ADDITIONAL SECTION TO THE FINAL ENVIRONMENTAL IMPACT REPORT

SECTION 6.0
ANALYSIS OF REVISED PROJECT DESIGN

AVIATION STATION PROJECT

County Project No. TR070853-(2)
Vesting Tentative Tract Map No. TR070853
General Plan Amendment No. RPAT200900002
Zone Change No. RZCT200900002
Conditional Use Permit No. RCUPT200900024
Parking Permit No. RPKPT201000008
Aviation Permit No. RAVT201000003
Environmental No. RENVT200900024

STATE CLEARINGHOUSE NO. 2009051097

County of Los Angeles, Board of Supervisors

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SECTION 6.0
ANALYSIS OF REVISED PROJECT DESIGN

6.1 INTRODUCTION

The originally proposed Aviation Station project was presented to the County of Los Angeles Regional Planning Commission ("Commission") on February 16, 2011, and was continued to the April 20, 2011, public hearing. At the April public hearing, the Commission approved Vesting Tentative Tract Map (VTTM) No. 070853 and the associated conditional use and parking permits for the original project and recommended approval by the County of Los Angeles Board of Supervisors ("Board") of the General Plan Amendment and Zone Change required for the original project. The Board considered the original project at the October 25, 2011, public hearing. The Board directed the project Applicant to make revisions to the original project and continued the public hearing to November 8, 2011.

On August 18, 2011, in anticipation of these revisions, the project Applicant submitted a revised project including the revised VTTM No. 070853 dated August 18, 2011 ("Project") to the County of Los Angeles Department of Regional Planning (DRP) for review and comment. The revisions generally include elimination of the podium level, the site ingress/egress from West 117th Street, and the subterranean parking on Lot 1; reduction in residential units and commercial space; and the phased development of Lot 1 and Lot 2. The Project was presented to the Subdivision Committee for review on September 29, 2011, and was considered by the Board at the November 8, 2011 continued public hearing.

A summary of the original project description set forth and analyzed in the Draft EIR is presented below, followed by a summary of the Project Description.

6.1.1 DESCRIPTION OF ORIGINAL PROJECT DESIGN

The, Kroeze Family, LLC, Kroeze, Inc. and Metro ("Applicant") originally proposed the redevelopment of the project site with a mixed-use, transit-oriented development that would divide the project site into two lots: Lot 1 (southerly lot) and Lot 2 (northerly lot). All existing land uses within Lot 1, including 11 residences (7 single-family homes and 2 duplexes), a 4,568 square foot (sf) commercial structure (Wild Goose Restaurant/Bar), an 8-room motel (Aviation Motel), and surface parking, would be demolished. The existing on-site Metro bus terminal within Lot 2 would be relocated to a portion of the off-site existing Caltrans Park-and-Ride Lot as a part of the proposed off-site improvements. The originally proposed site plan is depicted in Exhibit 2-1 in Section 2.0, Environmental Setting and Project Description, of the Draft EIR and depicts both the Aviation Station project as well as the off-site improvements to the north. The original project would develop a total of 390 residential units and 29,500 square feet (sf) of commercial. Lot 1 would include 278 residential units and 8,000 sf of commercial and leasing office space within the 3.2-acre, and Lot 2 would contain 112 residential units and 21,500 sf of commercial within the 2.7-acre. The commercial uses may include retail, restaurant, and other service industry uses. The residential units within Lot 1 would be developed as for-sale condominium units and townhouses, and the residential units within Lot 2 would be developed as rental apartments.

The originally proposed 20 two-story townhomes would be developed along West 117th Street and Judah Avenue, and the remaining residential units would be located behind the townhomes within four buildings (1A, 2A, 1B, and 2B) each of which includes 4 levels. The four buildings would be built upon a podium level (Level 1) and would be separated from each other by community open space areas (swimming pool, barbeque areas, tot-lot, etc.) and pedestrian corridors. The original

project would provide a total of 797 parking spaces through construction of one level of subterranean parking that would underlie the majority of Lot 1 and Lot 2, and through provision of surface off-street parking at the street/ground level. Vehicle access would include one driveway on West 117th Street and one driveway on Aviation Boulevard. Access to the subterranean parking garage would be located internal to the project site from these two driveways.

Approximately 6.1 acres of off-site property owned by Caltrans located immediately to the north of the project site would be improved as a part of the original project, as shown on Exhibit 2-1, Site Plan, in Section 2.0, Environmental Setting and Project Description, of the Draft EIR. The "Caltrans Off-site Project Area" includes the relocated 1.85-acre Metro bus terminal, the reconfiguration of the 3.65-acre Caltrans Park-and-Ride Lot, and the reconfiguration of 0.6-acre of parking for the Caltrans Maintenance Facilities. The relocated Metro bus terminal, currently located within Lot 2 of the project site, would require the reconfiguration of the existing Caltrans Park-and-Ride Lot.

Other off-site improvements involve upgrades/replacement of existing infrastructure/utilities, as needed, to support the proposed development. Infrastructure improvements to storm drains, wastewater, water, and dry utilities would be needed to connect to existing facilities within or adjacent to the Pproject site. All utilities would be placed underground. A traffic signal would be installed at the existing Caltrans driveway on West Imperial Highway to accommodate access to the reconfigured Metro and Caltrans facilities. The traffic signal at the Caltrans driveway would feature separate westbound left-turn phasing for vehicles turning left into the Caltrans Park and Ride Lot and Caltrans Maintenance Facility surface parking lots.

6.1.2 DESCRIPTION OF REVISED PROJECT DESIGN

The main changes made to the original project design in response to the direction of the Board include:

- Removal of podium deck design;
- Elimination of site ingress/egress from West 117th Street;
- Elimination of subterranean parking garage under Lot 1;
- Revised on-site parking, including an aboveground parking structure on Lot 1;
- Phased development of Lot 1 (Phase 1) and Lot 2 (Phase 2);
- Reduction of overall number of residential units from 390 to 376;
- Modifications to utility infrastructure;
- Reduction in overall square footage of commercial space from 29,500 sf to 17,180 sf; and,
- Addition of 16,903 sf of community space, which could be used for community recreation rooms, a Sheriff convenience station, bicycle storage units, residential storage, leasing office, and/or other similar uses.

The Project location and surrounding physical environment, as discussed in Sections 2.1 and 2.2 of the Draft EIR, remain unchanged. Unless otherwise noted below, the information set forth in the Draft EIR remains accurate for the Project. There are no changes proposed for the Caltrans Off-Site Project Area and the analysis regarding these off-site components in the Draft EIR remains unchanged.

The Project replaces the podium design and four residential towers with three five-story street-level buildings and a five-level aboveground parking garage on Lot 1. Lot 2 includes subterranean parking as well as surface parking spaces south and east of the buildings on Lot 2. A total of 667 parking spaces are proposed for the entire Project, which is 130 fewer spaces than planned for the original project. Table 1-1 compares the development summary data from the original project with the Project.

TABLE 6-1
AVIATION STATION TOTAL DEVELOPMENT SUMMARY

Site Summary	Original Project	Revised Project	Difference
Lot Area – Net	5.78 acres (251,777 sf)	5.78 acres (251,777 sf)	N/A
Lot Area – Gross	5.90 acres (257,004 sf)	5.90 acres (257,004 sf)	N/A
Residential Units	390	376	(-14)
Commercial (sf)	29,500	17,180	(-12,320)
Community Space (sf)	0	16,903	16,903
Lot Coverage (sf)	170,491	117,900	(-52,591)
Open Space[a] (sf)	92,114	117,731	25,617

sf: square feet; du/ac: dwelling unit per acre
[a] Includes all common and private landscape and hardscape outdoor use areas

As shown in Table 6-1 above, the amount of commercial development is reduced by 12,320 sf, while 16,903 sf of community space—including a potential leasing office, residential storage, recreation rooms, bicycle storage, and a Sheriff convenience station—is introduced into the Project. The community space is provided for Project residents; however, bicycle storage may be available to transit users who bike to the Metro Station in lieu of driving and Sheriff convenience station would be available to the public. Residential development is reduced overall by 14 units and the amount of open space, including all common and private landscape areas as well as hardscape outdoor use areas, is increased by 25,617 sf.

The private (for residents only) internal open space areas are reconfigured due to the change in building orientation. The swimming pool is relocated to the southwestern portion of the site, while the courtyard areas would still be enclosed on all sides by the residential units. However the outdoor amenities remain generally unchanged from what was analyzed in the Draft EIR. These outdoor use areas include a pool with a forecourt, terraces, courtyards, community barbeque areas, water features, outdoor fireplace, a fire pit, large-scale pottery and in-ground landscaping, and outdoor furniture. The tot lot has been eliminated from the outdoor use areas.

