue 85% Exceeds Storage?	Existing + Project				Queue 85% Exceeds Storage?
								AM Queue		PM Queue			AM Queue		PM Queue		
				Lanes	Move	Length [a]		Lane (ft)	Max (ft)	Lane (ft)	Max (ft)		Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	
I-210 Westbound Off-Ramp	Roxford Street	1110	940	2	Left Right/Through/Left	520 1110	Signal	152 95	152	106 63	106	No	167 131	167	108 58	108	No
I-210 Eastbound Off-Ramp	Roxford Street	1050	890	2	Right Through/Left	550 1050	Signal	46 187	187	39 72	72	No	46 331 [b]	331 [b]	38 94	94	No
I-210 Westbound Off-Ramp	Polk Street	930	790	2	Right Through/Left	460 930	Signal	20 176	176	45 435 [b]	435 [b]	No	21 187	187	45 442 [b]	442 [b]	No
I-210 Eastbound Off-Ramp	Polk Street	1180	1000	2	Right Through/Left	690 1180	Signal	118 58	118	112 66	112	No	120 58	120	112 66	112	No
I-5 Southbound Off-Ramp	Roxford Street	980	830	2	Through/Left Through/Right	980 250	Signal	410 [b] 98	410[b]	340 [b] 52	340 [b]	No	417 [b] 98	417 [b]	355 [b] 52	355 [b]	No
I-5 Northbound Off-Ramp at Encinitas Ave	Roxford Street	1500	1280	2	Left Through/Right	190 1500	Signal	53 310 [b]	310 [b]	40 572 [b]	572 [b]	No	53 317 [b]	317 [b]	40 592 [b]	592 [b]	No

Ramp	Cross Street	Ramp Length (ft) [a]	85% Ramp Length (ft)	Ramp Turn Lanes at Intersection			Control	Cumulative (2035) plus Project				Queue 85% Exceeds Storage?
								AM Queue		PM Queue		
				Lanes	Move	Length [a]		Lane (ft)	Max (ft)	Lane (ft)	Max (ft)	
I-210 Westbound Off-Ramp	Roxford Street	1110	940	2	Left Right/Through/Left	520 1110	Signal	200 163	200	116 66	116	No
I-210 Eastbound Off-Ramp	Roxford Street	1050	890	2	Right Through/Left	550 1050	Signal	149 354 [b]	354 [b]	46 101	101	No
I-210 Westbound Off-Ramp	Polk Street	930	790	2	Right Through/Left	460 930	Signal	46 234	234	89 535 [b]	535 [b]	No
I-210 Eastbound Off-Ramp	Polk Street	1180	1000	2	Right Through/Left	690 1180	Signal	140 71	140	136 80	136	No
I-5 Southbound Off-Ramp	Roxford Street	980	830	2	Through/Left Through/Right	980 250	Signal	500 [b] 108	500	473 [b] 57	473 [b]	No
I-5 Northbound Off-Ramp at Encinitas Ave	Roxford Street	1500	1280	2	Left Through/Right	190 1500	Signal	62 373 [b]	373 [b]	15 448 [b]	448 [b]	No

[a]: Storage lengths based on scaled distances from on-line aerial photographs
[b]: 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles

TABLE 9
LEVEL OF SERVICE DEFINITIONS FOR
FREEWAY MAINLINE AND
MULTILANE HIGHWAY SEGMENT ANALYSES

LOS Criteria for Freeway Segments

Level of Service	Density Range (pc/mi/ln)*
A	0-11
B	>11-18
C	>18-26
D	>26-35
E	>35-45
F	>45

Note:

* pc/mi/ln denotes passenger cars per mile per lane

Source: Highway Capacity Manual, Exh. 23-3, Transportation Research Board, 2010.

TABLE 10
EXISTING AND CUMULATIVE (2035) PEAK HOUR FREEWAY SEGMENT ANALYSIS

Name [a]	Peak Hour	Direction	Existing				Existing plus Project				Change in V/C	Project Impact? [b]
			Density (pc/mi/ln)*	LOS	Volume	V/C	Density (pc/mi/ln)*	LOS	Volume	V/C		
I-210 between Yarnell Street and Roxford Street	AM	EB	45.8	F	6,518	0.925	48.0	F	6,647	0.943	0.018	NO
	AM	WB	23.2	C	4,131	0.586	23.4	C	4,179	0.593	0.007	NO
	PM	EB	32.2	D	6,214	0.881	32.6	D	6,260	0.888	0.007	NO
	PM	WB	46.5	F	6,562	0.931	48.8	F	6,697	0.950	0.019	NO
I-210 between Polk Street and Hubbard Street	AM	EB	41.4	E	6,214	0.881	41.8	E	6,240	0.885	0.004	NO
	AM	WB	28.6	D	4,936	0.700	29.1	D	5,008	0.710	0.010	NO
	PM	EB	34.2	D	5,582	0.792	34.9	D	5,657	0.802	0.010	NO
	PM	WB	98.1	F	8,159	1.157	99.7	F	8,184	1.161	0.004	NO

Name [a]	Peak Hour	Direction	Cumulative (2035)				Cumulative (2035) plus Project				Change in V/C	Cumulative Impact? [b]
			Density (pc/mi/ln)*	LOS	Volume	V/C	Density (pc/mi/ln)*	LOS	Volume	V/C		
I-210 between Yarnell Street and Roxford Street	AM	EB	58.8	F	7,172	1.017	62.2	F	7,301	1.036	0.019	NO
	AM	WB	25.9	C	4,566	0.648	26.2	D	4,614	0.654	0.006	NO
	PM	EB	37.5	E	5,893	0.836	38.0	E	5,939	0.842	0.006	NO
	PM	WB	58.5	F	7,162	1.016	62.0	F	7,297	1.035	0.019	NO
I-210 between Polk Street and Hubbard Street	AM	EB	49.9	F	6,758	0.959	50.4	F	6,784	0.962	0.003	NO
	AM	WB	32.6	D	5,417	0.768	33.3	D	5,489	0.779	0.011	NO
	PM	EB	39.9	E	6,097	0.865	40.8	E	6,172	0.875	0.010	NO
	PM	WB	174.7	F	8,840	1.254	179.7	F	8,865	1.257	0.003	NO

Notes:
* pc/mi/ln denotes passenger cars per mile per lane
[a] Analyzed using Freeway methodology from *Highway Capacity Manual,* Transportation Research Board, 2010.
[b] Impact criteria for this project is defined under 2 conditions. One as mainline LOS F with project compared to mainline LOS < F without project.
The second is if mainline without project is already LOS F and mainline with project is 2% increase in volume/capacity.

6. ACTIVE TRANSPORTATION FACILITY REVIEW

As discussed in Chapter 2, the pedestrian network both within the medical center campus and adjacent to the site is incomplete. Sidewalks exist on portions of Olive View Drive, typically portions that are adjacent to developed residential properties, but sidewalks are discontinuous in front of the site. Many streets in the vicinity are bordered by dirt paths that are used by both pedestrians and equestrians. Not all intersections with sidewalks have ADA accessible ramps, and there are currently no marked crossings on Olive View Drive. Bledsoe Street, the most direct access street for pedestrians coming from the south, also does not have sidewalks or marked crossings north of Foothill Boulevard, with the exception of the bridge crossing I-210.

Within the western portion of the medical center campus, there is little dedicated pedestrian infrastructure in place. Throughout the eastern portion of the campus, however, near the hospital, sidewalks are generally present. Marked crosswalks connect the hospital building with adjacent parking lots. Sidewalks do not exist within the parking lots adjacent to the hospital, requiring pedestrians to walk through the aisles in order to access the pedestrian network. Sidewalks and crosswalks exist near the mental health building, and several crosswalks are also present on Bucher Avenue and Mesa Avenue. Within the site, the pedestrian facilities that exist are generally in good condition: sidewalks are well maintained and crosswalks are clearly visible. There is currently no dedicated bicycle infrastructure either within the project site or immediately adjacent to the project site.

The Master Plan for Olive View-UCLA Medical Center would modify pedestrian circulation patterns within the site, as shown in Figure 7. New sidewalks and paths would be provided on the north side of Olive View Drive, creating uniform pedestrian facilities boarding the campus. Internally, new pedestrian paths will link the existing hospital building, the new ambulatory care center and administration building with the parking structure. These improvements will address many of the existing gaps in the pedestrian network within the site.

Figure 14 identifies additional areas that can be targeted for pedestrian improvements. The figure shows locations for possible short and long-term potential improvements. Short-term improvements are identified at the intersection of Olive View Drive & Bledsoe Street, on Mesa Avenue within the site, and connecting the eastern and western portions of the campus. Short-term improvement could include, but are not limited to, signage (regulatory, warning and guidance) and striping.

Short term improvements | Long term improvements | Vehicular access | Parking Entry

Figure 14

Existing Site Circulation and Identified Locations for Potential Pedestrian Improvements

\\fpla03\data\Jobs\Active\2800s\2811_Olive View\Graphics\INDD\Fig 14. ExistingSiteCirc.indd

Potential short-term improvements are shown in Figure 15, including pedestrian warning signage on Mesa Avenue and Bucher Avenue, marked crosswalks at Olive View Drive & Bledsoe Street, and improved pedestrian wayfinding and paths west of the hospital. Long-term improvements have been identified on Olive Drive adjacent to the site and on Bledsoe Drive connecting the site with the surrounding neighborhood. Long-term improvement may include larger infrastructure projects, such as sidewalk and trail construction. Tier I development includes trail and circulation changes that will improve pedestrian circulation on the site, as seen in Figure 16. Additional long-term improvements on Olive View Drive and Bledsoe Street should be made after receiving community input.

Improve pedestrian wayfinding and paths

Pedestrian warning sign

Marked crossing

Vehicular access

Parking Entry

Figure 15

Existing Site Circulation and Potential Short Term Pedestrian Improvements

\\pla03\data\Jobs\Active\2800s\2811_Olive View\Graphics\INDD\Fig 15. ShortTermPed.indd

Figure 16

Tier 1 Planned Trail Development

\\fpla03data\Jobs\Active\2800s\2811_Olive View\Graphics\INDD\Fig 16. Tier 1 Planned Trail Development.indd

7. TIER II ANALYSIS

PROJECT TRAFFIC

As indicated in Chapter 1, the Master Plan allows for development beyond the 2035 planning horizon of Tier I development that is fully analyzed in this study. Tier II development is envisioned to include the following net changes compared to existing conditions:

- Addition of 43,700 square feet (sf) of administrative office space
- Addition of 103,000 sf of new utility plant and maintenance facilities
- Addition of 913,000 sf of new hospital space
- Addition of 18,800 sf of warehouse/storage space
- Removal of 11,000 sf of mental health facilities
- Addition of 128 short-term housing units for special needs patients
- Addition of 20,000 sf of community center space
- Addition of 120,000 sf of research and development space
- Addition of 40,000 sf of retail space

Tier II development on the site was qualitatively evaluated to determine its potential impacts on the surrounding transportation system. Trip generation was estimated and a qualitative assessment of potential traffic impacts was made for informational purposes at this time. A quantitative analysis of each alternative was not prepared for Tier II development as part of this study, as no specific entitlements for development of that long-term vision for the medical center are currently sought.

Vehicle trip generation for the project was estimated using the same methodology described in Chapter 3, including internal trip credits, bike/walk/transit credits and carpool credits.

Table 11 presents the estimated trip generation for full development of Tier II. Compared to the existing development on the site, the full buildout is estimated to generate a net increase of approximately 10,509 daily trips, including approximately 774 trips (545 inbound/229 outbound) during the AM peak hour and approximately 927 trips (282 inbound/645 outbound) during the PM peak hour. Overall distribution pattern for these trips would be similar to what is described above for Tier I development.

POTENTIAL IMPACTS OF TIER II DEVELOPMENT

The increase in project trips associated with the full buildout of Tier II development and the expected increase of ambient trips beyond 2035 near the project could lead to impacts at some intersections in the vicinity.

The estimated trip generation of full buildout of the Master Plan would be approximately 190% to 280% higher than that of Tier I development in each of the analyzed peak hours. While no intersection-level impacts were identified based on projected Cumulative plus Project levels of service and applicable threshold criteria, the level of increased project-generated traffic with full development could result in significant impacts at several study intersections: Polk Street & I-210 Eastbound Ramps (Study Intersection 13) and Polk Street & Foothill Boulevard (Study Intersection 14). Overall, the level of project-related increase in traffic at the other analyzed intersections would be higher than with Tier I development only, and other locations could be significantly impacted.

TABLE 11
PROJECT TRIP GENERATION ESTIMATES
OLIVE VIEW-UCLA MEDICAL CENTER MASTER PLAN TIER II DEVELOPMENT

	Land Use	ITE Land Use Code	Size [a]	Trip Generation Rates [b]							Estimated Trip Generation						
				Daily	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Rate	Rate	% In	% Out	Rate	% In	% Out	Trips	In	Out	Total	In	Out	Total
Existing	**EXISTING USE**																
	Administrative Office	710	108.000 ksf	*[c]*	*[c]*	*86%*	*14%*	*[c]*	*16%*	*84%*	1,143	110	18	128	19	103	122
	Day Care Center	565	82 Students	*4.09*	*[d]*	*53%*	*47%*	*[d]*	*47%*	*53%*	335	34	29	63	29	33	62
	Central Utilities/Industrial /Infrastructure [e]	120	51.000 ksf	*1.5*	*0.51*	*88%*	*12%*	*0.68*	*12%*	*88%*	77	23	3	26	4	31	35
	Hospital/Inpatient	610	534.300 ksf	*10.72*	*[f]*	*68%*	*32%*	*[f]*	*32%*	*68%*	5,728	355	167	522	175	374	549
	Warehouse/Storage	150	49.300 ksf	*[g]*	*[g]*	*77%*	*23%*	*[g]*	*27%*	*73%*	123	24	7	31	9	25	34
	Mental Health	720	11.000 ksf	*[h]*	*[h]*	*78%*	*22%*	*[h]*	*28%*	*72%*	335	24	7	31	11	28	39
	Project Site Subtotal										**7,742**	**570**	**231**	**801**	**247**	**594**	**841**
	Internal Capture (10%) [j]										*-774*	*-57*	-23	*-80*	*-25*	-59	*-84*
	Transit/Walk/Bike Credit (2%) [k]										*-139*	*-10*	-4	*-14*	*-4*	-11	*-15*
	Carpool (10%) [l]										*-697*	*-51*	-21	*-72*	*-22*	-54	*-76*
	Total Existing Trips										**6,132**	**452**	**183**	**635**	**196**	**470**	**666**
Proposed	**PROPOSED PROJECT (TIER I + II)**																
	Administrative Office	710	96.000 ksf	*[c]*	*[c]*	*86%*	*14%*	*[c]*	*16%*	*84%*	1,020	101	16	117	18	92	110
	Day Care Center	565	82 Students	*4.09*	*[d]*	*53%*	*47%*	*[d]*	*47%*	*53%*	335	34	29	63	29	33	62
	Central Utilities/Industrial /Infrastructure [e]	120	154.000 ksf	*1.5*	*0.51*	*88%*	*12%*	*0.68*	*12%*	*88%*	231	69	10	79	13	92	105
	Hospital/Inpatient	610	1,436.00 ksf	*10.72*	*[f]*	*68%*	*32%*	*[f]*	*32%*	*68%*	15,394	809	380	1,189	418	889	1,307
	Community Center	495	20.000 ksf	*28.82*	*[i]*	*66%*	*34%*	*[i]*	*47%*	*53%*	576	51	26	77	34	38	72
	Warehouse/Storage	150	68.100 ksf	*[g]*	*[g]*	*77%*	*23%*	*[g]*	*27%*	*73%*	153	25	8	33	10	26	36
	Research & Development	760	120.000 ksf	*[m]*	*0.42*	*75%*	*25%*	*0.49*	*15%*	*85%*	1,432	37	13	50	9	50	59
	Retail	820	40.000 ksf	37.75	0.94	62%	38%	3.81	48%	52%	1,510	24	14	38	73	79	152
	Crisis Residential Housing	[n]	80 Units								306	74	20	94	0	74	74
	Recuperative Housing	[n]	48 Units								48	12	0	12	0	12	12
	Project Site Subtotal										**20,918**	**1,236**	**516**	**1,752**	**603**	**1,385**	**1,988**
	Internal Capture (10%) [j]										*-2,056*	*-115*	-50	*-165*	*-60*	-130	*-190*
	Transit/Walk/Bike Credit (2%) [k]										*-370*	*-21*	-9	*-30*	*-11*	-23	*-34*
	Carpool (10%) [l]										*-1,851*	*-103*	-45	*-148*	*-54*	-117	*-171*
	Total Proposed Trips										**16,641**	**997**	**412**	**1,409**	**478**	**1,115**	**1,593**
Net Change	**Net New Project**										**10,509**	**545**	**229**	**774**	**282**	**645**	**927**

a. Size in thousand square feet (ksf) unless otherwise noted
b. Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition* , 2018, and *Trip Generation Handbook* (3rd Edition).
c. ITE administrative office trip generation equations used rather than linear trip generation rate:
Daily: Ln(T) = 0.97 * Ln(A) + 2.50, where T = trips, A = area in ksf
AM Peak Hour: T = 0.94(A) + 26.49, where T = trips, A = area in ksf
PM Peak Hour: Ln(T) = 0.95 * Ln(A) + 0.36, where T = trips, A = area in ksf
d. ITE day care center trip generation equation used rather than linear trip generation rate for AM and PM periods:
AM Peak Hour: T = 0.66(X) + 8.42, where T = trips, X = number of students
PM Peak Hour: Ln(T) = 0.87 * Ln(X) + 0.29, where T = trips, X = number of students
e. ITE Code 120 not included in 10th Edition "Trip Generation." Rates and directional distribution taken from ITE 9th Edition code 120, General Heavy Industrial.
f. ITE hospital trip generation equation used rather than linear trip generation rate for AM and PM periods:
AM Peak Hour: T = 0.74(A) + 126.36, where T = trips, A = area in ksf
PM Peak Hour: T = 0.84(A) + 100.56, where T = trips, A = area in ksf
g. ITE warehousing trip generation equation used rather than linear trip generation rate:
Daily: T = 1.58(A) + 45.54, where T = trips, A = area in ksf
AM Peak Hour: T = 0.12(A) + 25.32, where T = trips, A = area in ksf
PM Peak Hour: T = 0.12(A) + 27.82, where T = trips, A = area in ksf
h. ITE medical-dental office building trip generation equation used rather than linear trip generation rate:
Daily: T = 38.42(A) - 87.62, where T = trips, A = area in ksf
AM Peak Hour: Ln(T) = 0.89 * Ln(A) + 1.31, where T = trips, A = area in ksf
PM Peak Hour: T = 3.39(A) + 2.02, where T = trips, A = area in ksf
i. ITE Recreational Community Center trip generation equations used rather than linear trip generation rate:
AM Peak Hour: Ln(T) = 0.54 * Ln(A) + 2.73, where T = trips, A = area in ksf
PM Peak Hour: Ln(T) = 0.76 * Ln(A) + 2.00, where T = trips, A = area in ksf
j. Internal capture represents the percentage of trips between land uses that occur within the site.
k. Transit/Walk/Bike Credit informted by data from the 2016 AQMD survey.
l. Carpool Credit informted by data from the 2016 AQMD survey.
m. ITE research and development trip generation equation used for daily trips, rather than linear trip generation rate:
Daily: T = 10.23(A) + 204.68, where T = trips, A = area in ksf
n. See Table 3B for detailed trip generation estimates for this project element.

8. CONCLUSIONS

This study was undertaken to evaluate the potential traffic impacts of the proposed Olive View-UCLA Medical Center project. The following summarizes the results of this analysis:

- The proposed project is divided into two tiers of development. Only Tier I development (through 2035) was analyzed quantitatively as part of this report. Tier I would include increases in administrative office, central utilities, hospital, and community center and decreases in warehouse/storage space. Tier II development represents a long-term vision for full buildout of the medical center, but no specific entitlements beyond Tier I are now sought and limited analysis is provided here for information only.
- The study analyzed 13 signalized intersections, one unsignalized intersections and four directional freeway segments in the vicinity of the project.
- Tier I development is estimated to generate net new 3,841 daily trips, including 393 trips (288 inbound/105 outbound) during the AM peak hour and 401 trips (101 inbound/300 outbound) during the PM peak hour.
- The LOS analysis for Existing plus Project and the Cumulative (2035) plus Project scenarios determined that the proposed project would not significantly impact traffic at any intersections.
- Analyses of potential impacts on the regional transportation system conducted in accordance with CMP requirements determined that the project would not have a significant impact on CMP monitoring intersections, freeway mainline segments or transit.
- Peak hour signal warrant analysis was conducted for one stop-controlled intersection that is adjacent to the project site. The warrant was found not to be met under either existing or future conditions for the intersection of Olive View Drive & Bledsoe Street.
- Analyses of potential impacts on the regional transportation facilities in accordance with Caltrans found no project or cumulative impacts on Interstate 210 during either the AM or PM peak hours.
- A queueing analysis was conducted on freeway off ramps near the project site. Queueing does not exceed the ramp storage at any of the analyzed off-ramp locations during any of the analyzed time periods or scenarios.
- Compared to existing trip generation, Tier II development (full build-out of the master plan) is estimated to generate approximately net new 10,603 daily trips, including approximately 781 trips in the AM peak hour and approximately 934 trips in the PM peak hour. A qualitative assessment was made and potential impacts were identified.

REFERENCES

2010 Congestion Management Program for Los Angeles County (Los Angeles County Metropolitan Transportation Authority, October 2010)

Highway Capacity Manual (Transportation Research Board, 2010)

Los Angeles Mission College Facilities Master Plan and Public Recreation Improvement Program Draft Environmental Impact Report. Volume 1. (October 2005)

Mobility Plan 2035 (City of Los Angeles, 2015); https://la2b.org/documents/

Olive View - Medical Center Campus Master Plan. (Draft Print. August 26, 2015)

Sylmar Community Plan (City of Los Angeles Department of City Planning, June 2015)

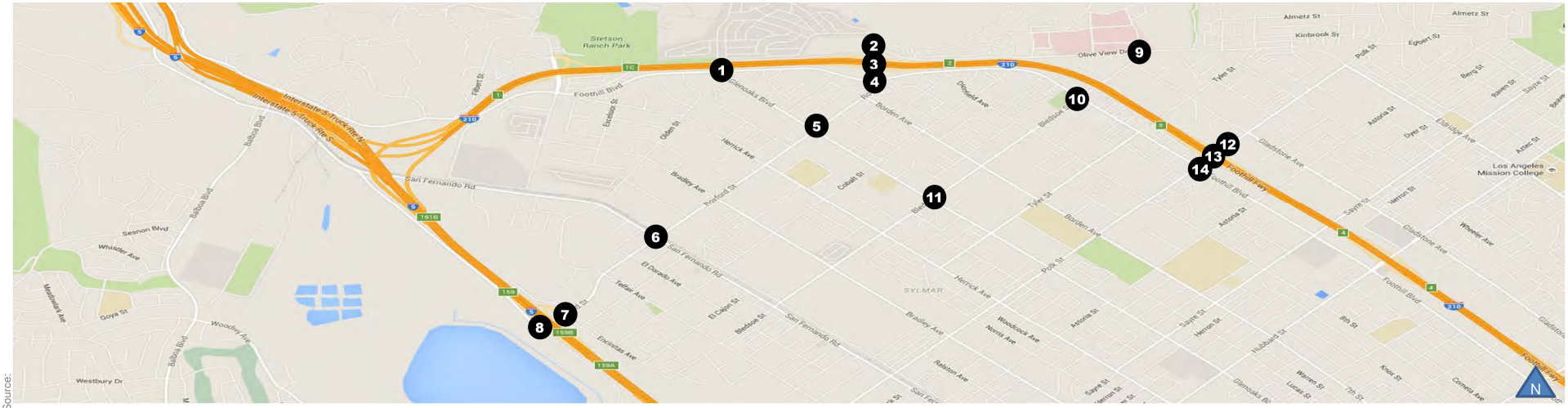
Traffic Study Policies and Procedures (City of Los Angeles Department of Transportation, December 2016)

Transportation Research Circular No. 212, Interim Materials on Highway Capacity (Transportation Research Board, 1980)

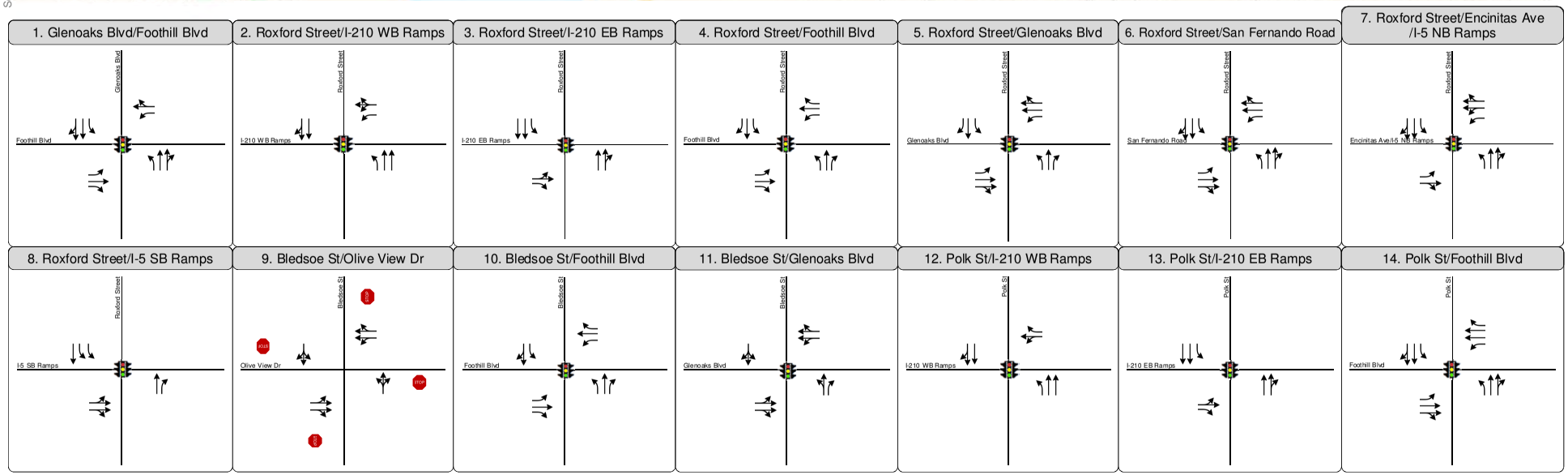
Trip Generation, 9th Edition (ITE, 2012)

Trip Generation, 10th Edition (ITE, 2017)

APPENDIX A: INTERSECTION LANE CONFIGURATIONS



Source:



Lane Configurations

APPENDIX B: INTERSECTION TRAFFIC COUNTS

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5421-001 **Day:** Thursday

City: Sylmar **Date:** 6/9/2016

AM

NS/EW Streets:	Bledsoe St			Bledsoe St			Glenoaks Blvd			Glenoaks Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	0	0	2	0	0	2	0	
7:00 AM	2	10	14	8	12	6	6	100	16	21	67	11	273
7:15 AM	7	11	37	8	31	9	10	157	28	30	78	11	417
7:30 AM	6	40	44	18	35	12	17	171	31	32	119	24	549
7:45 AM	5	38	34	24	37	1	10	162	30	26	146	34	547
8:00 AM	4	5	27	10	20	4	14	133	25	24	88	16	370
8:15 AM	3	6	15	3	10	3	9	89	16	10	56	6	226
8:30 AM	2	8	8	5	6	5	5	48	7	10	54	6	164
8:45 AM	1	12	9	6	13	3	3	46	1	7	35	8	144
9:00 AM	5	5	6	1	4	1	3	32	3	9	35	4	108
9:15 AM	1	3	13	5	4	3	2	39	6	10	30	4	120
9:30 AM	1	7	23	6	5	4	3	41	1	6	31	2	130
9:45 AM	2	6	24	7	7	6	4	44	3	9	44	7	163
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	39	151	254	101	184	57	86	1062	167	194	783	133	3211
APPROACH %'s :	8.78%	34.01%	57.21%	29.53%	53.80%	16.67%	6.54%	80.76%	12.70%	17.48%	70.54%	11.98%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	22	94	142	60	123	26	51	623	114	112	431	85	1883
PEAK HR FACTOR :		0.717			0.804			0.900			0.762		0.857

UTURNS

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5421-001 **Day:** Thursday

City: Sylmar **Date:** 6/9/2016

PM

NS/EW Streets:	Bledsoe St			Bledsoe St			Glenoaks Blvd			Glenoaks Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	0	0	2	0	0	2	0	
3:00 PM	4	14	13	15	28	11	11	63	11	28	93	19	310
3:15 PM	5	20	14	10	25	7	13	117	18	10	73	12	324
3:30 PM	5	25	36	5	14	9	7	134	29	33	80	13	390
3:45 PM	5	15	27	16	16	7	12	137	12	24	99	13	383
4:00 PM	6	15	30	10	10	1	13	127	11	16	82	14	335
4:15 PM	5	13	20	8	17	3	6	103	13	19	96	13	316
4:30 PM	10	24	18	16	13	10	5	101	9	25	88	12	331
4:45 PM	1	16	22	6	12	4	4	91	9	14	90	12	281
5:00 PM	3	22	24	9	6	7	4	103	18	18	71	14	299
5:15 PM	5	14	22	5	7	4	3	101	14	16	76	17	284
5:30 PM	2	16	22	9	16	6	4	77	10	20	91	15	288
5:45 PM	5	17	15	11	11	4	6	65	13	15	88	17	267
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	56	211	263	120	175	73	88	1219	167	238	1027	171	3808
APPROACH %'s :	10.57%	39.81%	49.62%	32.61%	47.55%	19.84%	5.97%	82.70%	11.33%	16.57%	71.52%	11.91%	
PEAK HR START TIME :	315 PM												TOTAL
PEAK HR VOL :	21	75	107	41	65	24	45	515	70	83	334	52	1432
PEAK HR FACTOR :		0.769			0.774			0.926			0.862		0.918

UTURNS

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-001 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Roxford St			Roxford St			I-210 WB Ramps			I-210 WB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	0	0	0	1.3	0.3	0.3	
7:00 AM	65	114	0	0	30	50	0	0	0	64	0	25	348
7:15 AM	81	117	0	0	48	57	0	0	0	82	0	38	423
7:30 AM	80	152	0	0	58	121	0	0	0	108	0	29	548
7:45 AM	61	203	0	0	34	79	0	0	0	111	1	83	572
8:00 AM	52	140	0	0	32	40	0	0	0	87	2	38	391
8:15 AM	32	136	0	0	24	45	0	0	0	36	2	39	314
8:30 AM	37	102	0	0	27	45	0	0	0	37	2	27	277
8:45 AM	23	104	0	0	21	41	0	0	0	28	0	37	254
9:00 AM	25	79	0	0	41	34	0	0	0	22	0	21	222
9:15 AM	26	53	0	0	30	35	0	0	0	33	0	25	202
9:30 AM	22	64	0	0	32	43	0	0	0	21	0	20	202
9:45 AM	20	58	0	0	22	46	0	0	0	22	0	22	190
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	524	1322	0	0	399	636	0	0	0	651	7	404	3943
APPROACH %'s :	28.39%	71.61%	0.00%	0.00%	38.55%	61.45%	#DIV/0!	#DIV/0!	#DIV/0!	61.30%	0.66%	38.04%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	274	612	0	0	172	297	0	0	0	388	3	188	1934
PEAK HR FACTOR :		0.839			0.655			0.000			0.742		0.845

UTURNS	NB	SB	EB	WB
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	NB	SB	EB	WB
	0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-001 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Roxford St			Roxford St			I-210 WB Ramps			I-210 WB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	0	0	0	1.3	0.3	0.3	
3:00 PM	42	68	0	0	43	45	0	0	0	54	0	27	279
3:15 PM	31	47	0	0	42	63	0	0	0	47	0	31	261
3:30 PM	41	51	0	0	101	166	0	0	0	45	1	19	424
3:45 PM	25	53	0	0	44	92	0	0	0	69	1	27	311
4:00 PM	26	41	0	0	46	115	0	0	0	64	0	26	318
4:15 PM	26	36	0	0	47	88	0	0	0	66	1	28	292
4:30 PM	44	68	0	0	84	209	0	0	0	51	1	25	482
4:45 PM	44	46	0	0	67	116	0	0	0	51	0	17	341
5:00 PM	32	46	0	0	64	91	0	0	0	66	0	21	320
5:15 PM	36	47	0	0	46	90	0	0	0	51	0	20	290
5:30 PM	30	39	0	0	39	72	0	0	0	55	0	16	251
5:45 PM	26	43	0	0	25	56	0	0	0	56	0	18	224
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	403	585	0	0	648	1203	0	0	0	675	4	275	3793
APPROACH %'s :	40.79%	59.21%	0.00%	0.00%	35.01%	64.99%	#DIV/0!	#DIV/0!	#DIV/0!	70.75%	0.42%	28.83%	
PEAK HR START TIME :	415 PM												TOTAL
PEAK HR VOL :	146	196	0	0	262	504	0	0	0	234	2	91	1435
PEAK HR FACTOR :		0.763			0.654			0.000			0.861		0.744

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
1	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-002 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Roxford St			Roxford St			I-210 EB Ramps			I-210 EB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	1	2	0	0.5	0.5	1	0	0	0	
7:00 AM	0	104	55	17	73	0	78	0	44	0	0	0	371
7:15 AM	0	124	67	24	108	0	70	0	75	0	0	0	468
7:30 AM	0	155	78	33	129	0	75	0	61	0	0	0	531
7:45 AM	0	183	71	21	126	0	80	0	72	0	0	0	553
8:00 AM	0	105	54	18	98	0	88	0	48	0	0	0	411
8:15 AM	0	70	35	9	55	0	93	0	30	0	0	0	292
8:30 AM	0	62	24	13	48	0	79	0	16	0	0	0	242
8:45 AM	0	55	31	14	39	0	71	0	26	0	0	0	236
9:00 AM	0	43	27	27	37	0	60	0	17	0	0	0	211
9:15 AM	0	37	35	19	42	0	41	0	12	0	0	0	186
9:30 AM	0	45	29	13	41	0	42	0	17	0	0	0	187
9:45 AM	0	40	29	15	29	0	39	0	19	0	0	0	171
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	1023	535	223	825	0	816	0	437	0	0	0	3859
APPROACH %'s :	0.00%	65.66%	34.34%	21.28%	78.72%	0.00%	65.12%	0.00%	34.88%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	0	567	270	96	461	0	313	0	256	0	0	0	1963
PEAK HR FACTOR :		0.824			0.860			0.936			0.000		0.887

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	0	0	0

CONTROL : 1-Way Stop (EB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-002 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Roxford St			Roxford St			I-210 EB Ramps			I-210 EB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	1	2	0	0.5	0.5	1	0	0	0	
3:00 PM	0	70	31	24	71	0	41	0	24	0	0	0	261
3:15 PM	0	51	40	28	59	0	28	0	32	0	0	0	238
3:30 PM	0	64	40	63	82	0	26	1	40	0	0	0	316
3:45 PM	0	50	52	27	90	0	31	0	49	0	0	0	299
4:00 PM	0	41	54	23	86	0	23	0	27	0	0	0	254
4:15 PM	1	36	47	30	79	0	29	0	39	0	0	0	261
4:30 PM	0	75	59	48	87	0	37	0	40	0	0	0	346
4:45 PM	0	60	49	38	83	0	28	1	50	0	0	0	309
5:00 PM	0	52	76	39	92	0	27	0	37	0	0	0	323
5:15 PM	0	55	63	25	70	0	23	1	49	0	0	0	286
5:30 PM	0	49	56	25	71	0	20	0	40	0	0	0	261
5:45 PM	0	43	47	11	71	0	27	2	41	0	0	0	242
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	1	646	614	381	941	0	340	5	468	0	0	0	3396
APPROACH %'s :	0.08%	51.23%	48.69%	28.82%	71.18%	0.00%	41.82%	0.62%	57.56%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	0	242	247	150	332	0	115	2	176	0	0	0	1264
PEAK HR FACTOR :		0.912			0.893			0.927			0.000		0.913

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
1	0	0	0

CONTROL : 1-Way Stop (EB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-003 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Roxford St			Roxford St			Foothill Blvd			Foothill Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	1	1	1	1	1	1	1	
7:00 AM	5	60	14	14	78	11	41	34	6	13	18	52	346
7:15 AM	4	88	13	32	142	12	35	34	9	39	31	57	496
7:30 AM	3	108	18	32	142	22	55	38	10	27	28	71	554
7:45 AM	4	90	20	31	146	20	100	37	6	28	17	58	557
8:00 AM	1	66	14	16	114	15	57	51	11	19	20	32	416
8:15 AM	4	59	16	10	69	4	31	38	5	11	15	14	276
8:30 AM	2	45	9	7	54	8	15	14	1	7	15	26	203
8:45 AM	4	52	13	10	44	7	13	20	0	4	12	23	202
9:00 AM	0	43	9	11	33	10	10	16	1	8	12	12	165
9:15 AM	2	48	12	6	37	9	11	9	2	9	17	12	174
9:30 AM	1	44	9	9	41	10	13	15	2	10	17	16	187
9:45 AM	4	31	13	11	31	5	17	11	4	14	20	21	182
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	34	734	160	189	931	133	398	317	57	189	222	394	3758
APPROACH %'s :	3.66%	79.09%	17.24%	15.08%	74.30%	10.61%	51.55%	41.06%	7.38%	23.48%	27.58%	48.94%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	12	352	65	111	544	69	247	160	36	113	96	218	2023
PEAK HR FACTOR :		0.831			0.919			0.774			0.841		0.908

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	1	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-003 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Roxford St			Roxford St			Foothill Blvd			Foothill Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	1	1	1	1	1	1	1	
3:00 PM	5	69	18	14	63	17	17	27	10	11	23	15	289
3:15 PM	3	60	18	24	48	13	19	21	7	17	17	15	262
3:30 PM	3	71	19	21	83	21	18	22	11	13	16	13	311
3:45 PM	2	62	17	23	83	23	21	27	5	12	28	19	322
4:00 PM	4	64	30	22	69	24	15	27	7	16	31	15	324
4:15 PM	2	50	15	16	79	22	18	30	8	13	24	16	293
4:30 PM	2	89	21	24	73	32	17	39	5	11	34	24	371
4:45 PM	3	67	22	25	86	24	20	40	4	20	30	21	362
5:00 PM	8	87	18	27	67	32	19	35	4	14	40	25	376
5:15 PM	2	90	20	31	66	23	17	37	5	14	32	14	351
5:30 PM	4	71	20	23	68	20	12	22	6	16	40	18	320
5:45 PM	1	59	16	26	63	22	18	31	2	18	30	16	302
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	39	839	234	276	848	273	211	358	74	175	345	211	3883
APPROACH %'s :	3.51%	75.45%	21.04%	19.76%	60.70%	19.54%	32.81%	55.68%	11.51%	23.94%	47.20%	28.86%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	15	333	81	107	292	111	73	151	18	59	136	84	1460
PEAK HR FACTOR :		0.949			0.944			0.945			0.883		0.971

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-004 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Roxford St			Roxford St			Glenoaks Blvd			Glenoaks Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	0	1	2	0	1	2	0	
7:00 AM	9	45	23	41	92	5	3	31	14	30	15	14	322
7:15 AM	3	51	64	70	111	4	7	72	24	53	20	20	499
7:30 AM	10	83	66	69	130	6	8	59	29	52	33	28	573
7:45 AM	13	73	71	72	105	7	8	60	15	55	32	17	528
8:00 AM	7	56	23	49	85	0	4	42	18	32	39	18	373
8:15 AM	6	42	26	20	53	1	2	20	7	19	17	15	228
8:30 AM	9	44	14	11	49	2	2	18	11	11	15	11	197
8:45 AM	3	39	25	8	42	1	1	14	10	11	13	6	173
9:00 AM	3	29	10	11	44	3	2	18	5	15	17	5	162
9:15 AM	5	29	21	12	29	2	4	12	12	12	16	7	161
9:30 AM	8	27	15	8	49	2	9	15	13	15	21	15	197
9:45 AM	8	40	16	7	44	2	3	15	8	11	19	4	177
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	84	558	374	378	833	35	53	376	166	316	257	160	3590
APPROACH %'s :	8.27%	54.92%	36.81%	30.34%	66.85%	2.81%	8.91%	63.19%	27.90%	43.11%	35.06%	21.83%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	33	263	224	260	431	17	27	233	86	192	124	83	1973
PEAK HR FACTOR :		0.818			0.863			0.840			0.883		0.861

UTURNS			
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-004 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Roxford St			Roxford St			Glenoaks Blvd			Glenoaks Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	0	1	2	0	1	2	0	
3:00 PM	17	65	23	15	54	6	5	29	12	37	38	13	314
3:15 PM	9	48	32	21	54	11	11	39	18	28	27	19	317
3:30 PM	18	75	48	35	43	0	15	52	12	38	37	22	395
3:45 PM	13	68	41	48	45	4	5	36	14	27	32	11	344
4:00 PM	16	92	45	35	49	5	4	19	9	26	33	17	350
4:15 PM	23	78	28	24	66	2	4	35	11	24	50	19	364
4:30 PM	20	80	45	18	55	3	9	37	9	32	42	22	372
4:45 PM	22	74	45	24	58	4	3	35	8	21	44	16	354
5:00 PM	14	96	48	18	49	8	10	26	6	20	50	17	362
5:15 PM	29	74	44	20	58	4	10	27	12	33	48	20	379
5:30 PM	21	78	44	26	64	2	4	25	11	32	57	14	378
5:45 PM	24	58	24	24	44	3	8	29	20	28	50	8	320
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	226	886	467	308	639	52	88	389	142	346	508	198	4249
APPROACH %'s :	14.31%	56.11%	29.58%	30.83%	63.96%	5.21%	14.22%	62.84%	22.94%	32.89%	48.29%	18.82%	
PEAK HR START TIME :	445 PM												TOTAL
PEAK HR VOL :	86	322	181	88	229	18	27	113	37	106	199	67	1473
PEAK HR FACTOR :		0.932			0.910			0.903			0.903		0.972