The public street separating Lot 1 and Lot 2—West 116th Street—will provide access to the Project. As part of the Lot 2 development (Phase 2), West 116th Street will be converted into a private driveway and fire lane. Ingress/egress from 117th Street is eliminated in the Project, and all land uses within Lots 1 and 2 will access the site from West 116th Street (i.e. driveway at intersection of West 116th Street and Aviation Boulevard). The 28-foot-wide emergency-vehicle-only Fire Lane located between the existing Metro Green Line Station and Lot 2 remains the same as in the original project. The landscaping palette, signage and graphics, and “retail plaza” area adjacent to Green Line Station, as described in the Draft EIR, remain unchanged.

Utilities

Due to the elimination of the subterranean parking garage on Lot 1 and reduction of the subterranean garage footprint on Lot 2 to the north, the removal and relocation of a segment of the existing Dominguez Channel reinforced concrete box (RCB) structure beneath Aviation

Boulevard and West 116th Street is unnecessary. All other drainage infrastructure improvements, including the on-site underground infiltration system beneath the proposed parking lot located north of the intersection of Judah Avenue and West 116th Street, are still included in the Project. However, the utilities would be altered to accommodate the phasing, including the installation of two underground infiltrations systems in each phase rather than one, and adjustments to the number of new catch basins. These changes are outlined in the revised mitigation measures MM 3.2-1 and MM 3.2-2 discussed in Section 3.2, Flood Hazards, of this document.

Lot 1 Design

The Project includes development of 264 condominium units and 8,720 sf of community space within one building on Lot 1. The Project eliminates the subterranean parking garage within Lot 1. All parking for the leasing office and for residents/guests on Lot 1 will be located within an aboveground parking garage accessed from the parking garage driveway ingress/egress from West 116th Street. The top floor of the above ground parking garage would be uncovered and may be installed with accessory equipment. The ingress/egress from West 117th Street proposed in the original project is eliminated.

In addition, the 20 two-story townhomes are replaced with 16 separate single-story units (stacked to two-stories for a total of 32 units) of residential flats that maintain the same exterior façade as previously planned for the townhomes. These residential flats will be developed along West 117th Street and Judah Avenue, facing the existing single-family homes adjacent to the Project site, while the leasing office and residential storage within the community space will be developed to face Aviation Boulevard to the west. The proposed flats facing Judah Avenue and West 117th Street will be two-levels and stepped up to five levels behind these flats. The structural height of the residential buildings and setbacks along Judah Avenue and West 117th Street remain unchanged. Table 6-2 compares the development summary data from the originally proposed Lot 1 with the revised Lot 1.

TABLE 6-2
AVIATION STATION LOT 1 DEVELOPMENT SUMMARY

Site Summary	Original Lot 1	Revised Lot 1	Difference
Lot Area - Net	3.15 acres (137,214 sf)	3.15 acres (137,214 sf)	N/A
Lot Area - Gross	3.20 acres (139,392 sf)	3.20 acres (139,392 sf)	N/A
Residential Units	278	264	(-14)
Commercial (sf)	8,000	0	(-8,000)
Community Space (sf)	0	8,720	8,720
Density (# units/gross lot area)	71.28	67.69	(-3.59)
Net Density (# units/net lot area)	88.3	83.8	(-4.5)
Floor-to-Area Ratio (FAR)	2.43	2.08	(-0.35)
Lot Coverage (sf)	116,223	87,025	(-29,198)
Open Space[a] (sf)	43,826	65,674	21,848

sf: square feet; du/ac: dwelling unit per acre
[a] Includes all common and private landscape and hardscape outdoor use areas

As shown in Table 6-2 above, Lot 1 contains no commercial uses. The commercial area in the original project is replaced with community space, including recreation rooms, a leasing office, and residential storage. The residences within Lot 1 are reduced by 14 units and the corresponding development density, floor-to-area ratio (FAR), and lot coverage are also reduced. The amount of open space within Lot 1, including all common and private landscape areas as well as hardscape outdoor use areas, is increased by 21,848 sf.

The original project included shared parking for Lots 1 and 2; however, the Project includes separate parking allotments for the two lots. The overall methodology for determining the appropriate number of parking spaces for the various land uses is consistent with the Draft EIR. The Lot 1 Unit and Parking Summary is presented in Table 6-3 below.

TABLE 6-3
LOT 1 UNIT AND PARKING SUMMARY

Site Summary	Quantity	Gross Area (sf)	Parking Ratio	Parking Spaces
Residential Total Units				
A- Studio	24	580	1.25	30
B- 1BR/1BA	136	633	1.25	170
C- 1BR/1BA	28	864	1.25	35
D- 2BR/2BA	35	945	2.25	78.75
E- 2BR/2BA	41	1035	2.25	92.25
Community Space (sf)	N/A	4,440	N/A	N/A
Leasing (sf)	N/A	1,580	1/250	6
Residential Storage (sf)	N/A	2,700	N/A	N/A
Total	**264**			**412**

A total of 412 parking spaces are proposed within the parking structure, including 340 for residents, 66 for guests, and 6 for the leasing office. Lot 1 would contain 27 tandem parking spaces (6 located on Level 2; 7 located on Levels 3, 4, and 5) and a total of 48 uncovered residential parking spaces would be located on the top level of the parking structure. The proposed parking for Lot 1 meets the parking standards defined by the Hearing Officer as defined by the MXD zone.

Lot 2 Design

The development of Lot 2 will generally remain as the originally proposed project. The number of "for rent" units remains at 112; however, the amount of commercial has been reduced by 4,320 sf. Additionally, 8,183 sf of community space has been introduced into Lot 2. Table 6-4 compares the development summary data from the originally proposed Lot 2 with the revised Lot 2.

TABLE 6-4
AVIATION STATION LOT 2 DEVELOPMENT SUMMARY

Site Summary	Original Lot 2	Revised Lot 2	Difference
Lot Area - Net	2.63 acres (114,563 sf)	2.63 acres (114,563 sf)	N/A
Lot Area - Gross	2.70 acres (117,612 sf)	2.70 acres (117,612 sf)	N/A
Residential Units	112	112	N/A
Commercial (sf)	21,500	17,180	(-4,320)
Community Space (sf)	0	8,183	8,183
Density (# units/gross lot area)	38.36	38.36	N/A
Net Density (# units/net lot area)	42.6	42.6	N/A
Floor-to-Area Ratio (FAR)	1.36	1.31	(-0.05)
Lot Coverage (sf)	54,268	30,875	(-23,393)
Open Space[a] (sf)	48,288	52,057	3,769

sf: square feet; du/ac: dwelling unit per acre
[a] Includes all common and private landscape and hardscape outdoor use areas

As shown in Table 6-4 above, Lot 2 contains both commercial uses, which are decreased by 4,320 sf, and new community uses. Residential units and density of development within Lot 1 remain unchanged, but the FAR and lot coverage are reduced. The amount of open space within Lot 2, including all common and private landscape areas as well as hardscape outdoor use areas, is increased by 3,769 sf.

As previously discussed, the original project included shared parking for Lots 1 and 2; however, the Project includes separate parking allotments for the two lots. Unlike Lot 1, Lot 2 includes one level of subterranean parking in addition to surface parking spaces to the south and east of the buildings on Lot 2. Of the total 255 parking spaces in Lot 2, 79 are surface parking spaces and 176 are located within the subterranean parking garage. The 255 parking spaces include 155 spaces for residential, 28 spaces for guests, 69 spaces for retail, and 3 spaces for Sheriff convenience station parking. Of the 155 residential parking spaces, a total of 23 spaces are tandem. Access to the subterranean parking is from Aviation Boulevard to West 116th Street and is located near the southeastern corner of Lot 2. Although the residential parking ratio is reduced slightly, the overall methodology for determining the appropriate number of parking spaces for the various land uses is consistent with the Draft EIR. The proposed parking for Lot 2 meets the parking standards defined by the Hearing Officer as defined by the MXD zone. The Lot 2 Unit and Parking Summary is presented in Table 1-5 below.

TABLE 6-5
LOT 2 UNIT AND PARKING SUMMARY

Site Summary	Quantity	Gross Area (sf)	Parking Ratio	Parking Spaces
Residential Total Units				
B- 1BR/1BA	60	633	1.25	75
E- 2BR/2BA	36	1035	2.01	72
F- 3BR/2BA	16	1,161	2.25	36
Community Space (sf)	N/A	3,940	N/A	N/A
Commercial/Retail (sf)	N/A	17,180	1/250	69
Bicycle Storage (sf)	N/A	3,611	N/A	N/A
Sheriff Convenience Station (sf)	N/A	632	1/250	3
Total	**112**			**255**

The parking ratios depicted on Table 6-5 are required on the Conditional Use Permit conditions of approval.

Construction Activities

The Project will be developed in two phases. Phase 1 includes construction activities only on Lot 1 and involves the demolition of 11 residences (7 single-family homes and 2 duplexes), a 4,568-sf business/commercial structure (Wild Goose Restaurant/Bar), and an 8-room motel (Aviation Motel), followed by site grading and excavations for utility improvements. Due to the elimination of the subterranean parking structure on Lot 1, a substantial portion of the approximately 56,000 cubic yards (cy) of soil resulting from excavations on Lots 1 and 2 will not require excavation or export. Additionally, because the Dominguez Channel RCB structure will not be relocated, the excavation of approximately 3,300 cy of material and the export of 2,165 cy of material will not be required. The original Project anticipated approximately six weeks for excavations and soil export for Lots 1 and 2. Elimination of the subterranean parking structure will considerably reduce the time required for soil exports, thereby decreasing the construction schedule for Lot 1. Once the site is graded, construction of the community spaces and residential units will begin.

Phase 2 involves demolition and construction activities within Lot 2 and the Caltrans Off-site Project Area. Improvements to the Caltrans Off-site Project Area will occur first in order to allow the relocation of the Metro bus terminal. Once the Caltrans Off-site Project Area improvements are complete and functional, the demolition of the existing Metro bus terminal on Lot 2 will begin. Excavations for the subterranean parking structure under Lot 2 will then begin, followed by the construction of the commercial spaces, community spaces, and residential units.

Due to the multi-agency involvement required for development of Phase 2, it is unlikely that implementation of Phase 1 and Phase 2 will occur concurrently. Phase 1 is anticipated to commence mid-2012 and will require approximately 14 months to complete. Phase 2 may require approximately 18 months to complete.

6.1.3 CEQA PROCESS

Section 15088.5 of the CEQA Guidelines sets forth the requirements for the recirculation of an EIR prior to certification:

> A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. "Significant new information" requiring recirculation include, for example, a disclosure showing that:
>
> (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
>
> (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
>
> (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
>
> (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The Project design revisions are evaluated in Section 6.0 of this Final EIR, which determined that the Project would result in reduced impacts to almost all environmental factors when compared to the original project analyzed in the Draft EIR, and would not result in any new significant impact. Therefore, recirculation of the Draft EIR is not warranted.

6.1.4 DISCRETIONARY ACTIONS

The Aviation Station Project requires the following discretionary approvals by the County of Los Angeles and other public agencies, as described below, to be implemented:

Vesting Tentative Tract Map No. 070853 (dated August 18, 2011)

The Project Applicant/Developer is requesting a vesting tentative tract map to create two lots on 5.9 gross acres to accommodate a mixed use development consisting of a total of 376 residential units, which include 264 condominium units and 112 apartment units, along with approximately 17,180 square feet of commercial/retail space and 16,903 square feet of community space. Lot 1 will be developed with 264 condominium units and 8,720 square feet of community space; and Lot 2 will be developed with 112 apartment units, 8,183 square feet of community space, and 17,180 square feet of commercial/retail space.

General Plan Amendment

A General Plan Amendment is required to amend the 3.2-acre portion of the Project site that is located within unincorporated County of Los Angeles from Countywide General Plan Category 1, Low Density Residential to Category 4, High Density Residential; and to pre-designate as Category 4 the 2.7-acre portion of the Project site that is located within the City of Los Angeles. The City-portion of the Project site is currently designated as Public Facility under the City of Los Angeles General Plan.

Zone Change

A Zone Change is required to change 0.9 acres of the Project site portion that is located within unincorporated County from C-1 (Restricted Business) zone and 2.3 acres from R-1 (Single-Family Residences) zone to MXD-84U-DP (Mixed Use Development-84 dwelling units per net acre-Development Program) zone; and to pre-zone the 2.7-acre portion of the Project site that is located within the City of Los Angeles as MXD-43U-DP (Mixed Use Development-43 dwelling units per net acre-Development Program). The City portion of the Project site is currently zone PF (Public Facilities) pursuant to the City of Los Angeles Planning and Zoning Code. The DP-Development Program will ensure that development occurring after rezoning will conform to the approved plans and be compatible with the surrounding area. As applied to this case, the conditional use permit will authorize the development of a mixed use development on the Project site.

Conditional Use Permit

A Conditional Use Permit (CUP) is required to ensure compliance with the requirements and standards of the proposed MXD and Development Program zone pursuant to Sections 22.40.520(B) and 22.40.040 of the Los Angeles County Code for the proposed development and to ensure that development occurring after rezoning will conform to the approved plans and be compatible with the surrounding area.

Parking Permit

A Parking Permit is required pursuant to County Code Section 22.56.990(C) to allow for tandem parking on Lot 1 and Lot 2.

LAFCO Boundary Modification

The Project requires a modification to the County of Los Angeles and City of Los Angeles boundaries involving "detachment" through LAFCO, to allow the entire Project site (including a portion of West 116th Street) to become part of unincorporated County of Los Angeles. All of Lot 2 and a portion of the West 116th Street right-of-way would be included in the detachment.

Water Service Area Boundary Adjustment

The Project requires an adjustment of the respective service areas of the City of Los Angeles Department of Water and Power and the Golden State Water Company (GSWC); the latter agency would then serve the entire Project site.

Consolidated Sewer Maintenance District Annexation

The County of Los Angeles Department of Public Works' Consolidated Sewer Maintenance District is responsible for the maintenance of the local sewers within the unincorporated County area. Therefore, sewer development within the entire Project area is required to be annexed into the Consolidated Sewer Maintenance District.

Aviation Permit

The Project requires an Aviation Permit to establish consistency with the Los Angeles County Airport Land Use Plan.

Caltrans Encroachment Permit

The Project requires an encroachment permit from California Department of Transportation (Caltrans) for construction activities within the off-site, Caltrans-owned parking lot.

Metro Ownership of Lot 2

The Project requires the sale of the Caltrans-owned portion of Lot 2 to Metro. Once under Metro ownership, Lot 2 would then be leased to the Project Applicant/Developer.

Metro Encroachment Permit(s)

The Project may require permits for special operations related to the use of construction equipment in proximity to the electrified OCS (Overhead Catenary System).

6.2 SUPPLEMENTAL ANALYSIS OF REVISED PROJECT IMPACTS FOR TOPICS FOUND NOT TO BE SIGNIFICANT IN THE INITIAL STUDY

The County prepared and circulated for public review an Initial Study dated April 16, 2009 for the Project, which determined that the following environmental topics would have no impact and thus did not warrant further study in the Draft EIR, and no mitigation measures are necessary. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same as a result of implementation of the Project.

6.2.1 BIOTA

The Project would not alter the acres of disturbance or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts to biological resources would result from Project implementation.

6.2.2 MINERAL RESOURCES

The Project would not alter the acres of disturbance or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts to mineral resources would result from Project implementation.

6.2.3 AGRICULTURE RESOURCES

The Project would not alter the acres of disturbance or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts to agriculture resources would result from Project implementation.

6.3 SUPPLEMENTAL ANALYSIS OF REVISED PROJECT IMPACTS FOR TOPICS WHICH ARE NOT SIGNIFICANT OR HAVE BEEN MITIGATED TO A LEVEL LESS THAN SIGNIFICANT

Implementation of the Project would not result in significant new information that could change the impact of the Project as analyzed in the Draft EIR in a manner that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the Project or a feasible way to mitigate or avoid such an effect that the Project's proponents have declined to implement. Therefore, in accordance with Section 15088.5(b) of the CEQA Guidelines, recirculation is not required due to revisions related to the Project because the new information added to the EIR makes insignificant modifications to the Draft EIR.

Due to the Project, some changes to the MMs presented in the Draft Environmental Impact Report (EIR) are required. These changes reflect the alterations to the Project and do not constitute a determination of new or more significant environmental impacts than disclosed in the Final EIR, but rather reflect the change in circumstances. Changes to the text of the applicable MMs are noted with **bold** (for added text) and ~~strikeout~~ type (for deleted text) in Section 6.3 of this document.

6.3.1 GEOTECHNICAL HAZARDS

The Draft EIR analyzed potential impacts regarding geotechnical hazards in Section 3.1 of the Draft EIR and the Geotechnical Report located in Appendix B of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduce, increased, or remain the same as a result of implementation of the Project.

(a) Fault Zones. The Project would not alter the acres of disturbance or area of impact analyzed in the Draft EIR. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the number of residents and customers exposed to fault zone hazards; therefore, no new or more significant impacts to fault zones would result from the Project with implementation of MM 3.1-1 and MM 3.1-2.