UTURNS			
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-005 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Roxford St			Roxford St			San Fernando Rd			San Fernando Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
7:00 AM	5	104	28	14	145	20	22	53	4	34	26	15	470
7:15 AM	9	133	21	30	170	50	20	40	9	39	49	22	592
7:30 AM	14	132	26	29	154	74	10	53	8	41	48	25	614
7:45 AM	6	152	26	40	136	50	26	92	7	24	32	15	606
8:00 AM	9	108	24	20	115	16	24	71	10	41	22	19	479
8:15 AM	9	85	24	17	99	22	11	31	11	28	11	17	365
8:30 AM	6	84	28	10	80	23	8	38	6	25	22	10	340
8:45 AM	12	62	27	14	67	12	5	32	5	21	19	13	289
9:00 AM	6	68	32	13	75	14	10	24	5	18	14	13	292
9:15 AM	5	63	29	11	58	6	12	16	13	24	17	14	268
9:30 AM	1	63	25	15	72	13	8	22	7	23	15	16	280
9:45 AM	12	65	28	20	53	8	5	25	6	35	14	13	284
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	94	1119	318	233	1224	308	161	497	91	353	289	192	4879
APPROACH %'s :	6.14%	73.09%	20.77%	13.20%	69.35%	17.45%	21.50%	66.36%	12.15%	42.33%	34.65%	23.02%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	38	525	97	119	575	190	80	256	34	145	151	81	2291
PEAK HR FACTOR :		0.897			0.860			0.740			0.827		0.933

UTURNS	NB	SB	EB	WB
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	1	1	0
TOTAL VOLUMES :	0	1	1	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-005 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Roxford St			Roxford St			San Fernando Rd			San Fernando Rd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
3:00 PM	7	102	46	25	74	21	18	23	18	35	29	13	411
3:15 PM	9	88	32	14	86	16	13	26	7	43	31	24	389
3:30 PM	18	99	42	41	107	23	26	34	17	41	41	27	516
3:45 PM	14	107	42	17	86	17	11	42	11	38	40	24	449
4:00 PM	13	134	48	30	108	27	24	34	13	37	40	24	532
4:15 PM	12	97	45	19	95	20	11	33	6	40	46	21	445
4:30 PM	8	128	35	40	143	18	23	29	11	36	62	16	549
4:45 PM	9	100	25	16	97	21	33	38	12	49	49	27	476
5:00 PM	3	113	31	30	131	24	38	53	20	41	52	19	555
5:15 PM	8	99	27	15	87	14	26	43	13	34	54	25	445
5:30 PM	4	92	38	19	97	14	25	38	14	31	58	28	458
5:45 PM	6	112	20	31	92	11	16	30	7	29	48	13	415
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	111	1271	431	297	1203	226	264	423	149	454	550	261	5640
APPROACH %'s :	6.12%	70.10%	23.77%	17.21%	69.70%	13.09%	31.58%	50.60%	17.82%	35.89%	43.48%	20.63%	

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	0	0	0

PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	28	440	118	101	458	77	120	163	56	160	217	87	2025
PEAK HR FACTOR :		0.857			0.791			0.764			0.928		0.912

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-006 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Roxford St			Roxford St			Encinitas Ave			Encinitas Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	0.5	0.5	1.5	1	0.5	
7:00 AM	2	165	71	9	156	17	48	11	18	99	28	1	625
7:15 AM	1	153	51	13	149	16	78	19	28	114	32	4	658
7:30 AM	4	184	53	11	170	24	72	19	28	124	43	6	738
7:45 AM	1	179	68	11	149	20	115	41	24	87	45	6	746
8:00 AM	2	155	73	15	89	31	101	44	27	94	29	5	665
8:15 AM	4	155	87	11	111	27	50	21	16	76	29	9	596
8:30 AM	7	164	44	5	92	12	35	12	15	57	27	7	477
8:45 AM	5	145	58	7	82	19	18	11	15	59	28	2	449
9:00 AM	7	150	55	9	85	18	13	4	17	51	24	5	438
9:15 AM	2	103	50	6	82	17	13	3	15	53	20	9	373
9:30 AM	8	83	56	13	78	16	9	4	19	56	13	9	364
9:45 AM	3	108	44	13	71	22	10	4	15	58	26	9	383
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	46	1744	710	123	1314	239	562	193	237	928	344	72	6512
APPROACH %'s :	1.84%	69.76%	28.40%	7.34%	78.40%	14.26%	56.65%	19.46%	23.89%	69.05%	25.60%	5.36%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	8	671	245	50	557	91	366	123	107	419	149	21	2807
PEAK HR FACTOR :		0.931			0.851			0.828			0.851		0.941

UTURNS	NB	SB	EB	WB
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
TOTAL VOLUMES :	0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-006 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Roxford St			Roxford St			Encinitas Ave			Encinitas Ave			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	0.5	0.5	1.5	1	0.5	
3:00 PM	15	125	74	8	116	40	24	4	15	55	37	5	518
3:15 PM	12	132	77	5	110	41	11	3	21	65	37	7	521
3:30 PM	10	128	91	11	170	51	14	7	15	72	33	7	609
3:45 PM	5	148	84	7	139	30	14	7	10	62	47	10	563
4:00 PM	16	152	71	11	217	54	13	5	14	71	38	8	670
4:15 PM	3	129	96	6	125	35	17	2	17	67	34	12	543
4:30 PM	1	142	88	9	189	45	18	4	11	72	32	7	618
4:45 PM	6	132	103	8	181	44	7	4	16	78	44	3	626
5:00 PM	2	118	93	11	256	93	9	1	15	93	45	4	740
5:15 PM	3	108	98	5	188	68	12	2	22	87	37	3	633
5:30 PM	5	120	79	9	173	46	12	3	18	67	32	10	574
5:45 PM	1	114	102	14	116	47	13	3	17	69	32	5	533
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	79	1548	1056	104	1980	594	164	45	191	858	448	81	7148
APPROACH %'s :	2.94%	57.70%	39.36%	3.88%	73.94%	22.18%	41.00%	11.25%	47.75%	61.86%	32.30%	5.84%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	12	500	382	33	814	250	46	11	64	330	158	17	2617
PEAK HR FACTOR :		0.927			0.762			0.840			0.889		0.884

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	1	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	1	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-007 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Roxford St			Roxford St			I-5 EB Ramps			I-5 EB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	1	2	0	0.5	1	0.5	0	0	0	
7:00 AM	0	2	138	232	28	0	51	0	2	0	0	0	453
7:15 AM	0	11	184	263	37	0	33	0	2	0	0	0	530
7:30 AM	0	10	148	284	38	0	45	1	1	0	0	0	527
7:45 AM	0	7	118	239	37	0	74	0	2	0	0	0	477
8:00 AM	0	9	127	178	32	0	69	0	2	0	0	0	417
8:15 AM	0	10	115	183	28	0	55	2	0	0	0	0	393
8:30 AM	0	8	96	152	23	0	54	0	2	0	0	0	335
8:45 AM	0	6	42	137	21	0	59	0	2	0	0	0	267
9:00 AM	0	8	27	140	19	0	58	0	2	0	0	0	254
9:15 AM	0	2	37	135	24	0	32	0	2	0	0	0	232
9:30 AM	0	7	33	137	29	0	42	0	0	0	0	0	248
9:45 AM	0	7	48	129	22	0	36	0	0	0	0	0	242
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	87	1113	2209	338	0	608	3	17	0	0	0	4375
APPROACH %'s :	0.00%	7.25%	92.75%	86.73%	13.27%	0.00%	96.82%	0.48%	2.71%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	700 AM												TOTAL
PEAK HR VOL :	0	30	588	1018	140	0	203	1	7	0	0	0	1987
PEAK HR FACTOR :		0.792			0.899			0.694			0.000		0.937

UTURNS

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-007 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Roxford St			Roxford St			I-5 EB Ramps			I-5 EB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	1	2	0	0.5	1	0.5	0	0	0	
3:00 PM	0	13	50	175	25	0	42	0	0	0	0	0	305
3:15 PM	0	17	46	174	29	0	47	0	3	0	0	0	316
3:30 PM	0	9	53	241	23	0	55	0	1	0	0	0	382
3:45 PM	0	5	43	191	21	0	56	0	0	0	0	0	316
4:00 PM	0	13	31	295	25	0	54	1	1	0	0	0	420
4:15 PM	0	6	27	198	23	0	66	0	0	0	0	0	320
4:30 PM	0	3	32	261	19	0	60	1	0	0	0	0	376
4:45 PM	0	7	27	259	25	0	54	0	0	0	0	0	372
5:00 PM	0	4	30	350	22	0	49	1	0	0	0	0	456
5:15 PM	0	2	22	268	33	0	57	1	0	0	0	0	383
5:30 PM	0	2	15	234	28	0	46	0	2	0	0	0	327
5:45 PM	0	4	11	195	18	0	58	0	1	0	0	0	287
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	85	387	2841	291	0	644	4	8	0	0	0	4260
APPROACH %'s :	0.00%	18.01%	81.99%	90.71%	9.29%	0.00%	98.17%	0.61%	1.22%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	0	16	111	1138	99	0	220	3	0	0	0	0	1587
PEAK HR FACTOR :		0.907			0.831			0.914			0.000		0.870

UTURNS

NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-008 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Bledsoe St			Bledsoe St			Olive View Dr			Olive View Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	2	0	0	2	0	
7:00 AM	18	5	5	2	5	3	10	16	14	7	29	3	117
7:15 AM	25	18	12	0	7	5	11	16	10	9	35	4	152
7:30 AM	24	11	17	4	12	26	19	33	11	27	42	7	233
7:45 AM	40	25	43	0	8	14	17	34	12	17	34	5	249
8:00 AM	25	17	14	2	6	2	11	23	12	2	24	3	141
8:15 AM	28	14	9	1	7	5	6	29	6	3	15	5	128
8:30 AM	26	6	3	0	6	7	7	8	13	3	10	2	91
8:45 AM	24	8	1	1	7	5	9	13	13	1	11	2	95
9:00 AM	11	8	4	1	7	4	6	10	20	3	8	2	84
9:15 AM	14	6	4	1	6	3	7	8	9	1	11	2	72
9:30 AM	11	10	4	0	8	6	7	4	9	2	18	5	84
9:45 AM	15	5	6	1	4	3	4	10	16	2	17	1	84
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	261	133	122	13	83	83	114	204	145	77	254	41	1530
APPROACH %'s :	50.58%	25.78%	23.64%	7.26%	46.37%	46.37%	24.62%	44.06%	31.32%	20.70%	68.28%	11.02%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	114	71	86	6	33	47	58	106	45	55	135	19	775
PEAK HR FACTOR :		0.627			0.512			0.829			0.688		0.778

UTURNS			
NB	SB	EB	WB
1	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	1	0
0	0	0	0
0	0	1	0
0	0	1	0
0	0	1	0
0	0	1	0
NB	SB	EB	WB
1	0	5	0

CONTROL : 4-Way Stop

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-008 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Bledsoe St			Bledsoe St			Olive View Dr			Olive View Dr			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	2	0	0	2	0	
3:00 PM	12	6	4	2	10	2	3	23	23	3	11	3	102
3:15 PM	12	7	4	1	4	4	4	9	19	1	23	0	88
3:30 PM	15	7	5	8	25	28	2	24	35	19	34	6	208
3:45 PM	6	12	6	6	10	15	2	15	21	4	21	3	121
4:00 PM	16	10	5	3	16	5	5	20	26	6	20	2	134
4:15 PM	13	8	8	1	5	14	2	10	14	3	21	1	100
4:30 PM	10	7	12	8	16	25	1	27	42	10	46	2	206
4:45 PM	19	2	8	4	9	17	6	24	19	5	31	2	146
5:00 PM	18	1	5	6	12	20	2	28	25	8	15	1	141
5:15 PM	15	8	7	2	5	16	5	12	28	8	29	2	137
5:30 PM	13	7	14	4	7	11	6	15	15	7	18	2	119
5:45 PM	18	5	11	5	6	8	1	18	13	7	17	2	111
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	167	80	89	50	125	165	39	225	280	81	286	26	1613
APPROACH %'s :	49.70%	23.81%	26.49%	14.71%	36.76%	48.53%	7.17%	41.36%	51.47%	20.61%	72.77%	6.62%	
PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	62	18	32	20	42	78	14	91	114	31	121	7	630
PEAK HR FACTOR :		0.933			0.714			0.782			0.685		0.765

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
1	0	0	0
0	0	0	0
NB	SB	EB	WB
1	0	0	0

CONTROL : 4-Way Stop

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-009 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Bledsoe St			Bledsoe St			Foothill Blvd			Foothill Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	1	1	1	0	1	2	0	1	2	0	
7:00 AM	10	6	32	21	7	3	5	64	7	11	55	16	237
7:15 AM	8	16	39	20	17	8	11	82	7	28	82	27	345
7:30 AM	20	18	62	35	44	8	15	84	13	34	67	36	436
7:45 AM	13	37	64	22	22	8	31	69	12	36	79	56	449
8:00 AM	2	16	45	19	8	4	15	65	1	20	44	38	277
8:15 AM	1	10	18	15	8	3	12	64	2	4	33	41	211
8:30 AM	0	10	14	15	3	3	2	42	1	18	34	22	164
8:45 AM	1	8	11	22	2	2	3	48	1	13	25	23	159
9:00 AM	2	6	15	27	4	2	2	36	1	10	25	17	147
9:15 AM	3	6	15	9	7	3	5	31	2	5	34	15	135
9:30 AM	3	1	20	17	5	1	1	42	0	10	33	21	154
9:45 AM	3	8	15	15	4	4	3	35	2	5	42	15	151
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	66	142	350	237	131	49	105	662	49	194	553	327	2865
APPROACH %'s :	11.83%	25.45%	62.72%	56.83%	31.41%	11.75%	12.87%	81.13%	6.00%	18.06%	51.49%	30.45%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	43	87	210	96	91	28	72	300	33	118	272	157	1507
PEAK HR FACTOR :		0.746			0.618			0.904			0.800		0.839

UTURNS	NB	SB	EB	WB
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	1	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
TOTAL VOLUMES :	0	0	1	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-009 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Bledsoe St			Bledsoe St			Foothill Blvd			Foothill Blvd				UTURNS			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND							
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
LANES:	1	1	1	1	1	0	1	2	0	1	2	0					
3:00 PM	4	9	23	28	15	3	5	59	2	25	43	17	233	0	0	0	0
3:15 PM	2	11	21	15	10	2	3	43	0	26	41	16	190	0	0	0	0
3:30 PM	3	4	26	54	15	4	4	54	2	25	44	20	255	0	0	0	0
3:45 PM	3	13	19	30	13	1	3	55	5	18	58	21	239	0	0	0	0
4:00 PM	10	9	30	37	11	2	4	79	4	24	57	27	294	0	0	0	0
4:15 PM	9	13	32	20	5	0	7	49	4	22	52	15	228	0	0	0	0
4:30 PM	10	6	22	50	12	6	8	70	1	22	71	24	302	0	0	0	0
4:45 PM	3	13	14	33	7	5	2	72	5	23	72	19	268	0	0	0	0
5:00 PM	5	8	23	39	10	3	4	78	4	20	65	19	278	0	0	0	0
5:15 PM	5	10	39	21	15	4	4	69	6	18	69	25	285	0	0	0	0
5:30 PM	6	19	27	23	6	5	3	69	3	25	78	20	284	0	0	0	0
5:45 PM	8	17	34	20	8	4	7	58	6	23	59	25	269	0	0	0	0
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
TOTAL VOLUMES :	68	132	310	370	127	39	54	755	42	271	709	248	3125	0	0	0	0
APPROACH %'s :	13.33%	25.88%	60.78%	69.03%	23.69%	7.28%	6.35%	88.72%	4.94%	22.07%	57.74%	20.20%					

PEAK HR START TIME :	430 PM												TOTAL
PEAK HR VOL :	23	37	98	143	44	18	18	289	16	83	277	87	1133
PEAK HR FACTOR :		0.731			0.754			0.939			0.955		0.938

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5421-002 **Day:** Thursday

City: Sylmar **Date:** 6/9/2016

AM

NS/EW Streets:	Glenoaks Blvd			Glenoaks Blvd			Foothill Blvd			Foothill Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	1	0	1	1	0	
7:00 AM	19	2	4	9	9	26	5	41	42	0	35	3	195
7:15 AM	19	4	2	9	14	29	1	53	45	4	36	3	219
7:30 AM	32	2	1	10	15	32	2	80	43	3	38	2	260
7:45 AM	32	4	4	7	10	16	4	133	35	2	38	3	288
8:00 AM	31	5	2	7	6	9	4	55	41	3	21	4	188
8:15 AM	25	3	3	15	3	12	4	31	16	1	24	4	141
8:30 AM	17	4	2	8	1	12	8	29	20	3	21	3	128
8:45 AM	16	4	2	2	8	7	3	20	12	1	13	5	93
9:00 AM	16	1	2	4	5	11	9	31	16	2	19	0	116
9:15 AM	21	5	1	4	3	7	5	19	17	2	15	5	104
9:30 AM	15	7	3	7	3	12	7	22	14	1	26	11	128
9:45 AM	20	3	1	10	5	12	6	21	14	0	23	3	118
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	263	44	27	92	82	185	58	535	315	22	309	46	1978
APPROACH %'s :	78.74%	13.17%	8.08%	25.63%	22.84%	51.53%	6.39%	58.92%	34.69%	5.84%	81.96%	12.20%	
PEAK HR START TIME :	700 AM												TOTAL
PEAK HR VOL :	102	12	11	35	48	103	12	307	165	9	147	11	962
PEAK HR FACTOR :		0.781			0.816			0.703			0.971		0.835

UTURNS	NB	SB	EB	WB
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	NB	SB	EB	WB
	0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5421-002 **Day:** Thursday

City: Sylmar **Date:** 6/9/2016

PM

NS/EW Streets:	Glenoaks Blvd			Glenoaks Blvd			Foothill Blvd			Foothill Blvd				UTURNS			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND							
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
LANES:	1	2	0	1	2	0	1	1	0	1	1	0					
3:00 PM	27	8	1	2	3	8	9	28	33	0	29	7	155	0	0	0	0
3:15 PM	23	9	1	13	4	8	7	54	48	2	40	6	215	0	0	0	0
3:30 PM	28	7	5	4	6	7	11	64	33	0	26	11	202	0	0	0	0
3:45 PM	39	6	3	4	4	4	14	46	33	2	39	10	204	0	0	0	0
4:00 PM	35	6	7	9	0	10	12	52	25	4	39	8	207	0	0	0	0
4:15 PM	25	5	3	6	4	9	10	56	31	1	47	9	206	0	0	0	0
4:30 PM	40	8	3	8	5	8	17	56	40	6	48	6	245	0	0	0	0
4:45 PM	31	8	4	3	3	13	14	41	38	6	38	8	207	0	0	0	0
5:00 PM	28	7	2	3	7	10	15	55	30	3	31	7	198	0	0	0	0
5:15 PM	30	13	4	5	3	12	14	39	41	1	37	9	208	0	0	0	0
5:30 PM	36	7	5	5	3	9	7	55	21	2	40	7	197	0	0	1	0
5:45 PM	32	13	5	7	8	6	14	44	29	2	46	10	216	0	1	0	0
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	NB	SB	EB	WB
TOTAL VOLUMES :	374	97	43	69	50	104	144	590	402	29	460	98	2460	0	1	1	0
APPROACH %'s :	72.76%	18.87%	8.37%	30.94%	22.42%	46.64%	12.68%	51.94%	35.39%	4.94%	78.36%	16.70%					

PEAK HR START TIME :	400 PM												TOTAL
PEAK HR VOL :	131	27	17	26	12	40	53	205	134	17	172	31	865
PEAK HR FACTOR :		0.858			0.929			0.867			0.917		0.883

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-010 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Polk St			Polk St			I-210 WB Ramps			I-210 WB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	0	2	0	0.5	0.5	1	
7:00 AM	42	54	0	0	163	57	0	0	0	63	0	13	392
7:15 AM	59	66	0	0	178	89	0	0	0	105	1	24	522
7:30 AM	57	100	0	0	182	84	0	0	0	123	0	31	577
7:45 AM	44	142	0	0	190	65	0	0	0	134	0	35	610
8:00 AM	58	102	0	0	102	45	0	0	0	83	1	35	426
8:15 AM	29	52	0	0	100	31	0	0	0	73	0	26	311
8:30 AM	28	61	0	0	74	28	0	0	0	53	0	23	267
8:45 AM	36	42	0	0	81	22	0	0	0	68	1	19	269
9:00 AM	21	44	0	0	70	19	0	0	0	52	0	15	221
9:15 AM	23	37	0	0	67	9	0	0	0	51	0	17	204
9:30 AM	25	40	0	0	70	18	0	0	0	53	1	24	231
9:45 AM	29	45	0	0	74	14	0	0	0	39	0	14	215
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	451	785	0	0	1351	481	0	0	0	897	4	276	4245
APPROACH %'s :	36.49%	63.51%	0.00%	0.00%	73.74%	26.26%	#DIV/0!	#DIV/0!	#DIV/0!	76.21%	0.34%	23.45%	
PEAK HR START TIME :	715 AM												TOTAL
PEAK HR VOL :	218	410	0	0	652	283	0	0	0	445	2	125	2135
PEAK HR FACTOR :		0.844			0.875			0.000			0.846		0.875

UTURNS	NB	SB	EB	WB
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	1	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
TOTAL VOLUMES :	1	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-010 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Polk St			Polk St			I-210 WB Ramps			I-210 WB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	0	2	0	0	2	0	0.5	0.5	1	
3:00 PM	48	77	0	0	68	18	0	0	0	129	0	32	372
3:15 PM	35	88	0	0	74	27	0	0	0	115	0	57	396
3:30 PM	41	90	0	0	103	18	0	0	0	109	0	59	420
3:45 PM	35	103	0	0	108	24	0	0	0	97	0	57	424
4:00 PM	63	85	0	0	86	13	0	0	0	125	0	57	429
4:15 PM	48	111	0	0	83	21	0	0	0	132	0	58	453
4:30 PM	45	101	0	0	88	24	0	0	0	126	1	53	438
4:45 PM	48	119	0	0	100	21	0	0	0	126	0	60	474
5:00 PM	48	118	0	0	107	22	0	0	0	133	0	69	497
5:15 PM	38	120	0	0	105	27	0	0	0	146	1	62	499
5:30 PM	51	134	0	0	101	35	0	0	0	131	0	48	500
5:45 PM	49	100	0	0	121	20	0	0	0	137	0	68	495
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	549	1246	0	0	1144	270	0	0	0	1506	2	680	5397
APPROACH %'s :	30.58%	69.42%	0.00%	0.00%	80.91%	19.09%	#DIV/0!	#DIV/0!	#DIV/0!	68.83%	0.09%	31.08%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	186	472	0	0	434	104	0	0	0	547	1	247	1991
PEAK HR FACTOR :		0.889			0.954			0.000			0.951		0.996

UTURNS	NB	SB	EB	WB
LANES:	0	0	0	0
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	1	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	0	0	0
5:15 PM	1	0	0	0
5:30 PM	0	0	0	0
5:45 PM	1	0	0	0
TOTAL VOLUMES :	3	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-011 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Polk St			Polk St			I-210 EB Ramps			I-210 EB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	1	2	0	0	0	0	0.5	0.5	1	
7:00 AM	0	76	181	96	123	0	21	1	87	0	0	0	585
7:15 AM	0	107	183	78	211	0	22	0	70	0	0	0	671
7:30 AM	0	127	192	68	223	0	30	0	55	0	0	0	695
7:45 AM	0	155	199	81	252	0	33	2	47	0	0	0	769
8:00 AM	0	114	147	57	123	0	38	0	36	0	0	0	515
8:15 AM	0	69	146	60	116	0	10	0	31	0	0	0	432
8:30 AM	0	81	103	44	79	0	10	0	30	0	0	0	347
8:45 AM	0	66	104	40	110	0	10	0	38	0	0	0	368
9:00 AM	0	52	89	36	86	0	12	0	27	0	0	0	302
9:15 AM	0	52	73	40	77	0	9	0	32	0	0	0	283
9:30 AM	0	60	101	40	85	0	7	1	36	0	0	0	330
9:45 AM	0	66	75	35	74	0	7	0	33	0	0	0	290
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	1025	1593	675	1559	0	209	4	522	0	0	0	5587
APPROACH %'s :	0.00%	39.15%	60.85%	30.21%	69.79%	0.00%	28.44%	0.54%	71.02%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	700 AM												TOTAL
PEAK HR VOL :	0	465	755	323	809	0	106	3	259	0	0	0	2720
PEAK HR FACTOR :		0.862			0.850			0.844			0.000		0.884

UTURNS	NB	SB	EB	WB
7:00 AM	0	0	0	0
7:15 AM	0	0	0	0
7:30 AM	0	0	0	0
7:45 AM	0	0	0	0
8:00 AM	0	0	0	0
8:15 AM	0	0	0	0
8:30 AM	0	0	0	0
8:45 AM	0	0	0	0
9:00 AM	0	0	0	0
9:15 AM	0	0	0	0
9:30 AM	0	0	0	0
9:45 AM	0	0	0	0
TOTAL VOLUMES :	0	0	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-011 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Polk St			Polk St			I-210 EB Ramps			I-210 EB Ramps			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	1	2	0	0	0	0	0.5	0.5	1	
3:00 PM	0	107	110	27	171	0	21	0	56	0	0	0	492
3:15 PM	0	115	125	25	162	0	15	1	47	0	0	0	490
3:30 PM	0	101	97	50	164	0	19	2	39	0	0	0	472
3:45 PM	0	103	95	45	161	0	35	1	73	0	0	0	513
4:00 PM	0	142	121	30	179	0	13	0	48	0	0	0	533
4:15 PM	0	119	113	22	188	0	34	1	46	0	0	0	523
4:30 PM	0	128	125	46	172	0	28	0	43	0	0	0	542
4:45 PM	0	126	108	44	187	0	31	0	46	0	0	0	542
5:00 PM	0	145	122	48	186	0	25	0	55	0	0	0	581
5:15 PM	0	123	124	43	201	0	37	0	68	0	0	0	596
5:30 PM	0	151	116	45	189	0	27	0	60	0	0	0	588
5:45 PM	0	119	127	46	213	0	31	0	62	0	0	0	598
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	0	1479	1383	471	2173	0	316	5	643	0	0	0	6470
APPROACH %'s :	0.00%	51.68%	48.32%	17.81%	82.19%	0.00%	32.78%	0.52%	66.70%	#DIV/0!	#DIV/0!	#DIV/0!	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	0	538	489	182	789	0	120	0	245	0	0	0	2363
PEAK HR FACTOR :		0.962			0.937			0.869			0.000		0.988

UTURNS	NB	SB	EB	WB
3:00 PM	0	0	0	0
3:15 PM	0	0	0	0
3:30 PM	0	0	0	0
3:45 PM	0	0	0	0
4:00 PM	0	0	0	0
4:15 PM	0	0	0	0
4:30 PM	0	0	0	0
4:45 PM	0	0	0	0
5:00 PM	0	1	0	0
5:15 PM	0	0	0	0
5:30 PM	0	0	0	0
5:45 PM	0	0	0	0
TOTAL	NB	SB	EB	WB
	0	1	0	0

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-012 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

AM

NS/EW Streets:	Polk St			Polk St			Foothill Blvd			Foothill Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
7:00 AM	9	109	42	68	107	32	95	99	17	43	44	58	723
7:15 AM	7	137	45	64	143	76	90	116	24	35	76	56	869
7:30 AM	17	148	38	44	145	76	116	156	22	33	87	59	941
7:45 AM	28	177	61	42	170	97	103	144	19	39	94	61	1035
8:00 AM	18	115	49	31	79	47	79	106	14	20	67	64	689
8:15 AM	18	119	34	44	74	22	58	75	10	22	49	33	558
8:30 AM	9	91	17	29	51	30	56	60	6	18	53	36	456
8:45 AM	10	82	29	36	75	32	51	55	19	22	35	35	481
9:00 AM	2	55	19	27	56	25	45	68	6	24	48	40	415
9:15 AM	4	61	26	31	60	20	35	44	7	18	42	31	379
9:30 AM	5	60	27	34	50	29	51	64	7	20	47	44	438
9:45 AM	4	62	34	32	56	21	37	53	13	31	49	32	424
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	131	1216	421	482	1066	507	816	1040	164	325	691	549	7408
APPROACH %'s :	7.41%	68.78%	23.81%	23.45%	51.87%	24.67%	40.40%	51.49%	8.12%	20.77%	44.15%	35.08%	
PEAK HR START TIME :	700 AM												TOTAL
PEAK HR VOL :	61	571	186	218	565	281	404	515	82	150	301	234	3568
PEAK HR FACTOR :		0.769			0.861			0.851			0.883		0.862

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	1
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	0	0	1

CONTROL : Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 16-5115-012 **Day:** Tuesday

City: Sylmar **Date:** 3/8/2016

PM

NS/EW Streets:	Polk St			Polk St			Foothill Blvd			Foothill Blvd			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	0	1	2	0	1	2	0	1	2	0	
3:00 PM	11	98	33	63	111	47	43	88	8	39	77	65	683
3:15 PM	15	107	40	59	101	46	61	70	10	39	81	70	699
3:30 PM	6	95	40	52	104	49	52	105	10	49	57	46	665
3:45 PM	13	90	33	68	107	50	60	79	8	38	84	58	688
4:00 PM	18	131	45	59	107	54	52	82	17	44	91	76	776
4:15 PM	12	115	53	51	128	59	52	97	5	44	78	59	753
4:30 PM	16	136	62	49	99	62	67	87	19	36	100	61	794
4:45 PM	16	114	50	44	127	59	53	90	12	42	108	66	781
5:00 PM	11	147	52	52	127	63	55	95	15	32	84	64	797
5:15 PM	21	100	54	76	135	50	73	89	14	47	95	68	822
5:30 PM	20	135	54	72	117	68	48	91	13	35	102	81	836
5:45 PM	14	124	59	67	124	74	44	89	14	49	90	65	813
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	173	1392	575	712	1387	681	660	1062	145	494	1047	779	9107
APPROACH %'s :	8.08%	65.05%	26.87%	25.61%	49.89%	24.50%	35.35%	56.88%	7.77%	21.29%	45.13%	33.58%	
PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	66	506	219	267	503	255	220	364	56	163	371	278	3268
PEAK HR FACTOR :		0.942			0.967			0.909			0.931		0.977

UTURNS			
NB	SB	EB	WB
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
NB	SB	EB	WB
0	0	0	0

CONTROL : Signalized

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5421-001
N/S Street: Bledsoe St
E/W Street: Glenoaks Blvd
DATE: 6/9/2016
CITY: Sylmar

DAY: Thursday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	1	1	0	2	0	2
7:15 AM	0	0	0	4	0	0	0	2
7:30 AM	1	1	0	13	0	3	0	4
7:45 AM	0	1	1	10	0	0	0	3
8:00 AM	0	0	0	4	0	0	0	3
8:15 AM	0	0	0	1	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	2	0	0	0
9:30 AM	0	1	0	0	0	0	1	0
9:45 AM	0	0	1	0	0	0	0	0
TOTALS	**1**	**3**	**3**	**33**	**2**	**7**	**1**	**14**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**2**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	2	1	0	0	0	0
3:15 PM	0	0	15	0	0	0	0	0
3:30 PM	1	0	21	0	1	0	4	3
3:45 PM	0	0	10	0	0	1	7	0
4:00 PM	0	0	12	1	0	0	2	0
4:15 PM	0	1	1	0	0	0	2	0
4:30 PM	0	1	1	0	0	0	0	0
4:45 PM	1	0	1	0	0	1	0	0
5:00 PM	0	0	1	1	0	0	0	0
5:15 PM	0	0	2	0	1	0	0	0
5:30 PM	0	1	1	0	1	0	0	2
5:45 PM	0	0	1	2	0	0	0	0
TOTALS	**2**	**3**	**68**	**5**	**3**	**2**	**15**	**5**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	1	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	2	0	1	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**1**	**0**	**1**	**0**	**0**	**4**	**0**	**1**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-001
N/S Street: Roxford St
E/W Street: I-210 WB Ramps
DATE: 3/8/2016 DAY: Tuesday
CITY: Sylmar

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	1	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	3	2	0	0
9:00 AM	0	0	0	0	2	1	0	0
9:15 AM	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**5**	**5**	**1**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	3	0	0
4:30 PM	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	2	0	2	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**2**	**5**	**3**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	3	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-002
N/S Street: Roxford St
E/W Street: I-210 EB Ramps
DATE: 3/8/2016
CITY: Sylmar

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	3	2	0	0
9:00 AM	0	0	0	0	2	1	0	0
9:15 AM	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**5**	**4**	**1**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	1	0	0	1	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	1	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	3	1	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	2	0	1	0
5:30 PM	0	0	0	0	0	1	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**2**	**4**	**2**	**1**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	2	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
TOTALS	**0**	**4**	**0**	**0**	**2**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-003
N/S Street: Roxford St
E/W Street: Foothill Blvd
DATE: 3/8/2016
CITY: Sylmar

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	1	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0
7:30 AM	1	0	0	0	0	0	0	0
7:45 AM	0	0	3	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	1	0	0	0	0
8:30 AM	2	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	2	0	0	0	0	0	0
9:15 AM	0	0	1	0	0	0	0	0
9:30 AM	2	0	0	0	0	2	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**5**	**2**	**4**	**2**	**1**	**2**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	1	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0
9:00 AM	0	0	0	0	0	1	0	2	0	0	0	0
9:15 AM	0	0	0	0	0	1	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**1**	**2**	**1**	**2**	**0**	**1**	**2**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	2	0	0
3:45 PM	0	1	1	0	0	0	0	0
4:00 PM	0	1	0	0	0	0	0	1
4:15 PM	0	0	1	0	0	2	0	1
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	2	0	0	0	1	0	2
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	4	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0
TOTALS	**0**	**5**	**2**	**0**	**4**	**6**	**0**	**4**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	2	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	1	0	0	0	0	1	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	1	0	0	1	0
TOTALS	**0**	**2**	**1**	**0**	**0**	**1**	**0**	**6**	**0**	**0**	**2**	**1**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-004
N/S Street: Roxford St
E/W Street: Glenoaks Blvd
DATE: 3/8/2016
CITY: Sylmar

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	3	0	2	0	0	2	0	0
7:15 AM	0	2	2	1	0	18	0	0
7:30 AM	8	3	0	2	2	20	3	0
7:45 AM	0	0	0	1	4	2	0	0
8:00 AM	0	1	1	2	0	2	1	1
8:15 AM	1	0	0	0	0	0	0	0
8:30 AM	3	0	1	0	4	2	0	0
8:45 AM	1	1	0	0	1	0	1	0
9:00 AM	0	0	1	0	0	0	0	0
9:15 AM	0	0	0	0	1	0	0	0
9:30 AM	1	0	0	0	1	1	1	3
9:45 AM	1	1	0	0	0	0	0	1
TOTALS	**18**	**8**	**7**	**6**	**13**	**47**	**6**	**5**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	2	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:30 AM	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
TOTALS	**0**	**2**	**0**	**0**	**2**	**1**	**0**	**0**	**1**	**0**	**2**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	1	1	2	4	0	3	2	2
3:15 PM	1	0	0	1	0	0	2	1
3:30 PM	0	2	2	6	0	0	1	3
3:45 PM	0	0	2	9	4	3	2	0
4:00 PM	0	6	1	3	0	1	1	4
4:15 PM	1	3	2	2	6	0	2	3
4:30 PM	5	1	0	7	0	0	2	2
4:45 PM	0	0	1	3	1	0	1	1
5:00 PM	0	0	0	3	1	0	6	2
5:15 PM	0	1	2	1	2	1	0	1
5:30 PM	0	1	0	0	1	0	1	0
5:45 PM	5	8	1	1	0	2	0	2
TOTALS	**13**	**23**	**13**	**40**	**15**	**10**	**20**	**21**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	1	1	0	0	0
3:30 PM	0	0	1	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	1	0	1	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**3**	**2**	**0**	**1**	**0**	**0**	**1**	**1**	**0**	**1**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-005
N/S Street: Roxford St
E/W Street: San Fernando Rd
DATE: 3/8/2016 DAY: Tuesday
CITY: Sylmar

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	3	0	0	3	0	2	0
7:15 AM	0	6	0	0	2	1	1	2
7:30 AM	0	3	1	1	0	0	1	2
7:45 AM	0	0	1	0	0	0	1	0
8:00 AM	0	0	0	0	0	1	0	0
8:15 AM	0	3	1	1	0	0	0	1
8:30 AM	0	0	2	1	0	3	0	1
8:45 AM	0	0	0	1	0	1	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	1	0	2	0	0
TOTALS	**0**	**15**	**5**	**5**	**5**	**8**	**5**	**6**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	1	0	0	0	1	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	1	0	2	0	0
3:15 PM	0	0	1	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	1	0	0	0	0	0	0	0
4:00 PM	2	0	1	0	0	1	0	1
4:15 PM	0	0	0	0	1	2	0	0
4:30 PM	2	1	1	0	0	1	0	2
4:45 PM	0	0	1	0	1	0	0	0
5:00 PM	0	0	4	1	0	0	0	1
5:15 PM	0	0	0	0	0	1	0	0
5:30 PM	0	1	0	0	0	2	0	0
5:45 PM	0	0	1	1	0	2	0	0
TOTALS	**5**	**2**	**9**	**3**	**2**	**11**	**0**	**4**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**2**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-006
N/S Street: Roxford St
E/W Street: Encinitas Ave
DATE: 3/8/2016
CITY: Sylmar

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0
8:15 AM	0	0	0	0	1	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	1	0	0	0
9:15 AM	0	0	0	0	0	1	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**3**	**1**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	2	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	2	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0
5:00 PM	0	0	0	0	0	2	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	2	1	0	0
5:45 PM	0	0	0	0	1	1	0	0
TOTALS	**0**	**0**	**0**	**0**	**9**	**4**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-007
N/S Street: Roxford St
E/W Street: I-5 EB Ramps
DATE: 3/8/2016 DAY: Tuesday
CITY: Sylmar

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-008
N/S Street: Bledsoe St
E/W Street: Olive View Dr
DATE: 3/8/2016
CITY: Sylmar

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	1	0	0	2	0	2	0
7:15 AM	1	2	0	0	0	0	0	0
7:30 AM	0	1	0	0	0	0	0	0
7:45 AM	2	1	0	0	0	0	4	0
8:00 AM	0	0	0	0	0	0	0	0
8:15 AM	0	3	1	0	0	1	1	0
8:30 AM	0	0	1	0	0	0	1	0
8:45 AM	0	0	0	1	0	0	0	0
9:00 AM	0	1	0	0	0	0	1	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	1	0	0	0	0	1	0
TOTALS	**3**	**10**	**2**	**1**	**2**	**1**	**10**	**0**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	1	0	0	1	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**1**	**1**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	1	1	1	1	0	0	2	2
3:15 PM	0	0	0	0	0	0	1	1
3:30 PM	8	2	1	1	0	4	0	2
3:45 PM	2	0	0	0	0	0	0	1
4:00 PM	1	2	1	0	1	0	1	0
4:15 PM	1	0	0	0	0	0	0	1
4:30 PM	1	1	0	0	0	0	1	2
4:45 PM	2	3	0	0	0	1	0	3
5:00 PM	0	0	0	0	2	0	0	2
5:15 PM	4	1	0	0	0	0	0	1
5:30 PM	3	2	0	0	2	3	0	1
5:45 PM	3	0	0	1	0	1	0	1
TOTALS	**26**	**12**	**3**	**3**	**5**	**9**	**5**	**17**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	1	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	1	0	0
4:15 PM	0	0	0	0	0	0	0	0	1	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	2	0	0	0
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**5**	**1**	**0**	**1**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-009
N/S Street: Bledsoe St
E/W Street: Foothill Blvd
DATE: 3/8/2016
CITY: Sylmar

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	1	2	2	1	2	1	0	1
7:15 AM	0	0	2	0	1	6	0	0
7:30 AM	0	0	3	3	0	15	0	0
7:45 AM	0	0	1	0	2	8	2	0
8:00 AM	0	1	0	0	2	2	0	1
8:15 AM	0	0	1	0	0	0	0	0
8:30 AM	1	0	0	1	0	2	1	0
8:45 AM	3	1	0	0	0	0	1	0
9:00 AM	0	0	1	1	2	0	1	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	2	0	0	0	1	1	1
9:45 AM	0	1	3	0	1	1	0	0
TOTALS	**5**	**7**	**13**	**6**	**10**	**36**	**6**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	2	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**3**	**0**	**0**	**3**	**1**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	1	2	0	0	1
3:15 PM	0	0	0	0	0	0	1	1
3:30 PM	0	0	0	1	0	2	0	0
3:45 PM	0	0	0	1	3	2	0	0
4:00 PM	0	0	1	1	4	1	0	0
4:15 PM	0	1	0	0	0	1	1	1
4:30 PM	2	0	1	0	0	0	2	0
4:45 PM	2	0	1	4	0	2	0	0
5:00 PM	0	0	0	1	1	0	0	0
5:15 PM	0	0	0	1	1	3	0	0
5:30 PM	0	0	2	0	4	0	0	0
5:45 PM	0	1	2	4	1	2	1	0
TOTALS	**4**	**2**	**7**	**14**	**16**	**13**	**5**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	1	0	0	0	0	2	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	1	0	0	0	0	0	0	1	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	1	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	1	1	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	1	0	0	0	0	0	0	0	0	1	0
TOTALS	**0**	**1**	**1**	**1**	**1**	**0**	**0**	**4**	**1**	**1**	**2**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5421-002
N/S Street: Glenoaks Blvd
E/W Street: Foothill Blvd
DATE: 6/9/2016 DAY: Thursday
CITY: Sylmar

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	1	1	0	0	0	0
7:15 AM	0	0	2	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	2
7:45 AM	0	0	1	1	0	0	0	0
8:00 AM	0	0	3	1	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0
8:30 AM	0	0	0	0	1	0	2	1
8:45 AM	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	1	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	1	0	0	1	1
9:45 AM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**7**	**5**	**2**	**1**	**3**	**4**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0
9:00 AM	0	0	0	0	0	1	0	1	0	0	1	0
9:15 AM	0	0	0	0	0	0	0	1	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**1**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**0**	**0**	**3**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	1	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0
3:45 PM	0	0	1	0	1	0	0	0
4:00 PM	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	1	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	1	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0
5:30 PM	0	0	1	5	0	0	0	0
5:45 PM	0	0	0	1	0	0	0	2
TOTALS	**0**	**0**	**3**	**9**	**1**	**0**	**0**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	0	0	0	0	0	0	0	1	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	1	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	2	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	1	0	0	0
5:00 PM	0	0	0	0	0	1	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**1**	**0**	**3**	**2**	**0**	**2**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-010
N/S Street: Polk St
E/W Street: I-210 WB Ramps
DATE: 3/8/2016 DAY: Tuesday
CITY: Sylmar