(b) Landslides, (c) Slope Instability, and (f) Substantial Grading. The Project would not alter the acres of disturbance or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts to landslides, slope instability, or substantial grading would result from Project implementation.

(d) Subsidence, High Groundwater Level, Liquefaction, or Hydrocompaction, and (g) Expansive Soil. The Project would not alter the acres of disturbance or area of impact analyzed in the Draft EIR and would eliminate the excavations for the subterranean parking garage under Lot 1, thereby reducing impacts related to soil disturbance. Additionally, the Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the number of residents and customers exposed to these hazards. Therefore, no new or more significant impacts from subsidence, high groundwater level, liquefaction, hydrocompaction, or expansive soils would result from Project implementation.

(e) Sensitive Use Proximate To a Significant Geotechnical Hazard. The Project would not alter the acres of disturbance or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts to sensitive uses proximate to a significant geotechnical hazard would result from Project implementation.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 3.1-1 The design and construction of the Project shall comply with the County of Los Angeles Building Code and/or any other applicable building codes and standards to the satisfaction of the Los Angeles County Department of Public Works.

MM 3.1-2 All grading activities as well as the design and construction of the Project shall comply with the specific recommendations and requirements provided in a comprehensive geotechnical report, subject to approval by the Los Angeles County Department of Public Works.

6.3.2 FLOOD HAZARDS

The Draft EIR analyzed potential impacts regarding flood hazards in Section 3.2 of the Draft EIR and the Drainage Report located in Appendix C of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

The revised Approved Hydrology Study dated September 12, 2011 is included as Attachment A to this document.

(a) Major Drainage Course, (b) Flooding, (c) High Mudflows, (d) Erosion. The Project would not alter the acres of disturbance or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts to drainage courses, flooding, mudflows, or erosion would result from Project implementation.

(e) Substantial Alteration of Existing Drainage Patterns. The Project would not alter the acres of disturbance or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts to existing drainage patterns would result from Project implementation. The Project would not include the relocation of the Dominguez Channel, thereby reducing

impacts to existing drainage patterns with implementation of revised MM 3.2-1 and MM 3.2-2 and MMs 3.2-3, 3.2-5, and 3.2-6. MM 3.2-4 would be eliminated.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 3.2-1 The Project shall implement storm water quality Best Management Practices (BMPs) in accordance with the Los Angeles County Department of Public Works (LACDPW)'s current *Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP)* and *Low Impact Development (LID) Standard Manual* to the satisfaction of LACDPW. Proposed BMPs shall require that:

- ~~Three~~ **All** on-site storm drains shall have catch basin inserts ~~Continuous Deflective Separation (CDS) units,~~ or equivalent technologies~~,~~ to filter hydrocarbons, trash, heavy metals, sediments, and organics;
- All storm drains shall be stenciled with "Warning! Drains to Ocean" notes and symbols per NPDES **BMP** standards, or as approved by the LACDPW;
- Rooftop ~~and podium-level~~ runoff shall be conveyed through planter ~~boxes~~ **or approved equivalent per Los Angeles County LID** for filtration prior to entering a public storm drain; and
- ~~An on-site~~ **Two** underground infiltration system**s** shall be installed beneath the proposed ~~parking lot located north of the intersection of Judah Avenue and 116th Street~~ **Project by phases**. **The Phase 1 system will capture the post-development LID volume of 5,227 cubic feet and shall provide the required detention volume of 657 cubic feet. The Phase 2 system will capture the post-development LID volume of 6,099 cubic feet and shall provide the required detention volume of 644 cubic feet.** ~~, and sized to capture the post-development runoff volume increase (LID volume) of 11,761 cubic feet.~~

MM 3.2-2 The Project shall include: **(1) the use of the existing Los Angeles County Flood Control District 8-foot by 10¾-foot RCB known as Dominguez Channel; (2) catch basins and storm drains designed for the allowable Q. No increase in Q will be allowed for the existing RCB and improvement plans shall be reviewed, satisfied and approved by** ~~use of existing storm water drainage features; (2) removal and/or relocation of selected existing storm water drainage features; and (3) installation of new features within the Project site, which shall be reviewed and approved with improvement plans to the satisfaction of~~ the County of Los Angeles Department of Public Works (LACDPW). Specifically, the Project shall:

- Retain 12 existing catch basins, remove 5 on-site existing catch basins, **relocate 1 on-site existing catch basin, and install 5 new on-site catch basins with filter inserts;** ~~remove and relocate 2 on-site existing catch basins, and install 5 new on-site catch basins with filter inserts~~;
- Retain existing concrete gutters where feasible and install new 4-foot concrete gutters along new and/or reconfigured interior roadways and parking areas;
- ~~Remove a segment of the existing Dominguez Channel 8-foot by 10-foot (8' x 10' — ¾") RCB structure beneath Aviation Boulevard and West 116th Street, and relocate it northward on the Project site beneath the proposed fire lane adjacent to the existing Metro Green Line Station;~~

- ~~Extend an existing storm drain near the intersection of Aviation Boulevard and the existing Dominguez Channel to connect to the relocated Dominguez Channel;~~
- **During Phase 1, install a** new **private** storm drain~~s~~ from the on-site parking area, from the proposed underground infiltration ~~basin~~ **and detention system, connecting to the south side of the existing Los Angeles County Flood Control District 8-foot by 10¾-foot RCB**~~ and from the on-site Project site to the existing storm drain beneath 116th Street and the relocated Dominguez Channel~~;
- ~~Install a new building drainage outlet near the intersection of Judah Avenue and 116th Street (the subterranean sump pump shall be installed to collect nuisance flows from the subterranean parking garage, as well as stormwater runoff from the filtration planters, and pump it into the Dominguez Channel); and~~
- ~~Record a storm drain easement dedication to the Los Angeles County Flood Control District over the relocated alignment of the Dominguez Channel within the Project site. The size and type of easement dedication may vary and shall be determined with the improvement plans to the satisfaction of the LACDPW.~~
- **During Phase 2, install new storm drains from the on-site parking area, from the proposed underground infiltration and detention system, and connect to the north side of the existing 8-foot by 10¾- foot RCB**.
- Off-site improvements are subject to the discretion of the proper permitting authority, including Caltrans for any improvements to the Caltrans Off-Site Project Area, or other jurisdictions for improvements within their right-of-way.

MM 3.2-3 All proposed storm drains and other storm water management features specified in the *Drainage Concept, Hydrology, SUSMP, and LID Analysis for Vesting Tentative Tract Map No. 70853* prepared by Land Design Consultants, Inc. shall be designed and implemented to meet NPDES Permit/SUSMP requirements and the County LID requirements, subject to review and approval by the Los Angeles County Department of Public Works.

~~**MM 3.2-4** Prior to the issuance of building permits, the Project Applicant/Developer shall construct all Dominguez Channel improvements, including design capacity and location, to the satisfaction of the Los Angeles County Flood Control District (LACFCD) and shall record an easement dedication to the County of Los Angeles for operation and maintenance of the new Dominguez Channel alignment. Subterranean detention boxes shall be sized according to the Q_{allow} and shall be located in proximity to the relocated Dominguez Channel, to the satisfaction of LACFCD.~~

MM 3.2-5 The Project Applicant/Developer shall obtain a construction permit from the Los Angeles County Flood Control District (LACFCD) for all Project components that affect existing LACFCD facilities.

MM 3.2-6 The Project Applicant/Developer shall obtain an encroachment permit from California Department of Transportation (Caltrans) for construction activities within the off-site, Caltrans-owned property.

6.3.3 FIRE HAZARDS

The Draft EIR analyzed potential impacts regarding fire hazards in Section 3.3 of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) Very High Fire Hazard Severity Zone, (b) Location in Fire Hazard Area Served by Inadequate Access, (c) Location in Fire Hazard Area with More than 75 Units on Single Access. The Project would not alter the area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts associated with a very high fire hazard severity zone, a location in fire hazard area served by inadequate access, or a location in a fire hazard area with more than 75 units with a single access would result from the Project with implementation of MM 3.3-1.

(d) Inadequate Fire Flows and Pressures. The Project would not increase the demand for fire flows and pressures analyzed in the Draft EIR. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the demand for fire flows and pressures, and the associated increases in infrastructure. Therefore, no new or more significant impacts due to inadequate fire flows or pressures would result from the Project with implementation of MM 3.3-2 and MM 3.3-3.

(e) Proximity to Fire Hazards, (f) Potential Fire Hazard. The Project would not increase the intensity of the land uses analyzed in the Draft EIR. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the number of residents and customers exposed to potential fire hazards. Therefore, no new or more significant impacts related to fire hazards would result from Project implementation.