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	1	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	1
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	1	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**2**	**2**	**2**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	4	0	0
3:45 PM	0	0	0	0	1	1	0	0
4:00 PM	0	0	0	0	0	0	1	0
4:15 PM	0	0	0	0	1	0	1	0
4:30 PM	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	2	0	0	0
5:15 PM	0	0	0	0	2	4	1	1
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**6**	**11**	**3**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**2**	**0**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-011
N/S Street: Polk St
E/W Street: I-210 EB Ramps
DATE: 3/8/2016 DAY: Tuesday
CITY: Sylmar

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	1	0
7:30 AM	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	1	0
8:15 AM	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	1
9:30 AM	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	1	0	0
TOTALS	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**2**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	1	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**1**	**0**	**0**	**1**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	1	0	0
3:30 PM	0	0	0	0	0	3	0	0
3:45 PM	0	0	0	0	1	2	1	0
4:00 PM	0	0	0	0	0	2	0	0
4:15 PM	0	0	0	0	3	0	1	0
4:30 PM	0	0	0	0	0	0	0	2
4:45 PM	0	0	0	0	0	1	0	0
5:00 PM	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	2	0	1
5:30 PM	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0
TOTALS	**0**	**0**	**0**	**0**	**4**	**11**	**2**	**3**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	1	0	0	1	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	1	0	1	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0
4:45 PM	0	1	1	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**0**	**2**	**2**	**0**	**3**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

PREPARED BY NATIONAL DATA & SURVEYING SERVICES

PROJECT#: 16-5115-012
N/S Street: Polk St
E/W Street: Foothill Blvd
DATE: 3/8/2016
CITY: Sylmar

DAY: Tuesday

A M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
7:00 AM	0	3	0	7	0	3	0	4
7:15 AM	2	2	6	10	0	15	1	2
7:30 AM	1	1	4	9	0	7	0	2
7:45 AM	6	1	7	5	4	0	1	0
8:00 AM	2	1	3	3	1	2	3	2
8:15 AM	1	2	1	3	1	1	1	0
8:30 AM	0	3	3	2	1	2	1	0
8:45 AM	0	0	2	1	0	0	0	1
9:00 AM	0	0	1	3	0	0	0	0
9:15 AM	1	0	1	2	0	0	0	1
9:30 AM	0	1	0	2	1	1	0	0
9:45 AM	0	1	1	0	2	1	0	0
TOTALS	**13**	**15**	**29**	**47**	**10**	**32**	**7**	**12**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
7:00 AM	0	0	1	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	1	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	0	0	0	0	1	0	0	2	0
8:45 AM	1	1	0	0	0	0	0	1	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	2	1	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS	**2**	**1**	**1**	**0**	**2**	**0**	**0**	**4**	**1**	**0**	**3**	**0**

P M

PEDESTRIANS

TIME	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG	
	EB	WB	EB	WB	NB	SB	NB	SB
3:00 PM	1	0	5	8	5	1	1	1
3:15 PM	2	4	5	2	1	1	0	2
3:30 PM	2	0	3	5	2	8	3	2
3:45 PM	1	1	1	2	1	2	2	1
4:00 PM	0	1	0	1	1	0	0	1
4:15 PM	0	0	2	13	3	0	4	0
4:30 PM	0	1	0	3	1	1	0	0
4:45 PM	1	1	5	3	1	1	1	1
5:00 PM	1	2	6	7	4	2	1	1
5:15 PM	2	2	2	4	3	2	1	0
5:30 PM	1	3	1	2	3	0	1	1
5:45 PM	0	0	6	10	1	0	0	0
TOTALS	**11**	**15**	**36**	**60**	**26**	**18**	**14**	**10**

BIKES

TIME	NB			SB			EB			WB		
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR
3:00 PM	0	0	0	1	0	0	1	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	0	0	0	1	0
3:45 PM	0	0	0	0	0	0	0	3	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	1	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	1	0	0
4:30 PM	0	0	1	0	1	0	0	1	0	0	0	0
4:45 PM	0	1	1	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	1	0	0	0	0
TOTALS	**0**	**1**	**2**	**1**	**2**	**0**	**1**	**9**	**0**	**2**	**1**	**0**

APPENDIX C: LOS ANALYSIS WORKSHEETS

Level of Service Workheet
(Circular 212 Method)

I/S #:
1

PROJECT TITLE: <Project Name>
North-South Street: Glenoaks Blvd **East-West Street:** Foothill Blvd
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	111	1	**111**	143	1	**143**
	Left-Through		0			0	
	Through	13	1	13	29	1	24
	Through-Right		1			1	
	Right	12	0	12	18	0	18
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	38	1	38	28	1	28
	Left-Through		0			0	
	Through	53	1	53	13	1	13
	Through-Right		1			1	
	Right	112	0	**106**	44	0	**15**
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	13	1	13	58	1	**58**
	Left-Through		0			0	
	Through	375	1	**375**	245	1	245
	Through-Right		0			0	
	Right	180	1	125	146	1	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	10	1	**10**	18	1	18
	Left-Through		0			0	
	Through	182	0	194	226	0	**259**
	Through-Right		1			1	
	Right	12	0	0	33	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	217		*North-South:*	158
			East-West:	385		*East-West:*	317
			SUM:	602		*SUM:*	475
VOLUME/CAPACITY *(V/C)* RATIO:				0.401			0.317
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.301**			**0.217**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
2

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-210 WB Ramps
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	377	1	**377**		219	1	**219**	
	Left-Through		0				0		
	Through	865	2	433		284	2	142	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	0	0	0		0	0	0	
	Left-Through		0				0		
	Through	228	1	228		403	1	403	
	Through-Right		1				1		
	Right	372	0	**372**		685	0	**685**	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	0	0	0		0	0	0	
	Left-Through		0				0		
	Through	0	0	**0**		0	0	**0**	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	476	1	**364**		277	1	**197**	
	Left-Through		0				0		
	Through	3	0	364		2	0	197	
	Through-Right		0				0		
	Right	249	0	0		114	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	749			*North-South:*	904	
			East-West:	364			*East-West:*	197	
			SUM:	1113			*SUM:*	1101	
VOLUME/CAPACITY *(V/C)* RATIO:				0.742				0.734	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.642**				**0.634**	
LEVEL OF SERVICE (LOS):				**B**				**B**	

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
3

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-210 EB Ramps
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	766	1		**538**	348	1		**336**
	Through-Right		1				1		
	Right	309	0		309	324	0		324
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	120	1		**120**	209	1		**209**
	Left-Through		0				0		
	Through	581	2		291	457	2		229
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	470	0		470	172	0		172
	Left-Through		1				1		
	Through	0	0		**470**	2	0		174
	Through-Right		0				0		
	Right	400	1		400	252	1		**252**
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	0	0		**0**	0	0		**0**
	Left-Through		0				0		
	Through	0	0		0	0	0		0
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	658			*North-South:*	545
				East-West:	470			*East-West:*	252
				SUM:	1128			*SUM:*	797
VOLUME/CAPACITY *(V/C)* RATIO:					0.792				0.559
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.692**				**0.459**
LEVEL OF SERVICE (LOS):					**B**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
4

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Foothill Blvd
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	3	NB-- 0	SB--	3
		EB-- 3	WB--	3	EB-- 3	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	13	1	**13**	16	1	16
	Left-Through		0			0	
	Through	517	1	517	493	1	**493**
	Through-Right		0			0	
	Right	71	1	9	88	1	56
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	122	1	122	116	1	**116**
	Left-Through		0			0	
	Through	782	1	**782**	443	1	443
	Through-Right		0			0	
	Right	85	1	0	152	1	62
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	297	1	**297**	90	1	**90**
	Left-Through		0			0	
	Through	186	1	186	176	1	176
	Through-Right		0			0	
	Right	39	1	26	19	1	3
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	124	1	124	65	1	65
	Left-Through		0			0	
	Through	116	1	**116**	158	1	**158**
	Through-Right		0			0	
	Right	238	1	116	91	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	795		*North-South:*	609
			East-West:	413		*East-West:*	248
			SUM:	1208		*SUM:*	857
VOLUME/CAPACITY *(V/C)* RATIO:				0.879			0.623
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.779**			**0.523**
LEVEL OF SERVICE (LOS):				**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
5

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Glenoaks Blvd
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0		SB--	0	NB-- 0	SB--	0
	EB-- 0		WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0

	MOVEMENT	AM Volume	AM No. of Lanes	AM Lane Volume	PM Volume	PM No. of Lanes	PM Lane Volume
NORTHBOUND	Left	37	1	37	97	1	97
	Left-Through		0			0	
	Through	336	1	**336**	418	1	**418**
	Through-Right		0			0	
	Right	245	1	138	203	1	143
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	406	1	**406**	162	1	**162**
	Left-Through		0			0	
	Through	536	1	536	308	1	308
	Through-Right		0			0	
	Right	18	1	4	19	1	5
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	29	1	29	29	1	**29**
	Left-Through		0			0	
	Through	254	1	**176**	124	1	84
	Through-Right		1			1	
	Right	97	0	97	44	0	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	214	1	**214**	120	1	120
	Left-Through		0			0	
	Through	136	1	136	217	1	**176**
	Through-Right		1			1	
	Right	174	0	0	135	0	135
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	742		*North-South:*	580
			East-West:	390		*East-West:*	205
			SUM:	1132		*SUM:*	785
VOLUME/CAPACITY *(V/C)* RATIO:				0.755			0.523
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.655**			**0.423**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
6

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** San Fernando Road
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	2	NB-- 0	SB--	2
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	149	1	**149**	76	1	76
	Left-Through		0			0	
	Through	603	1	356	495	1	**315**
	Through-Right		1			1	
	Right	109	0	109	135	0	135
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	135	1	135	119	1	**119**
	Left-Through		0			0	
	Through	642	1	**452**	534	1	320
	Through-Right		1			1	
	Right	261	0	261	106	0	106
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	101	1	101	186	1	186
	Left-Through		0			0	
	Through	308	1	**188**	233	1	**204**
	Through-Right		1			1	
	Right	68	0	68	175	0	175
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	163	1	**163**	180	1	**180**
	Left-Through		0			0	
	Through	213	1	154	277	1	189
	Through-Right		1			1	
	Right	95	0	95	100	0	100
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	601		*North-South:*	434
			East-West:	351		*East-West:*	384
			SUM:	952		*SUM:*	818
VOLUME/CAPACITY *(V/C)* RATIO:				0.692			0.595
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.592**			**0.495**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
7

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Encinitas Ave/I-5 NB Ramps
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	9	1	9	13	1	**13**
	Left-Through		0			0	
	Through	872	1	**592**	605	1	536
	Through-Right		1			1	
	Right	312	0	312	466	0	466
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	62	1	**62**	44	1	44
	Left-Through		0			0	
	Through	649	1	376	1021	1	**654**
	Through-Right		1			1	
	Right	103	0	103	286	0	286
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	399	1	**399**	51	1	51
	Left-Through		0			0	
	Through	135	0	251	12	0	**82**
	Through-Right		1			1	
	Right	116	0	0	70	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	465	1	**256**	393	1	216
	Left-Through		1			1	
	Through	175	0	200	192	0	**218**
	Through-Right		1			1	
	Right	25	0	25	26	0	26
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	654		*North-South:*	667
			East-West:	655		*East-West:*	300
			SUM:	1309		*SUM:*	967
VOLUME/CAPACITY *(V/C)* RATIO:				0.919			0.679
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.819**			**0.579**
LEVEL OF SERVICE (LOS):				**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
8

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-5 SB Ramps
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	32	1	32	17	1	17
	Through-Right		0			0	
	Right	641	1	**641**	122	1	**122**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	1159	2	**637**	1407	2	**774**
	Left-Through		0			0	
	Through	153	1	153	108	1	108
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	251	0	**251**	265	0	**265**
	Left-Through		1			1	
	Through	1	0	9	3	0	3
	Through-Right		1			1	
	Right	8	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1278		*North-South:*	896
			East-West:	251		*East-West:*	265
			SUM:	1529		*SUM:*	1161
VOLUME/CAPACITY *(V/C)* RATIO:				1.073			0.815
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.973**			**0.715**
LEVEL OF SERVICE (LOS):				**E**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Olive View Dr
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					0				0
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes		Lane Volume	Volume	No. of Lanes		Lane Volume
NORTHBOUND	Left	147	0		147	75	0		**75**
	Left-Through		0				0		
	Through	86	0		**331**	22	0		132
	Through-Right		0				0		
	Right	98	0		0	35	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	7	0		**7**	25	0		25
	Left-Through		0				0		
	Through	39	0		121	55	0		**231**
	Through-Right		0				0		
	Right	75	0		0	151	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
EASTBOUND	Left	126	0		**126**	37	0		37
	Left-Through		1				1		
	Through	146	0		165	117	0		**151**
	Through-Right		1				1		
	Right	57	0		165	147	0		151
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	61	0		61	37	0		**37**
	Left-Through		1				1		
	Through	165	0		**125**	165	0		106
	Through-Right		1				1		
	Right	23	0		125	9	0		106
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				North-South:	338			North-South:	306
				East-West:	251			East-West:	188
				SUM:	589			SUM:	494
VOLUME/CAPACITY (V/C) RATIO:					0.428				0.359
V/C LESS ATSAC/ATCS ADJUSTMENT:					0.428				0.359
LEVEL OF SERVICE (LOS):					A				A

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
10

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Foothill Blvd
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	47	1	47	25	1	25
	Left-Through		0			0	
	Through	98	1	98	42	1	42
	Through-Right		0			0	
	Right	229	1	**165**	107	1	**62**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	115	1	**115**	189	1	**189**
	Left-Through		0			0	
	Through	100	0	130	51	0	70
	Through-Right		1			1	
	Right	30	0	0	19	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	79	1	**79**	19	1	19
	Left-Through		0			0	
	Through	339	1	188	326	1	**172**
	Through-Right		1			1	
	Right	36	0	36	17	0	17
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	129	1	129	90	1	**90**
	Left-Through		0			0	
	Through	309	1	**256**	311	1	209
	Through-Right		1			1	
	Right	203	0	203	106	0	106
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	280		*North-South:*	251
			East-West:	335		*East-West:*	262
			SUM:	615		*SUM:*	513
VOLUME/CAPACITY *(V/C)* RATIO:				0.410			0.342
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.310**			**0.242**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
11

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Glenoaks Blvd
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	64	0	**64**	43	0	**43**
	Left-Through		1			1	
	Through	102	0	166	82	0	125
	Through-Right		0			0	
	Right	155	1	155	116	1	116
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	67	0	67	48	0	48
	Left-Through		0			0	
	Through	135	0	**230**	71	0	**145**
	Through-Right		0			0	
	Right	28	0	0	26	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	56	0	56	50	0	50
	Left-Through		1			1	
	Through	682	0	**473**	568	0	**382**
	Through-Right		1			1	
	Right	151	0	473	96	0	382
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	123	0	**123**	90	0	**90**
	Left-Through		1			1	
	Through	476	0	532	367	0	393
	Through-Right		1			1	
	Right	96	0	532	58	0	393
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	294		*North-South:*	188
			East-West:	596		*East-West:*	472
			SUM:	890		*SUM:*	660
VOLUME/CAPACITY *(V/C)* RATIO:				0.593			0.440
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.493**			**0.340**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
12

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** I-210 WB Ramps
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	279	1	**279**		228	1	**228**	
	Left-Through		0				0		
	Through	575	2	288		647	2	324	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	0	0	0		0	0	0	
	Left-Through		0				0		
	Through	773	1	**551**		577	1	**367**	
	Through-Right		1				1		
	Right	328	0	328		156	0	156	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	0	0	0		0	0	0	
	Left-Through		0				0		
	Through	0	0	**0**		0	0	**0**	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	551	0	551		660	0	660	
	Left-Through		1				1		
	Through	2	0	**553**		1	0	**661**	
	Through-Right		0				0		
	Right	173	1	173		288	1	288	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	830			*North-South:*	595
				East-West:	553			*East-West:*	661
				SUM:	1383			*SUM:*	1256
VOLUME/CAPACITY *(V/C)* RATIO:					0.922				0.837
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.822**				**0.737**
LEVEL OF SERVICE (LOS):					**D**				**C**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
13

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** I-210 EB Ramps
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	637	1		637	700	1		**650**
	Through-Right		1				1		
	Right	901	0		**901**	599	0		599
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	367	1		**367**	221	1		**221**
	Left-Through		0				0		
	Through	995	2		498	1005	2		503
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	154	0		154	175	0		175
	Left-Through		1				1		
	Through	3	0		157	0	0		175
	Through-Right		0				0		
	Right	309	1		**309**	299	1		**299**
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	0	0		**0**	0	0		**0**
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	1268			*North-South:*	871
				East-West:	309			*East-West:*	299
				SUM:	1577			*SUM:*	1170
VOLUME/CAPACITY *(V/C)* RATIO:					1.051				0.780
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.951**				**0.680**
LEVEL OF SERVICE (LOS):					**E**				**B**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
14

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** Foothill Blvd
Scenario: Cumulative plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	67	1	67	72	1	72
	Left-Through		0			0	
	Through	660	1	**432**	590	1	**415**
	Through-Right		1			1	
	Right	203	0	203	239	0	239
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	326	1	**326**	399	1	**399**
	Left-Through		0			0	
	Through	635	1	488	584	1	449
	Through-Right		1			1	
	Right	340	0	340	314	0	314
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	468	1	**468**	291	1	**291**
	Left-Through		0			0	
	Through	572	1	331	414	1	238
	Through-Right		1			1	
	Right	89	0	89	61	0	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	164	1	164	178	1	178
	Left-Through		0			0	
	Through	347	2	**174**	414	2	**207**
	Through-Right		0			0	
	Right	399	1	73	392	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	758		*North-South:*	814
			East-West:	642		*East-West:*	498
			SUM:	1400		*SUM:*	1312
VOLUME/CAPACITY *(V/C)* RATIO:				1.018			0.954
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.918**			**0.854**
LEVEL OF SERVICE (LOS):				**E**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
1

PROJECT TITLE: <Project Name>
North-South Street: Glenoaks Blvd **East-West Street:** Foothill Blvd
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	111	1	**111**	143	1	**143**
	Left-Through		0			0	
	Through	13	1	13	29	1	24
	Through-Right		1			1	
	Right	12	0	12	18	0	18
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	38	1	38	28	1	28
	Left-Through		0			0	
	Through	53	1	53	13	1	13
	Through-Right		1			1	
	Right	112	0	**106**	44	0	**15**
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	13	1	13	58	1	**58**
	Left-Through		0			0	
	Through	347	1	**347**	235	1	235
	Through-Right		0			0	
	Right	180	1	125	146	1	75
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	10	1	**10**	18	1	18
	Left-Through		0			0	
	Through	172	0	184	196	0	**229**
	Through-Right		1			1	
	Right	12	0	0	33	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	217		*North-South:*	158
			East-West:	357		*East-West:*	287
			SUM:	574		*SUM:*	445
VOLUME/CAPACITY *(V/C)* RATIO:				0.383			0.297
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.283**			**0.197**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
2

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-210 WB Ramps
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	377	1		**377**	219	1		**219**
	Left-Through		0				0		
	Through	667	2		334	214	2		107
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	187	1		187	286	1		286
	Through-Right		1				1		
	Right	324	0		**324**	550	0		**550**
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	0	0		**0**	0	0		**0**
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	476	1		**343**	277	1		**189**
	Left-Through		0				0		
	Through	3	0		343	2	0		189
	Through-Right		0				0		
	Right	206	0		0	99	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	701			*North-South:*	769
				East-West:	343			*East-West:*	189
				SUM:	1044			*SUM:*	958
VOLUME/CAPACITY *(V/C)* RATIO:					0.696				0.639
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.596**				**0.539**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
3

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-210 EB Ramps
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	697	1		**503**	324	1		**324**
	Through-Right		1				1		
	Right	309	0		309	324	0		324
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	104	1		**104**	164	1		**164**
	Left-Through		0				0		
	Through	556	2		278	385	2		193
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	341	0		341	126	0		126
	Left-Through		1				1		
	Through	0	0		341	2	0		128
	Through-Right		0				0		
	Right	400	1		**400**	252	1		**252**
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	0	0		**0**	0	0		**0**
	Left-Through		0				0		
	Through	0	0		0	0	0		0
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	607			*North-South:*	488
				East-West:	400			*East-West:*	252
				SUM:	1007			*SUM:*	740
VOLUME/CAPACITY *(V/C)* RATIO:					0.707				0.519
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.607**				**0.419**
LEVEL OF SERVICE (LOS):					**B**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
4

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Foothill Blvd
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	3	NB--	0	SB--	3
		EB--	3	WB--	3	EB--	3	WB--	3
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT			Volume	No. of Lanes	Lane Volume	Volume	No. of Lanes	Lane Volume
NORTHBOUND	Left		13	1	**13**	16	1	16
	Left-Through			0			0	
	Through		476	1	476	479	1	**479**
	Through-Right			0			0	
	Right		71	1	9	88	1	56
	Left-Through-Right			0			0	
	Left-Right			0			0	
SOUTHBOUND	Left		122	1	122	116	1	**116**
	Left-Through			0			0	
	Through		767	1	**767**	401	1	401
	Through-Right			0			0	
	Right		75	1	0	122	1	42
	Left-Through-Right			0			0	
	Left-Right			0			0	
EASTBOUND	Left		269	1	**269**	80	1	80
	Left-Through			0			0	
	Through		186	1	186	176	1	**176**
	Through-Right			0			0	
	Right		39	1	26	19	1	3
	Left-Through-Right			0			0	
	Left-Right			0			0	
WESTBOUND	Left		124	1	124	65	1	**65**
	Left-Through			0			0	
	Through		116	1	**116**	158	1	158
	Through-Right			0			0	
	Right		238	1	116	91	1	0
	Left-Through-Right			0			0	
	Left-Right			0			0	
CRITICAL VOLUMES				*North-South:*	780		*North-South:*	595
				East-West:	385		*East-West:*	241
				SUM:	1165		*SUM:*	836
VOLUME/CAPACITY *(V/C)* RATIO:					0.847			0.608
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.747**			**0.508**
LEVEL OF SERVICE (LOS):					**C**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
5

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Glenoaks Blvd
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	37	1	37	97	1	97
	Left-Through		0			0	
	Through	301	1	**301**	406	1	**406**
	Through-Right		0			0	
	Right	245	1	138	203	1	143
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	404	1	**404**	156	1	**156**
	Left-Through		0			0	
	Through	523	1	523	272	1	272
	Through-Right		0			0	
	Right	18	1	4	19	1	5
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	29	1	29	29	1	29
	Left-Through		0			0	
	Through	254	1	**176**	124	1	**84**
	Through-Right		1			1	
	Right	97	0	97	44	0	44
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	214	1	**214**	120	1	**120**
	Left-Through		0			0	
	Through	136	1	136	217	1	175
	Through-Right		1			1	
	Right	168	0	0	133	0	133
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	705		*North-South:*	562
			East-West:	390		*East-West:*	204
			SUM:	1095		*SUM:*	766
VOLUME/CAPACITY *(V/C)* RATIO:				0.730			0.511
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.630**			**0.411**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
6

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** San Fernando Road
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		*NB--*	0	*SB--*	2	*NB--*	0	*SB--*	2
		EB--	0	*WB--*	0	*EB--*	0	*WB--*	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**		**Volume**	**No. of Lanes**	**Lane Volume**	
NORTHBOUND	Left	149	1	**149**		76	1	76	
	Left-Through		0				0		
	Through	574	1	342		485	1	**310**	
	Through-Right		1				1		
	Right	109	0	109		135	0	135	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	133	1	133		113	1	**113**	
	Left-Through		0				0		
	Through	631	1	**446**		504	1	305	
	Through-Right		1				1		
	Right	261	0	261		106	0	106	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	101	1	101		186	1	186	
	Left-Through		0				0		
	Through	308	1	**188**		233	1	**204**	
	Through-Right		1				1		
	Right	68	0	68		175	0	175	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	163	1	**163**		180	1	**180**	
	Left-Through		0				0		
	Through	213	1	151		277	1	188	
	Through-Right		1				1		
	Right	89	0	89		98	0	98	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	595			*North-South:*	423	
			East-West:	351			*East-West:*	384	
			SUM:	946			*SUM:*	807	
VOLUME/CAPACITY *(V/C)* RATIO:				0.688				0.587	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.588**				**0.487**	
LEVEL OF SERVICE (LOS):				**A**				**A**	

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
7

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Encinitas Ave/I-5 NB Ramps
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	9	1	9	13	1	**13**
	Left-Through		0			0	
	Through	843	1	**578**	595	1	531
	Through-Right		1			1	
	Right	312	0	312	466	0	466
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	62	1	**62**	44	1	44
	Left-Through		0			0	
	Through	638	1	371	991	1	**639**
	Through-Right		1			1	
	Right	103	0	103	286	0	286
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	399	1	**399**	51	1	51
	Left-Through		0			0	
	Through	135	0	251	12	0	**82**
	Through-Right		1			1	
	Right	116	0	0	70	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	465	1	**256**	393	1	216
	Left-Through		1			1	
	Through	175	0	200	192	0	**218**
	Through-Right		1			1	
	Right	25	0	25	26	0	26
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	640		*North-South:*	652
			East-West:	655		*East-West:*	300
			SUM:	1295		*SUM:*	952
VOLUME/CAPACITY *(V/C)* RATIO:				0.909			0.668
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.809**			**0.568**
LEVEL OF SERVICE (LOS):				**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
8

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-5 SB Ramps
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	32	1	32	17	1	17
	Through-Right		0			0	
	Right	641	1	**641**	122	1	**122**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	1148	2	**631**	1377	2	**757**
	Left-Through		0			0	
	Through	153	1	153	108	1	108
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	251	0	**251**	265	0	**265**
	Left-Through		1			1	
	Through	1	0	9	3	0	3
	Through-Right		1			1	
	Right	8	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1272		*North-South:*	879
			East-West:	251		*East-West:*	265
			SUM:	1523		*SUM:*	1144
VOLUME/CAPACITY *(V/C)* RATIO:				1.069			0.803
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.969**			**0.703**
LEVEL OF SERVICE (LOS):				**E**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Olive View Dr
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		*NB--*	0	*SB--*	0	*NB--*	0	*SB--*	0
		EB--	0	*WB--*	0	*EB--*	0	*WB--*	0
ATSAC-1 or ATSAC+ATCS-2?					0				0
Override Capacity					0				0
MOVEMENT		**Volume**		**No. of Lanes**	**Lane Volume**	**Volume**		**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	125		0	125	68		0	**68**
	Left-Through			0				0	
	Through	77		0	**296**	19		0	121
	Through-Right			0				0	
	Right	94		0	0	34		0	0
	Left-Through-Right			1				1	
	Left-Right			0				0	
SOUTHBOUND	Left	6		0	**6**	22		0	22
	Left-Through			0				0	
	Through	36		0	94	46		0	**153**
	Through-Right			0				0	
	Right	52		0	0	85		0	0
	Left-Through-Right			1				1	
	Left-Right			0				0	
EASTBOUND	Left	63		0	**63**	15		0	15
	Left-Through			1				1	
	Through	115		0	114	99		0	114
	Through-Right			1				1	
	Right	50		0	114	125		0	**125**
	Left-Through-Right			0				0	
	Left-Right			0				0	
WESTBOUND	Left	60		0	60	33		0	**33**
	Left-Through			1				1	
	Through	147		0	**114**	132		0	87
	Through-Right			1				1	
	Right	20		0	114	8		0	87
	Left-Through-Right			0				0	
	Left-Right			0				0	
CRITICAL VOLUMES				*North-South:*	302			*North-South:*	221
				East-West:	177			*East-West:*	158
				SUM:	479			*SUM:*	379
VOLUME/CAPACITY *(V/C)* RATIO:					0.348				0.276
V/C LESS ATSAC/ATCS ADJUSTMENT:					0.348				0.276
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
10

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Foothill Blvd
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	47	1	47	25	1	25
	Left-Through		0			0	
	Through	95	1	95	41	1	41
	Through-Right		0			0	
	Right	229	1	**165**	107	1	**62**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	104	1	**104**	156	1	**156**
	Left-Through		0			0	
	Through	99	0	129	48	0	67
	Through-Right		1			1	
	Right	30	0	0	19	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	79	1	**79**	19	1	19
	Left-Through		0			0	
	Through	339	1	188	326	1	**172**
	Through-Right		1			1	
	Right	36	0	36	17	0	17
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	129	1	129	90	1	**90**
	Left-Through		0			0	
	Through	309	1	**240**	311	1	203
	Through-Right		1			1	
	Right	171	0	171	95	0	95
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	269		*North-South:*	218
			East-West:	319		*East-West:*	262
			SUM:	588		*SUM:*	480
VOLUME/CAPACITY *(V/C)* RATIO:				0.392			0.320
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.292**			**0.220**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
11

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Glenoaks Blvd
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	64	0	**64**	43	0	**43**
	Left-Through		1			1	
	Through	102	0	166	82	0	125
	Through-Right		0			0	
	Right	155	1	155	116	1	116
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	66	0	66	45	0	45
	Left-Through		0			0	
	Through	135	0	**229**	71	0	**142**
	Through-Right		0			0	
	Right	28	0	0	26	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	56	0	56	50	0	50
	Left-Through		1			1	
	Through	680	0	**472**	562	0	**379**
	Through-Right		1			1	
	Right	151	0	472	96	0	379
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	123	0	**123**	90	0	**90**
	Left-Through		1			1	
	Through	470	0	528	365	0	391
	Through-Right		1			1	
	Right	93	0	528	57	0	391
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	293		*North-South:*	185
			East-West:	595		*East-West:*	469
			SUM:	888		*SUM:*	654
VOLUME/CAPACITY *(V/C)* RATIO:				0.592			0.436
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.492**			**0.336**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
12

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** I-210 WB Ramps
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	279	1	**279**	228	1	**228**
	Left-Through		0			0	
	Through	574	2	287	644	2	322
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	767	1	**548**	567	1	**362**
	Through-Right		1			1	
	Right	328	0	328	156	0	156
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	531	0	531	653	0	653
	Left-Through		1			1	
	Through	2	0	**533**	1	0	**654**
	Through-Right		0			0	
	Right	164	1	164	285	1	285
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	827		*North-South:*	590
			East-West:	533		*East-West:*	654
			SUM:	1360		*SUM:*	1244
VOLUME/CAPACITY *(V/C)* RATIO:				0.907			0.829
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.807**			**0.729**
LEVEL OF SERVICE (LOS):				**D**			**C**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
13

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** I-210 EB Ramps
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	636	1	636	697	1	**638**
	Through-Right		1			1	
	Right	894	0	**894**	578	0	578
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	364	1	**364**	212	1	**212**
	Left-Through		0			0	
	Through	972	2	486	997	2	499
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	154	0	154	175	0	175
	Left-Through		1			1	
	Through	3	0	157	0	0	175
	Through-Right		0			0	
	Right	309	1	**309**	299	1	**299**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1258		*North-South:*	850
			East-West:	309		*East-West:*	299
			SUM:	1567		*SUM:*	1149
VOLUME/CAPACITY *(V/C)* RATIO:				1.045			0.766
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.945**			**0.666**
LEVEL OF SERVICE (LOS):				**E**			**B**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
14

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** Foothill Blvd
Scenario: Cumulative
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	67	1	67	72	1	72
	Left-Through		0			0	
	Through	660	1	**432**	590	1	**415**
	Through-Right		1			1	
	Right	203	0	203	239	0	239
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	326	1	**326**	399	1	**399**
	Left-Through		0			0	
	Through	635	1	476	584	1	445
	Through-Right		1			1	
	Right	317	0	317	306	0	306
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	460	1	**460**	267	1	**267**
	Left-Through		0			0	
	Through	569	1	329	405	1	233
	Through-Right		1			1	
	Right	89	0	89	61	0	61
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	164	1	164	178	1	178
	Left-Through		0			0	
	Through	338	2	**169**	411	2	**206**
	Through-Right		0			0	
	Right	399	1	73	392	1	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	758		*North-South:*	814
			East-West:	629		*East-West:*	473
			SUM:	1387		*SUM:*	1287
VOLUME/CAPACITY *(V/C)* RATIO:				1.009			0.936
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.909**			**0.836**
LEVEL OF SERVICE (LOS):				**E**			**D**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
1

PROJECT TITLE: <Project Name>
North-South Street: Glenoaks Blvd **East-West Street:** Foothill Blvd
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		*NB--*	0	*SB--*	0	*NB--*	0	*SB--*	0
		EB--	0	*WB--*	0	*EB--*	0	*WB--*	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**		**Volume**	**No. of Lanes**	**Lane Volume**	
NORTHBOUND	Left	103	1	**103**		133	1	**133**	
	Left-Through		0				0		
	Through	12	1	12		27	1	22	
	Through-Right		1				1		
	Right	11	0	11		17	0	17	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	35	1	35		26	1	26	
	Left-Through		0				0		
	Through	49	1	49		12	1	12	
	Through-Right		1				1		
	Right	104	0	**98**		41	0	**14**	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	12	1	12		54	1	**54**	
	Left-Through		0				0		
	Through	339	1	**339**		218	1	218	
	Through-Right		0				0		
	Right	167	1	116		136	1	70	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	9	1	**9**		17	1	17	
	Left-Through		0				0		
	Through	159	0	170		204	0	**235**	
	Through-Right		1				1		
	Right	11	0	0		31	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	201			*North-South:*	147
				East-West:	348			*East-West:*	289
				SUM:	549			*SUM:*	436
VOLUME/CAPACITY *(V/C)* RATIO:					0.366				0.291
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.266**				**0.191**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
2

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-210 WB Ramps
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	278	1		**278**	148	1		**148**
	Left-Through		0				0		
	Through	818	2		409	269	2		135
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	215	1		215	383	1		383
	Through-Right		1				1		
	Right	349	0		**349**	646	0		**646**
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	0	0		**0**	0	0		**0**
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	393	1		**315**	237	1		**173**
	Left-Through		0				0		
	Through	3	0		315	2	0		173
	Through-Right		0				0		
	Right	234	0		0	107	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	627			*North-South:*	794
				East-West:	315			*East-West:*	173
				SUM:	942			*SUM:*	967
VOLUME/CAPACITY *(V/C)* RATIO:					0.628				0.645
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.528**				**0.545**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
3

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-210 EB Ramps
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	644	1		**459**	269	1		**260**
	Through-Right		1				1		
	Right	274	0		274	250	0		250
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	113	1		**113**	197	1		**197**
	Left-Through		0				0		
	Through	492	2		246	409	2		205
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	446	0		446	163	0		163
	Left-Through		1				1		
	Through	0	0		**446**	2	0		165
	Through-Right		0				0		
	Right	260	1		260	178	1		**178**
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	0	0		**0**	0	0		**0**
	Left-Through		0				0		
	Through	0	0		0	0	0		0
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	572			*North-South:*	457
				East-West:	446			*East-West:*	178
				SUM:	1018			*SUM:*	635
VOLUME/CAPACITY *(V/C)* RATIO:					0.714				0.446
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.614**				**0.346**
LEVEL OF SERVICE (LOS):					**B**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
4

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Foothill Blvd
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		*NB--*	0	*SB--*	3	*NB--*	0	*SB--*	3
		EB--	3	*WB--*	3	*EB--*	3	*WB--*	3
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**		**Volume**	**No. of Lanes**	**Lane Volume**	
NORTHBOUND	Left	12	1	**12**		15	1	15	
	Left-Through		0				0		
	Through	398	1	398		352	1	**352**	
	Through-Right		0				0		
	Right	66	1	9		82	1	52	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	113	1	113		108	1	**108**	
	Left-Through		0				0		
	Through	567	1	**567**		338	1	338	
	Through-Right		0				0		
	Right	80	1	0		143	1	59	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	278	1	**278**		84	1	**84**	
	Left-Through		0				0		
	Through	162	1	162		153	1	153	
	Through-Right		0				0		
	Right	36	1	24		18	1	3	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	115	1	115		60	1	60	
	Left-Through		0				0		
	Through	97	1	97		138	1	**138**	
	Through-Right		0				0		
	Right	221	1	**108**		85	1	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	579			*North-South:*	460	
			East-West:	386			*East-West:*	222	
			SUM:	965			*SUM:*	682	
VOLUME/CAPACITY *(V/C)* RATIO:				0.702				0.496	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.602**				**0.396**	
LEVEL OF SERVICE (LOS):				**B**				**A**	

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
5

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Glenoaks Blvd
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	33	1		33	87	1		87
	Left-Through		0				0		
	Through	302	1		**302**	338	1		**338**
	Through-Right		0				0		
	Right	227	1		130	184	1		131
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	266	1		**266**	95	1		**95**
	Left-Through		0				0		
	Through	450	1		450	268	1		268
	Through-Right		0				0		
	Right	17	1		4	18	1		5
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	27	1		27	27	1		27
	Left-Through		0				0		
	Through	236	1		**162**	115	1		**77**
	Through-Right		1				1		
	Right	87	0		87	38	0		38
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	195	1		**195**	107	1		**107**
	Left-Through		0				0		
	Through	126	1		108	202	1		136
	Through-Right		1				1		
	Right	90	0		90	70	0		70
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	568			*North-South:*	433
				East-West:	357			*East-West:*	184
				SUM:	925			*SUM:*	617
VOLUME/CAPACITY *(V/C)* RATIO:					0.617				0.411
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.517**				**0.311**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
6

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** San Fernando Road
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	2	NB--	0	SB--	2
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**		**Volume**	**No. of Lanes**	**Lane Volume**	
NORTHBOUND	Left	39	1	39		28	1	28	
	Left-Through		0				0		
	Through	561	1	**330**		456	1	**288**	
	Through-Right		1				1		
	Right	98	0	98		120	0	120	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	123	1	**123**		108	1	**108**	
	Left-Through		0				0		
	Through	594	1	394		494	1	286	
	Through-Right		1				1		
	Right	193	0	193		78	0	78	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	81	1	81		122	1	**122**	
	Left-Through		0				0		
	Through	260	1	**147**		165	1	111	
	Through-Right		1				1		
	Right	34	0	34		57	0	57	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	147	1	**147**		162	1	162	
	Left-Through		0				0		
	Through	153	1	121		220	1	**155**	
	Through-Right		1				1		
	Right	88	0	88		90	0	90	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	453			*North-South:*	396
				East-West:	294			*East-West:*	277
				SUM:	747			*SUM:*	673
VOLUME/CAPACITY *(V/C)* RATIO:					0.543				0.489
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.443**				**0.389**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
7

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Encinitas Ave/I-5 NB Ramps
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	8	1	8	12	1	**12**
	Left-Through		0			0	
	Through	709	1	**479**	517	1	452
	Through-Right		1			1	
	Right	248	0	248	387	0	387
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	51	1	**51**	33	1	33
	Left-Through		0			0	
	Through	576	1	334	855	1	**554**
	Through-Right		1			1	
	Right	92	0	92	253	0	253
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	371	1	**371**	47	1	47
	Left-Through		0			0	
	Through	125	0	233	11	0	**76**
	Through-Right		1			1	
	Right	108	0	0	65	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	425	1	**234**	335	1	**184**
	Left-Through		1			1	
	Through	151	0	172	160	0	177
	Through-Right		1			1	
	Right	21	0	21	17	0	17
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	530		*North-South:*	566
			East-West:	605		*East-West:*	260
			SUM:	1135		*SUM:*	826
VOLUME/CAPACITY *(V/C)* RATIO:				0.796			0.580
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.696**			**0.480**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
8

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-5 SB Ramps
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	30	1	30	16	1	16
	Through-Right		0			0	
	Right	596	1	**596**	113	1	**113**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	1043	2	**574**	1184	2	**651**
	Left-Through		0			0	
	Through	142	1	142	100	1	100
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	206	0	**206**	223	0	**223**
	Left-Through		1			1	
	Through	1	0	8	3	0	3
	Through-Right		1			1	
	Right	7	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1170		*North-South:*	764
			East-West:	206		*East-West:*	223
			SUM:	1376		*SUM:*	987
VOLUME/CAPACITY *(V/C)* RATIO:				0.966			0.693
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.866**			**0.593**
LEVEL OF SERVICE (LOS):				**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Olive View Dr
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				0			0
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	138	0	138	70	0	**70**
	Left-Through		0			0	
	Through	81	0	**310**	21	0	124
	Through-Right		0			0	
	Right	91	0	0	33	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
SOUTHBOUND	Left	7	0	**7**	23	0	23
	Left-Through		0			0	
	Through	36	0	114	52	0	**220**
	Through-Right		0			0	
	Right	71	0	0	145	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	122	0	**122**	36	0	36
	Left-Through		1			1	
	Through	138	0	157	110	0	**142**
	Through-Right		1			1	
	Right	53	0	157	138	0	142
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	57	0	57	35	0	**35**
	Left-Through		1			1	
	Through	155	0	**117**	156	0	100
	Through-Right		1			1	
	Right	22	0	117	8	0	100
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	317		*North-South:*	290
			East-West:	239		*East-West:*	177
			SUM:	556		*SUM:*	467
VOLUME/CAPACITY *(V/C)* RATIO:				0.404			0.340
V/C LESS ATSAC/ATCS ADJUSTMENT:				0.404			0.340
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
10

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Foothill Blvd
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	44	1	44	23	1	23
	Left-Through		0			0	
	Through	91	1	91	39	1	39
	Through-Right		0			0	
	Right	213	1	**153**	99	1	**57**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	108	1	**108**	178	1	**178**
	Left-Through		0			0	
	Through	93	0	121	48	0	66
	Through-Right		1			1	
	Right	28	0	0	18	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	73	1	**73**	18	1	18
	Left-Through		0			0	
	Through	304	1	169	293	1	**155**
	Through-Right		1			1	
	Right	33	0	33	16	0	16
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	120	1	120	84	1	**84**
	Left-Through		0			0	
	Through	276	1	**234**	281	1	190
	Through-Right		1			1	
	Right	191	0	191	99	0	99
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	261		*North-South:*	235
			East-West:	307		*East-West:*	239
			SUM:	568		*SUM:*	474
VOLUME/CAPACITY *(V/C)* RATIO:				0.379			0.316
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.279**			**0.216**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
11

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Glenoaks Blvd
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes		Lane Volume	Volume	No. of Lanes		Lane Volume
NORTHBOUND	Left	22	0		**22**	21	0		**21**
	Left-Through		1				1		
	Through	95	0		117	76	0		97
	Through-Right		0				0		
	Right	144	1		144	108	1		108
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	62	0		62	45	0		45
	Left-Through		0				0		
	Through	125	0		**213**	66	0		**135**
	Through-Right		0				0		
	Right	26	0		0	24	0		0
	Left-Through-Right		1				1		
	Left-Right		0				0		
EASTBOUND	Left	52	0		**52**	46	0		46
	Left-Through		1				1		
	Through	634	0		427	528	0		**346**
	Through-Right		1				1		
	Right	116	0		427	71	0		346
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	114	0		114	84	0		**84**
	Left-Through		1				1		
	Through	443	0		**494**	341	0		282
	Through-Right		1				1		
	Right	89	0		494	54	0		282
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	235			*North-South:*	156
				East-West:	546			*East-West:*	430
				SUM:	781			*SUM:*	586
VOLUME/CAPACITY *(V/C)* RATIO:					0.521				0.391
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.421**				**0.291**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
12

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** I-210 WB Ramps
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	221	1		**221**	189	1		**189**
	Left-Through		0				0		
	Through	417	2		209	482	2		241
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	667	1		**477**	450	1		**278**
	Through-Right		1				1		
	Right	287	0		287	105	0		105
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	0	0		**0**	0	0		**0**
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	471	0		471	562	0		562
	Left-Through		1				1		
	Through	2	0		**473**	1	0		**563**
	Through-Right		0				0		
	Right	136	1		136	253	1		253
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	698			*North-South:*	467
				East-West:	473			*East-West:*	563
				SUM:	1171			*SUM:*	1030
VOLUME/CAPACITY *(V/C)* RATIO:					0.781				0.687
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.681**				**0.587**
LEVEL OF SERVICE (LOS):					**B**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
13

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** I-210 EB Ramps
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	472	1	472	548	1	**533**
	Through-Right		1			1	
	Right	772	0	**772**	517	0	517
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	330	1	**330**	194	1	**194**
	Left-Through		0			0	
	Through	843	2	422	808	2	404
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	107	0	107	122	0	122
	Left-Through		1			1	
	Through	3	0	110	0	0	122
	Through-Right		0			0	
	Right	263	1	**263**	248	1	**248**
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1102		*North-South:*	727
			East-West:	263		*East-West:*	248
			SUM:	1365		*SUM:*	975
VOLUME/CAPACITY *(V/C)* RATIO:				0.910			0.650
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.810**			**0.550**
LEVEL OF SERVICE (LOS):				**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
14

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** Foothill Blvd
Scenario: Existing plus Project
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	3	EB--	0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	62	1	62		67	1	67	
	Left-Through		0				0		
	Through	579	1	**384**		513	1	**368**	
	Through-Right		1				1		
	Right	189	0	189		222	0	222	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	221	1	**221**		271	1	**271**	
	Left-Through		0				0		
	Through	573	1	441		510	1	389	
	Through-Right		1				1		
	Right	308	0	308		267	0	267	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	418	1	**418**		247	1	**247**	
	Left-Through		0				0		
	Through	525	1	304		378	1	218	
	Through-Right		1				1		
	Right	83	0	83		57	0	57	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	152	1	152		165	1	165	
	Left-Through		0				0		
	Through	314	2	**157**		379	2	**190**	
	Through-Right		0				0		
	Right	237	1	16		282	1	11	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				North-South:	605			North-South:	639
				East-West:	575			East-West:	437
				SUM:	1180			SUM:	1076
VOLUME/CAPACITY (V/C) RATIO:					0.858				0.783
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.758**				**0.683**
LEVEL OF SERVICE (LOS):					**C**				**B**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
1

PROJECT TITLE: <Project Name>
North-South Street: Glenoaks Blvd **East-West Street:** Foothill Blvd
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		*NB--*	0	*SB--*	0	*NB--*	0	*SB--*	0
		EB--	0	*WB--*	0	*EB--*	0	*WB--*	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**		**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	103	1	**103**		133	1	**133**
	Left-Through		0				0	
	Through	12	1	12		27	1	22
	Through-Right		1				1	
	Right	11	0	11		17	0	17
	Left-Through-Right		0				0	
	Left-Right		0				0	
SOUTHBOUND	Left	35	1	35		26	1	26
	Left-Through		0				0	
	Through	49	1	49		12	1	12
	Through-Right		1				1	
	Right	104	0	**98**		41	0	**14**
	Left-Through-Right		0				0	
	Left-Right		0				0	
EASTBOUND	Left	12	1	12		54	1	**54**
	Left-Through		0				0	
	Through	311	1	**311**		208	1	208
	Through-Right		0				0	
	Right	167	1	116		136	1	70
	Left-Through-Right		0				0	
	Left-Right		0				0	
WESTBOUND	Left	9	1	**9**		17	1	17
	Left-Through		0				0	
	Through	149	0	160		174	0	**205**
	Through-Right		1				1	
	Right	11	0	0		31	0	0
	Left-Through-Right		0				0	
	Left-Right		0				0	
CRITICAL VOLUMES				*North-South:*	201			*North-South:*	147
				East-West:	320			*East-West:*	259
				SUM:	521			*SUM:*	406
VOLUME/CAPACITY *(V/C)* RATIO:					0.347				0.271
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.247**				**0.171**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
2

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-210 WB Ramps
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	278	1	**278**		148	1	**148**	
	Left-Through		0				0		
	Through	620	2	310		199	2	100	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	0	0	0		0	0	0	
	Left-Through		0				0		
	Through	174	1	174		266	1	266	
	Through-Right		1				1		
	Right	301	0	**301**		511	0	**511**	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	0	0	0		0	0	0	
	Left-Through		0				0		
	Through	0	0	**0**		0	0	**0**	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	393	1	**294**		237	1	**166**	
	Left-Through		0				0		
	Through	3	0	294		2	0	166	
	Through-Right		0				0		
	Right	191	0	0		92	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	579			*North-South:*	659
				East-West:	294			*East-West:*	166
				SUM:	873			*SUM:*	825
VOLUME/CAPACITY *(V/C)* RATIO:					0.582				0.550
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.482**				**0.450**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
3

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-210 EB Ramps
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					3				3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	575	1		**425**	245	1		245
	Through-Right		1				1		
	Right	274	0		274	250	0		**250**
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	97	1		**97**	152	1		**152**
	Left-Through		0				0		
	Through	467	2		234	337	2		169
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	317	0		317	117	0		117
	Left-Through		1				1		
	Through	0	0		**317**	2	0		119
	Through-Right		0				0		
	Right	260	1		260	178	1		**178**
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	0	0		**0**	0	0		**0**
	Left-Through		0				0		
	Through	0	0		0	0	0		0
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	522			*North-South:*	402
				East-West:	317			*East-West:*	178
				SUM:	839			*SUM:*	580
VOLUME/CAPACITY *(V/C)* RATIO:					0.589				0.407
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.489**				**0.307**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
4

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Foothill Blvd
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		*NB--*	0	*SB--*	3	*NB--*	0	*SB--*	3
		EB--	3	*WB--*	3	*EB--*	3	*WB--*	3
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**		**Volume**	**No. of Lanes**	**Lane Volume**	
NORTHBOUND	Left	12	1	**12**		15	1	15	
	Left-Through		0				0		
	Through	357	1	357		338	1	**338**	
	Through-Right		0				0		
	Right	66	1	9		82	1	52	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	113	1	113		108	1	**108**	
	Left-Through		0				0		
	Through	552	1	**552**		296	1	296	
	Through-Right		0				0		
	Right	70	1	0		113	1	39	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	250	1	**250**		74	1	74	
	Left-Through		0				0		
	Through	162	1	162		153	1	**153**	
	Through-Right		0				0		
	Right	36	1	24		18	1	3	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	115	1	115		60	1	**60**	
	Left-Through		0				0		
	Through	97	1	97		138	1	138	
	Through-Right		0				0		
	Right	221	1	**108**		85	1	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	564			*North-South:*	446	
			East-West:	358			*East-West:*	213	
			SUM:	922			*SUM:*	659	
VOLUME/CAPACITY *(V/C)* RATIO:				0.671				0.479	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.571**				**0.379**	
LEVEL OF SERVICE (LOS):				**A**				**A**	

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
5

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Glenoaks Blvd
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	33	1		33	87	1		87
	Left-Through		0				0		
	Through	267	1		**267**	326	1		**326**
	Through-Right		0				0		
	Right	227	1		130	184	1		131
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	264	1		**264**	89	1		**89**
	Left-Through		0				0		
	Through	437	1		437	232	1		232
	Through-Right		0				0		
	Right	17	1		4	18	1		5
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	27	1		27	27	1		27
	Left-Through		0				0		
	Through	236	1		**162**	115	1		**77**
	Through-Right		1				1		
	Right	87	0		87	38	0		38
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	195	1		**195**	107	1		**107**
	Left-Through		0				0		
	Through	126	1		105	202	1		135
	Through-Right		1				1		
	Right	84	0		84	68	0		68
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	531			*North-South:*	415
				East-West:	357			*East-West:*	184
				SUM:	888			*SUM:*	599
VOLUME/CAPACITY *(V/C)* RATIO:					0.592				0.399
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.492**				**0.299**
LEVEL OF SERVICE (LOS):					**A**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
6

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** San Fernando Road
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	2	NB--	0	SB--	2
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**		**Volume**	**No. of Lanes**	**Lane Volume**	
NORTHBOUND	Left	39	1	39		28	1	28	
	Left-Through		0				0		
	Through	532	1	**315**		446	1	**283**	
	Through-Right		1				1		
	Right	98	0	98		120	0	120	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	121	1	**121**		102	1	**102**	
	Left-Through		0				0		
	Through	583	1	388		464	1	271	
	Through-Right		1				1		
	Right	193	0	193		78	0	78	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	81	1	81		122	1	**122**	
	Left-Through		0				0		
	Through	260	1	**147**		165	1	111	
	Through-Right		1				1		
	Right	34	0	34		57	0	57	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	147	1	**147**		162	1	162	
	Left-Through		0				0		
	Through	153	1	118		220	1	**154**	
	Through-Right		1				1		
	Right	82	0	82		88	0	88	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES			*North-South:*	436			*North-South:*	385	
			East-West:	294			*East-West:*	276	
			SUM:	730			*SUM:*	661	
VOLUME/CAPACITY *(V/C)* RATIO:				0.531				0.481	
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.431**				**0.381**	
LEVEL OF SERVICE (LOS):				**A**				**A**	

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
7

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** Encinitas Ave/I-5 NB Ramps
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				2			2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	8	1	8	12	1	**12**
	Left-Through		0			0	
	Through	680	1	**464**	507	1	447
	Through-Right		1			1	
	Right	248	0	248	387	0	387
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	51	1	**51**	33	1	33
	Left-Through		0			0	
	Through	565	1	329	825	1	**539**
	Through-Right		1			1	
	Right	92	0	92	253	0	253
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	371	1	**371**	47	1	47
	Left-Through		0			0	
	Through	125	0	233	11	0	**76**
	Through-Right		1			1	
	Right	108	0	0	65	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	425	1	**234**	335	1	**184**
	Left-Through		1			1	
	Through	151	0	172	160	0	177
	Through-Right		1			1	
	Right	21	0	21	17	0	17
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	515		*North-South:*	551
			East-West:	605		*East-West:*	260
			SUM:	1120		*SUM:*	811
VOLUME/CAPACITY *(V/C)* RATIO:				0.786			0.569
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.686**			**0.469**
LEVEL OF SERVICE (LOS):				**B**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
8

PROJECT TITLE: <Project Name>
North-South Street: Roxford Street **East-West Street:** I-5 SB Ramps
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				3			3
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				1			1
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	30	1	30	16	1	16
	Through-Right		0			0	
	Right	596	1	**596**	113	1	**113**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	1032	2	**568**	1154	2	**635**
	Left-Through		0			0	
	Through	142	1	142	100	1	100
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	206	0	**206**	223	0	**223**
	Left-Through		1			1	
	Through	1	0	8	3	0	3
	Through-Right		1			1	
	Right	7	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	0	0	0	0	0	0
	Left-Through		0			0	
	Through	0	0	**0**	0	0	**0**
	Through-Right		0			0	
	Right	0	0	0	0	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	1164		*North-South:*	748
			East-West:	206		*East-West:*	223
			SUM:	1370		*SUM:*	971
VOLUME/CAPACITY *(V/C)* RATIO:				0.961			0.681
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.861**			**0.581**
LEVEL OF SERVICE (LOS):				**D**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
9

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Olive View Dr
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					4				4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					0				0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					0				0
Override Capacity					0				0
MOVEMENT		Volume	No. of Lanes	Lane Volume		Volume	No. of Lanes	Lane Volume	
NORTHBOUND	Left	116	0	116		63	0	**63**	
	Left-Through		0				0		
	Through	72	0	**275**		18	0	113	
	Through-Right		0				0		
	Right	87	0	0		32	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
SOUTHBOUND	Left	6	0	**6**		20	0	20	
	Left-Through		0				0		
	Through	33	0	87		43	0	**142**	
	Through-Right		0				0		
	Right	48	0	0		79	0	0	
	Left-Through-Right		1				1		
	Left-Right		0				0		
EASTBOUND	Left	59	0	**59**		14	0	14	
	Left-Through		1				1		
	Through	107	0	106		92	0	106	
	Through-Right		1				1		
	Right	46	0	106		116	0	**116**	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	56	0	56		31	0	**31**	
	Left-Through		1				1		
	Through	137	0	**106**		123	0	81	
	Through-Right		1				1		
	Right	19	0	106		7	0	81	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	281			*North-South:*	205
				East-West:	165			*East-West:*	147
				SUM:	446			*SUM:*	352
VOLUME/CAPACITY *(V/C)* RATIO:					0.324				0.256
V/C LESS ATSAC/ATCS ADJUSTMENT:					0.324				0.256
LEVEL OF SERVICE (LOS):					A				A

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
10

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Foothill Blvd
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	0	EB-- 0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	44	1	44	23	1	23
	Left-Through		0			0	
	Through	88	1	88	38	1	38
	Through-Right		0			0	
	Right	213	1	**153**	99	1	**57**
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	97	1	**97**	145	1	**145**
	Left-Through		0			0	
	Through	92	0	120	45	0	63
	Through-Right		1			1	
	Right	28	0	0	18	0	0
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	73	1	**73**	18	1	18
	Left-Through		0			0	
	Through	304	1	169	293	1	**155**
	Through-Right		1			1	
	Right	33	0	33	16	0	16
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	120	1	120	84	1	**84**
	Left-Through		0			0	
	Through	276	1	**218**	281	1	185
	Through-Right		1			1	
	Right	159	0	159	88	0	88
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	250		*North-South:*	202
			East-West:	291		*East-West:*	239
			SUM:	541		*SUM:*	441
VOLUME/CAPACITY *(V/C)* RATIO:				0.361			0.294
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.261**			**0.194**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
11

PROJECT TITLE: <Project Name>
North-South Street: Bledsoe St **East-West Street:** Glenoaks Blvd
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				2			2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?	NB-- 0		SB--	0	NB-- 0		SB-- 0
	EB-- 0		WB--	0	EB-- 0		WB-- 0
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	22	0	**22**	21	0	**21**
	Left-Through		1			1	
	Through	95	0	117	76	0	97
	Through-Right		0			0	
	Right	144	1	144	108	1	108
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	61	0	61	42	0	42
	Left-Through		0			0	
	Through	125	0	**212**	66	0	**132**
	Through-Right		0			0	
	Right	26	0	0	24	0	0
	Left-Through-Right		1			1	
	Left-Right		0			0	
EASTBOUND	Left	52	0	**52**	46	0	46
	Left-Through		1			1	
	Through	632	0	426	522	0	**343**
	Through-Right		1			1	
	Right	116	0	426	71	0	343
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	114	0	114	84	0	**84**
	Left-Through		1			1	
	Through	437	0	**490**	339	0	280
	Through-Right		1			1	
	Right	86	0	490	53	0	280
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	234		*North-South:*	153
			East-West:	542		*East-West:*	427
			SUM:	776		*SUM:*	580
VOLUME/CAPACITY *(V/C)* RATIO:				0.517			0.387
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.417**			**0.287**
LEVEL OF SERVICE (LOS):				**A**			**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
12

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** I-210 WB Ramps
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**		**Volume**	**No. of Lanes**	**Lane Volume**	
NORTHBOUND	Left	221	1	**221**		189	1	**189**	
	Left-Through		0				0		
	Through	416	2	208		479	2	240	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	0	0	0		0	0	0	
	Left-Through		0				0		
	Through	661	1	**474**		440	1	**273**	
	Through-Right		1				1		
	Right	287	0	287		105	0	105	
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	0	0	0		0	0	0	
	Left-Through		0				0		
	Through	0	0	**0**		0	0	**0**	
	Through-Right		0				0		
	Right	0	0	0		0	0	0	
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	451	0	451		555	0	555	
	Left-Through		1				1		
	Through	2	0	**453**		1	0	**556**	
	Through-Right		0				0		
	Right	127	1	127		250	1	250	
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	695			*North-South:*	462
				East-West:	453			*East-West:*	556
				SUM:	1148			*SUM:*	1018
VOLUME/CAPACITY *(V/C)* RATIO:					0.765				0.679
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.665**				**0.579**
LEVEL OF SERVICE (LOS):					**B**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
13

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** I-210 EB Ramps
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM				PM			
No. of Phases					2				2
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?					2				2
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB--	0	SB--	0	NB--	0	SB--	0
		EB--	0	WB--	0	EB--	0	WB--	0
ATSAC-1 or ATSAC+ATCS-2?					2				2
Override Capacity					0				0
MOVEMENT		**Volume**	**No. of Lanes**		**Lane Volume**	**Volume**	**No. of Lanes**		**Lane Volume**
NORTHBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	471	1		471	545	1		**521**
	Through-Right		1				1		
	Right	765	0		**765**	496	0		496
	Left-Through-Right		0				0		
	Left-Right		0				0		
SOUTHBOUND	Left	327	1		**327**	185	1		**185**
	Left-Through		0				0		
	Through	820	2		410	800	2		400
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
EASTBOUND	Left	107	0		107	122	0		122
	Left-Through		1				1		
	Through	3	0		110	0	0		122
	Through-Right		0				0		
	Right	263	1		**263**	248	1		**248**
	Left-Through-Right		0				0		
	Left-Right		0				0		
WESTBOUND	Left	0	0		0	0	0		0
	Left-Through		0				0		
	Through	0	0		**0**	0	0		**0**
	Through-Right		0				0		
	Right	0	0		0	0	0		0
	Left-Through-Right		0				0		
	Left-Right		0				0		
CRITICAL VOLUMES				*North-South:*	1092			*North-South:*	706
				East-West:	263			*East-West:*	248
				SUM:	1355			*SUM:*	954
VOLUME/CAPACITY *(V/C)* RATIO:					0.903				0.636
V/C LESS ATSAC/ATCS ADJUSTMENT:					**0.803**				**0.536**
LEVEL OF SERVICE (LOS):					**D**				**A**

Version: 1i Beta; 8/4/2011

Level of Service Workheet
(Circular 212 Method)

I/S #:
14

PROJECT TITLE: <Project Name>
North-South Street: Polk St **East-West Street:** Foothill Blvd
Scenario: Existing
Count Date: 1/0/1900 **Analyst:** <Fehr & Peers> **Date:** <date>

		AM			PM		
No. of Phases				4			4
Opposed Ø'ing: N/S-1, E/W-2 or Both-3?				0			0
Right Turns: FREE-1, NRTOR-2 or OLA-3?		NB-- 0	SB--	0	NB-- 0	SB--	0
		EB-- 0	WB--	3	EB-- 0	WB--	3
ATSAC-1 or ATSAC+ATCS-2?				2			2
Override Capacity				0			0
MOVEMENT		**Volume**	**No. of Lanes**	**Lane Volume**	**Volume**	**No. of Lanes**	**Lane Volume**
NORTHBOUND	Left	62	1	62	67	1	67
	Left-Through		0			0	
	Through	579	1	**384**	513	1	**368**
	Through-Right		1			1	
	Right	189	0	189	222	0	222
	Left-Through-Right		0			0	
	Left-Right		0			0	
SOUTHBOUND	Left	221	1	**221**	271	1	**271**
	Left-Through		0			0	
	Through	573	1	429	510	1	385
	Through-Right		1			1	
	Right	285	0	285	259	0	259
	Left-Through-Right		0			0	
	Left-Right		0			0	
EASTBOUND	Left	410	1	**410**	223	1	**223**
	Left-Through		0			0	
	Through	522	1	303	369	1	213
	Through-Right		1			1	
	Right	83	0	83	57	0	57
	Left-Through-Right		0			0	
	Left-Right		0			0	
WESTBOUND	Left	152	1	152	165	1	165
	Left-Through		0			0	
	Through	305	2	**153**	376	2	**188**
	Through-Right		0			0	
	Right	237	1	16	282	1	11
	Left-Through-Right		0			0	
	Left-Right		0			0	
CRITICAL VOLUMES			*North-South:*	605		*North-South:*	639
			East-West:	563		*East-West:*	411
			SUM:	1168		*SUM:*	1050
VOLUME/CAPACITY *(V/C)* RATIO:				0.849			0.764
V/C LESS ATSAC/ATCS ADJUSTMENT:				**0.749**			**0.664**
LEVEL OF SERVICE (LOS):				**C**			**B**

Version: 1i Beta; 8/4/2011

APPENDIX D: QUEUING ANALYSIS WORKSHEETS

Queues
2: Roxford St & Foothill Fwy WB Ramp

03/07/2019

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	333	305	302	674	516
v/c Ratio	0.65	0.54	0.67	0.36	0.28
Control Delay	23.1	12.0	23.7	10.0	4.0
Queue Delay	0.0	0.0	0.0	0.5	0.0
Total Delay	23.1	12.0	23.7	10.4	4.0
Queue Length 50th (ft)	106	50	73	67	16
Queue Length 95th (ft)	152	95	#228	127	47
Internal Link Dist (ft)		1110		192	297
Turn Bay Length (ft)	520		150		
Base Capacity (vph)	703	730	451	1879	1854
Starvation Cap Reductn	0	0	0	704	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.47	0.42	0.67	0.57	0.28

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	345	283	923	105	508
v/c Ratio	0.69	0.44	0.65	0.51	0.26
Control Delay	27.1	4.9	16.4	34.4	7.7
Queue Delay	0.0	0.0	0.0	0.0	0.4
Total Delay	27.1	4.9	16.4	34.4	8.1
Queue Length 50th (ft)	107	0	128	36	47
Queue Length 95th (ft)	187	46	192	#81	71
Internal Link Dist (ft)	1050		137		192
Turn Bay Length (ft)		550		220	
Base Capacity (vph)	528	670	1411	206	1957
Starvation Cap Reductn	0	0	0	0	886
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.65	0.42	0.65	0.51	0.47

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	403	253	231	418	9	1009	55	714
v/c Ratio	1.22	0.37	0.66	0.49	0.07	1.48	0.14	0.91
Control Delay	150.2	13.3	30.9	19.3	22.9	248.7	24.0	43.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	150.2	13.3	30.9	19.3	22.9	248.7	24.0	43.8
Queue Length 50th (ft)	~197	46	79	64	3	~313	17	138
Queue Length 95th (ft)	#441	129	#241	140	14	#364	53	#310
Internal Link Dist (ft)		1500		424		127		291
Turn Bay Length (ft)	190		80		40		60	
Base Capacity (vph)	329	693	350	853	130	681	395	793
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.22	0.37	0.66	0.49	0.07	1.48	0.14	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	233	33	648	1122	154
v/c Ratio	0.47	0.05	0.74	0.97	0.25
Control Delay	31.8	18.2	10.1	47.0	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	18.2	10.1	47.0	19.5
Queue Length 50th (ft)	51	10	33	254	50
Queue Length 95th (ft)	84	30	157	#410	98
Internal Link Dist (ft)	980	121			183
Turn Bay Length (ft)			30	140	
Base Capacity (vph)	1132	601	880	1154	626
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.05	0.74	0.97	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	492	138	240	452	1030
v/c Ratio	0.52	0.15	1.94	0.41	0.90
Control Delay	11.5	2.0	467.4	16.9	30.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	2.0	467.4	16.9	30.8
Queue Length 50th (ft)	104	0	~141	71	164
Queue Length 95th (ft)	176	20	#260	81	#281
Internal Link Dist (ft)	930			194	221
Turn Bay Length (ft)		460			
Base Capacity (vph)	946	908	124	1108	1140
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.52	0.15	1.94	0.41	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	119	286	1344	355	891
v/c Ratio	0.27	0.66	0.60	2.31	0.42
Control Delay	17.7	22.7	4.6	615.1	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.4
Total Delay	17.7	22.7	4.6	615.1	7.2
Queue Length 50th (ft)	35	75	41	~218	67
Queue Length 95th (ft)	58	118	120	m#306	m104
Internal Link Dist (ft)	1180		226		194
Turn Bay Length (ft)		690			
Base Capacity (vph)	799	742	2244	154	2115
Starvation Cap Reductn	0	0	0	0	670
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.39	0.60	2.31	0.62

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
2: Roxford St & Foothill Fwy WB Ramp

03/07/2019

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	186	174	161	216	844
v/c Ratio	0.51	0.42	0.45	0.10	0.38
Control Delay	25.2	12.0	12.3	5.3	2.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.2	12.0	12.3	5.3	2.6
Queue Length 50th (ft)	64	24	24	13	17
Queue Length 95th (ft)	106	63	87	31	50
Internal Link Dist (ft)		1110		192	297
Turn Bay Length (ft)	520		150		
Base Capacity (vph)	703	721	359	2201	2193
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.26	0.24	0.45	0.10	0.38

Intersection Summary

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	129	193	538	165	366
v/c Ratio	0.34	0.39	0.39	0.55	0.17
Control Delay	21.1	5.7	8.5	32.7	5.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	5.7	8.5	32.7	5.8
Queue Length 50th (ft)	40	0	35	53	25
Queue Length 95th (ft)	72	39	71	#140	52
Internal Link Dist (ft)	1050		137		192
Turn Bay Length (ft)		550		150	
Base Capacity (vph)	530	608	1413	299	2189
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.32	0.38	0.55	0.17

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	83	182	374	13	972	36	1172
v/c Ratio	0.14	0.13	0.41	0.38	0.12	1.20	0.09	1.46
Control Delay	17.3	6.6	20.7	17.6	24.6	121.6	23.6	236.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	6.6	20.7	17.6	24.6	121.6	23.6	236.6
Queue Length 50th (ft)	13	3	56	54	5	~225	11	~331
Queue Length 95th (ft)	45	34	146	119	18	#255	40	#572
Internal Link Dist (ft)		1500		156		127		291
Turn Bay Length (ft)	190		80		40		60	
Base Capacity (vph)	353	647	442	979	109	813	394	805
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.13	0.41	0.38	0.12	1.20	0.09	1.46

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	245	17	123	1254	109
v/c Ratio	0.39	0.05	0.32	0.82	0.13
Control Delay	23.6	21.9	8.0	21.4	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.6	21.9	8.0	21.4	11.6
Queue Length 50th (ft)	42	5	0	201	23
Queue Length 95th (ft)	71	20	39	#340	52
Internal Link Dist (ft)	980	121			183
Turn Bay Length (ft)			30	140	
Base Capacity (vph)	1506	798	748	1533	832
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.16	0.02	0.16	0.82	0.13

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	604	272	205	521	592
v/c Ratio	1.14	0.41	0.49	0.27	0.31
Control Delay	107.3	4.6	13.9	8.3	6.9
Queue Delay	0.0	0.0	0.0	0.3	0.0
Total Delay	107.3	4.6	13.9	8.5	6.9
Queue Length 50th (ft)	~263	0	54	59	46
Queue Length 95th (ft)	#435	45	85	46	72
Internal Link Dist (ft)	930			194	221
Turn Bay Length (ft)		460			
Base Capacity (vph)	531	665	416	1934	1913
Starvation Cap Reductn	0	0	0	752	0
Spillback Cap Reductn	0	0	0	0	19
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.14	0.41	0.49	0.44	0.31

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	133	270	1131	201	870
v/c Ratio	0.32	0.65	0.52	0.88	0.40
Control Delay	19.1	22.4	5.5	43.8	4.8
Queue Delay	0.0	0.0	0.0	0.0	0.6
Total Delay	19.1	22.4	5.5	43.8	5.4
Queue Length 50th (ft)	40	69	52	20	22
Queue Length 95th (ft)	66	112	133	m#113	m114
Internal Link Dist (ft)	1180		226		194
Turn Bay Length (ft)		780			
Base Capacity (vph)	796	744	2183	228	2159
Starvation Cap Reductn	0	0	0	0	808
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.17	0.36	0.52	0.88	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
2: Roxford St & Foothill Fwy WB Ramp

03/07/2019

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	359	325	302	889	613
v/c Ratio	0.67	0.61	0.78	0.48	0.33
Control Delay	23.4	17.8	33.7	11.5	4.3
Queue Delay	0.0	0.0	0.0	0.9	0.0
Total Delay	23.4	17.8	33.7	12.4	4.3
Queue Length 50th (ft)	113	78	83	101	21
Queue Length 95th (ft)	167	131	#245	177	55
Internal Link Dist (ft)		1110		192	297
Turn Bay Length (ft)	520		150		
Base Capacity (vph)	703	685	386	1840	1850
Starvation Cap Reductn	0	0	0	621	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.51	0.47	0.78	0.73	0.33

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	485	283	998	123	535
v/c Ratio	0.90	0.42	0.75	0.60	0.29
Control Delay	43.6	4.6	20.2	39.3	8.2
Queue Delay	0.0	0.0	0.0	0.0	0.5
Total Delay	43.6	4.6	20.2	39.3	8.7
Queue Length 50th (ft)	167	0	150	43	50
Queue Length 95th (ft)	#331	46	#250	#105	75
Internal Link Dist (ft)	1050		137		192
Turn Bay Length (ft)		550		150	
Base Capacity (vph)	541	680	1322	206	1899
Starvation Cap Reductn	0	0	0	0	878
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.90	0.42	0.75	0.60	0.52

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	403	253	231	418	9	1041	55	726
v/c Ratio	1.23	0.37	0.66	0.49	0.07	1.54	0.14	0.92
Control Delay	153.2	13.3	31.2	19.4	22.9	273.4	24.0	44.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	153.2	13.3	31.2	19.4	22.9	273.4	24.0	44.7
Queue Length 50th (ft)	~198	46	79	64	3	~329	17	141
Queue Length 95th (ft)	#441	129	#241	140	14	#384	53	#317
Internal Link Dist (ft)		1500		424		127		291
Turn Bay Length (ft)	190		80		40		60	
Base Capacity (vph)	327	691	348	849	128	677	394	791
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.23	0.37	0.66	0.49	0.07	1.54	0.14	0.92

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	233	33	648	1134	154
v/c Ratio	0.47	0.05	0.74	0.98	0.25
Control Delay	31.8	18.2	10.1	49.2	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	31.8	18.2	10.1	49.2	19.5
Queue Length 50th (ft)	51	10	33	259	50
Queue Length 95th (ft)	84	30	157	#417	98
Internal Link Dist (ft)	980	121			183
Turn Bay Length (ft)			30	140	
Base Capacity (vph)	1132	601	880	1154	626
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.05	0.74	0.98	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	514	148	240	453	1037
v/c Ratio	0.54	0.16	1.94	0.41	0.91
Control Delay	11.9	2.0	467.3	16.9	31.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	2.0	467.3	16.9	31.6
Queue Length 50th (ft)	111	0	~141	70	167
Queue Length 95th (ft)	187	21	#260	81	#284
Internal Link Dist (ft)	930			194	221
Turn Bay Length (ft)		460			
Base Capacity (vph)	946	913	124	1108	1139
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.54	0.16	1.94	0.41	0.91

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	119	286	1352	359	916
v/c Ratio	0.27	0.66	0.60	2.41	0.44
Control Delay	17.6	23.0	4.7	665.4	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.4
Total Delay	17.6	23.0	4.7	665.4	7.3
Queue Length 50th (ft)	35	76	42	~223	71
Queue Length 95th (ft)	58	120	122	m#311	m109
Internal Link Dist (ft)	1180		226		194
Turn Bay Length (ft)		690			
Base Capacity (vph)	799	739	2241	149	2105
Starvation Cap Reductn	0	0	0	0	657
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.15	0.39	0.60	2.41	0.63

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
2: Roxford St & Foothill Fwy WB Ramp

03/07/2019

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	196	180	161	292	1118
v/c Ratio	0.52	0.41	0.67	0.13	0.50
Control Delay	24.9	10.4	29.0	5.7	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.9	10.4	29.0	5.7	3.3
Queue Length 50th (ft)	67	20	31	18	27
Queue Length 95th (ft)	108	58	#146	43	73
Internal Link Dist (ft)		1110		192	297
Turn Bay Length (ft)	520		150		
Base Capacity (vph)	703	725	240	2175	2242
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.28	0.25	0.67	0.13	0.50

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	179	193	564	214	445
v/c Ratio	0.43	0.37	0.47	0.59	0.21
Control Delay	21.8	5.2	10.0	34.4	6.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.8	5.2	10.0	34.4	6.5
Queue Length 50th (ft)	55	0	44	67	34
Queue Length 95th (ft)	94	38	75	#200	64
Internal Link Dist (ft)	1050		137		192
Turn Bay Length (ft)		550		150	
Base Capacity (vph)	532	609	1304	361	2124
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.34	0.32	0.43	0.59	0.21

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	51	83	182	374	13	983	36	1204
v/c Ratio	0.14	0.13	0.41	0.38	0.12	1.22	0.09	1.50
Control Delay	17.3	6.6	20.7	17.6	24.6	129.7	23.6	255.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.3	6.6	20.7	17.6	24.6	129.7	23.6	255.0
Queue Length 50th (ft)	13	3	56	54	5	~233	11	~347
Queue Length 95th (ft)	45	34	146	119	18	#267	40	#592
Internal Link Dist (ft)		1500		156		127		291
Turn Bay Length (ft)	190		80		40		60	
Base Capacity (vph)	353	647	442	979	109	809	394	803
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.13	0.41	0.38	0.12	1.22	0.09	1.50

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	245	17	123	1287	109
v/c Ratio	0.39	0.05	0.32	0.84	0.13
Control Delay	23.6	21.9	8.0	22.5	11.6
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	23.6	21.9	8.0	22.5	11.6
Queue Length 50th (ft)	42	5	0	209	23
Queue Length 95th (ft)	71	20	39	#355	52
Internal Link Dist (ft)	980	121			183
Turn Bay Length (ft)			30	140	
Base Capacity (vph)	1506	798	748	1533	832
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.16	0.02	0.16	0.84	0.13

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	612	275	205	524	603
v/c Ratio	1.15	0.41	0.50	0.27	0.32
Control Delay	112.9	4.6	14.1	8.2	7.0
Queue Delay	0.0	0.0	0.0	0.3	0.0
Total Delay	112.9	4.6	14.1	8.5	7.0
Queue Length 50th (ft)	~269	0	54	58	48
Queue Length 95th (ft)	#442	45	85	46	74
Internal Link Dist (ft)	930			194	221
Turn Bay Length (ft)		460			
Base Capacity (vph)	531	667	410	1934	1914
Starvation Cap Reductn	0	0	0	758	0
Spillback Cap Reductn	0	0	0	0	21
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.15	0.41	0.50	0.45	0.32

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	133	270	1158	211	878
v/c Ratio	0.32	0.64	0.53	0.97	0.41
Control Delay	19.0	22.4	5.6	61.6	4.9
Queue Delay	0.0	0.0	0.0	0.0	0.6
Total Delay	19.0	22.4	5.6	61.6	5.4
Queue Length 50th (ft)	40	69	54	46	22
Queue Length 95th (ft)	66	112	137	m#125	m116
Internal Link Dist (ft)	1180		226		194
Turn Bay Length (ft)		780			
Base Capacity (vph)	796	743	2181	217	2155
Starvation Cap Reductn	0	0	0	0	799
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.17	0.36	0.53	0.97	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
2: Roxford St & Foothill Fwy WB Ramp

03/07/2019

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	414	377	410	940	652
v/c Ratio	0.72	0.66	1.20	0.54	0.36
Control Delay	23.8	19.3	139.5	13.0	4.7
Queue Delay	0.0	0.0	0.0	1.2	0.0
Total Delay	23.8	19.3	139.5	14.2	4.7
Queue Length 50th (ft)	127	95	~192	120	25
Queue Length 95th (ft)	200	163	#354	190	58
Internal Link Dist (ft)		861		192	297
Turn Bay Length (ft)	520		150		
Base Capacity (vph)	703	683	341	1746	1788
Starvation Cap Reductn	0	0	0	539	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.59	0.55	1.20	0.78	0.36

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	511	435	1169	130	632
v/c Ratio	0.97	0.68	0.87	0.63	0.33
Control Delay	56.6	14.8	26.9	41.5	8.5
Queue Delay	0.0	0.0	0.0	0.0	0.6
Total Delay	56.6	14.8	26.9	41.5	9.1
Queue Length 50th (ft)	180	57	196	46	61
Queue Length 95th (ft)	#354	149	#331	#113	90
Internal Link Dist (ft)	961		137		192
Turn Bay Length (ft)		550		150	
Base Capacity (vph)	528	637	1343	206	1899
Starvation Cap Reductn	0	0	0	0	847
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.97	0.68	0.87	0.63	0.60

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	434	273	252	470	10	1287	67	817
v/c Ratio	1.45	0.40	0.76	0.56	0.09	1.90	0.17	1.03
Control Delay	244.5	14.0	37.8	20.7	23.4	431.5	24.3	69.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	244.5	14.0	37.8	20.7	23.4	431.5	24.3	69.3
Queue Length 50th (ft)	~236	52	91	75	3	~442	21	166
Queue Length 95th (ft)	#491	141	#278	160	15	#529	62	#373
Internal Link Dist (ft)		332		424		127		291
Turn Bay Length (ft)			80		40		60	
Base Capacity (vph)	299	691	333	837	117	678	394	790
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.45	0.40	0.76	0.56	0.09	1.90	0.17	1.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	283	35	697	1260	166
v/c Ratio	0.97dl	0.06	0.80	1.10	0.27
Control Delay	32.7	18.9	13.9	86.5	20.3
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	32.7	18.9	13.9	86.5	20.3
Queue Length 50th (ft)	63	11	53	~347	55
Queue Length 95th (ft)	100	32	#272	#500	108
Internal Link Dist (ft)	318	121			183
Turn Bay Length (ft)			30	140	
Base Capacity (vph)	1120	594	875	1141	619
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.25	0.06	0.80	1.10	0.27

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	601	188	303	625	1197
v/c Ratio	0.64	0.21	2.44	0.56	1.05
Control Delay	13.7	5.2	685.8	18.6	63.2
Queue Delay	0.0	0.0	0.0	0.6	15.7
Total Delay	13.7	5.2	685.8	19.2	78.8
Queue Length 50th (ft)	139	18	~155	80	~241
Queue Length 95th (ft)	234	46	m#267	m114	#358
Internal Link Dist (ft)	906			194	221
Turn Bay Length (ft)		460			
Base Capacity (vph)	946	879	124	1108	1137
Starvation Cap Reductn	0	0	0	195	0
Spillback Cap Reductn	0	0	0	0	41
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.64	0.21	2.44	0.68	1.09

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	170	336	1671	399	1082
v/c Ratio	0.32	0.68	0.80	3.24	0.56
Control Delay	16.1	23.1	11.9	1029.1	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.7
Total Delay	16.1	23.1	11.9	1029.1	9.5
Queue Length 50th (ft)	47	96	124	~262	100
Queue Length 95th (ft)	71	140	#361	m#326	m125
Internal Link Dist (ft)	983		226		194
Turn Bay Length (ft)		780			
Base Capacity (vph)	798	727	2082	123	1930
Starvation Cap Reductn	0	0	0	0	483
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.21	0.46	0.80	3.24	0.75

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Queues
2: Roxford St & Foothill Fwy WB Ramp

03/07/2019

Lane Group	WBL	WBT	NBL	NBT	SBT
Lane Group Flow (vph)	220	207	238	309	1183
v/c Ratio	0.56	0.45	1.14	0.14	0.53
Control Delay	25.0	10.9	125.8	6.2	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	25.0	10.9	125.8	6.2	3.7
Queue Length 50th (ft)	74	26	~101	21	31
Queue Length 95th (ft)	116	66	#178	47	84
Internal Link Dist (ft)		861		192	297
Turn Bay Length (ft)	520		150		
Base Capacity (vph)	703	733	209	2134	2229
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.31	0.28	1.14	0.14	0.53

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	189	274	730	227	497
v/c Ratio	0.43	0.46	0.58	0.66	0.24
Control Delay	21.4	5.3	10.6	40.7	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	21.4	5.3	10.6	40.7	6.9
Queue Length 50th (ft)	56	0	58	74	41
Queue Length 95th (ft)	101	46	96	#213	70
Internal Link Dist (ft)	961		137		192
Turn Bay Length (ft)		550		150	
Base Capacity (vph)	530	665	1339	343	2082
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.36	0.41	0.55	0.66	0.24

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	55	89	218	446	14	1165	48	1421
v/c Ratio	0.18	0.14	0.50	0.45	0.13	1.43	0.12	1.77
Control Delay	18.0	6.5	22.6	18.4	24.8	222.4	23.8	376.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.0	6.5	22.6	18.4	24.8	222.4	23.8	376.3
Queue Length 50th (ft)	14	3	69	67	5	~314	15	~448
Queue Length 95th (ft)	48	35	178	143	19	#390	49	#721
Internal Link Dist (ft)		332		156		127		291
Turn Bay Length (ft)			80		40		60	
Base Capacity (vph)	312	650	439	981	109	815	394	801
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.14	0.50	0.45	0.13	1.43	0.12	1.77

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	291	18	133	1529	117
v/c Ratio	0.45	0.05	0.34	1.00	0.14
Control Delay	24.0	22.4	8.1	45.2	12.1
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	22.4	8.1	45.2	12.1
Queue Length 50th (ft)	50	6	0	~324	25
Queue Length 95th (ft)	83	21	40	#473	57
Internal Link Dist (ft)	318	121			183
Turn Bay Length (ft)			30	140	
Base Capacity (vph)	1495	792	750	1522	826
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.19	0.02	0.18	1.00	0.14

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	718	313	248	703	797
v/c Ratio	1.35	0.51	0.79	0.36	0.42
Control Delay	194.1	9.8	29.9	7.6	7.8
Queue Delay	0.2	0.0	0.0	0.5	0.0
Total Delay	194.4	9.8	29.9	8.1	7.8
Queue Length 50th (ft)	~352	30	81	50	68
Queue Length 95th (ft)	#535	89	m#166	58	103
Internal Link Dist (ft)	906			194	221
Turn Bay Length (ft)		460			
Base Capacity (vph)	531	617	312	1934	1913
Starvation Cap Reductn	0	0	0	733	0
Spillback Cap Reductn	16	0	0	0	83
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.39	0.51	0.79	0.59	0.44