There would be no significant impacts related to fire safety with adherence to County of Los Angeles Code Title 32 and Ordinance requirements, which would be ensured via the following mitigation measure:

MM 3.3-1 The Project shall comply with all applicable County of Los Angeles Code Title 32 and Ordinance requirements regarding fire prevention and suppression measures, and/or measures approved or required by the Fire Chief, including construction materials, building access and evacuation routes, automatic fire extinguishing systems, standards for multi-family housing and commercial land uses, site access/fire lanes, hydrants water availability, and fire flows and pressures, among other requirements, to the satisfaction of the Los Angeles County Fire Department (LACFD). Prior to issuance of building permits, Project Applicant/Developer shall submit all necessary plans and materials to the LACFD for review and approval.

In addition, the significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 3.3-2 Prior to issuance of building permits, the Project Applicant/Developer shall demonstrate to the County of Los Angeles Department of Public Works and the Los Angeles County Fire Department (LACFD) that the Project includes appropriate infrastructure to ensure adequate water and fire flow infrastructure and compliance with Los Angeles County Code Title 32 requirements. It is

anticipated that segments of the existing four- and six-inch diameter water lines in Aviation Boulevard (between West 116th Street and West 117th Street), 116th Street (between Aviation Boulevard and Judah Avenue), West 117th Street (between Aviation Boulevard and Isis Avenue), and Judah Avenue (between West 117th Street and West 118th Street) shall be abandoned and three existing fire hydrants shall be removed. The Project shall include the following new water and fire flow infrastructure to the satisfaction of LACFD:

- Twelve-inch diameter water line within West 117th Street between Aviation Boulevard and Isis Avenue turning south at Isis Avenue and immediately connecting with the existing 12-inch water line;
- Eight-inch-diameter water lines within Aviation Boulevard (between West 117th Street and the proposed Fire Lane along the northern property boundary), the proposed Fire Lane (between Aviation Boulevard and Judah Avenue), and Judah Avenue (between the proposed Fire Lane and West 118th Street). These lines will connect with the new 12-inch line in West 117th Street;
- A 6-inch-diameter water lateral from Building 1A to the new water line in West 117th Street, 8-, 6-, and 2-inch-diameter water laterals from the Building 1B to the new water line in Judah Avenue, and from Building 2A to the new water line in the Fire Lane. Building 2B would be served via the laterals extending to Building 2A.
- Six new fire hydrants evenly distributed around the perimeter of the Project site.

MM 3.3-3 Prior to issuance of building permits for the off-site Project Area, the Project Applicant/Developer shall demonstrate to the County of Los Angeles Department of Public Works that the Project includes adequate water infrastructure. It is anticipated that a new water lateral within the off-site, Caltrans-owned property shall be constructed to provide service to the restrooms and water fountain associated with the new Metro bus terminal. The water line shall be connected to the existing 6-inch-diameter water line within the off-site Caltrans property.

6.3.4 NOISE (EXCEPT LONG-TERM EXTERIOR NOISE LEVELS)

The Draft EIR analyzed potential impacts regarding noise hazards in Section 3.4 of the Draft EIR and the Noise Report located in Appendix D of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) Location Near a High Noise Source, (b) Is a Sensitive Use or Near a Sensitive Use, (c) Substantial Increase in Ambient Noise Levels, (d) Substantial Temporary or Periodic Increase in Ambient Noise Levels. The Project would not alter the area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts would be associated with the Project's location near a high noise source. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the number of residents exposed to noise from nearby transportation land uses (MM 3.4-7 and MM 3.4-8 would still be required). The elimination of the subterranean parking garage under Lot 1 would reduce the construction timeline and the amount of heavy equipment on the Project site related to excavation, thereby reducing impacts associated with increases in ambient noise levels during construction of Phase 1. The Project will be phased; therefore construction noise would occur over two separate periods of time. (MM 3.4-1 and MM 3.4-2 would still be required).

Less excavation would also reduce the number of truck trips for soil export (MM 3.4-3 would still be required).

Long-term traffic noise generation would also be slightly reduced due to the reduction in residential units and commercial space, resulting in fewer vehicle trips to and from the Project site. Truck deliveries for the commercial uses would also be slightly reduced, thereby reducing noise impacts associated with delivery trucks (MM 3.4-5 would still be required). Noise impacts associated with air conditioning units and stationary noise sources would be slightly reduced due to the reduction in residential units (MM 3.4-6 would still be required). Therefore, no new or more significant noise impacts associated with the Project would result from Project implementation.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 3.4-1 Prior to any grading activities, a 10-foot-high temporary noise barrier shall be constructed along the Project site's eastern and southern boundaries, Judah Avenue and West 117th respectively. Noise barriers shall be constructed of material with a minimum weight of four pounds per square foot with no gaps or perforations. Noise barriers may be constructed of, but are not limited to, $^{5}/_{8}$-inch-thick plywood or $^{5}/_{8}$-inch-oriented strand board. The noise barriers shall remain in place until the end of grading/excavation activities. No more than two loader/backhoes and two dozers shall operate simultaneously at ground level during grading activities.

MM 3.4-2 Stationary equipment (such as generators, cranes, and air compressors) that will be operational for 10 consecutive working days or more shall not be operated closer than 250 feet of any occupied home. If this distance limitation is not feasible, the Project Applicant/Developer shall ensure that the stationary equipment is equipped with appropriate noise reduction measures (e.g., silencers, shrouds, or other devices) to limit the equipment noise at the nearest residences to 60 dBA L_{max} or the ambient noise level without the equipment operating, whichever is higher. Noise measurements shall be taken prior to operation of stationary equipment to determine the ambient noise level without the equipment operating and noise measurements shall be taken during operation of the stationary equipment to illustrate compliance with the maximum noise threshold. Documentation of compliance with the maximum noise threshold shall be provided to the County of Los Angeles Department of Regional Planning for each day that the equipment cannot be kept at a minimum of 250 feet from any occupied home.

MM 3.4-3 All construction trucks and vehicles accessing the Project site shall be required to use nearby designated truck routes (i.e., Aviation Boulevard and West Imperial Highway/Interstate 105), where feasible, and no construction traffic or queuing shall be allowed on the residential portion of West 117th Street, Judah Avenue, or any other residential streets within the Del Aire community.

MM 3.4-4 In accordance with Section 12.08.440 of the County Noise Ordinance, construction activities that generate noise that could create a disturbance across a property line shall not occur between the hours of 7:00 PM and 7:00 AM on weekdays, at any time on Sunday, or a holiday.

MM 3.4-5 The Project Applicant/Developer shall specify in the contract for each operator of a commercial space that (1) the operator shall require delivery trucks to enter

and exit the Project site from the Aviation Boulevard driveway and (2) truck deliveries shall be restricted to the daytime hours (7:00 AM to 10:00 PM).

MM 3.4-6 Residential air conditioning units shall be designed and installed in accordance with Section 12.08.530 of the County Noise Ordinance, which limits noise at property lines and at neighboring units. Commercial air conditioning units and other stationary noise sources shall be designed and installed in accordance with Section 12.08.390 of the County Noise Ordinance, which limits exterior noise at property lines.

MM 3.4-7 Residential units shall be designed and constructed to ensure that interior noise levels from exterior transportation sources—including aircraft, vehicles on adjacent roadways, and light rail—shall not exceed 45 dBA CNEL. In order to ensure that all dwelling units achieve an adequate noise reduction to achieve an interior noise level of 45 dBA CNEL, the following features shall be included in the building design and construction of all dwelling units: (1) upgraded dual-glazed windows; (2) mechanical ventilation/air conditioning; (3) exterior wall/roof assemblies free of cut-outs or openings; and (4) ceiling insulation in the top floor of each building to reduce aircraft noise by at least 20 dBA. Prior to the issuance of a building permit, the Project Applicant/Developer shall submit architectural plans and a detailed acoustical analysis study prepared by a qualified acoustical consultant demonstrating that interior noise levels in all residential units would be 45 dBA CNEL or less to Los Angeles County Department of Public Health for review and approval.

MM 3.4-8 In accordance with the *State Business and Professions Code* and the *State Civil Code* each prospective purchaser of residential property within the Project shall be notified as follows:

> NOTICE OF AIRPORT IN VICINITY – A portion of this property is presently located in the vicinity of an airport, within what is known as an airport influence area. Additionally, this property is located in proximity to the Metro Green Line Aviation/LAX Station, which currently operates 24-hours per day, 7 days per week. For these reasons, the property may be subject to some of the annoyances or inconveniences associated with proximity to airport and light rail operations (e.g., noise, vibration, or odors). Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what airport and light rail annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you.