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	EBR	NBT	SBL	SBT
Lane Group Flow (vph)	190	325	1412	240	1092
v/c Ratio	0.36	0.67	0.70	1.94	0.56
Control Delay	17.1	23.1	10.7	452.9	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.7
Total Delay	17.1	23.1	10.7	452.9	8.6
Queue Length 50th (ft)	54	93	116	~130	94
Queue Length 95th (ft)	80	136	#308	m#184	m156
Internal Link Dist (ft)	983		226		194
Turn Bay Length (ft)		780			
Base Capacity (vph)	796	726	2008	124	1952
Starvation Cap Reductn	0	0	0	0	492
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.24	0.45	0.70	1.94	0.75

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

APPENDIX E: SIGNAL WARRANT ANALYSIS

EXISTING

FEHR PEERS

Project	Olive View-UCLA MP TIA
Scenario	Existing Conditions
Peak Hour	AM

Major Street	Olive View Drive
Minor Street	Bledsoe St

Turn Movement Volumes

	NB	SB	EB	WB
Left	114	6	58	55
Through	71	33	106	135
Right	86	47	45	19
Total	271	86	209	209

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	12.1
Approach with Worst Case Delay	NB
Total Vehicles on Approach	271

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Existing Conditions	**0.9**	**271**	**775**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Olive View Drive
Minor Street	Bledsoe St

Project	Olive View-UCLA MP TIA
Scenario	Existing Conditions
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	62	20	14	31
Through	18	42	91	121
Right	32	78	114	7
Total	112	140	219	159

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	9.2
Approach with Worst Case Delay	SB
Total Vehicles on Approach	112

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Conditions	**0.3**	**140**	**630**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Project	Olive View-UCLA MP TIA
Scenario	Existing Conditions
Peak Hour	AM

Major Street	Roxford St
Minor Street	I-210 EB Ramps

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	96	313	0
Through	567	461	0	0
Right	270	0	256	0
Total	837	557	569	0

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	213.3
Approach with Worst Case Delay	EB
Total Vehicles on Approach	569

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Conditions	**33.7**	**569**	**1,963**
Limiting Value	**5**	**150**	**650**
Condition Satisfied?	**Met**	**Met**	**Met**
Warrant Met	**YES**		

FEHR PEERS

Major Street	Roxford St
Minor Street	I-210 EB Ramps

Project	Olive View-UCLA MP TIA
Scenario	Existing Conditions
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	150	115	0
Through	242	332	2	0
Right	247	0	176	0
Total	489	482	293	0

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	18.6
Approach with Worst Case Delay	EB
Total Vehicles on Approach	293

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Existing Conditions	**1.5**	**293**	**1,264**
Limiting Value	**4**	**100**	**650**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

EXISTING PLUS PROJECT

FEHR PEERS

Project	Olive View-UCLA MP TIA
Scenario	Existing plus Project Conditions
Peak Hour	AM

Major Street	Olive View Drive
Minor Street	Bledsoe St

Turn Movement Volumes

	NB	SB	EB	WB
Left	132	7	88	57
Through	79	37	119	148
Right	89	61	53	22
Total	300	105	260	227

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	14
Approach with Worst Case Delay	NB
Total Vehicles on Approach	300

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing plus Project Conditions	**1.2**	**300**	**892**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Olive View Drive
Minor Street	Bledsoe St

Project	Olive View-UCLA MP TIA
Scenario	Existing plus Project Conditions
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	71	23	30	34
Through	22	50	104	134
Right	34	105	131	8
Total	127	178	265	176

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	10
Approach with Worst Case Delay	SB
Total Vehicles on Approach	178

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Existing plus Project Conditions	**0.5**	**178**	**746**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Roxford St
Minor Street	I-210 EB Ramps

Project	Olive View-UCLA MP TIA
Scenario	Existing plus Project Conditions
Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	107	438	0
Through	590	472	0	0
Right	270	0	256	0
Total	860	579	694	0

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	498.6
Approach with Worst Case Delay	EB
Total Vehicles on Approach	694

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Existingplus Project Conditions	**96.1**	**694**	**2,133**
Limiting Value	**5**	**150**	**650**
Condition Satisfied?	**Met**	**Met**	**Met**
Warrant Met	**YES**		

FEHR PEERS

Project	Olive View-UCLA MP TIA
Scenario	Existing plus Project Conditions
Peak Hour	PM

Major Street	Roxford St
Minor Street	I-210 EB Ramps

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	172	182	0
Through	254	354	2	0
Right	247	0	176	0
Total	501	526	360	0

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	44.5
Approach with Worst Case Delay	EB
Total Vehicles on Approach	360

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Existing plus Project Conditions	**4.5**	**360**	**1,387**
Limiting Value	**5**	**150**	**650**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

CUMULATIVE

FEHR PEERS

Project	Olive View-UCLA MP TIA
Scenario	Cumulative Conditions
Peak Hour	AM

Major Street	Olive View Drive
Minor Street	Bledsoe St

Turn Movement Volumes

	NB	SB	EB	WB
Left	124	7	63	60
Through	77	36	116	147
Right	94	51	49	21
Total	295	94	228	228

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	13.2
Approach with Worst Case Delay	NB
Total Vehicles on Approach	295

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Cumulative Conditions	**1.1**	**295**	**845**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Olive View Drive
Minor Street	Bledsoe St

Project	Olive View-UCLA MP TIA
Scenario	Cumulative Conditions
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	68	22	15	34
Through	20	46	99	132
Right	35	85	124	8
Total	123	153	238	174

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	9.5
Approach with Worst Case Delay	SB
Total Vehicles on Approach	123

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Cumulative Conditions	**0.3**	**153**	**688**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Not Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Roxford St
Minor Street	I-210 EB Ramps

Project	Olive View-UCLA MP TIA
Scenario	Cumulative Conditions
Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	105	342	0
Through	697	556	0	0
Right	309	0	399	0
Total	1,006	661	741	0

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	370.1
Approach with Worst Case Delay	EB
Total Vehicles on Approach	741

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Cumulative Conditions	**76.2**	**741**	**2,408**
Limiting Value	**5**	**150**	**650**
Condition Satisfied?	**Met**	**Met**	**Met**
Warrant Met	**YES**		

FEHR PEERS

Project	Olive View-UCLA MP TIA
Scenario	Cumulative Conditions
Peak Hour	PM

Major Street	Roxford St
Minor Street	I-210 EB Ramps

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	164	125	0
Through	324	384	2	0
Right	325	0	252	0
Total	649	548	379	0

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	25.4
Approach with Worst Case Delay	EB
Total Vehicles on Approach	379

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Cumulative Conditions	**2.7**	**649**	**1,576**
Limiting Value	**5**	**150**	**650**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

CUMULATIVE PLUS PROJECT

FEHR PEERS

		Project	Olive View-UCLA MP TIA
Major Street	Olive View Drive	Scenario	Cumulative plus Project Conditions
Minor Street	Bledsoe St	Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	142	8	93	62
Through	85	40	129	160
Right	97	65	57	24
Total	324	113	279	246

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	15.6
Approach with Worst Case Delay	NB
Total Vehicles on Approach	324

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Cumulative plus Project Conditions	**1.4**	**324**	**962**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Olive View Drive
Minor Street	Bledsoe St

Project	Olive View-UCLA MP TIA
Scenario	Cumulative plus Project Conditions
Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	77	25	31	37
Through	24	54	112	145
Right	37	112	141	9
Total	138	191	284	191

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	4

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	10.5
Approach with Worst Case Delay	SB
Total Vehicles on Approach	191

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Cumulative plus Project Conditions	**0.6**	**191**	**804**
Limiting Value	**4**	**100**	**800**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Project	Olive View-UCLA MP TIA
Scenario	Cumulative plus Project Conditions
Peak Hour	AM

Major Street	Roxford St
Minor Street	I-210 EB Ramps

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	116	467	0
Through	720	567	0	0
Right	309	0	399	0
Total	1,029	683	866	0

Major Street Direction

x	North/South
	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	750.6
Approach with Worst Case Delay	EB
Total Vehicles on Approach	866

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Cumulative plus Project Condition	**180.6**	**866**	**2,578**
Limiting Value	**5**	**150**	**650**
Condition Satisfied?	**Met**	**Met**	**Met**
Warrant Met	**YES**		

FEHR PEERS

Project	Olive View-UCLA MP TIA
Scenario	Cumulative plus Project Conditions
Peak Hour	PM

Major Street	Roxford St
Minor Street	I-210 EB Ramps

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	186	192	0
Through	336	406	2	0
Right	325	0	252	0
Total	661	592	446	0

Major Street Direction

	North/South
x	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	2
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	85.7
Approach with Worst Case Delay	EB
Total Vehicles on Approach	446

Warrant 3A, Peak Hour

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced (vph)
Cumulative plus Project Conditions	**10.6**	**661**	**1,699**
Limiting Value	**5**	**150**	**650**
Condition Satisfied?	**Met**	**Met**	**Met**
Warrant Met	**YES**		

APPENDIX F: MEMORANDUM OF UNDERSTANDING

SCOPING FOR TRAFFIC STUDY

Project Name:	Olive View-UCLA Medical Center Master Plan

This Memorandum of Understanding (MOU) acknowledges Los Angeles County Department of Public Works, Traffic and Lighting Division (TLD) requirements of traffic impact analysis for the project and is subject to change:

Project Address:	14445 Olive View Dr, Los Angeles, CA 91342		
Project Description:	The proposed project is an update to the Olive View-UCLA Medical Center Master Plan. The project includes both the redevelopment of existing land uses and the construction of new related land uses (research and development space). The master plan will be implemented in two tiers. Only Tier 1 will be analyzed quantitatively as part of this study. The attached Figures 1 and 2 show the existing uses on the site and the Tier 1 boundaries, respectively. The net change on the project site would be composed of: • Addition of 43,700 square feet of administrative office • Addition of 26,000 square feet of central utilities • Addition of 312,700 square feet of hospital • Addition of 20,000 square feet of community center • Addition of 18,800 square feet of warehouse/storage space • 80 units of crisis residential housing and 48 units of recuperative housing		
City:	Los Angeles		
Project Build-out Year:	2035	**Ambient or CMP Growth Rate Per Year:**	0.46%
Closest Intersection (Xtn) to the Project			
Xtn N/S Street Name:	Olive View Drive		
Xtn E/W Street Name:	Bledsoe Drive		
Thomas Guide Pg+Grid:	481, J1 482, A1	**Los Angeles County Supervisorial District:**	5

	Consultant	Developer
Company:	Fehr & Peers	Olive View-UCLA Medical Ctr
Name:	Netai Basu	Hoda El Sokkary, P.E., M.Sc.
Address:	600 Wilshire Blvd, Suite 1050	900 S. Fremont Ave.
City, State, Zip Code:	Los Angeles, CA 90017	Alhambra, CA 91803
Phone #:	(213) 261-3073	(626) 300-2332
Fax #:		
Email:	nbasu@fehrandpeers.com	HELSOKKARY@dpw.lacounty.gov

For General Questions, please contact Traffic Studies Section at (626) 300-4740

By: GS
Date: 1/24/19

SCOPING FOR TRAFFIC STUDY

Project Name:	Olive View-UCLA Medical Center Master Plan

By:	Reviewed By:
Print Name: Netai Basu	Print Name: Ghassan Shelleh
Phone: 213-261-3073	Phone: 626.300.4820
Email: n.basu@fehrandpeers.com 1-24-19	Email: gshelleh@dpw.lacounty.gov 1/24/19
Consultant/Developer's Representative Date	TLD's Representative Date
By:	
Print Name: Durre Shamsi	
Phone: 818-374-4699	
Email: durre.shamsi@lacity.org	
City of Los Angeles DOT Representative Date	

1. Traffic Distribution: Figure(s) illustrating project trip distribution in percentages and volumes at the studied intersections analyzed.

See Figure 3.

Trip Credit/Reduction: Exact amount of credit subject to approval by TLD.

Existing Active Land Use Credit	Yes/no	Yes
Previous Land Use Credit	Yes/no	No
Internal Trip Reduction	Yes/no	Yes
Retail Pass-by Trip Reduction (10%)	Yes/no	No

For General Questions, please contact Traffic Studies Section at (626) 300-4740

By: GS
Date: 1/24/19

SCOPING FOR TRAFFIC STUDY

Project Name:	Olive View-UCLA Medical Center Master Plan

2. Trip Generation

Trip Generation Rate(s) Source: ITE Trip Generation	I – Institute of Transportation Engineers; S – San Diego Traffic Generators; C – County; O – Other:										
	Land Use Description (Code)	Trip Generation Source	*AVTE vs.	Quantity	Daily Trips Generated	Weekday a.m. peak		Weekday p.m. peak		Weekend peak hour	
						In	Out	In	Out	In	Out
	See Exhibits A and B	I, O				X	X	X	X	N/A	N/A

* - Average Vehicle Trip Ends.

By: GS
Date: 1/24/19

SCOPING FOR TRAFFIC STUDY

Project Name:	Olive View-UCLA Medical Center Master Plan

3. Study Intersections: At minimum, the study shall include the following intersections. The list is subject to change after related projects, trip generation and distribution are determined. Consultant should check with adjoining Cities regarding their requirements in addition to the following County/City Intersections. Documentation of the consultation from these agencies shall be included in the traffic study.

Xtn #	Jurisdictional Split	Thomas Guide Page+Grid	N/S and E/W Street Names	Signalized	CMP
1	Los Angeles City 100%	481, H2	Glenoaks Boulevard & Foothill Boulevard	Yes	No
2	Los Angeles City 100%	481, H2	Roxford Street & I-210 WB Ramps	Yes	No
3	Los Angeles City 100%	481, H2	Roxford Street & I-210 EB Ramps	No	No
4	Los Angeles City 100%	481, H2	Roxford Street & Foothill Boulevard	Yes	No
5	Los Angeles City 100%	481, H2	Roxford Street & Glenoaks Boulevard	Yes	No
6	Los Angeles City 100%	481, G4	Roxford Street & San Fernando Road	Yes	No
7	Los Angeles City 100%	481, F4	Roxford Street & Encinitas Avenue/I-5 NB Ramps	Yes	No
8	Los Angeles City 100%	481, F4	Roxford Street & I-5 SB Ramps	Yes	No
9	Los Angeles City 100%	482, A2	Bledsoe Street & Olive View Drive	No	No
10	Los Angeles City 100%	482, A2	Bledsoe Street & Foothill Boulevard	Yes	No

For General Questions, please contact Traffic Studies Section at (626) 300-4740

By: GS
Date: 1/24/19

SCOPING FOR TRAFFIC STUDY

Project Name:	Olive View-UCLA Medical Center Master Plan

Xtn #	Jurisdictional Split	Thomas Guide Page+Grid	N/S and E/W Street Names	Signalized	CMP
11	Los Angeles City 100%	482, B3	Glenoaks Boulevard & Bledsoe Street	Yes	No
12	Los Angeles City 100%	482, B3	Polk Street & I-210 WB Ramps	Yes	No
13	Los Angeles City 100%	482, A3	Polk Street & I-210 EB Ramps	Yes	No
14	Los Angeles City 100%	482, A3	Polk Street & Foothill Boulevard	Yes	No

For General Questions, please contact Traffic Studies Section at (626) 300-4740

By: GS
Date: 1/24/19

4. Related Projects: Project Consultant shall consultant with Los Angeles County Department of Regional Planning and planning departments of adjoining Cities to identify planned development in the vicinity of the project site.

5. Congested Management Program (CMP): Project Consultant shall conduct CMP analysis in accordance with the County's Traffic Impact Analysis Report Guidelines.

6. Freeway Analysis: Project Consultant shall consult with the State of California Department of Transportation (Caltrans) to determine the California Environmental Quality Act levels of significance with regard to traffic impacts on Caltrans' freeway facilities. This consultation shall also include a determination of Caltrans requirements for the study of traffic impacts to its facilities and the mitigation of any such impacts. This analysis must follow the most current Caltrans' Guide for the Preparation of Traffic Impact Studies (December 2002). If Caltrans finds that the project has a significant impact on the freeway, Caltrans shall be requested to include the basis for this finding in their response. If fees are proposed to mitigate the freeway impact, Caltrans shall be requested to identify the specific project to which the fees will apply. These written comments from Caltrans shall be included with the traffic study and submitted to Public Works for review and approval. If a documented good faith effort is made to consult with Caltrans and written comments cannot be obtained from within a reasonable amount of time, an analysis of the freeway impact shall be made using the County of Los Angeles' CMP Land Use Analysis Guidelines.

7. Site Access Analysis: Project's in rural areas shall conduct a site access analysis in accordance with the County's Access Management for Private Developments Guidelines Manual. All schools, waste/recycling collection or other projects as determined by TLD shall conduct a queuing analysis to ensure queues do not spill-over onto County roads. For schools, provide boundary map and information on neighboring schools including day care facilities. The traffic study will also document pick-up and drop-off procedures.

8. Other Instructions:

Traffic counts may be conducted immediately per the following:
• Must be taken on Tuesdays, Wednesdays or Thursdays.
• Must exclude holidays, and the first weekdays before and after the holiday.
• Must be taken on days when local schools or colleges are in session.
• Must be taken on days of good weather, and avoid atypical conditions (e.g., road construction, detours, or major traffic incidents).
• Traffic counts used for other traffic studies in the area shall **NOT** be reused again, unless 25% of the counts conducted for that particular traffic study are validated with new counts. The difference in volumes between the old and new counts at each corresponding movement should not be more than 10%.
• New traffic counts shall be checked to ensure the difference in volumes at corresponding approaches, if applicable, between two adjacent intersections is no more than 10% unless the difference can be justified.

For all proposed mitigation measures to address project specific impacts, the project shall include conceptual plans for the improvements in the traffic study which shall be made part of the review and approval of the traffic study. All proposed improvements shall be within public the right-of-way.

For General Questions, please contact Traffic Studies Section at (626) 300-4740

By: Ca S
Date: 1/24/19

Project Name:	Olive View-UCLA Medical Center Master Plan

For all proposed mitigation measures to address cumulative impacts, the project shall include conceptual plans and cost estimates for the improvements in the traffic study which shall be made part of the review and approval of the traffic study.

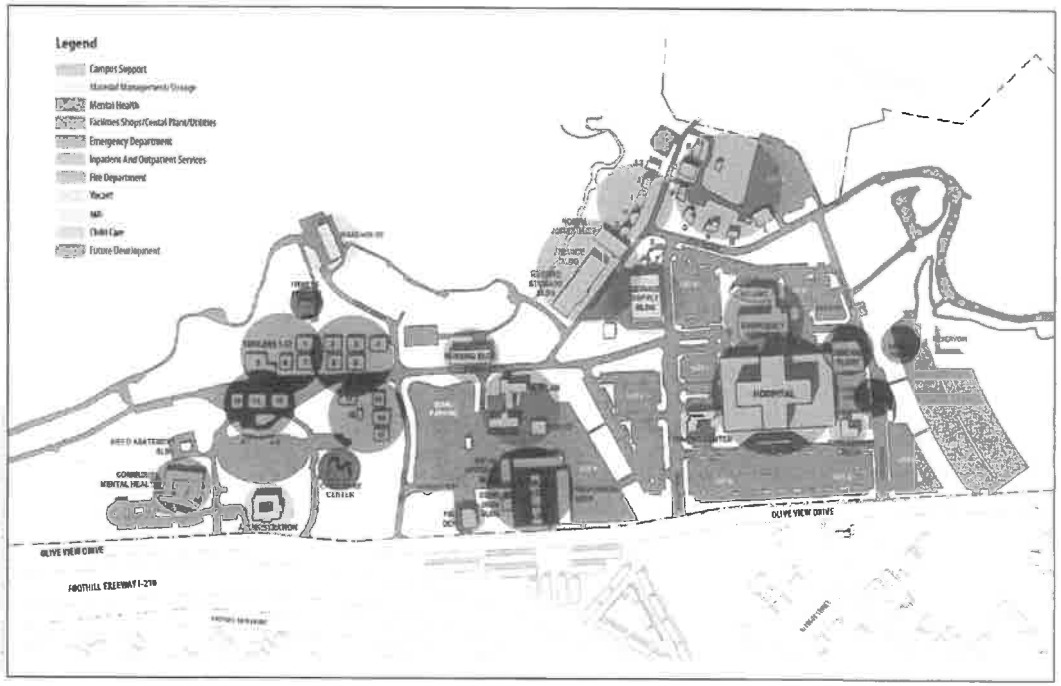
Unless otherwise approved by TLD, level-of-service analysis shall be performed based on the following scenarios:

(a) Traffic conditions in the vicinity of the project as they exist at the time the notice of preparation (NOP) is published, or if no NOP is published, at the time environmental analysis is commenced;
(b) Traffic in (a) plus project traffic;
(c) Traffic in (b) with the proposed mitigation measures (if necessary);
(d) Traffic in (b) plus the cumulative traffic that includes project and other known developments at the time the notice of preparation (NOP) is published, or if no NOP is published, at the time environmental analysis is commenced; and
(e) Traffic in (d) with the proposed mitigation measures (if necessary).
(f) Traffic in the cumulative base year, in accordance with City of Los Angeles guidelines.

Any required Traffic Index calculations shall be prepared in accordance with the latest version of the Caltrans Highway Design Manual

The comment period for the Notice of Preparation for the EIR ended on May 2, 2016. Existing traffic counts collected in March and June of 2016 will be used in this traffic study.

Department Receipt No.:		**Date:**	
Project No.:	P14445AC	**Studies No.:**	
Project Name:	Olive View-UCLA Medical Center Master Plan		
Applicant/Engineer:	Netai Basu (Traffic Study Project Mgr.)	**Telephone No.:**	(213) 261-3073
Company:	Fehr & Peers	**Fax No.:**	
Address:	600 Wilshire Blvd, Suite 1050		
City, State:	Los Angeles, CA	**Zip:**	90017



Existing Campus Land Use Plan

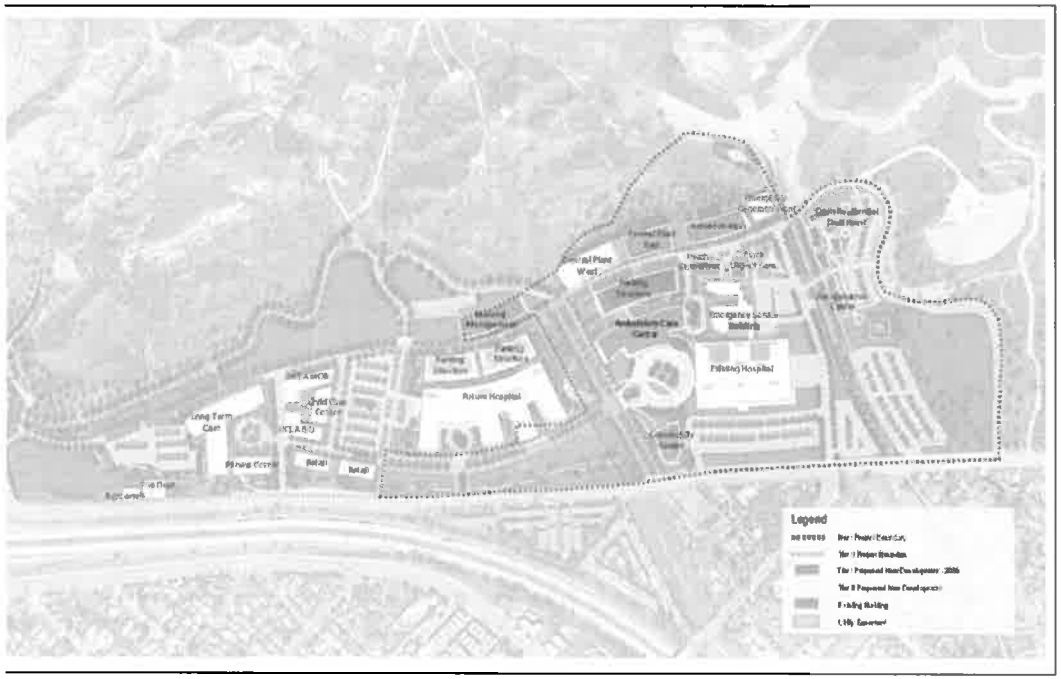
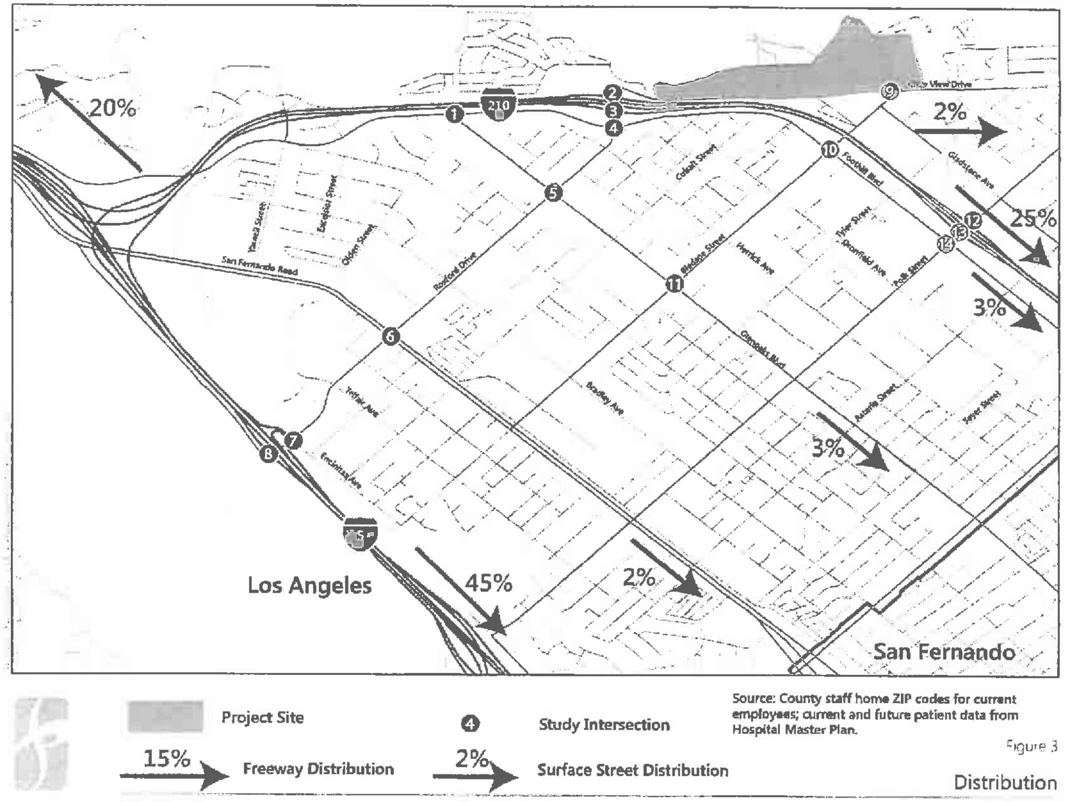


Figure 2

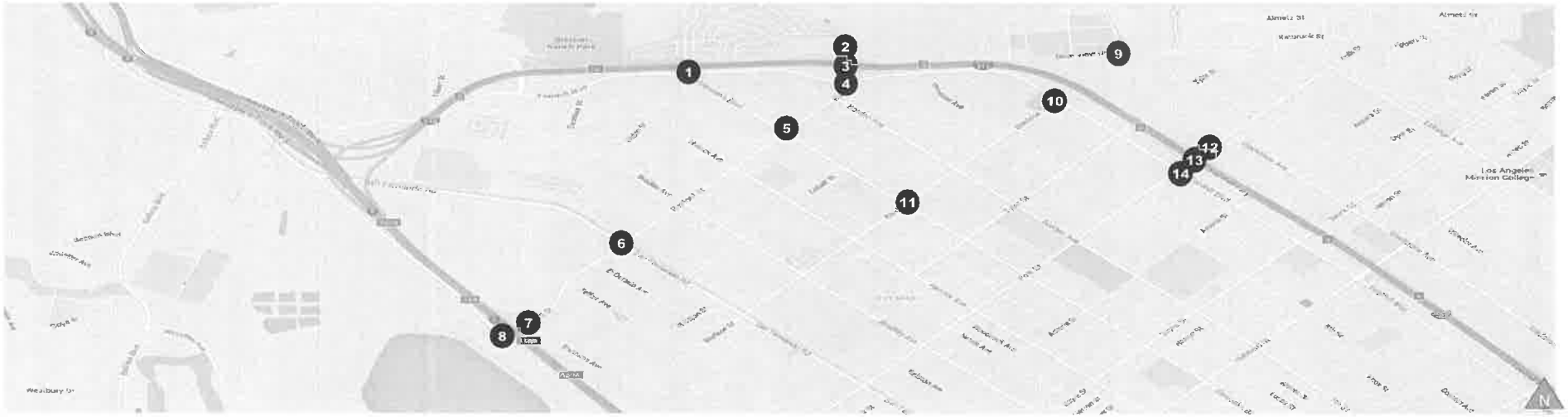
Site Map with Tier 1 Boundaries

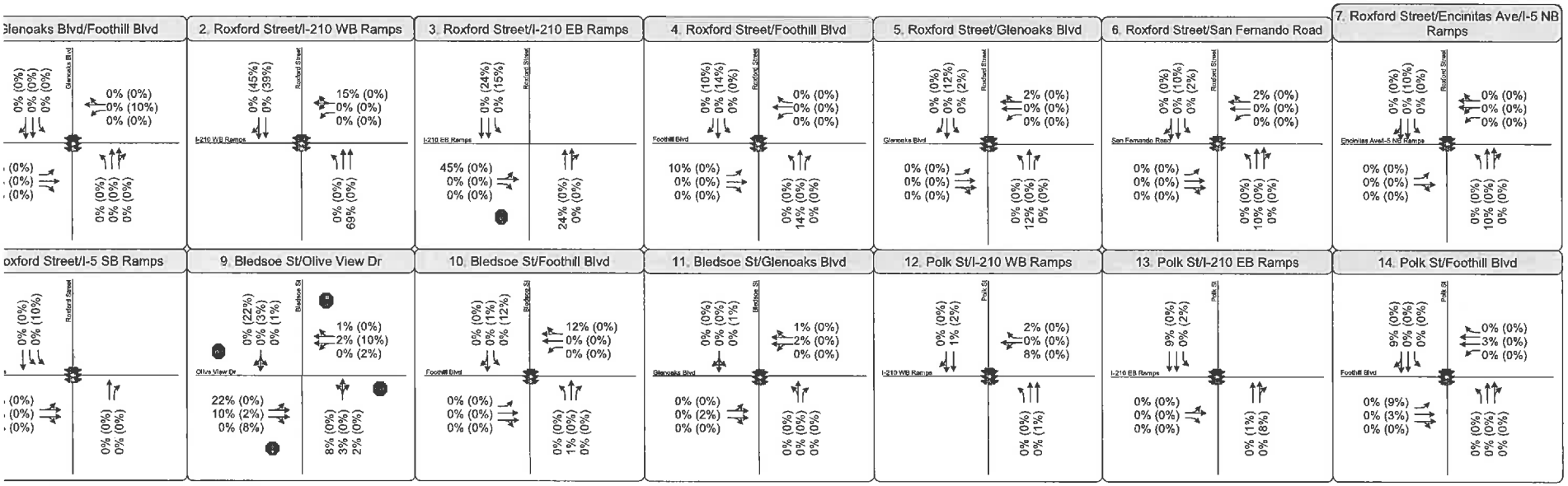


Source: County staff home ZIP codes for current employees; current and future patient data from Hospital Master Plan.

Figure 3

Distribution





LEGEND

- # Study Intersection
- XX% (XX%) Inbound (Outbound) Distribution
- Lane Configuration

Project Driveway Volumes:

Project trips were assigned to three sets of driveways: west of Bledsoe Street & Olive View Drive, Bledsoe Street & Olive View Drive, and east of Bledsoe Street & Olive View Drive. As shown in intersection #9, 26% of traffic is expected to access the project using the driveway at Bledsoe Street & Olive View Drive. There is only one driveway east of Bledsoe Street & Olive View Drive, which is assigned 12%. The remaining 62% of trips are assigned to the six driveways west of Bledsoe Street & Olive View Drive.

Figure 4
Project Distribution

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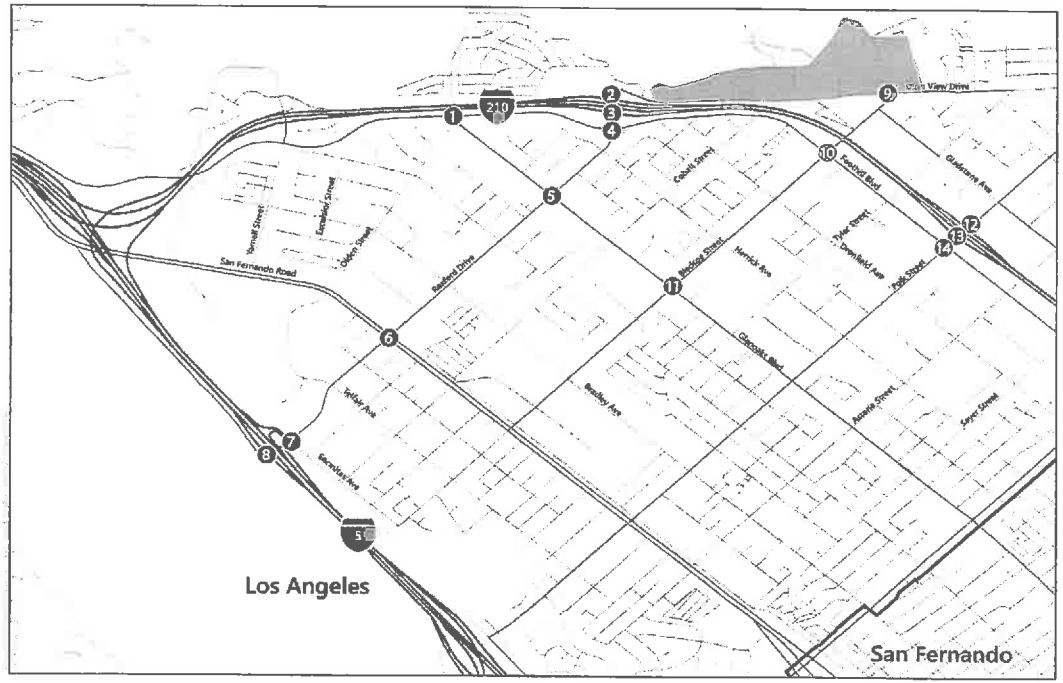


Project Site

4 Study Intersection

Figure 5

Study Area

EXHIBIT A
PROPOSED PROJECT TRIP GENERATION
OLIVE VIEW-UCLA MEDICAL CENTER MASTER PLAN TIER I DEVELOPMENT

	Land Use	ITE Land Use Code	Size [a]	Trip Generation Rates [b]							Estimated Trip Generation						
				Daily	AM Peak Hour			PM Peak Hour			Daily	AM Peak Hour Trips			PM Peak Hour Trips		
				Rate	Rate	% In	% Out	Rate	% In	% Out	Trips	In	Out	Total	In	Out	Total
Existing	**EXISTING USE**																
	Administrative Office	710	108.000 ksf	[c]	[c]	86%	14%	[c]	16%	84%	1,143	110	18	128	19	103	122
	Day Care Center	565	82 Students	4.09	[d]	53%	47%	[d]	47%	53%	335	34	29	63	29	33	62
	Central Utilities/Industrial /Infrastructure [e]	120	51.000 ksf	1.5	0.51	88%	12%	0.68	12%	88%	77	23	3	26	4	31	35
	Hospital/Inpatient	610	534.300 ksf	10.72	[f]	68%	32%	[f]	32%	68%	5,726	355	167	522	175	374	549
	Warehouse/Storage	150	49.300 ksf	[g]	[g]	77%	23%	[g]	27%	73%	123	24	7	31	9	25	34
	Mental Health	720	11.000 ksf	[h]	[h]	78%	22%	[h]	28%	72%	335	24	7	31	11	28	39
	Project Site Subtotal										**7,742**	**570**	**231**	**801**	**247**	**594**	**841**
	Internal Capture (10%) [j]										*-774*	*-57*	*-23*	*80*	*-25*	*-59*	*-84*
	Transit/Walk/Bike Credit (2%) [k]										*-139*	*-10*	*-4*	*-14*	*-4*	*-11*	*-15*
	Carpool (10%) [l]										*-697*	*-51*	*-21*	*-72*	*-22*	*-54*	*-76*
	Total Existing Trips										**6,132**	**452**	**183**	**635**	**196**	**470**	**666**
Proposed	**PROPOSED PROJECT (TIER 1)**																
	Administrative Office	710	151.700 ksf	[c]	[c]	86%	14%	[c]	16%	84%	1,590	145	24	169	27	142	169
	Day Care Center	565	82 Students	4.09	[d]	53%	47%	[d]	47%	53%	335	34	29	63	29	33	62
	Central Utilities/Industrial /Infrastructure [e]	120	77.600 ksf	1.5	0.51	88%	12%	0.68	12%	88%	116	34	5	39	6	46	52
	Hospital/Inpatient	610	847.000 ksf	10.72	[f]	68%	32%	[f]	32%	68%	9,080	512	241	753	260	552	812
	Community Center	495	20.000 ksf	28.82	[i]	66%	34%	[i]	47%	53%	576	51	26	77	34	38	72
	Warehouse/Storage	150	68.100 ksf	[g]	[g]	77%	23%	[g]	27%	73%	153	25	8	33	10	26	36
	Mental Health	720	10.000 ksf	[h]	[h]	78%	22%	[h]	28%	72%	297	23	6	29	10	26	36
	Crisis Residential Housing	[m]	80 Units								306	74	20	94	0	74	74
	Recuperative Housing	[m]	48 Units								48	12	0	12	0	12	12
	Project Site Subtotal										**12,500**	**911**	**359**	**1,270**	**376**	**949**	**1,325**
	Internal Capture (10%) [j]										*-1,215*	*-82*	*-34*	*116*	*-38*	*-86*	*124*
	Transit/Walk/Bike Credit (2%) [k]										*-219*	*-15*	*-6*	*-21*	*-7*	*-15*	*-22*
	Carpool (10%) [l]										*-1,093*	*-74*	*-31*	*-105*	*-34*	*-78*	*-112*
	Total Proposed Trips										**9,973**	**740**	**288**	**1,028**	**297**	**770**	**1,067**
Net Change	**Net New Project**										**3,841**	**283**	**105**	**393**	**101**	**300**	**401**

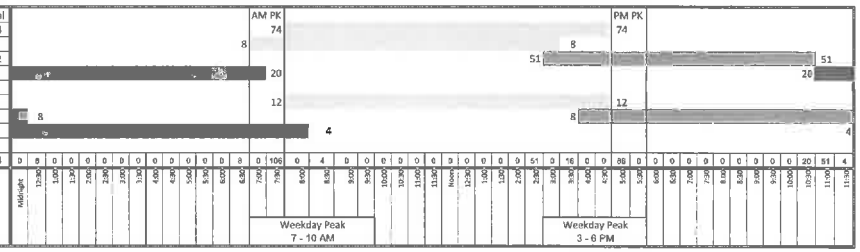
a. Size in thousand square feet (ksf) unless otherwise noted.
b. Source: Institute of Transportation Engineers (ITE), *Trip Generation, 10th Edition*, 2018, and *Trip Generation Handbook* (3rd Edition).
c. ITE administrative office trip generation equations used rather than linear trip generation rate:
   Daily: $Ln(T) = 0.97 * Ln(A) + 2.50$, where T = trips, A = area in ksf
   AM Peak Hour: $T = 0.94(A) + 26.49$, where T = trips, A = area in ksf
   PM Peak Hour: $Ln(T) = 0.95 * Ln(A) + 0.36$, where T = trips, A = area in ksf
d. ITE day care center trip generation equation used rather than linear trip generation rate for AM and PM periods:
   AM Peak Hour: $T = 0.66(X) + 8.42$, where T = trips, X = number of students
   PM Peak Hour: $Ln(T) = 0.87 * Ln(X) + 0.29$, where T = trips, X = number of students
e. ITE Code 120 not included in 10th Edition "Trip Generation." Rates and directional distribution taken from ITE 9th Edition code 120, General Heavy Industrial.
f. ITE hospital trip generation equation used rather than linear trip generation rate for AM and PM periods:
   AM Peak Hour: $T = 0.74(A) + 126.36$, where T = trips, A = area in ksf
   PM Peak Hour: $T = 0.84(A) + 100.56$, where T = trips, A = area in ksf
g. ITE warehousing trip generation equation used rather than linear trip generation rate:
   Daily: $T = 1.58(A) + 45.54$, where T = trips, A = area in ksf
   AM Peak Hour: $T = 0.12(A) + 25.32$, where T = trips, A = area in ksf
   PM Peak Hour: $T = 0.12(A) + 27.82$, where T = trips, A = area in ksf
h. ITE medical-dental office building trip generation equation used rather than linear trip generation rate:
   Daily: $T = 36.42(A) - 87.62$, where T = trips, A = area in ksf
   AM Peak Hour: $Ln(T) = 0.83 * Ln(A) + 1.31$, where T = trips, A = area in ksf
   PM Peak Hour: $T = 3.39(A) + 2.02$, where T = trips, A = area in ksf
i. ITE Recreational Community Center trip generation equations used rather than linear trip generation rate:
   AM Peak Hour: $Ln(T) = 0.54 * Ln(A) + 2.73$, where T = trips, A = area in ksf
   PM Peak Hour: $Ln(T) = 0.76 * Ln(A) + 2.00$, where T = trips, A = area in ksf
j. Internal capture represents the percentage of trips between land uses that occur within the site.
k. Transit/Walk/Bike Credit informed by data from the 2016 AQMD survey
l. Carpool Credit informed by data from the 2016 AQMD survey.
m. See Exhibit B for detailed trip generation estimates for this project element.