In addition, although not required by the *State Civil Code* (Section 1103 et. seq.), each prospective tenant of leased residential property within the Project shall also be notified as described above.

6.3.5 WATER QUALITY

The Draft EIR analyzed potential impacts regarding water quality in Section 4.1 of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) Water Wells in an Area with Water Quality Problems, (b) Private Sewage Disposal System. Neither the original project nor the Project would require the use of individual water wells or require the use of a private sewage disposal system. Therefore, no new or more significant water quality impacts associated with the Project would result from Project implementation.

(c) Degrade Water Quality during Construction. The Project would reduce the amount of excavation analyzed in the Draft EIR due to the elimination of the subterranean parking garage under Lot 1; therefore, water quality impacts during construction would be reduced with the implementation of the Project and no new or more significant impacts would result from Project implementation (MM 4.1-1 would still be required).

(d) Degrade Water Quality during Operation. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the water quality impacts associated with operation of the Project because of the reduced number of residents and associated vehicles. No new or more significant impacts would result from the Project with implementation of MM 4.1-2 and MM 4.1-3.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 4.1-1 Prior to the issuance of a grading permit, the Project Applicant/Developer shall file a Permit Registration Document (PRD) with the State Water Resources Control Board (SWRCB) in order to obtain coverage under NPDES General Permit for Storm Water Discharges Associated with the Construction and Land Disturbance Activities. The PRD shall consist of a Notice of Intent (NOI); Risk Assessment; Site Map; SWPPP; annual fee; and a signed certification statement. Pursuant to permit requirements, the Project Applicant/Developer shall develop and incorporate BMPs for reducing or eliminating construction-related pollutants in the site runoff to the satisfaction of Los Angeles County Department of Public Works.

MM 4.1-2 Educational materials regarding water quality impacts associated with pet waste, and appropriate options for pet waste disposal, shall be provided to all future homeowners through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs) and all future renters through the Leasing Office.

MM 4.1-3 The Project Applicant/Developer shall install and maintain post-construction treatment control Best Management Practices (BMPs) pursuant to the requirements of the Los Angeles County Department of Public Works' *Standard Urban Stormwater Mitigation Plan (SUSMP) and Low Impact Development (LID) Standard Manual* to the satisfaction of the Los Angeles County Department of Public Works.

MM 4.1-4 Prior to the commencement of construction activities in the off-site, Caltrans-owned property, the Project Applicant/Developer shall demonstrate compliance with any applicable regulations related to drainage infrastructure and post-construction treatment control BMPs pursuant to the requirements of the Caltrans Statewide SWMP and other applicable local, State, and federal regulations to the satisfaction of Caltrans.

In addition, MM 3.2-1 from Section 3.2, Flood, of the Draft EIR, is also applicable to the water quality analysis.

6.3.6 AIR QUALITY (EXCEPT SHORT-TERM LOCAL PM10 AND PM2.5 EMSSIONS)

The Draft EIR analyzed potential impacts regarding air quality in Section 4.2 of the Draft EIR and the Air Quality Impact Analysis located in Appendix E-1 of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with implementation of the Project.

(a) Exceed State Criteria for Regional Significance. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, which would not exceed the State's criteria for regional significance. No new or more significant impacts would result from Project implementation.

(b) Project is a Sensitive Use. The Project would not increase the intensity of the land uses analyzed in the Draft EIR; therefore, no new or more significant impacts related to sensitive land uses would result from Project implementation.

(c) Local Emissions Exceed South Coast Air Quality Management District Thresholds, (f) Violate Air Quality Standard. The Project eliminates the subterranean parking garage located under Lot 1; therefore, air quality impacts associated with construction activities, including odors, dust, and diesel PM, would be reduced due to the reduced excavations. No new or more significant air quality impacts related to construction activities would result from the Project with implementation of MM 4.2-1 through MM 4.2-6.

The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the air quality impacts associated with operation of the Project; no new or more significant impacts would result from the Project with implementation of MM 4.1-2 and MM 4.1-3 .

(d) Generate Odors, Dust and/or Hazardous Emissions. The Project eliminates the subterranean parking garage located under Lot 1; therefore, air quality impacts associated with construction activities, including toxic air contaminants (TACs) would be reduced due to the reduced excavations. No new or more significant impacts related to construction activities would result from Project implementation. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the air quality impacts, including TACs, associated with operation of the Project; no new or more significant impacts would result from Project implementation.

The Project would not alter the area or location of impact analyzed in the Draft EIR; therefore, no new or more significant impacts associated with the Project's location near Interstate 105 and LAX would result from the Project with implementation of MM 4.2-4. The Project would not increase the intensity of the land uses analyzed in the Draft EIR; therefore, no new or more significant impacts related odors from residential and commercial uses would result from Project implementation.

(e) Conflict with the Applicable Air Quality Plan. Neither the original project nor the Project would conflict with the SCAQMD Air Quality Management Plan, as previously described for the originally proposed project.

(g) Cumulatively Considerable Increase of Non-Attainment Pollutant. The Project would shorten the anticipated timeline for construction of Lot 1 due to the elimination of the subterranean parking garage, but would extend the time for completion of the Project due to the phasing of Lot 1 and Lot 2. The changes in the construction schedule for Lot 1 and Lot 2 would not alter likelihood of the simultaneous construction with other nearby cumulative projects due to the small number of potential future projects in proximity to the Project site. As previously discussed, implementation of the Project would reduce air quality impacts for both construction and operation, and no new or more significant impacts to air quality would result from Project implementation.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 4.2-1 Dust control measures for Project construction activities shall be in compliance with SCAQMD Rule 403 for Best Available Control Measures and to the satisfaction of SCAQMD and the County Department of Regional Planning. Contractor compliance with Rule 403 requirements shall be mandated in the contractor's final construction plans and specifications and shall include the following measures:

- Land disturbance shall be minimized to the extent feasible. Grading activities shall be limited to the disturbance of no more than 1.25 acres per day and shall not exceed 2,400 cubic yards of grading per day.
- Haul trucks shall be covered when loaded with fill.
- Paved streets shall be swept at least once per day where there is evidence of dirt that has been carried onto the roadway.
- Watering trucks shall be used to minimize dust. Watering should be sufficient to confine dust plumes to the Project work areas. Active disturbed areas shall have water applied to them three times daily.
- For disturbed surfaces to be left inactive for four or more days and that will not be revegetated, a chemical stabilizer shall be applied per manufacturer's instruction.
- For unpaved roads, chemical stabilizers shall be applied or the roads shall be watered once per hour during active operation.
- Vehicle speed on unpaved roads shall be limited to 15 miles per hour.
- For open storage piles that will remain on site for two or more days, water shall be applied once per hour, or coverings shall be installed.
- For paved road track-out, all haul vehicles shall be covered, or shall comply with vehicle freeboard requirements of Section 23114 of the *California Vehicle Code* for both public and private roads. During high wind conditions (wind speeds in excess of 25 mph), all earth-moving activities shall cease or water shall be applied to soil not more than 15 minutes prior to disturbing such soil.

MM 4.2-2 Mass grading operations shall be planned and operated in a manner such that NOx emissions shall not exceed 100 pounds/day. This shall be demonstrated by emissions calculations for a reasonable maximum mass grading day, using the specific equipment selected for off-road and on-road use, subject to SCAQMD and Los Angeles County Department of Regional Planning review and approval.

Should new-technology Tier 3 equipment or better be used, then it may be possible to exceed the equipment and equipment use data assumed in the URBEMIS model for the Project by substantial quantities without exceeding the 100 pounds/day NOx threshold.

MM 4.2-3 In order to minimize NOx emissions, the Applicant/Developer shall include the following measures in all contractor's final construction plans and specifications:

- Use electricity from power poles rather than temporary diesel or gasoline power generators;
- Ensure that all vehicles and equipment shall be properly tuned and maintained according to manufacturers' specifications;
- Prohibit all diesel trucks from idling in excess of five minutes, both on- and off-site;
- Schedule off-site haul activities that affect traffic flow on the arterial system to off-peak hours to the extent practicable, that is, peak hour hauls on the off-site arterial system shall occur only if necessary to avoid extending the length of the applicable phase of construction;
- Provide temporary traffic controls, such as a flag person, during all phases of construction as necessary to maintain smooth traffic flow. If needed to avoid congestion, provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site and/or modify signal synchronization; and
- Configure construction parking to minimize traffic interference.

MM 4.2-4 Information regarding exposure to PM10, PM2.5, and ultra-fine particles due to the Project's proximity to I-105 shall be provided to all future homeowners and residents of the Project through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs).