Exhibit B
Estimated Weekday Trip Generation of Special Needs Housing
AVR = 1.22

	in	out	total
AM Pk Hr	86	20	106
PM Pk Hr	0	86	86

Day shift
Swing shift
Graveyard shift

	Staff	In	Out	Total
Crisis Res - Clinical	90	74	74	148
Crisis Res - Resid Care	10	8	8	16
Crisis Residential	62	51	51	102
Crisis Residential	26	20	20	40
Recuperative Care	15	12	12	24
Recuperative Care	10	8	8	16
Recuperative Care	5	4	4	8
				0
Total Trips		177	177	354



Appendix K

Utilities/Water Supply Assessment

Olive View UCLA Medical Center
Tier 1 Calculated Total Additional Water Demand

Demand Type	Quantity	Unit	Standard Water Use Factor [a,b] (gpd/unit)	Conservation Water Use Factor[c]	Water Use (gpd)	afy	% of Total
Existing Conditions							
Existing Conditions Indoor Water Demand							
Inpatient Hospital	355	beds	70.00	n/a	24,850	27.84	23.3%
Community Center--daycare	186	children	9.00	n/a	1,674	1.88	1.6%
Administrative Offices	108,000	sq ft	0.12	n/a	12,960	14.52	12.1%
Mental Health (Outpatient)	11,000	sq ft	0.25	n/a	2,750	3.08	2.6%
Materials Management	32,500	sq ft	0.03	n/a	975	1.09	0.9%
Central Utility Plant	51,000	sq ft	0.05	n/a	2,550	2.86	2.4%
Support Services Buildings	16,800	sq ft	0.12	n/a	2,016	2.26	1.9%
Storage Trailers	61,000	sq ft	0.03	n/a	1,830	2.05	1.7%
Parking Facilities	1,090,000	sq ft	0.02	n/a	21,800	24.42	20.4%
Total Indoor Water Demand	-	-	-	-	71,405	79.98	66.8%
Existing Conditions Landscape Irrigation[d,e]							
Hydrozone 1	13,550	sq ft	-	-	1,276	1.43	1.2%
Hydrozone 2	580,555	sq ft	-	-	34,163	38.27	32.0%
Total Landscape Irrigation	594,106	sq ft	-	-	35,439	39.70	33.2%
Existing Conditions Water Demand					**106,844**	**119.68**	100.0%
Proposed Conditions[f]							
Proposed Conditions Indoor Water Demand							
Inpatient Hospital	355	beds	70.00	45.50	16,153	18.09	10.4%
Ambulatory Care Center	296,000	sq ft	0.25	0.16	48,100	53.88	30.9%
Community Center--daycare	186	children	9.00	5.85	1,088	1.22	0.7%
Community Center	600	occupants	3.00	1.95	1,170	1.31	0.8%
Administrative Offices	151,700	sq ft	0.12	0.08	11,833	13.25	7.6%
Mental Health (Outpatient)	11,000	sq ft	0.25	0.16	1,788	2.00	1.1%
Materials Management	30,500	sq ft	0.03	0.02	595	0.67	0.4%
Central Utility Plant	52,000	sq ft	0.05	0.03	1,690	1.89	1.1%
Central Utility Plant Offices	25,000	sq ft	0.12	0.08	1,950	2.18	1.3%
Support Services Building	16,800	sq ft	0.12	0.08	1,310	1.47	0.8%
Storage Trailers	61,000	sq ft	0.03	0.02	1,190	1.33	0.8%
Parking Facilities	894,000	sq ft	0.02	0.01	11,622	13.02	7.5%
Total Indoor Water Demand	-	-	-	-	98,487	110.32	63.4%
Proposed Conditions Landscape Irrigation[d,e]							
Hydrozone 1	103,431	sq ft	-	-	9,017	10.10	5.8%
Hydrozone 2	197,914	sq ft	-	-	10,784	12.08	6.9%
Hydrozone 3	428,778	sq ft	-	-	18,690	20.94	12.0%
Hydrozone 4	237,806	sq ft	-	-	7,774	8.71	5.0%
Hydrozone 5	490,474	sq ft	-	-	10,690	11.97	6.9%
Total Landscape Irrigation	1,354,972	sq ft	-	-	56,955	63.80	36.6%
Proposed Conditions Water Demand					**155,442**	**174.12**	100.0%
Total Net Potable Water Demand[g]					**48,598**	**54.44**	45.5%

a) Bureau of Sanitation. Sewerage Facilities Charge, Sewage Generation Factors for Residential and Commercial Categories. Effective April 6, 2012.

b) Input on sewage generation factors was provided by LA County staff for all facility categories except Inpatient Hospital and Parking Facilities.

c) Standard multiplied by (1-conservation reduction, or 65%) for Proposed Conditions only. Minimum conservation reduction required in Master Plan is 35%.

d) Hydrozone 1 is high water use plants (e.g. turf), Hydrozone 2 is medium water use plants (e.g. trees), Hydrozone 3 is medium-low water use plants (e.g. bioretention plants), Hydrozone 4 is low water use plants (e.g. drought-tolerant), and Hydrozone 5 is areas with initially high water use to establish plants and then little to no irrigation required (e.g. native woodland rehabilitaiton).

e) Irrigation water use was calculated using the Estimated Total Water Use (ETWU) as required by the California Department of Water Resources Code of Regulations Title 23, Division 2, Chapter 2. Model Water Efficient Landscape Ordinance.

f) Proposed conditions include Tier 1 new development and existing conditions that will remain in place after Tier 1 completion.

g) Net potable water demand determined by subtracting Existing Conditions Water Demand from Proposed Conditions Water Demand. Net increase is 45.5%

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

GAIL FARBER, Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
http://dpw.lacounty.gov

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

April 24, 2019

IN REPLY PLEASE
REFER TO FILE: PJ-2

Richard F. Harasick
Senior Assistant General Manager – Water Systems
City of Los Angeles
Department of Water and Power
111 North Hope Street, Room 1455
Los Angeles, CA 90012-5701

Attention Ms. Jin Hwang

Dear Mr. Harasick:

OLIVE VIEW-UCLA MEDICAL CENTER CAMPUS MASTER PLAN PROJECT WATER CONSERVATION COMMITMENTS

The County of Los Angeles (County) proposes to develop the Olive View-UCLA Medical Center Campus Master Plan Project (Proposed Project). The campus sits on 230 acres and currently consists of 804,200 square feet of developed area. The Proposed Project is divided into two tiers, Tier 1, which is anticipated to be completed by 2035, and Tier 2, which would only be implemented if needed after 2035, with an anticipated completion in 2050.

The Proposed Project when completed will develop approximately 40,000 square feet of retail space; 600,000 square feet of hospital space; 296,000 square feet of ambulatory care center; 120,000 square feet of research and development facilities; a 20,000-square-foot community center; approximately 96,000 square feet of administrative offices; an 83,000-square foot Restorative Care Village (including recuperative care center, residential treatment program facility, psychiatric urgent care, and mental health wellness center); 68,000 square feet of materials management facilities; a 154,000-square-foot central utility plant; and over 2,000,000 square feet of landscaped and rehabilitated outdoor courtyards and gathering spaces. The Proposed Project would also include 132,000 square feet of new/replacement surface parking and a 380,000-square-foot parking structure. As part of the Proposed Project, existing facilities that collectively comprise approximately 285,000 square feet of floor area on-site would be removed. The Proposed Project new landscaping would cover approximately 1,610,000 square feet, or approximately 37 acres.

The County has committed to comply with the City of Los Angeles Low Impact Development Ordinances (City Ordinance No. 181899 and No. 183833) and to implement

DRAFT

Best Management Practices that have stormwater recharge or reuse benefits for the Proposed Project as applicable:

- Bioretention – captures first-flush storm water, removes pollutants through a variety of physical, biological, and chemical treatment processes, and contributes towards recharging groundwater.
- Dry Wells (alternative to bioretention in parking lots) – captures and infiltrates storm water (similar to pervious pavements) and allows storm water to infiltrate into the groundwater basin.
- Pervious pavements – captures runoff by allowing storm water to pass through the pavement surface and then infiltrate into the groundwater basin.
- Catch basin screens.

The County understands the City of Los Angeles policy that future water needs shall be met by expanding water recycling and conservation. The County has committed to implementing the following water conservation measures, which are in addition to those required by codes and ordinances for the entire Proposed Project:

- Drip/ Subsurface Irrigation (Micro-Irrigation)
- Proper Hydro-zoning/ Zoned Irrigation (groups plants with similar water requirements together)
- Landscaping Contouring to minimize precipitation runoff
- Drought Tolerant Plants – 77% of total new landscaping (approximately 1,245,000 square feet or 28.6 acres)
- Water Conserving turf – 100% of new turf added to landscaping (approximately 119,800 square feet or 2.8 acres)
- Remaining Proposed Project landscaping (242,000 square feet or 5.6 acres) be medium water use plants with a maximum average plant factor of 0.50
- Average total Proposed Project landscaping plant factor will be 0.42 or less (calculated required maximum plant factor is 0.45)

The following is the information on estimated plumbing fixture and appliance counts. Table 1 provides the estimated fixture and appliance counts for the buildings that will be removed in Tier 1 and in Tier 2. Table 2 provides the estimated fixture and appliance counts for the proposed new buildings in Tier 1 and Tier 2. Table 3 provides the net increase in fixtures and appliances as a result of Tier 1 and Tier 2 demolition and construction. The total estimates include Tier 1 and Tier 2 and reflect the net increase after the entire project proposed demolition and development is completed. Table 3 is based on the difference between the values in Table 1 and the values in Table 2. Occupancy load factors and minimum required fixture estimates were derived from the 2013 California Plumbing Code, Chapter 4, Section 422. Some of the plumbing fixture and appliance counts were increased from the minimum required values.

TABLE 1: EXISTING FIXTURE AND APPLIANCE COUNTS TO BE REMOVED

Existing Use to be Removed	Toilets	Urinals	Bath Faucets	Kitchen Faucets	Commercial Kitchen Pre-Rinse Spray Faucets	Showerheads	Clothes washer (Commercial)	Dishwasher (Commercial)	Clothes washer (Residentiall)	Dishwasher (Residential)
Tier I										
Inpatient Hospital: Clinical & General Support[1]	2	1	2	1	0	0	0	0	0	0
Administration Office[1]	12	3	6	1	0	0	0	0	0	0
Materials Management[1]	6	2	4	1	0	0	0	0	0	0
Central Utility Plant Maintenance[3]	2	0	2	1	0	2	0	0	0	0
Central Utility Plant Office[1]	4	1	2	1	0	0	0	0	0	0
Support Services Building[1]	4	1	2	1	0	0	0	0	0	0
Tier II										
Inpatient Hospital: Clinical & General Support (includes 5,000 sq ft/150 seat cafeteria)[1]	12	4	7	2	2	0	0	2	0	0
Inpatient Hospital: Inpatient Care (355 beds)[8]	178	0	178	0	0	178	0	0	0	0
Inpatient Hospital: Diagnostic & Treatment[1]	16	4	12	1	0	0	0	0	0	0
Inpatient Hospital: Administrative Services[1]	12	4	8	1	0	0	0	0	0	0
Inpatient Hospital: Department Office[1]	6	2	4	1	0	0	0	0	0	0
Inpatient Hospital: Hospital/Campus Support[1]	16	4	10	1	0	0	5	4	0	0
Inpatient Hospital: Vacant Buildings[1]	6	2	4	1	0	0	0	0	0	0
Community Center Child Care[2]	12	2	5	1	0	0	0	0	0	0
Administration Office[1]	12	2	5	1	0	0	0	0	0	0
Mental Health Office[1]	4	1	2	1	0	0	0	0	0	0
Storage Trailers[4]	2	0	2	1	0	0	0	0	0	0

[1]Occupancy load to determine minimum fixtures was 200 square feet per person
[2]Occupancy load was 186 children for child care and 600 occupants/20,000 square feet for community center (600 occupants Tier 1 and 921 occupants Tier 2)
[3]Occupancy load to determine minimum fixtures was 2,000 square feet per person
[4]Occupancy load to determine minimum fixtures was 5,000 square feet per person
[5]Based on building square foot and occupancy load of 200 square feet per person with a minimum number of toilets, bath faucets, and showerheads based on 24 rooms.
[6]Based on building square foot and occupancy load of 200 square feet per person with a minimum number of toilets, bath faucets, and showerheads based on 40 rooms.
[7]Based on building square foot and occupancy load of 200 square feet per person with a minimum number of toilets, bath faucets, and showerheads based on 8 rooms.
[8]Based on 355 beds and double occupancy with one fixture (toilet, bath faucet, and shower) per room.
[9]Based on 120 studios and 60 rooms with toilets, bath faucets, showerheads, and residential kitchens based on number of studios or rooms.

TABLE 2: PROPOSED FIXTURE AND APPLIANCE COUNTS TO BE ADDED

Proposed Use	Toilets	Urinals	Bath Faucets	Kitchen Faucets	Commercial Kitchen Pre-Rinse Spray Faucets	Showerheads	Clothes washer (Commercial)	Dishwasher (Commercial)	Clothes washer (Residentiall)	Dishwasher (Residential)
Tier I										
Ambulatory Care Center Outpatient Facility[1]	25	5	15	1	0	0	0	0	0	0
Community Center[2]	17	2	7	1	1	0	0	1	0	0
Recuperative Care Center[5]	28	1	30	1	1	24	1	1	0	0
Residential Treatment Program Facility[6]	51	2	55	2	1	40	1	1	0	0
Psychiatric Urgent Care[7]	11	1	10	1	1	8	1	1	0	0
Mental Health Wellness Center[1]	3	1	2	1	0	0	0	0	0	0
Administration Office[1]	16	6	10	1	0	0	0	0	0	0
Materials Management[1]	13	5	9	3	0	1	0	0	0	0
Central Utility Plant Maintenance[3]	2	0	2	2	0	3	0	0	0	0
Central Utility Plant Office[1]	6	2	4	1	0	0	0	0	0	0
Tier II										
Repurposed Inpatient Hospital: Medical Office[1]	32	10	20	1	0	0	0	0	0	0
New Inpatient Hospital: Inpatient Care (355 beds)[8]	178	0	178	0	0	178	5	4	0	0
New Inpatient Hospital: Diagnostic & Treatment[1]	16	4	10	1	0	0	0	0	0	0
New Inpatient Hospital: Clinical & General Support (includes 5,000 sq ft/150 seat cafeteria)[1]	12	3	6	4	2	0	0	2	0	0
New Inpatient Hospital: Administration Office[1]	6	2	4	1	0	0	0	0	0	0
New Inpatient Hospital: Department Office[1]	18	6	14	1	0	0	0	0	0	0
Research and Development[1]	16	4	10	8	0	0	0	0	0	0
Community Center Child Care[2]	9	0	6	2	0	0	1	1	0	0
Community Center[2]	7	2	4	1	1	0	0	1	0	0
Retail[1]	4	2	2	0	0	0	0	0	0	0
Central Utility Plant Maintenance[3]	2	0	2	2	0	3	0	0	0	0
Central Utility Plant Office[1]	6	2	4	1	0	0	0	0	0	0
Long-Term Care Residential with Kitchen (studio)[9]	120	0	120	120	4	120	4	4	120	120
Long-Term Care Residential with Kitchen (room)[9]	60	0	60	60	2	60	2	2	60	60

[1]Occupancy load to determine minimum fixtures was 200 square feet per person
[2]Occupancy load was 186 children for child care and 600 occupants/20,000 square feet for community center (600 occupants Tier 1 and 921 occupants Tier 2)
[3]Occupancy load to determine minimum fixtures was 2,000 square feet per person
[4]Occupancy load to determine minimum fixtures was 5,000 square feet per person
[5]Based on building square foot and occupancy load of 200 square feet per person with a minimum number of toilets, bath faucets, and showerheads based on 24 rooms.
[6]Based on building square foot and occupancy load of 200 square feet per person with a minimum number of toilets, bath faucets, and showerheads based on 40 rooms.
[7]Based on building square foot and occupancy load of 200 square feet per person with a minimum number of toilets, bath faucets, and showerheads based on 8 rooms.
[8]Based on 355 beds and double occupancy with one fixture (toilet, bath faucet, and shower) per room.
[9]Based on 120 studios and 60 rooms with toilets, bath faucets, showerheads, and residential kitchens based on number of studios or rooms.

TABLE 3: NET INCREASE IN FIXTURE AND APPLIANCE COUNTS

Project Phase	Toilets	Urinals	Bath Faucets	Kitchen Faucets	Commercial Kitchen Pre-Rinse Spray Faucets	Showerheads	Clothes washer (Commercial)	Dishwasher (Commercial)	Clothes washer (Residentiall)	Dishwasher (Residential)
Tier 1[1]	142	17	126	8	4	74	3	4	0	0
Tier 2[2]	210	10	203	191	7	183	7	8	180	180
TOTAL[3]	352	27	329	199	11	257	10	12	180	180

[1]The Tier 1 values were determined by adding up the total counts for Tier 1 for each fixture and appliance in Tier 1 that will be removed due to demolition (Table 1) and subtracting it from the total counts for Tier 1 for each fixture and appliance that will be added due to new development (Table 2).
[2]The Tier 2 values were determined by adding up the total counts for Tier 2 for each fixture and appliance in that will be removed due to demolition (Table 1) and subtracting it from the total counts for Tier 2 for each fixture and appliance that will be added due to new development (Table 2).
[3]The total fixture and appliance counts are the sum of Tier 1 and Tier 2 and represent the total net increase in fixture and appliance counts due to demolition and new development.

Please note that since the proposed project is a master plan, detailed designs of future campus facilities have not yet been completed. As such, the information presented above is preliminary and may change as the project moves into detailed design phases.

If you have any questions, please contact Ms. Clarice Nash of my staff at (626) 300-2363 or at cnash@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works

ANDREW K. MOEY
Assistant Deputy Director
Project Management Division I

CN:ms
U:\pmdI\health\OV-UCLA MP\Admin\Corres\Letter\DWP
cc: Chief Executive Office (Arena Turner)
ICF International (Lee Lisecki)
bc: Project Management I (Nash, McGauhey)

Appendix L

Fire Response, OVMC Fire Manual, and OVMC Safety Plan

To: LAFDrequest@lacity.org; lafd.valleybureau@lacity.org

From: Tanya Jones, ICF International

Date: 7/6/2016

Re: Data Request for the Olive View-UCLA Medical Center Master Plan Environmental Impact Report (EIR)

The proposed Olive View-UCLA Medical Center Campus Master Plan (proposed project) is intended to guide development of the campus over time and the delivery of health care services and health related community programs. In the near-term (through year 2035), development under the Master Plan would include construction of an Ambulatory Care Center, research and development buildings, a Community Center, improvements to the existing hospital, new parking facilities, and other campus improvements. Beyond 2035, development could include the construction of a new inpatient hospital, support services building, mental health outpatient care facility, long-term care and recuperative housing, retail space, and County department buildings, and the renovation and reuse of the existing inpatient hospital for other purposes. Full build out of the Master Plan could result in a total of approximately 1,900,000 square feet of development throughout the campus.

An aerial map delineating the specific site location and study area at 14445 Olive View Drive, Sylmar, CA can be seen in *Figure 1.* The purpose of the environmental review is to determine whether or not these developments would have a significant impact on the ability to deliver public services to the project site and surrounding area.

Figure 1.

Santa Clara Creek
Mint Canyon
Lang
Vasquez Canyon Creek
Honby
Canyon Country
Pardee
Los Angeles Aqueduct
South Fork Santa Clara River
Humphreys
Pole Canyon Creek
Oak Spring Canyon Creek
Sand Canyon Creek
Iron Canyon Creek
Placerita Creek
Newhall
Bear Canyon Creek
Angeles National Forest
Olive View
Wash
Wilson Cyn Channel
Kagel Canyon
Sylmar
O'Melveny Park
San Fernando
East Canyon Channel
Aliso Canyon-Wash
East Wash
Pacoima Wash
Hansen
Whiteman Airport
Granada Hills
Mission Hills
Pacoima
Wilbur Wash
Bull Creek
Granada Channel
Pacoima Diversion Channel
Bradford
North Hills
Panorama City
Van Nuys Airport
N
0 0.5 1 2
Miles
Source: ESRI StreetMap North America (2010)
Kern
San Bernardino
Los Angeles
Orange
Riverside
Pacific Ocean
San Diego
USA
MEXICO

1. *Please confirm the following information. If anything is incorrect, please include a correction.*

City of Los Angeles Fire Department Station Number 91, located at 14430 Polk Street is the primary response station for the study area. According to FireStatLA, Station 91's response metrics from January to May 2016 were an average of one minute and seven seconds for turnout and five minutes and 22 seconds for travel time for 2,326 EMS incidents. Non-EMS response metrics were one minute and six seconds for turnout and five minutes 22 seconds for travel time for 331 incidents. The National Fire Protection Agency maintains the Response Time Standard for First Fire Resources at 5 minutes and 20 seconds. The next nearest fire stations to the project site are Stations 18 and 75.

2. *Please provide the current information available regarding the resources at the primary response station in the below table.*

Data Need	***Response***
Number of engines	1
Number of trucks	0
Number of ambulances	1
Other equipment at the station (For example, Hazardous Materials Unit)	0
Total number of personnel (Number of Captains, Engineers, Firefighters, Paramedic Firefighters, and other relevant personnel designations)	4 enginge memebers 2 on Rescue Ambulance
Number of personnel per engine	4
Number of personnel per truck	N/A
Number of personnel per ambulance	2

3. *Since the project site is located within the City of Los Angeles, but on County of Los Angeles land, who/what entity would be responsible for reviewing project plans? The LA CO FD*

4. *Is it true that although LAFD is the primary emergency responder to the project site, plan check reviews would be completed by the County of Los Angeles Fire Department's Engineering Section?yes that is true*

5. *Are there any plans to construct, or are any additional stations being constructed? If yes, what is the timeline of these projects and where will they be located?*

A station is to be constructed but not in the immediate futre.

6. *Would your department require new hires or expansion of existing facilities or construction of new facilities to adequately serve the project? Not at this time.*

7. *Would operation of the proposed project result in an increase in average emergency response times, and would LAFD be able to accommodate proposed project-related fire protection demands?* Yes, there will be an increase fire and EMS response times.

8. *Please provide any additional information you believe would be pertinent to evaluating the impacts the proposed development might have on the provision of fire services within the area.*

FIRE MANUAL

County of Los Angeles
Department of Health Services
Olive View-UCLA Medical Center
14445 Olive View Drive
Sylmar, CA 91342
(747) 210-3000

WARNING

This fire manual is certified by the Los Angele City Fire Department.

DO NOT EDIT OR MAKE ANY CHANGES TO THE CONTENTS OF THIS MANUAL.

For replacement pages or extra copy, please contact the Office of Environmental Health & Safety at ext. 73405

Produced by Olive View-UCLA Medical Center
Office of Environmental Health & Safety

Safety Officer
Frank Colbert

(747) 210-3405
fcolbert@dhs.lacounty.gov

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Olive View-UCLA
MEDICAL CENTER

FIRE SAFETY PROGRAM

INTRODUCTION
The Fire Safety Protection and Prevention Program provides for the safety and protection of patients, employees, and visitors at the hospital in the event of an internal disaster resulting from a fire.

TRAINING COURSE
All employees are required to attend a Certified Fire & Life Safety Training course every four (4) years. This course is given at Olive View – UCLA Medical Center. It is designed to educate all employees on different types of fires, the correct usage of firefighting equipment, and correct evacuation procedures.

FIRE DRILLS
Fire Drills are required by the California Code of Regulations for Health Care Facilities. Hospital fire drills will be conducted once per shift every three months; in order to train/test all employees on the correct procedures to be followed in the event of a fire.

FIRE SAFETY
Fire Safety is a very important aspect of safety in the hospital. In the event of a fire, the hospital fire alarm system and fire emergency procedures will be activated. When a fire is reported in the hospital, you will hear a chime through the public-address system; followed by a verbal announcement of **"CODE RED"** with the fire location by room number and area description repeated three times.

FIRE PROCEDURE
Upon hearing a **"CODE RED"** announcement or a fire alarm, all affected employees will follow the emergency fire procedure. Non-affected/designated employees will respond to the fire location with a fire extinguisher to assist. Assistance should be offered to anyone in need and the area should be evacuated as quickly as possible. When the fire emergency is over, an **"ALL CLEAR – CODE RED"** will be announced over the public-address system.

INTERIM LIFE SAFETY MEASURES
When requirements for fire protection or environmental safety are affected by equipment failure or construction activities, the hospital will institute and document interim life safety measures to temporarily compensate for the hazard that is posed by the existing life safety deficiency.

ASSIGNMENT AND RESPONSIBILITY

LOS ANGELES COUNTY SHERIFF DEPUTIES

1. Report to the scene of the disaster with available fire extinguishers;
2. Designate someone to meet the Fire Department and direct them to the area of the fire or explosion;
3. Establish control of area including exits;
4. Report status to the B.E.A.S. Room and Hospital Operators.

FACILITIES MANAGEMENT PERSONNEL

1. Report to the scene of the disaster;
2. Bring extinguishers and tools to shut off any utilities or equipment, if necessary.

ADMINISTRATOR OR ADMINISTRATOR ON DUTY (AOD)

1. Contact the B.E.A.S. Room (Room 2B130) at ext. 74100
2. Determine the extent of the disaster.
3. Assume the role as Incident Commander (IC)
4. If necessary, activate the Hospital Command Center
5. Determine which nursing units should be evacuated.
6. If disaster is extensive, the IC will work with the Medical Director and the Nurse Administrator to perform the following functions:
   a. Determine if the patients should be transferred to other facilities.
   b. If so, coordinate the transfer.
   c. Call on other County agencies and Law enforcement agencies if assistance is needed.
   d. Determine the optimal allocation of manpower and assign employees as needed.
   e. Release of information to the public and the communication media.
7. If additional assistance is needed the IC will instruct the hospital operator to notify off-duty personnel as necessary.

ADMINISTRATIVE NURSING OFFICER (ANO)

1. If the Administrator or AOD is not on the premises, the ANO will assume the role as Incident Commander and follow the steps as outline above until the assigned AOD arrives at the facility.
2. Prepare to give an incident briefing to the AOD when he or she arrives.

GENERAL FIRE PROCEDURE

HOSPITAL
GENERAL FIRE PROCEDURE

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and report the fire by dialing **113**; give the operator your name, location of fire, and type of fire. (Example: trash can, microwave, etc.)
   - Relay location of fire and type of fire to other employees in the area.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with proper extinguisher – Use fire extinguisher, if possible and practical, until the arrival of the Fire Department.

4. **RELOCATE / EVACUATE**
   - Remove all items in the corridor to the nearest empty room or nurse's station.
   - Remove patients and visitors from the adjoining area – Make sure that all Fire Doors and doors to patient rooms remain closed until their turn to be moved or rescued.
   - Unite children with their parents before evacuation, if possible.

OTHER CONSIDERATIONS:

- Turn off all unnecessary electrical equipment, if safe to do so.
- If safe to do so, nursing personnel will shut off oxygen at the individual patient beds in the room in which the fire is located by removing the regulator (flow meter). **NOTE:** This is not a high priority.
- Oxygen zones are to be shut off by Respiratory Therapy personnel only under the direction of nursing personnel in charge of the affected area.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT FURTHER INSTRUCTIONS.

FACILITY CENTRAL REPORTING STATIONS

BEAS ROOM OPERATOR

B.E.A.S. ROOM OPERATOR
(BUILDING ENVIRONMENTAL AUTOMATED SYSTEMS)

I. A. If the B.E.A.S. panels indicate a fire and/or a fire is reported to the B.E.A.S. Room by telephone or in person other than the hospital operator, the B.E.A.S. Room Operator shall immediately:

1. Obtain the location of the fire – floor, area, and the room number. If reported by phone or in person, request the name of the person reporting the fire.

2. Notify the Fire Department by dialing **911**; **or**, if there is difficulty in getting through, **call the Local Fire Department** by dialing **(213) 485-6180** and state the following:

   "I want to report a fire at Olive View – UCLA Medical Center…
   The address is 14445 Olive View Drive in the city of Sylmar."

   Relay exact location of the fire and answer any questions asked by the Fire Dept. Dispatcher.

3. Contact the Hospital Operator by picking up the phone and notify him/her of the fire and its location. The Hospital Operator is to overhead page "CODE RED."

4. Contact on-duty Facilities personnel notifying them of the "CODE RED" and its location.

5. If Facilities staff or Sheriff Deputies cannot find evidence of the fire, the B.E.A.S. operator will use the graphic board to help locate the fire.

6. Unlock the Fire Communications System handsets – located directly outside the B.E.A.S. Room in the Urgent Care corridor.

7. Assist the Fire captain with locating the fire on the fire control panel.

8. Verify fans servicing alarm area are in **OFF** position.

9. Verify that stairwell #4 fans are in **ON** position.

10. Upon contact from Facilities staff or Sheriff Deputies that the area is clear with no smoke or fire, reset alarm.

B. If notified by the hospital telephone operator, the B.E.A.S. Room operator shall:

1. Receive confirmation that 911 emergency has been notified.
2. Proceed with Steps 4 through 10 listed above.

II. Upon return to normal of the fire condition, the B.E.A.S. Room operator will:

1. Call the Hospital Operator to notify him/her that the fire is **"ALL CLEAR."**
2. Verify that all fans in the fire area have returned to normal operating mode.
3. Verify that smoke dampers in the fire area are open.
4. Verify that stairwell fans have returned to **"OFF"** mode.

III. Additional information – Upon a fire alarm condition in any of the psychiatric wards:

1. A fire alarm in any of the psychiatric wards will cause the fire/security doors to unlock where the alarm is located.
2. Immediate verification of the fire may be obtained by contacting the affected ward.

HOSPITAL OPERATOR

HOSPITAL OPERATOR

I. RECEIVING A CALL REPORTING A FIRE INSIDE THE HOSPITAL BUILDING:

1. a. Ask where the fire is located in the hospital (floor, room number, etc.);
   b. Request the name of the caller;
   c. Note caller's extension on the display screen in case you have to call back.

2. Overhead Page 3 Times: Announcing: **"CODE RED"** and LOCATION of the fire.

3. Notify the Fire Department by dialing **911**; **or**, if there is difficulty in getting through, **call the Local Fire Department** by dialing **(213) 485-6180** and state the following:

   "I want to report a fire at Olive View – UCLA Medical Center…
   The address is 14445 Olive View Drive in the city of Sylmar."

   Relay exact location of the fire and answer any questions asked by the Fire Dept. Dispatcher.

4. Make the following notifications:
   - ✓ BEAS Room Operator at **ext. 74100**
   - ✓ L.A. County Sheriff Department at **ext. 73409**
   - ✓ Administration at **ext. 73001**
   - ✓ After hours - call the Administrative Nursing Office (ANO) at **ext. 73170**

5. Limit all incoming and outgoing calls:
   - ✓ Place no unnecessary calls until the **"ALL CLEAR"** is given;
   - ✓ Note the time of the initial call and **"ALL CLEAR"** are received, the name and extension of the caller;
   - ✓ Log in all information step by step in the log book.

II. RECEIVING A CALL REPORTING A FIRE ON THE CAMPUS:

1. a. Ask where the fire is located (building, room number, etc.);
   b. Request the name of the caller;
   c. Note caller's extension in case you must call back.

2. **DO NOT** overhead page "CODE RED" inside the hospital, except if the fire is reported at the following campus buildings/mobile units:
   - AVON
   - MRI Building

- Mobile PET/CT Scanner

3. Notify the Fire Department by dialing **911**; **or**, if there is difficulty in getting through, **call the Local Fire Department** by dialing **(213) 485-6180** and state the following:

   "I want to report a fire at Olive View – UCLA Medical Center… The address is 14445 Olive View Drive in the city of Sylmar."

   Relay exact location of the fire and answer any questions asked by the Fire Dept. Dispatcher.

4. Make the following notifications:
   - ✓ Sheriff Department at **ext. 73409**
   - ✓ BEAS Room at **ext. 74100**
   - ✓ Facilities at **ext. 73325**
   - ✓ Administrative Nursing Office (ANO) at **ext. 73170**
   - ✓ Administration at **ext. 73001**

5. Limit all incoming and outgoing calls:
   - ✓ Place no unnecessary calls until the **"ALL CLEAR"** is given. Note the time of the initial call and **"ALL CLEAR"** are received, the name and extension of the caller. Log in all information step by step in the log book and/or SPOKE system.

OTHER CONSIDERATIONS:
When receiving an "ALL CLEAR" from the B.E.A.S. Operator, relay the "ALL CLEAR - CODE RED" to the L.A. County Sheriff Department at **ext. 73409,** and announce "ALL CLEAR - CODE RED."

If, after calling the Fire Department, and the "ALL CLEAR" is given, attempt to reach the Fire Department to cancel the 911 call. This applies to the hospital and the grounds buildings.

FIRE DRILLS: Follow all of the above emergency procedures with the exception of calling the Fire Department. **DO NOT CALL THE FIRE DEPARTMENT DURING A FIRE DRILL**.

EMERGENCY FIRE PROCEDURES – HOSPITAL 1ST FLOOR

CENTRAL SERVICES

EMERGENCY FIRE PROCEDURE
CENTRAL SERVICES

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Shut off all steam and gas equipment.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CHAPLAIN/PASTORAL SERVICES

EMERGENCY FIRE PROCEDURE
CHAPLAIN / PASTORAL SERVICES

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CLINICAL SOCIAL WORK

EMERGENCY FIRE PROCEDURE
CLINICAL SOCIAL WORK

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

COMMUNICATIONS

EMERGENCY FIRE PROCEDURE
COMMUNICATIONS

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.
   - IMPORTANT – If unsafe to perform operator procedures, use a designated or alternate area to complete operator tasks.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important phone directories.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

ENVIRONMENTAL SERVICES

EMERGENCY FIRE PROCEDURE
ENVIRONMENTAL SERVICES

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

FACILITIES MANAGEMENT

EMERGENCY FIRE PROCEDURE
FACILITIES MANAGEMENT

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- Shut off steam and gas equipment in the area.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

FOOD & NUTRITION

EMERGENCY FIRE PROCEDURE
FOOD AND NUTRITION

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Grill fires – Pull handle on the Ansel fire extinguishing system (dry chemical).
- Shut off all gas equipment.
- Shut off steam to all equipment.
- Turn off fans and blowers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

HEALTH INFORMATION MANAGEMENT

EMERGENCY FIRE PROCEDURE
HEALTH INFORMATION MANAGEMENT

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

INFORMATION TECHNOLOGY

EMERGENCY FIRE PROCEDURE
INFORMATION TECHNOLOGY

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Shut off main power supply.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

INPATIENT FINANCIAL SERVICES

EMERGENCY FIRE PROCEDURE
INPATIENT FINANCIAL SERVICES

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

LINEN SERVICES

EMERGENCY FIRE PROCEDURE
LINEN SERVICES

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

OFFICE SERVICES

EMERGENCY FIRE PROCEDURE
OFFICE SERVICES

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PATHOLOGY

EMERGENCY FIRE PROCEDURE
PATHOLOGY

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.
   - The laboratory supervisor will direct the activities of the of the staff members.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients/staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Shut off all gas equipment.
- Turn off all fans and blowers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PATIENT ACCESS

EMERGENCY FIRE PROCEDURE
PATIENT ACCESS

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PATIENT LIFT & TRANSPORT

EMERGENCY FIRE PROCEDURE
PATIENT LIFT & TRANSPORT

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PHARMACY (INPATIENT)

EMERGENCY FIRE PROCEDURE
INPATIENT PHARMACY

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

RADIOLOGY (MAMMOGRAPHY, ULTRASOUND)

EMERGENCY FIRE PROCEDURE
RADIOLOGY (MAMMOGRAPHY, ULTRASOUND)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Shut off all gas equipment.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

REHABILITATION SERVICES

EMERGENCY FIRE PROCEDURE
REHABILITATION SERVICES (PT/OT)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Shut off all gas equipment.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

VOLUNTEER SERVICES

EMERGENCY FIRE PROCEDURE
VOLUNTEER SERVICES

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

EMERGENCY FIRE PROCEDURES – HOSPITAL 2ND FLOOR

ACUTE CARE UNIT (TB UNIT)

EMERGENCY FIRE PROCEDURE
ACUTE CARE UNIT

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

ANTICOAGULATION CLINIC

EMERGENCY FIRE PROCEDURE
ANTICOAGULATION CLINIC

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CARDIOLOGY

EMERGENCY FIRE PROCEDURE
CARDIOLOGY

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CASHIER

EMERGENCY FIRE PROCEDURE
CASHIER

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CLINIC A

EMERGENCY FIRE PROCEDURE
CLINIC A

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CLINIC B

EMERGENCY FIRE PROCEDURE
CLINIC B

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CLINIC C

EMERGENCY FIRE PROCEDURE
CLINIC C

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CLINIC D

EMERGENCY FIRE PROCEDURE
CLINIC D

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CLINIC E

EMERGENCY FIRE PROCEDURE
CLINIC E

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CLINIC M

EMERGENCY FIRE PROCEDURE
CLINIC M

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

CLINIC P

EMERGENCY FIRE PROCEDURE
CLINIC P

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

DEPARTMENT OF MEDICINE

EMERGENCY FIRE PROCEDURE
DEPARTMENT OF MEDICINE

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

EMERGENCY ROOM

EMERGENCY FIRE PROCEDURE
EMERGENCY ROOM

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients/visitors from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

ENT/EYE CLINIC

EMERGENCY FIRE PROCEDURE
ENT/EYE CLINIC

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

GI LAB

EMERGENCY FIRE PROCEDURE
GI LAB

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Shut off all gas equipment.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

HEALTH SCIENCES LIBRARY

EMERGENCY FIRE PROCEDURE
HEALTH SCIENCES LIBRARY

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

HOSPITAL ADMINISTRATION

EMERGENCY FIRE PROCEDURE
HOSPITAL ADMINISTRATION

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

MEDICAL ADMINISTRATION

EMERGENCY FIRE PROCEDURE
MEDICAL ADMINISTRATION

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

NEUROLOGY

EMERGENCY FIRE PROCEDURE
NEUROLOGY

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

NURSING ADMINISTRATION

EMERGENCY FIRE PROCEDURE
NURSING ADMINISTRATION

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

OUTPATIENT SPECIAL PROCEDURE AREA (OSPA)

EMERGENCY FIRE PROCEDURE
OUTPATIENT SPECIAL PROCEDURE AREA

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

OUTPATIENT FINANCIAL SERVICES

EMERGENCY FIRE PROCEDURE
OUTPATIENT FINANCIAL SERVICES

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PATIENT INQUIRY

EMERGENCY FIRE PROCEDURE
PATIENT INQUIRY

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PEDIATRIC CLINIC

EMERGENCY FIRE PROCEDURE
PEDIATRIC CLINIC

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PHARMACY (OUTPATIENT)

EMERGENCY FIRE PROCEDURE
OUTPATIENT PHARMACY

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PSYCHIATRIC EMERGENCY ROOM

EMERGENCY FIRE PROCEDURE
PSYCHIATRIC EMERGENCY ROOM

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Patients in bed or leg restraints shall be replaced with wrist or belt restraints.
   - Patients shall line-up and join hands and follow the lead nurse to a safe and secure area.
   - Perform frequent head counts.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

RADIOLOGY (DIAGNOSTIC, CT, SPECIAL PROCEDURES, NUCLEAR MEDICINE)

EMERGENCY FIRE PROCEDURE
RADIOLOGY (DIAGNOSTIC, CT, SPECIAL PROCEDURES, NUCLEAR MEDICINE)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Shut off all gas equipment.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

SPECIAL TREATMENT CENTER

EMERGENCY FIRE PROCEDURE
SPECIAL TREATMENT CENTER

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

URGENT CARE

EMERGENCY FIRE PROCEDURE
URGENT CARE

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

EMERGENCY FIRE PROCEDURES – HOSPITAL 3RD FLOOR

ANESTHESIOLOGY – 3A

EMERGENCY FIRE PROCEDURE
ANESTHESIOLOGY (3A)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

FETAL ASSESSMENT – 3D

EMERGENCY FIRE PROCEDURE
FETAL ASSESSMENT (3D)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

LABOR & DELIVERY – 3C

EMERGENCY FIRE PROCEDURE
LABOR AND DELIVERY (3C)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.
   - Maintain life support measures while evacuating patients to another safe area.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

LABORATORY – 3B

EMERGENCY FIRE PROCEDURE
LABORATORY (3B)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Shut off all gas equipment.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

NEONATAL INTENSIVE CARE UNIT – 3C

EMERGENCY FIRE PROCEDURE
NEONATAL INTENSIVE CARE UNIT (3C)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.
   - Maintain life support measures while evacuating patients to another safe area.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

OPERATING ROOMS – 3B

EMERGENCY FIRE PROCEDURE
OPERATING ROOMS (3B)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.
   - Notify Anesthesia, Central Supply, and PACU.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - The charge nurse will make immediate determination regarding evacuation of patients.
   - The surgeon in charge of each operating room will be responsible for the safety of the patient. The surgical team shall remain under the control of the surgeon.
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients quickly, quietly, and efficiently. Ensure patients chart is with the patient.
   - Maintain life support measures while evacuating patients to another safe area.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Shut off all gas equipment.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

POST ANESTHESIA CARE UNIT – 3A

EMERGENCY FIRE PROCEDURE
POST ANESTHESIA CARE UNIT (3A)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.
   - Notify the Operating Room of the fire.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.
   - Maintain life support measures while evacuating patients to another safe area.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Shut off all gas equipment.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

POST PARTUM – 3D

EMERGENCY FIRE PROCEDURE
POST PARTUM (3D)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

SAME DAY SURGERY – 3A

EMERGENCY FIRE PROCEDURE
SAME DAY SURGERY (3A)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.
   - Maintain life support measures while evacuating patients to another safe area.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

EMERGENCY FIRE PROCEDURES – HOSPITAL 4TH FLOOR

MEDICAL/SURGICAL UNIT – 4D

EMERGENCY FIRE PROCEDURE
MEDICAL/SURGICAL UNIT (4D)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

MEDICAL/SURGICAL STEPDOWN UNIT – 4BN

EMERGENCY FIRE PROCEDURE
MEDICAL/SURGICAL STEPDOWN UNIT (4BN)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PHYSICAL THERAPY – 4B

EMERGENCY FIRE PROCEDURE
PHYSICAL THERAPY (4B)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PEDIATRIC INPATIENT UNIT – 4C

EMERGENCY FIRE PROCEDURE
PEDIATRIC INPATIENT UNIT (4C)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

SURGICAL INPATIENT UNIT – 4A

EMERGENCY FIRE PROCEDURE
SURGICAL INPATIENT UNIT (4A)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

SURGICAL STEPDOWN UNIT – 4BS

EMERGENCY FIRE PROCEDURE
SURGICAL STEPDOWN UNIT (4BS)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.
   - Maintain life support measures while evacuating patients to another safe area.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

EMERGENCY FIRE PROCEDURES – HOSPITAL 5TH FLOOR

CRITICAL CARE COORINATOR – 5B

EMERGENCY FIRE PROCEDURE
CRITICAL CARE COORDINATOR (5B)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

INTENSIVE CARE UNIT – 5BN

EMERGENCY FIRE PROCEDURE
INTENSIVE CARE UNIT (5BN)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.
   - Maintain life support measures while evacuating patients to another safe area.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

INTENSIVE CARE UNIT – 5BS

EMERGENCY FIRE PROCEDURE
INTENSIVE CARE UNIT (5BS)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.
   - Maintain life support measures while evacuating patients to another safe area.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

MEDICAL INPATIENT UNIT – 5A

EMERGENCY FIRE PROCEDURE
MEDICAL INPATIENT UNIT (5A)

When fire or smoke is discovered in your area:

5. SAFETY OF LIFE

- Remove all people in the immediate fire area and close the door to the room to contain the fire.