MM 4.2-5 The Project contractor's final construction plans and specifications shall require that activities with the potential to generate dust, PM10, and PM2.5 that are not required at a specific location on the Project site, such as the staging of equipment and materials, shall be located as far as feasible from nearby residences.

MM 4.2-6 A construction relations officer shall be appointed to act as a community liaison concerning on-site construction activity including resolution of issues related to the generation of dust, PM10, and PM2.5.

6.3.7 CULTURAL RESOURCES

The Draft EIR analyzed potential impacts regarding cultural resources in Section 4.3 of the Draft EIR and the Cultural Resources Study located in Appendix F of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) Archaeological Resources, (d) Substantial Change to Historical or Archaeological Resource. The Project eliminates the subterranean parking garage located under Lot 1; therefore, the potential for impacts to archaeological resources associated with construction activities would be reduced and no new or more significant impacts would result from the

Project with implementation of MM 4.3-1 and MM 4.3-3. The Project would not alter the number of structures requiring demolition; therefore, there would be no new or more significant impacts to historical resources due to Project implementation.

(b) Paleontological Resources. The Project eliminates the subterranean parking garage located under Lot 1; therefore, potential impacts to paleontological resources associated with construction activities would be reduced and no new or more significant impacts would result from the Project with implementation of MM 4.3-2.

(c) Historic Structures or Sites, (d) Substantial Change to Historical or Archaeological Resource. The Project would not alter the number of structures requiring demolition; therefore, there would be no new or more significant impacts to historical resources due to Project implementation.

(e) Unique Paleontological Resource or Geologic Feature. The Project eliminates the subterranean parking garage located under Lot 1; therefore, potential impacts to unique paleontological resources would be reduced and no new or more significant impacts would result from Project implementation.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 4.3-1 During all grading and excavation activities that occur within native soils (i.e., not within engineered fill materials that are present at the surface), a trained Archaeological Monitor shall be present to monitor the earth-moving activities. Based on the site conditions and grading program, the Archaeological Monitor shall determine an appropriate monitoring schedule, subject to the approval of the Los Angeles County Department of Regional Planning (LACDRP). The Archaeological Monitor would not need to be present once grading and excavations reach a depth of 15 feet or deeper (see MM 4.3-2), or once bedrock is encountered. Should archaeological resources be encountered, a qualified Archaeologist shall be retained to implement procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the resources, as appropriate. If the resources are found to be significant, the Archaeologist shall determine appropriate actions for preservation and/or data recovery to the satisfaction of the LACDRP. If the Monitor determines that the sediments are not sensitive for the presence of resources, monitoring efforts can be terminated.

MM 4.3-2 A qualified Paleontologist shall be retained to monitor earth-moving activities of 15 feet or deeper (i.e. the depths at which significant vertebrate fossils have been recovered from older Quaternary Alluvium). Should paleontological resources be encountered during earth-moving activities (i.e., grading and excavation), the Paleontologist shall implement procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the resources, as appropriate. If the resources are found to be significant, the Paleontologist shall determine appropriate actions for preservation and/or data recovery to the satisfaction of the Los Angeles County Department of Regional Planning. If the Paleontologist determines that the sediments are not sensitive for the presence of resources, monitoring efforts can be terminated.

MM 4.3-3 In accordance with *California Health and Safety Code*, Section 7050.5, if human remains are found, no further excavation or disturbance of the site or any nearby

area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined the appropriate treatment and disposition of the human remains. The County Coroner shall be notified within 24 hours of the discovery and shall make such determination within 2 working days of notification of discovery. If the County Coroner determines that the remains are or believed to be Native American, the County Coroner shall notify the Native American Heritage Commission in Sacramento within 24 hours. In accordance with *California Public Resources Code*, Section 5097.98, the Native American Heritage Commission must immediately notify those persons it believes to be the most likely descended from the deceased Native American. The descendents shall complete their inspection within 48 hours of being granted access to the site. The designated Native American representative would then determine, in consultation with the property owner, the disposition of the human remains.

6.3.8 VISUAL QUALITIES

The Draft EIR analyzed potential impacts regarding visual quality in Section 4.4 of the Draft EIR and the Lighting Study located in Appendix G-1 of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) View from Scenic Highways or Scenic Corridors, (b) Views from Regional Riding or Hiking Trails, (c) Unique Aesthetic Features. The Project would not alter the area of impact, building heights, or increase the intensity of the land uses analyzed in the Draft EIR; therefore, no new or more significant impacts associated with scenic highways or corridors, views from regional riding/hiking trails, or unique aesthetic features would result from Project implementation.

(d) Visual Character, (e) Change in Patterns, Scale, Character of the Area. The Project would not alter the area of impact; increase the intensity of the land uses; or change the height, massing or setbacks of the structures adjacent to residential streets; architectural style; or architectural materials analyzed in the Draft EIR. The Project maintains the mix of residential and commercial land uses at a scale and density required to support a transit-oriented development, while buffering the single-family residential land uses in the Del Aire community from the adjacent transit land uses. The outdoor landscape/hardscape features and conceptual signage plan within Lot 1 would be adjusted to accommodate the revised building design and footprint; however any changes would only relate to the orientation of these features as dictated by building orientation. There would be no changes to the quality or type of architectural features included in the revised VTTM No. 070853. Therefore, no new or more significant impacts associated with the visual character of the site and surrounding area or changes in the patterns, scale, or character of the area would result from the Project with implementation of MM 4.4-1 through MM 4.4-3.

(f) Substantial Shade, Light, or Glare. The Project would not alter the height, massing, or setbacks of the structures adjacent to residential streets, nor the architectural style or architectural materials analyzed in the Draft EIR. The new aboveground parking structure will include lighting on the uncovered top level of the garage. This new source of garage lighting would be directed downward and would be required to comply with all applicable Los Angeles County lighting standards, per MM 4.4-4.

The parking garage is approximately 400 feet south of the I-105, and the elevated and illuminated Metro Green Line Aviation/LAX Station is located between the I-105 and parking

structure. Therefore, parking structure lighting will not result in substantial light or glare impacts to drivers on I-105. Once Phase 2 is developed, the parking structure will be surrounded by Project buildings containing commercial, community spaces, and residential buildings on all sides; therefore, parking structure lighting will not result in substantial light or glare impacts on adjacent roadways. Additionally, the garage would be required to comply with all applicable Los Angeles County lighting standards, per MM 4.4-4, which would ensure lighting would not affect adjacent residential units. No new or more significant impacts associated with the creation of substantial shade, light or glare would result from the Project with implementation of MM 4.4-4.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 4.4-1 Prior to commencement of construction activities, the Contractor shall install a visual barrier along the entire perimeter of the construction site (e.g., green mesh fabric or similar view-blocking material) to obstruct street-level views of construction activities from adjacent residents along West 117th Street and Judah Avenue. This barrier shall remain in place until the completion of grading activities requiring heavy mobile trucks/equipment. This shall be included on the contractor specifications and verified by the County of Los Angeles.

MM 4.4-2 Prior to issuance of a grading permit, the Project Applicant/Developer shall submit the Landscaping Plan to the Los Angeles County Department of Regional Planning for review and approval.

MM 4.4-3 Prior to issuance of a building permit, a signage plan shall be submitted to the Los Angeles County Department of Regional Planning for review and approval. Project signage shall be designed and implemented in compliance with all applicable Los Angeles County standards and requirements.

MM 4.4-4 Prior to issuance of a building permit, a lighting plan shall be submitted to the Los Angeles County Department of Public Works for review and approval. Project lighting shall be designed and implemented in compliance with all applicable Los Angeles County lighting standards.

6.3.9 TRAFFIC/ACCESS

The Draft EIR analyzed potential impacts regarding traffic and access in Section 5.1 of the Draft EIR and the Traffic Study located in Appendix H of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

A Modified Project Supplemental Traffic Analysis dated August 31, 2011 is included as Attachment B to this document.

(a) Congestion Problems, (e) Congestion Management Program, (g) Other Factors. The Project would use the existing regional and local road network for construction-related traffic, as originally planned and no new or significant impacts would result related to construction-related traffic congestion or conflicts with the congestion management program. Construction truck traffic would be reduced due to the elimination of the subterranean parking garage under Lot 1 and the associated reduced need for export of soils (MM 5.1-6 would still be required).

Project phasing of construction activities would also generally reduce the amount of construction traffic because construction on Lot 1 and Lot 2 is now planned to occur at different times. The Project would not change the construction requirements for the off-site Caltrans-owned property (MM 5.1-1 would still be required).