6. NOTIFICATION

- Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
- Relay location and type of fire to other staff within the unit.

7. EXTINGUISH THE FIRE

- Close doors to all other areas – adjacent rooms and fire doors.
- Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

8. RELOCATE / EVACUATE

- Remove all items from the corridor to the nearest empty or unoccupied room.
- Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

MEDICAL INPATIENT UNIT (TELE) – 5C

EMERGENCY FIRE PROCEDURE
MEDICAL INPATIENT UNIT (5C)

When fire or smoke is discovered in your area:

9. SAFETY OF LIFE

- Remove all people in the immediate fire area and close the door to the room to contain the fire.

10. NOTIFICATION

- Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
- Relay location and type of fire to other staff within the unit.

11. EXTINGUISH THE FIRE

- Close doors to all other areas – adjacent rooms and fire doors.
- Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

12. RELOCATE / EVACUATE

- Remove all items from the corridor to the nearest empty or unoccupied room.
- Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

MEDICINE ON-CALL ROOMS – 5D

EMERGENCY FIRE PROCEDURE
MEDCINE 0N-CALL ROOMS (5D)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

OBSERVATION – 5D

EMERGENCY FIRE PROCEDURE
OBSERVATION (5D)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Oxygen zone valves are to be shut off by Respiratory Therapy personnel under the direction of Nursing personnel in charge of the affected area.
- Nursing personnel shall remove the oxygen regulator (flow meter) in the patient's room where the fire is located.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PHYSICAL THERAPY – 5B

EMERGENCY FIRE PROCEDURE
PHYSICAL THERAPY (5B)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

EMERGENCY FIRE PROCEDURES – HOSPITAL 6TH FLOOR

ON-CALL ROOMS – 6B

EMERGENCY FIRE PROCEDURE
ON-CALL ROOMS (6B)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PHYSICIAN OFFICES – 6D

EMERGENCY FIRE PROCEDURE
PHYSICIAN OFFICES (6D)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PSYCHIATRIC INPATIENT UNIT – 6A

EMERGENCY FIRE PROCEDURE
PSYCHIATRIC INPATIENT UNIT (6A)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Patients in bed or leg restraints shall be replaced with wrist or belt restraints.
   - Patients shall line-up and join hands and follow the lead nurse to a safe and secure area.
   - Perform frequent head counts.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PSYCHIATRIC INPATIENT UNIT – 6C

EMERGENCY FIRE PROCEDURE
PSYCHIATRIC INPATIENT UNIT (6C)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Patients in bed or leg restraints shall be replaced with wrist or belt restraints.
   - Patients shall line-up and join hands and follow the lead nurse to a safe and secure area.
   - Perform frequent head counts.
   - Remove patients from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

PSYCHIATRY OFFICES – 6B

EMERGENCY FIRE PROCEDURE
PSYCHIATRY OFFICES (6B)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the corridor to the nearest empty or unoccupied room.
   - Remove staff from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Retrieve and remove important records and ledgers.
- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

RESPIRATORY CARE – 6B

EMERGENCY FIRE PROCEDURE
RESPIRATORY CARE (6B)

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the aisles/corridor to the nearest empty or unoccupied room.
   - Remove patients and visitors from the adjoining area and exit the unit.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- LEAVE LIGHTS ON!!

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND WAIT FURTHER INSTRUCTIONS:

- If fire occurs in any ICU Area where mechanical ventilators are in use, all available RCP's will respond with manual and portable ventilators. Patients are to be transported to a secure location, airway and ventilation are to be maintained until oxygen and ventilators can be set up.
- Be prepared to mobilize portable "E" cylinders, manual and portable respirators for use on oxygen dependent patients in the affected area.

EMERGENCY FIRE PROCEDURES – NURSE STATIONS

EMERGENCY FIRE PROCEDURE
NURSE STATIONS

WHEN FIRE OR SMOKE IS DISCOVERED IN YOUR AREA:

1. **SAFETY OF LIFE**
   - ✓ Remove all people in the immediate fire area and close the door to the room.

2. **NOTIFICATION**
   - ✓ Pull the nearest fire alarm and report the fire by dialing **x113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - ✓ Relay location and type of fire to other staff members in the unit.

3. **EXTINGUISH THE FIRE**
   - ✓ Close doors to all other areas, adjacent rooms and fire doors.
   - ✓ Return to the fire with the proper fire extinguisher and use if possible and practical, until the arrival of the Fire Department.

4. **RELOCATE / EVACUATE**
   - ✓ Remove all items from the corridor to the nearest empty or unoccupied room.
   - ✓ Remove patients and visitors from the adjoining area. Keep all fire doors and doors to patient rooms closed until they can be moved or rescued.
   - ✓ Unite children with their parents before evacuation, if possible.

OTHER CONSIDERATIONS:

If safe to do so,

- ✓ Turn off all unnecessary electrical equipment, if safe to do so;
- ✓ If safe to do so, nursing personnel will shut off oxygen at the individual patient beds in the room in which the fire is located by removing the regulator (flow meter). **NOTE:** This is not a high priority;
- ✓ Oxygen zones are to be shut off by Respiratory Therapy personnel only under the direction of nursing personnel in charge of the affected area.
- ✓ LEAVE LIGHTS ON!!

Note: Nursing staff members that work in the affected station/area or those who are sent from a support unit shall report to the area supervisor for instructions.

ASSIGNED DUTIES MAY INCLUDE:

- ✓ Closing all doors in the affected area.
- ✓ Shut off oxygen gas outlets and unnecessary equipment.
- ✓ Helping to fight the fire with extinguishers.
- ✓ Evacuating patients as necessary due to the spread of smoke or fire. Patients are to be given first priority, and moved in the following order:
    1. Patients in immediate danger
    2. Ambulatory Patients
    3. Wheelchair Patients
    4. Bed Patients
- ✓ Standing by and controlling fire doors.
- ✓ Informing and reassuring patients and visitors; making a periodic check of your area for patients' safety and mental attitude.

NOTE: Nursing staff shall, upon hearing "CODE RED" for another area, report to their area supervisor for instructions.

IF THE FIRE IS NOT IN YOUR AREA, BE ALERT AND AWAIT INSTRUCTIONS.

EMERGENCY FIRE PROCEDURES – CAMPUS BUILDINGS, MOBILE UNITS

AVON

EMERGENCY FIRE PROCEDURE
AVON BUILDING

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff in the area.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the arrival of the Fire Department.

4. **RELOCATE / EVACUATE**
   - Remove all occupants out of the building away from the fire.
   - Check rooms for remaining occupants.

OTHER CONSIDERATIONS:

- Turn off all unnecessary electrical equipment (if safe to do so).
- LEAVE LIGHTS ON!!

CAMPUS BUILDINGS

EMERGENCY FIRE PROCEDURE
CAMPUS BUILDINGS

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff in the area.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the arrival of the Fire Department.

4. **RELOCATE / EVACUATE**
   - Remove all occupants out of the building away from the fire.
   - Check rooms for remaining occupants.

OTHER CONSIDERATIONS:

- Turn off all unnecessary electrical equipment (if safe to do so).
- LEAVE LIGHTS ON!!

EDUCATION BUILDING

EMERGENCY FIRE PROCEDURE
EDUCATION BUILDING

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - ✓ Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - ✓ Pull the nearest fire alarm and notify the operator dialing **x113; g**ive the operator your name, location of fire, and type of fire.
   - ✓ Relay location and type of fire to other staff in the building.

3. **EXTINGUISH THE FIRE**
   - ➢ Close doors to all other areas – adjacent rooms and fire doors.
   - ➢ Return to the fire with the proper fire extinguisher and use if possible and practical, until the arrival of the Fire Department.

4. **RELOCATE / EVACUATE**
   - ➢ Remove all occupants out of the building away from the fire.
   - ➢ Check rooms for remaining occupants.

OTHER CONSIDERATIONS:

If safe to do so,

- ➢ Turn off all unnecessary electrical equipment.
- ➢ LEAVE LIGHTS ON!!

MRI

EMERGENCY FIRE PROCEDURE
MRI BUILDING

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the building.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items from the aisles/corridor.
   - Remove patients and visitors from the adjoining area and exit the building.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- Turn off and remove portable oxygen cylinders.
- LEAVE LIGHTS ON!!

MOBILE PET/CT SCANNER

EMERGENCY FIRE PROCEDURE
MOBILE PET/CT SCANNER

When fire or smoke is discovered in your area:

1. **SAFETY OF LIFE**
   - Remove all people in the immediate fire area and close the door to the room to contain the fire.

2. **NOTIFICATION**
   - Pull the nearest fire alarm and notify the operator by dialing **113**; give the operator your name, location of fire, and type of fire (e.g. trash can, microwave, etc.).
   - Relay location and type of fire to other staff within the unit.

3. **EXTINGUISH THE FIRE**
   - Close doors to all other areas – adjacent rooms and fire doors.
   - Return to fire with the proper fire extinguisher and use if possible and practical, until the Fire Department arrives.

4. **RELOCATE / EVACUATE**
   - Remove all items in the aisle/hallway.
   - Remove any patients from the adjoining area and exit the unit...
   - If the patient is in the hot lab and they can walk escort them out the front door by the hot lab. If they are unable to walk, use the Paraslyde evacuation device to evacuate the patient through the lift gate or front exit door.
   - If the fire is in the scan room and you have a patient on the table, remove patient to the control room and close the door, and exit the unit through the lift gate or front exit door. If the patient is non-ambulatory, use the Paraslyde evacuation device to evacuate the patient through the lift gate or front exit door.
   - If the fire is in the control room and you have a patient on the table, go into the exam room and close the door, remove the patient from the table and exit through the rear escape hatch located on the driver's side of the unit. If the patient is non-ambulatory and unable to use the exit hatch, use the Paraslyde evacuation device to evacuate the patient through the rear escape hatch.

OTHER CONSIDERATIONS:

If safe to do so,

- Turn off all unnecessary electrical equipment.
- Turn off and remove portable oxygen cylinder.
- LEAVE LIGHTS ON!!

EVACUATION

EVACUATION PROCEDURE

1. All evacuation routes are posted in the corridors of Olive View – UCLA Medical Center.

2. At the first sign of fire, or smoke, anyone in immediate danger should be evacuated by the person discovering the fire.

3. The second and third persons arriving at the fire should assist in removing any other person(s) from danger.

4. Priorities for moving patients:
    1. Patients in immediate danger
    2. Ambulatory patients
    3. Wheelchair patients
    4. Bed patients

EVACUATION PLAN

When evacuation is necessary, remove all items in the corridor to the nearest empty room or nursing station. Think first of moving patients horizontally from an unsafe area to a safe area on the same floor. Patients should not be moved to a different floor unless the entire building is being evacuated. The order to evacuate shall be initiated by the Incident Commander, Safety Officer, or Fire Captain.

Ambulatory patients should be pre-instructed to line up outside their rooms, join a chain by holding hands, and follow the Charge Nurse to a safe area.

Non-ambulatory patients who cannot sit up shall be moved by the blanket drag technique.

Patients whose condition might be aggravated by being moved from their bed should be moved in their bed. All equipment such as orthopedic traction equipment that can hinder free movement through doorways should be removed prior to evacuation.

If possible, unite children with their parents before evacuation.

Evacuation routes are posted in the center of each corridor of the hospital. These evacuation plans which are posted at eye level show your present location in relation to all evacuation routes for that floor.

All outlying buildings are provided with evacuation directories. These directories are located in two areas of each building at eye level. Each supervisor should orientate their employees to the location of these directories.

Employees in the outlaying buildings should evacuate and assemble at least 50 feet from the building but not in a roadway.

ELEVATORS

In the case of a fire alarm, all elevators will return to the second floor, park, and the doors will open. When the Fire Department arrives, then and only then, will the elevators be used for evacuation. This will be accomplished under the supervision of the Fire Chief.

EVACUATIONS

Basically, evacuation is movement, either horizontally or vertically, from a dangerous or potentially dangerous area to one of comparative safety. These areas are separated by fire walls, fire doors or smoke barriers, and all vertical evacuation routes (stairwells and elevators) are properly enclosed.

In preparing or activating the evacuation plan, there are four types of evacuations to be considered:

1. Partial (remove anyone in immediate danger)
2. Horizontal
3. Vertical
4. Complete

Partial Evacuation

This is the removal of people who are in immediate danger to an area of relative safety. This is usually accomplished by a single rescuer. When assistance becomes available, the people can be relocated to an area farther from the fire.

Horizontal Evacuation

This type of evacuation takes place when fire or heavy smoke from a single room threatens to spread to adjoining areas. All patients, personnel and visitors in the affected area should be moved laterally to the nearest area that is protected by fire doors and is adjacent to the exterior exit way (which include enclosed stairwells).

It is preferable not to move patients in their beds. The utilization of gurneys, wheelchairs, stretchers, paraslydes or blankets to relocate the non-ambulatory creates the least congestion in the hallways and assembly areas.

The first to be moved are the ambulatory, then the non-ambulatory. The ambulatory can be taken out in groups. By reducing congestion and moving the greatest number of people first, there is a better utilization of manpower, ease of control, and ultimately, a reduction of the possibility of panic. The rooms vacated should be checked for stragglers and all doors closed.

Vertical Evacuation

If the fire is threatening the floor or smoke makes the floor untenable, vertical movement becomes necessary. Refuge can usually be found on a lower floor. If possible, two floors lower is recommended. Ambulatory patients should be grouped and taken down stairs. Elevators for non-ambulatory patients can be used only if the elevators have been deemed safe by the Fire Captain or the Fire Department Officer in Charge.

Complete Evacuation

In the event of a complete hospital evacuation, an evacuation notice will be announced over the public-address system. All elevators will be returned to the second floor and locked by assigned personnel until the Fire Department arrives, elevators will then be used for evacuation purposes under the supervision of the Fire Chief.

A complete evacuation of the hospital can only be authorized by the following persons and in the following order:

1. Administrator or AOD
2. Medical Director
3. Safety Officer
4. Administrative Nurse in Charge

EMERGENCY TRANSPORT (CARRIES)

When fire or another emergency dictates quick removal of patients, and they can't be transported via their bed, stretcher, or the OR table, the appropriate carry or support technique will save them and you unnecessary injury. Although you may need assistance the "Swing" or "Extremity" carries can then be used. It's conceivable that you might have to use one of the three one-person carries for non-ambulatory patients, as illustrated below.

EMERGENCY TRANSPORT-SAFELY

When fire or another emergency dictates quick removal of patients, and they can't be transported via their beds, stretchers, or the OR table, the appropriate carry or support technique will save them, and you, unnecessary injury.

Although you may assistance (the "Swing" and "Extremity" carries can then be used), it's conceivable that you might have to use one of the three one-person carries for non-ambulatory patients, as illustrated below.

ONE-PERSON CARRIES

HIP CARRY

1. Put patient's arm over your back and slide your arm under patient's back

2. Lean backward, into patient's abdomen, and grip patient behind his knees.

3. Hold patient snugly against your back, then lean forward to carry.

down

4. Lean patient against wall, and slide to floor as you drop to one knee.

PACK STRAP CARRY

1. Cross patient's arms and grab both wrists.

2. Pull up as you turn to step under patient's arms, cross his arms in front.

3. Lean forward, and step to the head of the bed, patient will roll out, onto your back.

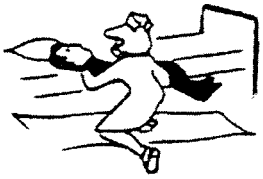
down

4. Lean patient against wall and slide to floor as you drop to one knee.

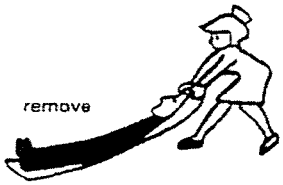
CRADLE DROP

1. Place blanket on floor next to bed, then grip patient under shoulders and knees.

2. Slide patient to edge of bed



3. On one knee, lower his legs then his body, to blanket, or on both knees, slide patient down your chest to blanket.



remove

4. Pull patient out, head first, on blanket.

TWO-PERSON CARRIES

SWING

1. Each nurse grasps the other's shoulder with one hand, as patient places his arms around both of their shoulders.

2. Reaching under patient, each nurse grasps the other's wrists.

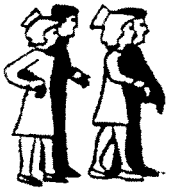
EXTREMITY

1. Patient must be sitting on the edge of the bed.

2. One nurse hugs patient from behind, grasping her own wrist.

3. The other nurse stands between patient's legs, and lifts him from behind his knees.

SEMI-AMBULATORY



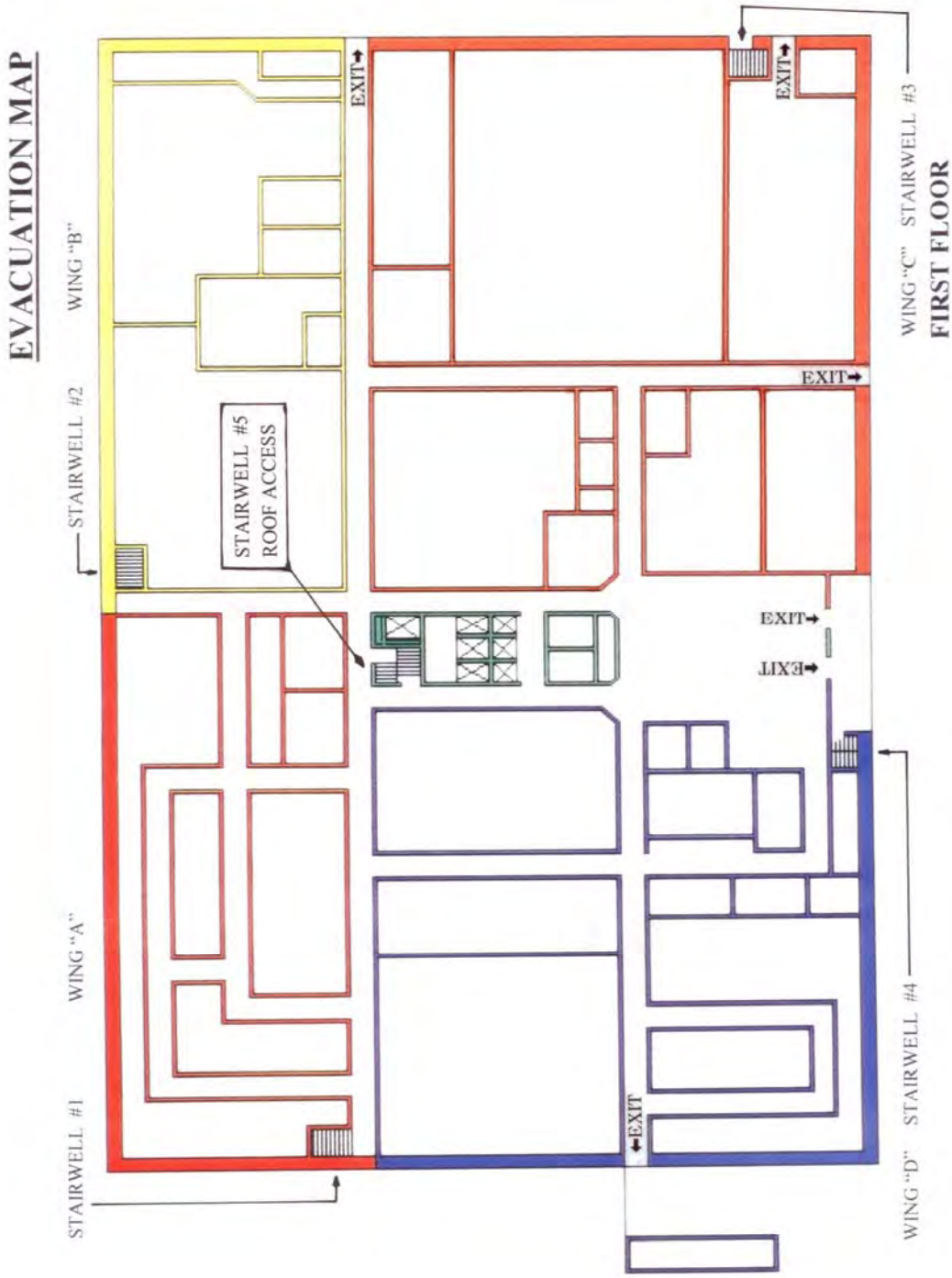
1. Stand next to patient, and place one of his arms around your waist.

2. Reach behind and around patient's waist and grasp his other arm.

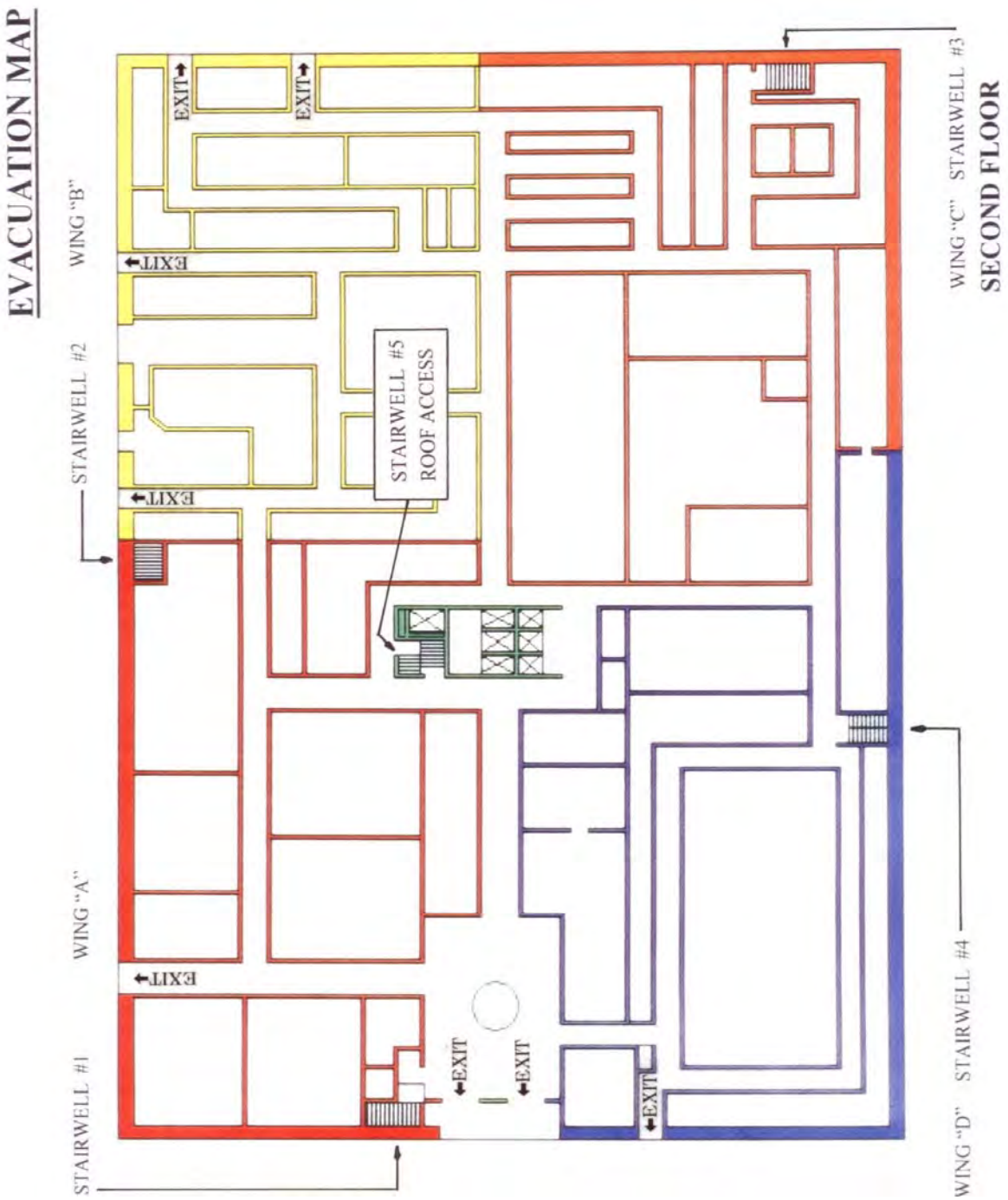
3. "Hug from behind" and walk in step, grasping your wrist.

EVACUATION MAPS

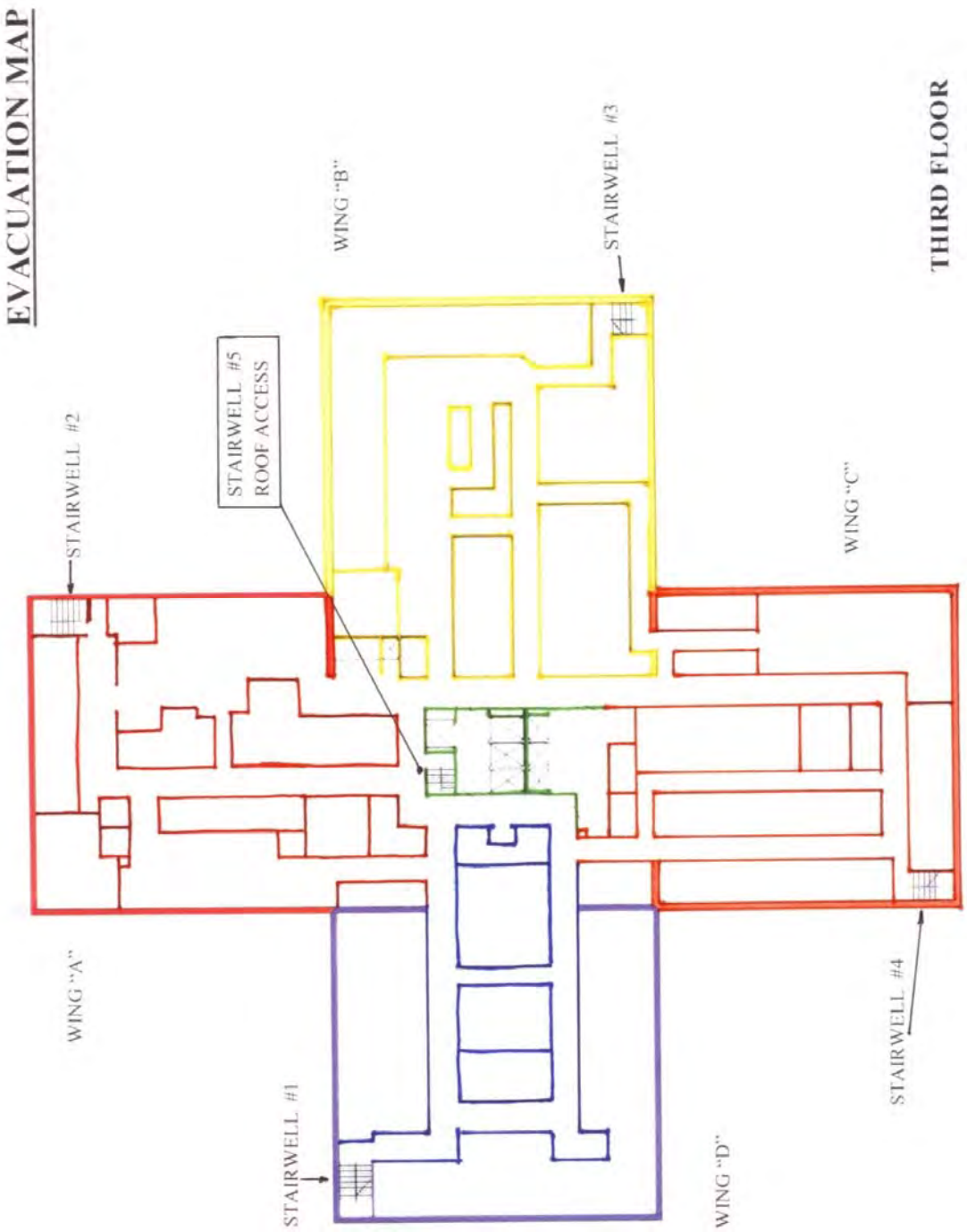
HOSPITAL 1ST FLOOR



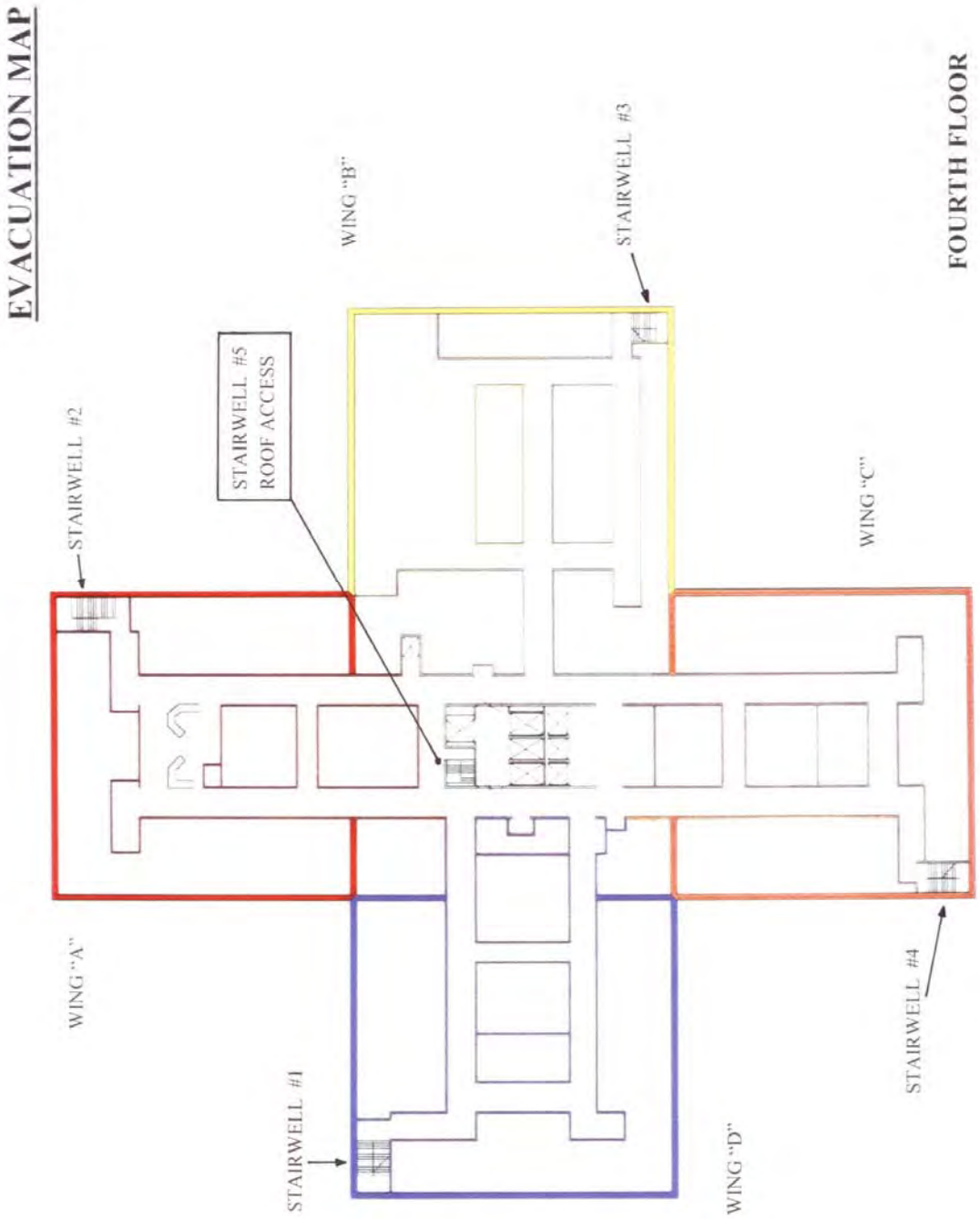
HOSPITAL 2ND FLOOR



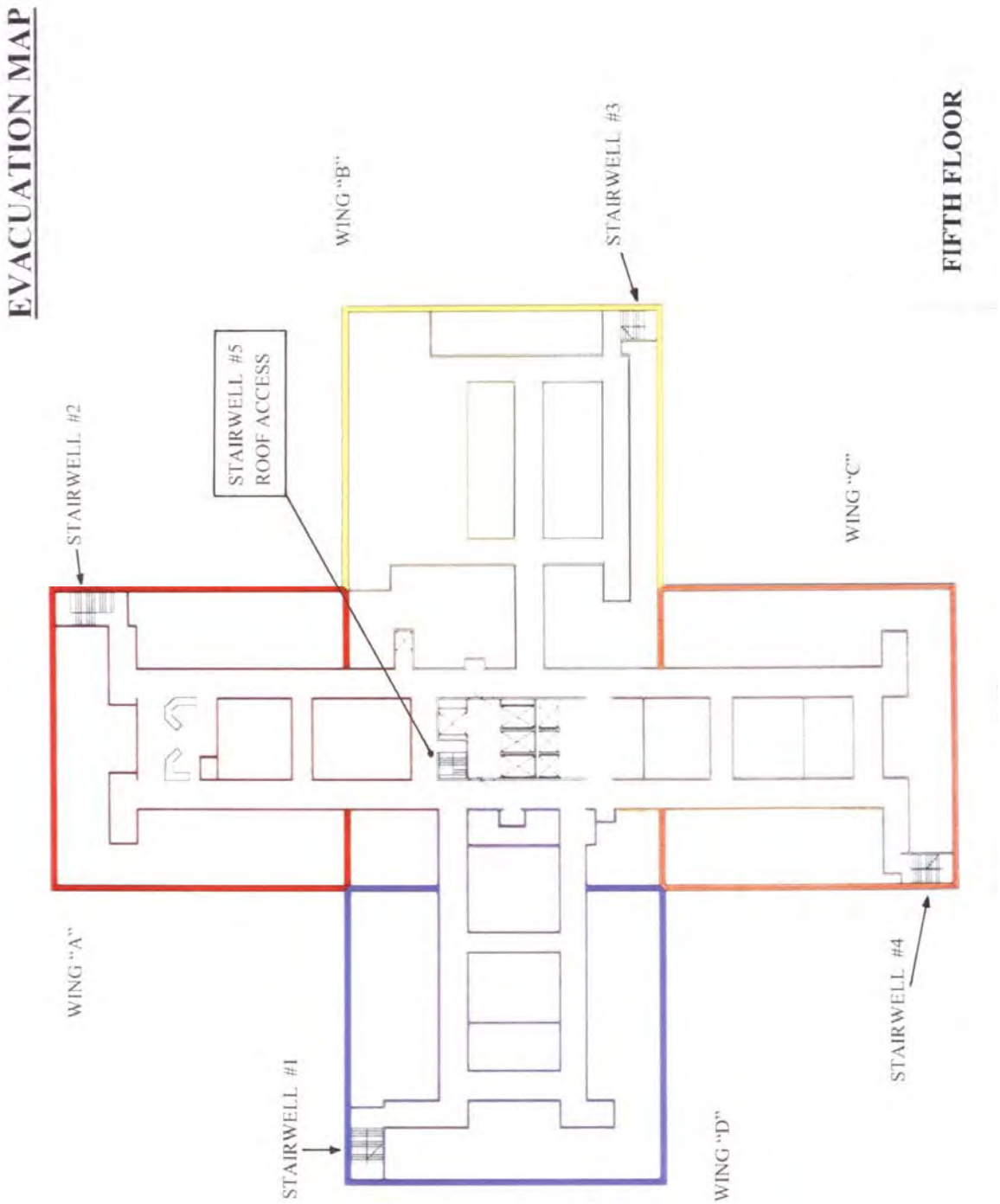
HOSPITAL 3RD FLOOR



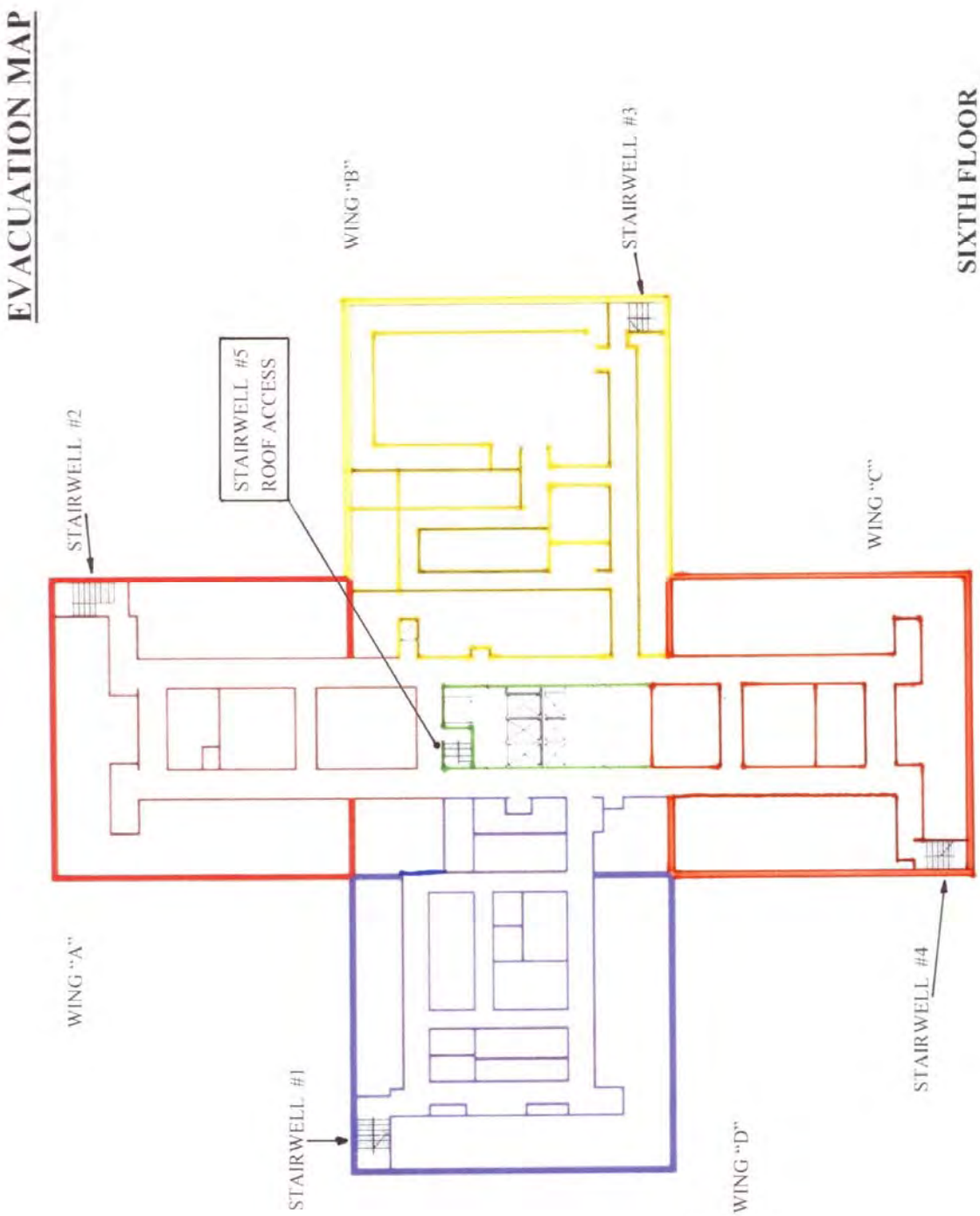
HOSPITAL 4TH FLOOR



HOSPITAL 5TH FLOOR



HOSPITAL 6TH FLOOR



FIRE PROTECTION AND FIRE FIGHTING EQUIPMENT

TYPES OF FIRES

There are four classes of fires:

- **Class A** – fires involving ordinary combustibles (wood, paper, cloth, etc.).
- **Class B** – fires involving flammable liquids (oil, gasoline, and grease)**.**
- **Class C** – fires involving electrical equipment and appliances.
- **Class D** – fires involving combustible metals.
- **Class K** – fires involving hot grease, cooking oil, and fat.

TYPES OF FIRE EXTINGUISHERS

Extinguishers at this facility are classified as A, B/C, ABC, and K (kitchen).

- **Class A** extinguishers include:
  1. Water tank type
  2. Hose lines (located in outlying buildings only).

  These extinguishers should be used on type **A fires.**

- **Class B/C** extinguishers include:
  1. CO2
  2. Dry Chemical

  These extinguishers should be used on type **B fires** and type **C fires**.

- **Class ABC** (multipurpose) extinguishers include:
  1. Dry Chemical

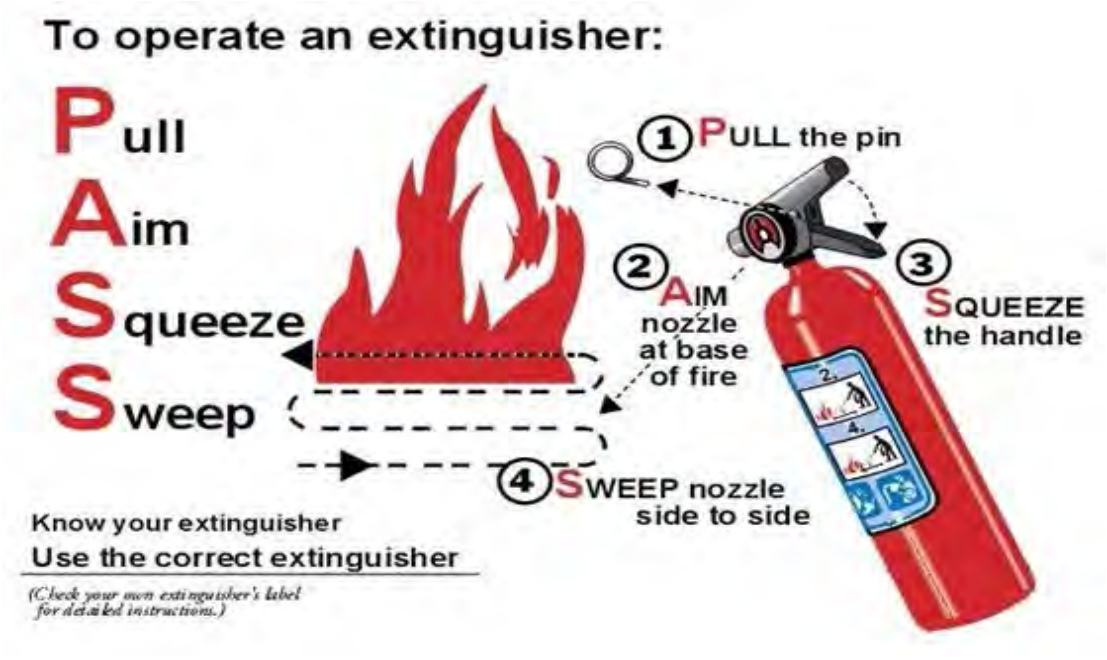
  This extinguisher should be used on type **A, B,** or **C fires**.

- **Class K** (kitchen) extinguishers include:
  1. Liquid Fire Suppressant

  These extinguishers should be used on type **K fires**.

USING A FIRE EXTINGUISHER

1. **Pull** the ring pin (hold extinguisher in an upright position)
2. **Aim** extinguisher at base of fire
3. **Squeeze** the handle
4. **Sweep** nozzle side to side



SMOTHERING FIRES

A blanket from a patient's bed is useful for smothering fires in bedding or on a person's clothing. In a similar way, you can smother a fire in a wastebasket by covering the top of the basket, or by placing another wastebasket inside of it.

FIRE EXTINGUISHER LABELS

- **Old Labeling System:** used simple icons with an A, B or C designation to show which class or classes of fire it is safe to use a given extinguisher to fight.

- **New Labeling System:** uses standard pictorial symbols which show the class or classes of fire for which the extinguisher is suited. The symbols identify the type of fire the extinguisher can be used for.

- Multi-Class Rating: extinguisher can be used on different types of fires and will be labeled with more than one designator (e.g. A-B, B-C, or A-B-C). Make sure that if you have a multi-purpose extinguisher that it is properly labeled.

- **Unsafe to Use:** a red slash through any of the fire classification symbols means it is unsafe to use that extinguisher on that class of fire. For example, a water-filled extinguisher would show the symbols for Class B and C fires slashed through, as water should never be used to extinguish a flammable liquid or an electrical fire.

If a symbol is not shown on the extinguisher's label, it simply means the extinguisher was not tested for that class of fire.

FIRE FIGHTING EQUIPMENT SYMBOLS – INTERIOR

FIRE EXTINGUISHERS

This symbol with a letter next to it classifies the Class of Fire

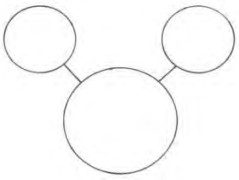
Fire Alarm Pull Station

Medical Gas Shut-off

Fire Hose Connection (Fire Department use only)

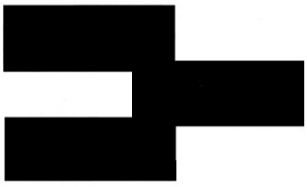
Hazardous Materials Storage Area

FIRE FIGHTING EQUIPMENT SYMBOLS – EXTERIOR



Fire Department Connection (Siamese Connection)
All Sprinklers & Standpipes
Total Structure
*Fire Department Use Only

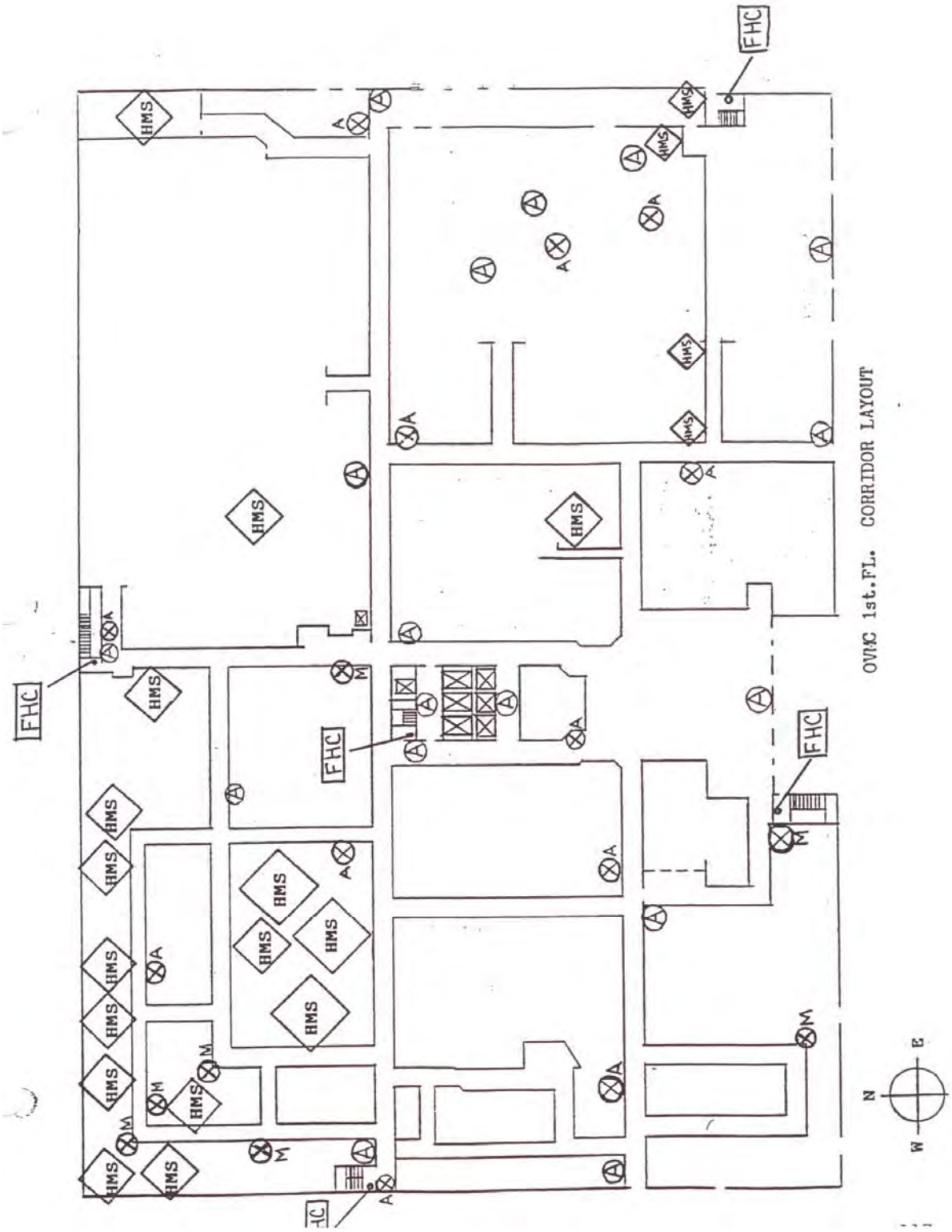
Fire Sprinkler Control Valve
This valve controls the water supply to combined standpipes in the stairwell.
*Fire Department Use Only



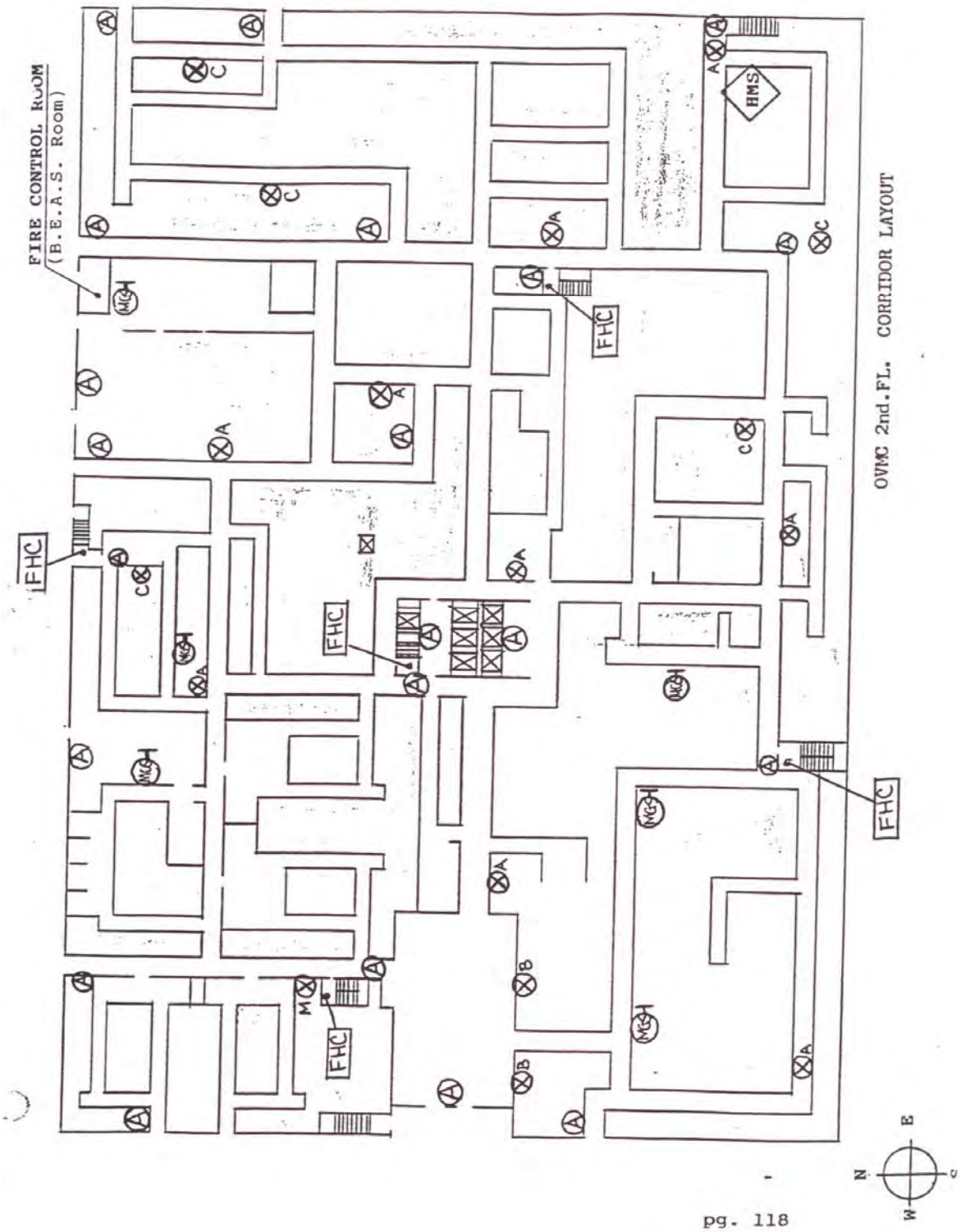
Fire Pump Test Header
*Fire Department Use Only

Hazardous Materials Storage Area

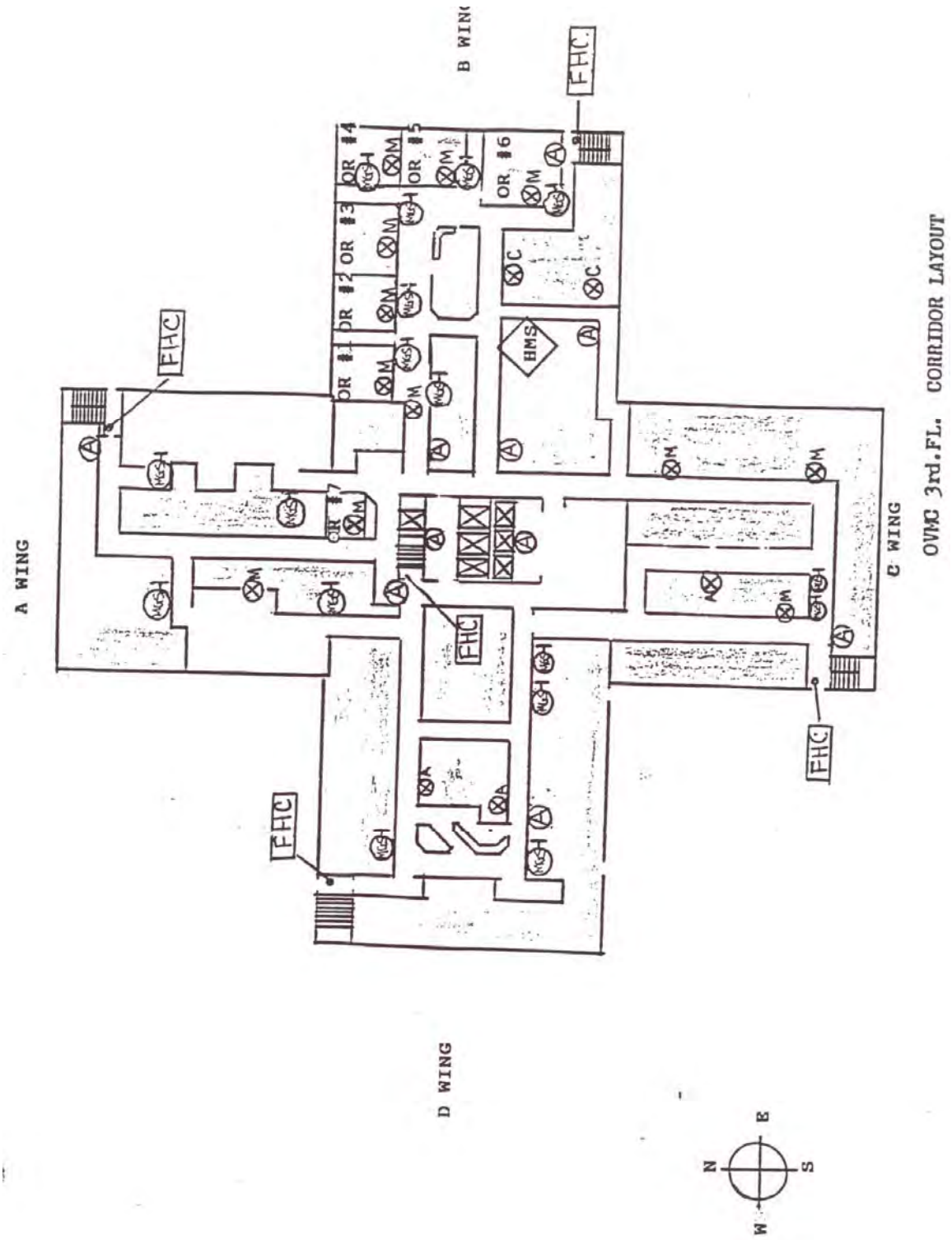
HOSPITAL 1ST FLOOR



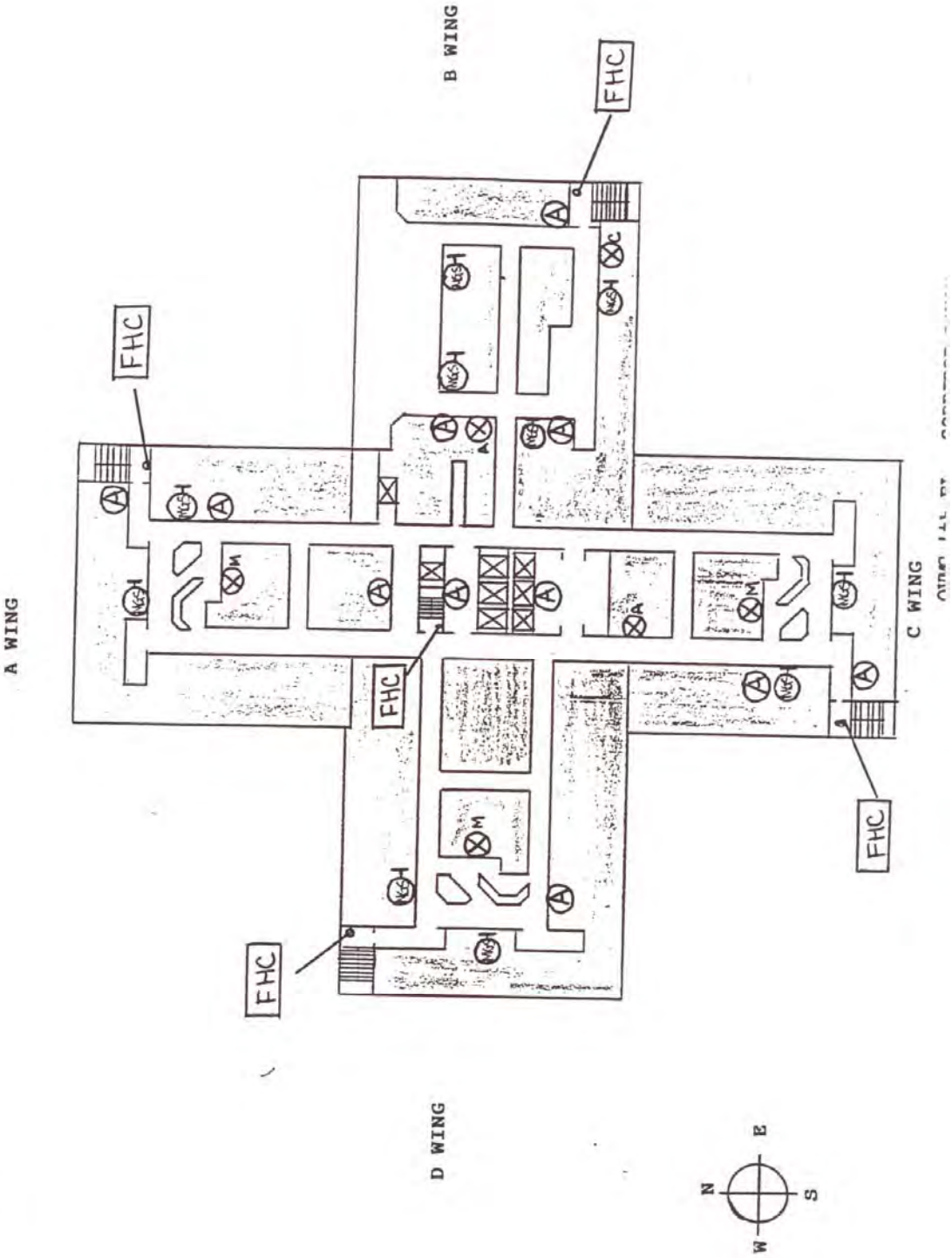
HOSPITAL 2nd FLOOR



HOSPITAL 3rd FLOOR

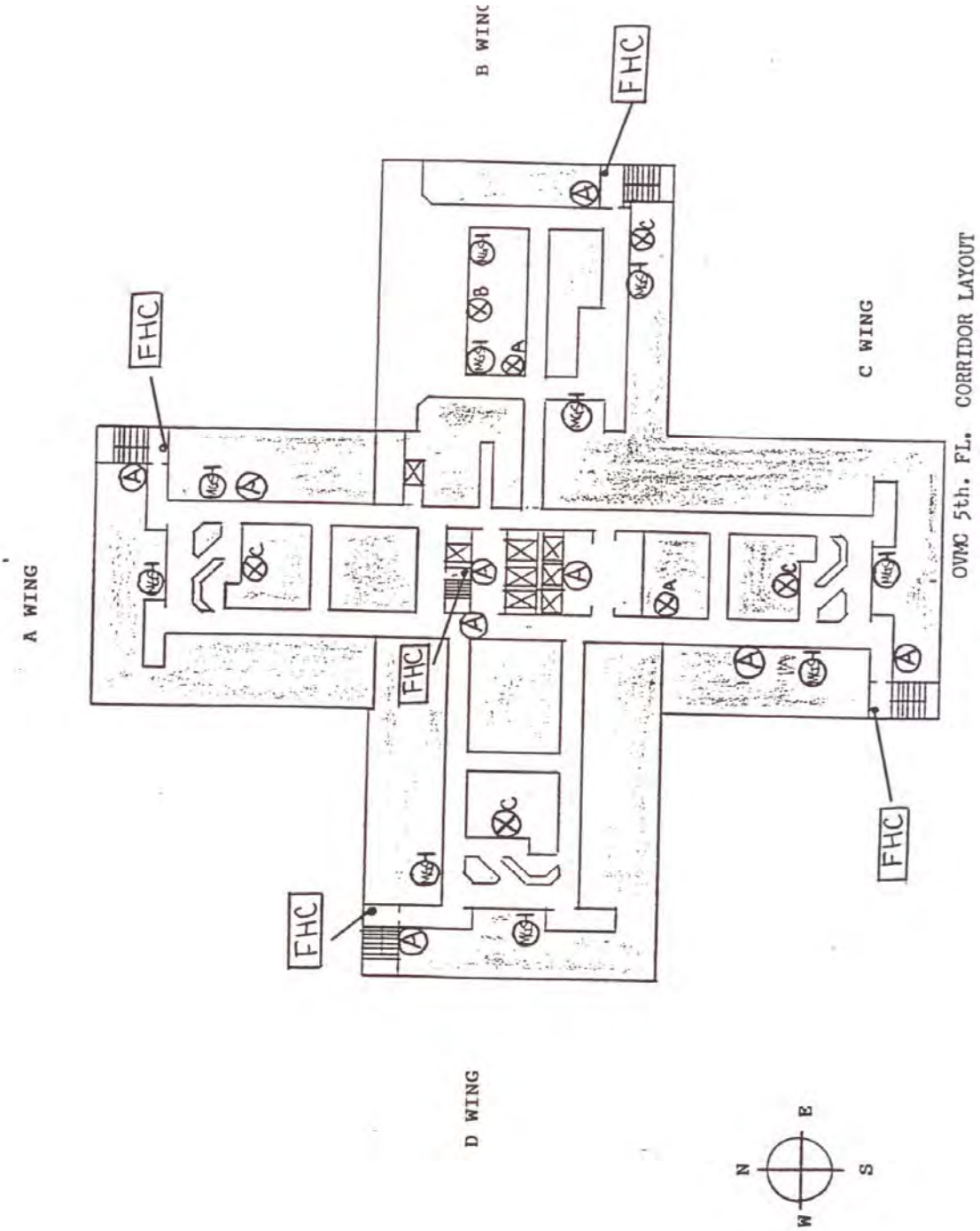


HOSPITAL 4th FLOOR



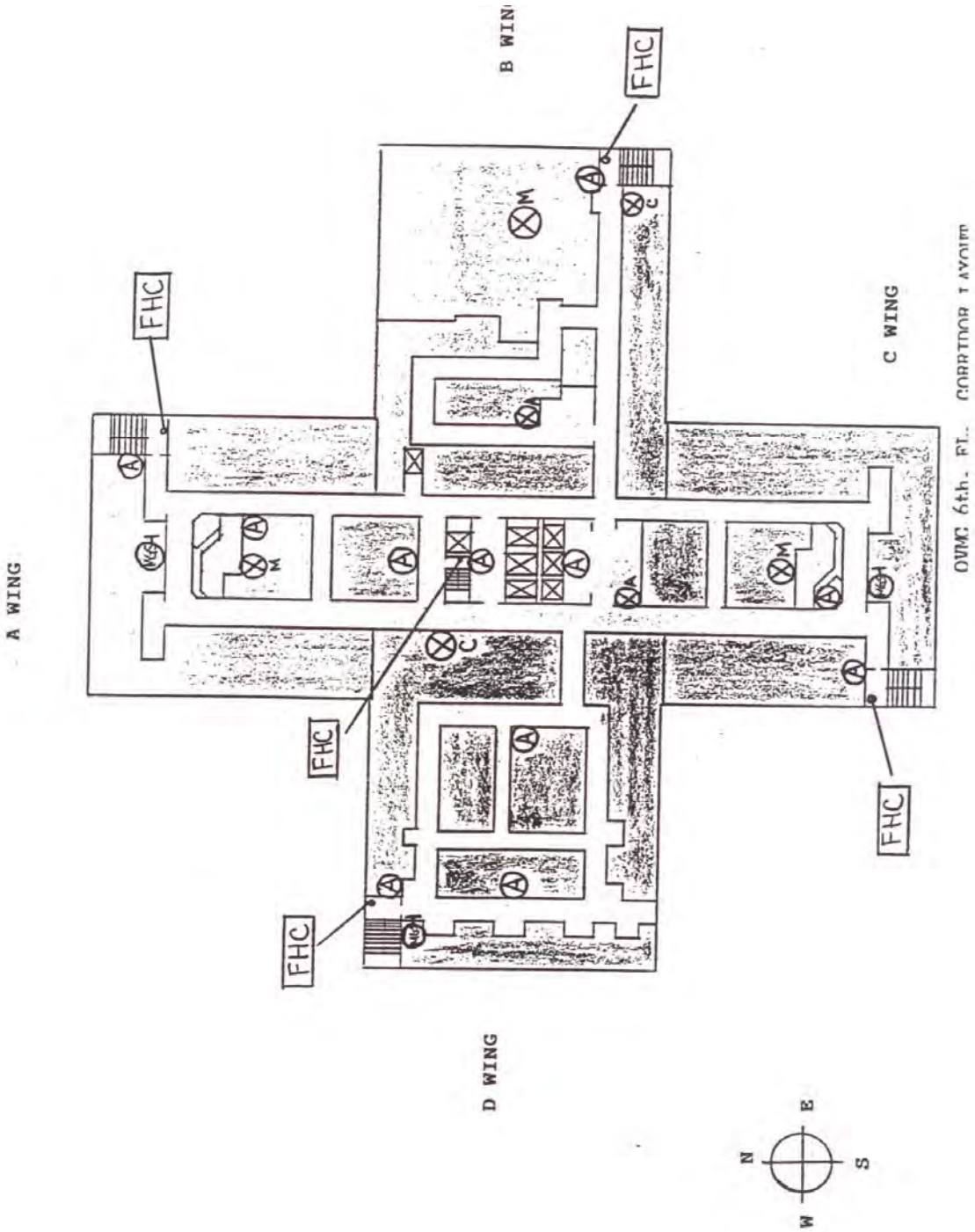
pg. 120

HOSPITAL 5th FLOOR



pg. 121

HOSPITAL 6th FLOOR



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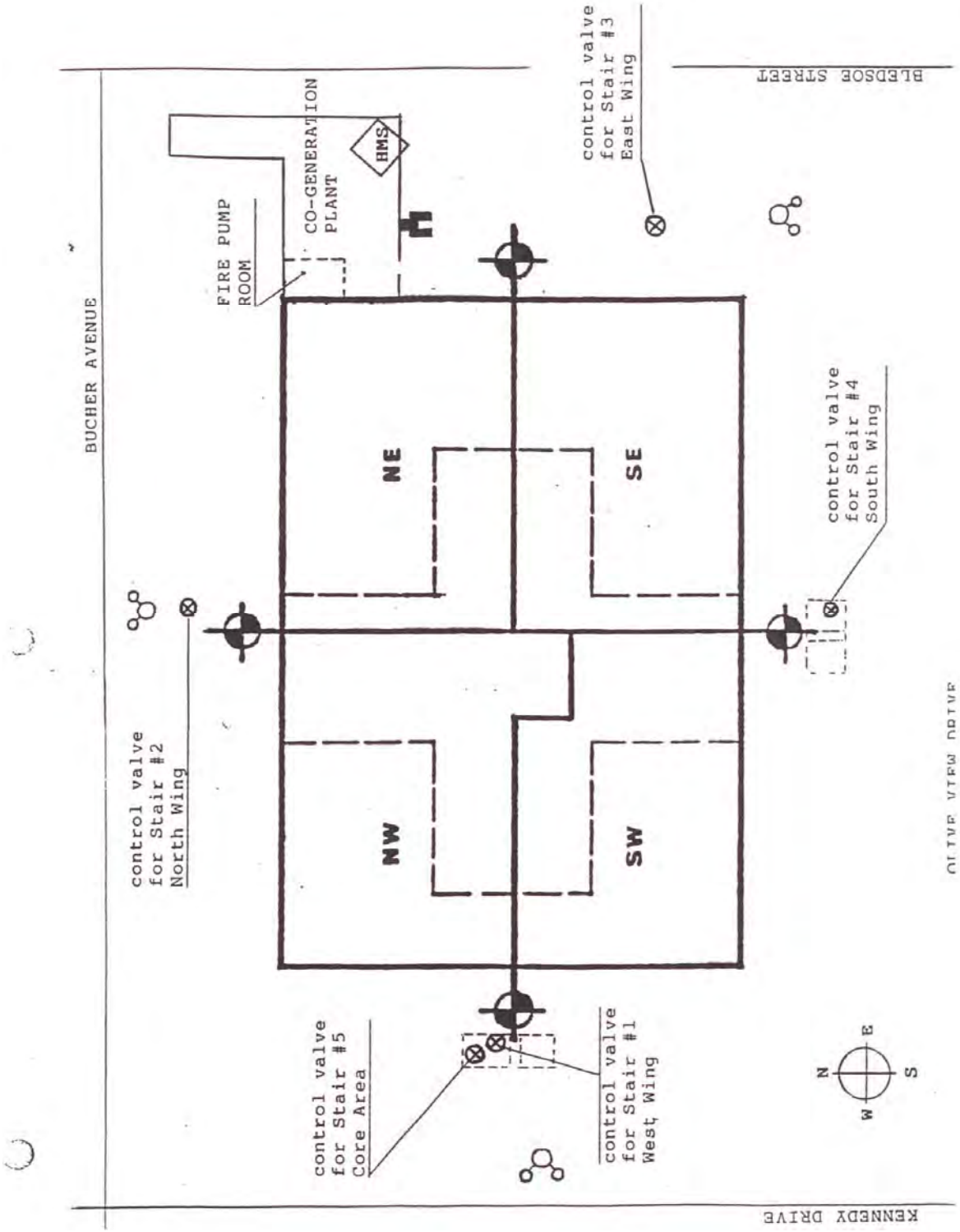
HOSPITAL EXTERIOR



FIRE DRILLS

PURPOSE

Drills are held to train all personal in the proper procedures to be followed in the event of a fire, and to ensure the safety of all patients, visitors, and hospital staff.

GENERAL INFORMATION

Employees of all shifts in all areas of the hospital are required to participate in a fire drill each quarter. Hospital-Wide fire drills are conducted regularly by the division of Environmental Health & Safety to ensure compliance.

DRILL PROCEDURE

A. Drill Participants

1. All employees are participants in a hospital-wide fire drill.
2. For employees in the fire location, the emergency fire procedure for their area should be followed.
3. For employees in other areas, they should be alerted when the “CODE RED” is announced and note the fire location. It is very important that at least one employee from each area (especially for areas on the same floor, a floor above or below the fire location) respond to the fire location with a fire extinguisher. Other employees should await further instructions until “ALL CLEAR” is announced.

B. Drill Observers

1. When selected by the Drill Conductor, each Drill Observer is responsible to observe a pre-determined area during the fire drill.
2. Note whether the announcements of “CODE RED” and “ALL CLEAR” can be heard clearly in the area.
3. Note whether all staff members in the area are aware of the “CODE RED” and observe to see if proper procedures are followed.
4. Immediately after the “ALL CLEAR” is announced, complete the fire drill observer report and return it to the Drill Conductor.

C. Drill Conductor

1. Wear an identification tag/badge while conducting the drill.
2. Determine the exact location for the simulated fire.
3. Select observers to observe various areas in the hospital. A minimum of 6 observers should be chosen for the day shift. A minimum of 4 observers should be chosen for the evening and night shifts.
4. Notify the telephone operator, BEAS room operator, and Sheriff Dispatcher of the location and approximate time prior to holding the drill.
5. Approach an employee working in the pre-determined area, describe the scenario, and instruct the employee to proceed as if there were an actual fire.

6. Observe the employee(s) to see if the proper procedures are followed, noting the time the drill began and the time various departments/areas responded.
7. Inform the telephone operator to announce the “ALL CLEAR” when the drill is complete.
8. Critique: After the “ALL CLEAR” has been given, the Drill Conductor will meet with drill participants to discuss the drill. To be considered are:
    a. Did any problems develop while the drill was proceeding?
    b. Were there any deficiencies in their procedures?
    c. Were there any unique situations in the area having the drill, and were they acted upon during the drill?
    d. Were the “CODE RED” and “ALL CLEAR” announcements heard clearly in the area?
9. Immediately following the critique, the Drill Conductor will collect all fire drill observer reports and complete the hospital fire drill report. The results of the drill and specifically any problems encountered should be addressed in the report. A copy of the report shall be sent to the Division Head/Nurse Manager where the drill was given. A written response from the Division Head/Nurse Manager on identified problems is required. The results of the drill will be discussed in the Environment of Care Committee.

Security Management Plan
2019

I. SCOPE

The Security Management Plan describes the methods of providing security for people, equipment and other material through risk assessment and management for Olive View-UCLA Medical Center. Security incidents are often intentional. Security protects individuals and property against harm or loss, including workplace violence, theft, infant abduction, and unrestricted access to medications.

The program is applied to: Olive View-UCLA Medical Center.

II. FUNDAMENTALS

A. A visible security presence in the hospital helps reduce crime and increase feelings of security by patients, visitors, and staff.

B. The assessment of risks to identify potential problems is central to reducing crime, injury, and other incidents.

C. Analysis of security incidents provides information to predict and prevent crime, injury, and other incidents.

D. Training hospital staff is critical to ensuring their performance. Staff is trained to recognize and report either potential or actual incidents to ensure a timely response.

E. Staff in sensitive areas is trained about the protective measures designed for those areas and their responsibilities to assist in protection of patients, visitors, staff and property.

F. Violence in the workplace is a growing problem in healthcare. It is necessary to develop a program to address workplace violence.

III. OBJECTIVES

The Objectives for the Security Program are developed from information gathered during routine and special risk assessment activities, annual evaluation of the previous year's program activities, performance measures, incident and injury reports and environmental tours. The Objectives for this Plan are as follows:

- The hospital buildings and property are patrolled on a scheduled basis, to identify and document potential or actual problems.
- Appropriate and timely action is taken to prevent crime, injury, or property loss.
- Security policies and procedures are established and maintained to direct staff performance when responding to security incidents. Security policies are reviewed at least every three years.

- Response is provided for emergencies and requests for assistance in a timely fashion.
- Crime, fire, injury, or other incidents are reported and documented. Communication is maintained externally with local, state, or federal law enforcement and other civil authorities. Internal communications are provided as needed.
- Vehicle movement on hospital grounds is controlled, including control of parking and access to the Emergency Department.
- Timely response to reports of violent activity or requests for assistance is provided for restraining violent or aggressive patients or visitors.
- Access to the grounds, buildings, and sensitive areas is limited by enforcement of security and police personnel, and by participating in the design of processes to minimize unauthorized access.
- Timely response to requests for escort, keys and door access, or other routine requests for assistance is provided.
- All new employees are trained about the Security Program, including what types of incidents the County Sheriff can/will respond to, how to report incidents and obtain assistance in an emergency and training for staff in designated sensitive areas.
- The documentation system for security incidents is managed and used to provide appropriate reports to leadership and the Environment of Care (EOC) Committee.
- County Sheriff activity, including investigations, routine patrol activity, special and routine requests for assistance, and other activities are appropriately documented.
- Identification of problems, failures, and user errors that require attention and action are reported to the EOC Committee at least quarterly.
- Performance improvement opportunities are documented and forwarded to appropriate individuals.
- An annual evaluation of the scope, objectives, performance, and effectiveness of the program is conducted and documented.
- The potential for workplace violence is evaluated as part of risk assessment, and programs are developed to manage it.

IV. ORGANIZATION & RESPONSIBILITY

A. The Executive Leadership receives regular reports of the activities of the Security Program from the multidisciplinary improvement team, the Environment of Care Committee, which is responsible for the Physical Environment issues. They review reports and, as appropriate, communicate concerns about identified issues and regulatory compliance. They also provide financial and administrative support to facilitate the ongoing activities of the Security Management Program.

B. The Chief Executive Officer (CEO), or other designated leader, collaborates with the Safety Officer to establish operating, and capital budgets for the Security Management Program.

C. The Safety Officer, in collaboration with the committee, is responsible for monitoring all aspects of the Security Program. The Safety Officer advises the EOC Committee, regarding security issues which may necessitate changes to policies and procedures, orientation or education, or expenditure of funds.

D. Department heads are responsible for orienting new staff members to the department and, as appropriate, to job and task specific security procedures. They are also responsible for the investigation of incidents occurring in their departments. When necessary, the Safety Officer provides department heads with assistance in developing department security programs or policies.

E. Individual staff members are responsible for learning and following job and task-specific procedures for secure operations.

V. PERFORMANCE ACTIVITIES

The performance measurement process is one part of the evaluation of the effectiveness of the Security program. Performance measures have been established to measure at least one important aspect of the Security program.

The performance measure for the security program is:

- Staff Knowledge – knowledge of security procedures exceeds 90% threshold.

VI. PROCESSES FOR MANAGING SECURITY RISKS - EC.02.01.01

Management Plan - EC.01.01.01 EP5

The Safety Officer develops and maintains the Security Management Plan that describes the processes implemented to effectively manage the security of staff, patients, and visitors.

Security Risk Assessment - EC.02.01.01 EP1

The Safety Officer manages the security risk assessment process for the organization, hospital and offsite facilities. This individual is designated to manage risk, coordinate risk reduction activities in the physical environment, collect deficiency information, and disseminate summaries of actions and results. The Safety Officer assures that compliance with applicable codes and regulations.

This assessment implements its process to identify security risks associated with the environment of care. Risks are identified from internal sources such as ongoing monitoring of the environment, results of root cause analyses, results of annual proactive risk assessment of high-risk processes (LD.04.04.05 EP10), and from credible external sources such as Sentinel Event Alerts.

The risk assessment is used to evaluate the impact of the environment of care on the ability of the hospital to perform clinical and business activities. The impact may include disruption of normal functions or injury to individuals. The assessment will evaluate the risk from a variety of functions, including structure of the environment, the performance of everyday tasks, workplace violence, theft, infant abduction, and unrestricted access to medications.

Use of Risk Assessment Results - EC.02.01.01 EP3

A risk assessment is used to evaluate the impact of the environment of care on the ability of the hospital to perform clinical and business activities. Where risks are identified, the current programs and processes to manage those risks are compared to the risks that have been identified. Where the identified risks are not appropriately handled, action must be taken to eliminate or minimize the risk. The actions may include creating new programs, processes, procedures, training programs. Monitoring programs may be developed to assure the risks have been controlled to achieve the lowest potential for adverse impact on the security of staff, patients, and visitors.

Identification Program - EC.02.01.01 EP7

The Human Resources Manager coordinates the employee identification program. The Human Resources Department and all supervisory personnel manage enforcement of the employee identification program.

All employees are required to display an identification badge on their upper body while on duty. Identification badges are to be displayed on the individual with the picture showing. Employees who fail to properly display their identification badge are counseled individually by their department manager. Identification badges are retrieved from employees upon termination.

Administration maintains policies for identification of patients, staff, visitors, and vendors. Visitors and patients are not normally expected to have identification. Visitors to some specific units are requested to have identification, or to be recognized by staff, e.g., Labor & Delivery, Newborn Nursery, Neonatal Intensive Care Unit, Psychiatry, etc. After the normal business hours of 7 A.M. to 8 P.M., all visitors (e.g., patient visitors or vendors) are required to check in with the Security Guard on duty to obtain visitor clearance. The Sheriff Deputies and Security staff assists in enforcement of visitor identification policies.

Where required, patient identification is provided at the nursing unit where patients are first admitted. If a patient wristband is damaged, it is replaced by the nursing staff. Patient identification is not removed upon discharge. Patients are instructed to remove the identification band at home.

Supply Chain Operations provides vendor and contractor identification. Identification badges are controlled and stored in a secure area.

Sensitive Areas - EC.02.01.01 EP8

The Safety Officer and Sheriff Sergeant works with leadership to identify security sensitive areas by utilizing risk assessments and analysis of incident reports.

The following areas are currently designated as security sensitive areas:

- Administration
- Cashier
- Emergency Room
- Hospital Loading Dock

- Human Resources
- Information Systems
- Medical Records
- Mental Health Wards
- Nursery, Labor & Delivery
- Parking Lots
- Pediatrics
- Pharmacies
- Psychiatric Emergency Room
- Supply Chain Warehouse and Receiving

Staff are reminded during their annual in-service about those areas of the facility that have been designated as sensitive. Staff assigned to work in sensitive areas receive department level continuing education on an annual basis that focuses on special precautions or responses that pertain to their area.

Security Incident Procedures - EC.02.01.01 EP9

The Safety Officer coordinates the development of hospital-wide written security policies and procedures; and provides assistance to department heads in development of departmental security procedures, as requested. These policies and procedures include infant and pediatric abduction, workplace violence, and other events that are caused by individuals from either inside or outside the hospital.

Individual department heads assist in the development of department-specific security policies and procedures for risks unique to their area of responsibility. The Safety Officer also assists department heads in the development of new department security procedures. Hospital-wide security policies and procedures are distributed to all departments. Department heads are responsible for distribution of department level policies and procedures to their staff and for ensuring enforcement of security policies and procedures. Each staff member is responsible for following security policies and procedures.

Organization-wide security policies and procedures are reviewed at least every three years. Additional interim reviews may be performed on an as needed basis. The Safety Officer coordinates the triennial and interim reviews with department managers and other appropriate staff; and works with department managers to develop/review departmental security policies and procedures.

Security Incident Response - EC.02.01.01 EP10

Upon notification of a security incident, the Sheriff Deputies will assess the situation and implement the appropriate response procedures. The Sheriff Deputy will notify Hospital Administration of any significant security incident. Security incidents that occur in the Emergency Department will be managed initially by the Security staff by following the appropriate policies and procedures for that area. The Sheriff Deputy will be notified about the incident as soon as possible.

Security incidents that occur in the departments will be managed according to the departmental or hospital-wide policy. The department manager or supervisor will be notified about any incident that occurs in a department as soon as possible. Additional support will be provided from the Security staff upon request.

In the event of an infant or child reported missing, a Code Pink or Code Purple is announced over the internal page system, as well to all Sheriff and Security staff radios. Designated staff responds to doors and specified areas to observe for persons with children or packages, and call Security if such cases occur. Other staff checks designated areas, and respond to the unit involved to document information, and provide support to the parents.

The plan is tested at least once a year, and the responses documented, evaluated, critiqued, and as appropriate corrective activity, additional training, or program improvements are made.

Following any security incident, a written "Security Incident Report" will be filed by the Sheriff Deputy managing the incident. The report will be reviewed by the Safety Officer if necessary. Any deficiencies identified in the report will be corrected. A summary of these reports will be submitted to the Environment of Care Committee on a regular basis.

Evaluating the Management Plan- EC.04.01.01 EP15

On an annual basis, the Safety Officer evaluates the scope, objectives, performance, and effectiveness of the Plan to manage the security risks to staff, patients, and visitors.