Linscott, Law & Greenspan Engineers (LLG) prepared a Memorandum to compare the traffic impacts of the Project with the originally proposed project analyzed in the Draft EIR. The trip generation forecasted for the full buildout of the Project (i.e., Phases 1 and 2) is presented in Table A of the Memorandum. The Project is expected to generate an increase of 161 net new vehicle trips (25 inbound trips and 136 outbound trips) during the AM peak hour. During the PM peak hour, the Project is expected to generate an increase of 54 net new vehicle trips (31 inbound trips and 23 outbound trips). Over a 24-hour period, the Project is forecasted to generate an increase of 792 net new daily trip ends during a typical weekday (396 inbound trips and 396 outbound trips).

When compared with the trip generation forecast for the originally proposed project analyzed in the Draft EIR (based on the November 17, 2009, traffic impact study), it is concluded that the trip generation forecast for the Project results in a decrease in traffic volumes for the AM and PM peak hours, as well as on a daily basis. As analyzed in the Draft EIR, the original project was forecasted to generate a net increase of 171 vehicle trips during the AM peak hour, 83 vehicle trips during the PM peak hour, and 1,114 vehicle trip ends during a typical weekday. As such, the trip generation forecast for the Project reflects a decrease of 10 vehicle trips during the AM peak hour, 29 vehicle trips during the PM peak hour, and 322 vehicle trips on a daily basis when compared to the originally proposed Project.

As part of the Project, vehicular access to the Project site will be provided via one driveway on Aviation Boulevard. The Project eliminates the driveway on West 117th Street. As such, the Project trip distribution pattern was updated to account for the change in the site access and circulation scheme for the Project. The forecasted net project traffic volumes account for the redistribution of existing trips associated with the Metro bus terminal and Caltrans Park-and-Ride facilities, which would be reconfigured as part of Phase 2 of the Project. The nine study intersections were re-evaluated as part of the supplemental analysis for the Project. The Project impact during the AM and PM peak hours was evaluated based on future operating conditions at the nine study intersections, both without and with the Project. As summarized in the Memorandum, the Project is not expected to create significant impacts at any of the study intersections. Incremental but not significant impacts are noted at the study intersections.

The Project is consistent with the results contained in the traffic impact study included in the Draft EIR. As no significant impacts are expected due to the Project, no traffic mitigation measures are required or recommended for the study intersections. Therefore, no new or more significant impacts associated with traffic congestion or conflicts with the congestion management program would result from the Project with implementation of MM 5.1-2 and MM 5.1-3.

(b) Hazardous Traffic Conditions. The Project would not alter the development of the off-site Caltrans owned property, which would be required to install a traffic light on the existing Caltrans driveway on West Imperial Highway, which would lessen traffic hazards. Therefore, no new or more significant impacts associated with hazardous traffic conditions would result from the Project with implementation of MM 5.1-2.

(c) Parking Problems. The original project included shared parking for Lots 1 and 2; however, the Project includes separate parking allotments for the two lots. All parking for Lot 1 is within the parking garage. Lot 2 includes one level of subterranean parking as well as surface parking. Of the total 255 parking spaces in Lot 2, 79 are surface parking spaces and 176 are located within the subterranean parking garage. The 255 parking spaces include 155 spaces for residential, 28 spaces for guests, 69 spaces for retail, and 3 spaces for Sheriff convenience station parking. Of the 155 residential parking spaces, a total of 23 spaces are tandem. Access to subterranean parking is from Aviation Boulevard to West 116th Street and is located near the southeastern corner of Lot 2. Although the residential parking ratio is reduced slightly, the overall methodology for determining the appropriate number of parking spaces for the various land uses is consistent with the Draft EIR. The originally proposed project contained a total of 797 parking spaces. The Project includes a total of 667 parking spaces. The proposed parking for each lot meets the parking standards defined by the Hearing Officer as defined by the MXD zone. Therefore, no new or more significant impacts associated with parking would result from the Project with implementation of MM 5.1-4.

(d) Inadequate Emergency Access. The Project does not alter the emergency access requirements, including the location, width, and restricted access standards for the emergency access Fire Lanes. Therefore, no new or more significant impacts associated with emergency access would result from Project implementation.

(f) Conflict with Alternative Transportation Policies. The Project does not alter the plans for relocation of the existing Metro bus terminal. The Project would continue to support and be consistent with regional (i.e., Southern California Association of Governments [SCAG]) and County policies regarding transportation, including alternative transportation. The Project includes the potential for developing bicycle storage within the community space, thereby supporting alternative transportation options to and from the Metro bus terminal and Metro Green Line. Therefore, no new or more significant impacts associated with alternative transportation policies would result from Project implementation (MM 5.1-5 would still be required).

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 5.1-1 All traffic improvements and construction-related activities that involve Caltrans-owned property shall be subject to the approval of an encroachment permit from Caltrans and shall be designed and constructed in accordance with applicable Caltrans standards and requirements, including the California 2010 MUTCD Manual, to the satisfaction of Caltrans. All traffic improvements within City of Los Angeles right-of-way shall be subject to the approval of the City of Los Angeles and the implementation of the improvements shall be guaranteed through the City's B-Permit process.

MM 5.1-2 To ensure adequate vehicular access and circulation on the Project site and the off-site Project area, the Project shall construct the following traffic and circulation features to the satisfaction of the Los Angeles County Department of Public Works (LACDPW). All driveways and other circulation features that would affect City of Los Angeles roadways shall require coordination for review and approval with the LADOT's Citywide Planning Coordination Section.

- Vehicular access to the Project site shall be limited to **one** driveway~~s~~ on Aviation Boulevard ~~and West 117th Street~~.

- o The existing Aviation Boulevard signalized driveway (driveway entrance to the Metro bus terminal) is located at the northwest corner of the Project site and shall be modified to serve as the ~~main~~ Project driveway for access to the commercial and residential components of the Project and associated parking areas. The existing traffic signal equipment at the Aviation Boulevard driveway shall be modified accordingly. The proposed Aviation Boulevard driveway shall provide full access (i.e., left-turn and right-turn ingress and egress turning movements). For exiting traffic, two lanes shall be provided: one for left-turns and one for right-turns.

- ~~o The West 117th Street driveway shall be located on the north side of West 117th Street at the southwest corner of the Project site, and shall provide secondary access to the commercial and residential components of the Project and associated parking areas. This driveway shall accommodate left-turn ingress and right-turn egress movements only to direct Project-related traffic to and from Aviation Boulevard (i.e., limit Project traffic from travelling on nearby local residential streets).~~

- **Prior to Phase 2, the** existing Metro bus terminal shall be relocated to the western portion of the existing Caltrans Park-and-Ride Lot. The existing Caltrans Park-and-Ride Lot and the adjacent surface parking lot associated with the Caltrans Maintenance Facility shall be reconfigured to accommodate the relocation of the Metro bus terminal in order to maintain at least the current number of Park-and-Ride spaces (approximately 400 parking spaces).

  Vehicular access to the relocated Metro facilities shall be provided via two driveways: one on Aviation Boulevard and one on West Imperial Highway.

  The existing Caltrans Park-and-Ride driveway on Aviation Boulevard shall be relocated approximately 100 feet north of its current position and shall accommodate right-turn ingress and egress movements only.

  The existing Caltrans Park-and-Ride driveway on West Imperial Highway shall be relocated approximately 30 feet east of its current position and shall be used as an exit only driveway (i.e., limited to right-turn egress movements only).

  The existing Caltrans driveway on West Imperial Highway shall be reconfigured to provide one inbound lane and one outbound lane, with left-turn and right-turn ingress and right-turn egress only (i.e., no left-turn egress movements would be permitted onto westbound West Imperial Highway). The reconfigured Caltrans driveway shall provide direct access to the Caltrans Park-and-Ride Lot and Caltrans surface parking lot.

  A traffic signal shall be installed at the existing Caltrans driveway on West Imperial Highway to accommodate access to the reconfigured Metro and Caltrans facilities. The traffic signal at the Caltrans driveway shall feature separate westbound left-turn phasing for vehicles turning left into the Caltrans Park-and-Ride Lot and Caltrans Maintenance Facility parking lot and a northbound right-turn overlapping phase for vehicles exiting the driveway. The cost and implementation of the traffic signal installation shall be the sole

responsibility of the Project Applicant. The Project Applicant shall contact LADOT's Western District Operations Office to facilitate the review and approval of the traffic signal in this location. The installation of the traffic signal shall be complete and in operation prior to the operation of the new Metro bus terminal.

- **Prior to Phase 2, a** new driveway on West Imperial Highway shall be constructed for the relocated Metro bus terminal and will provide right turn ingress and egress movements.

- Modifications to the traffic signal located at the intersection of Aviation Boulevard and West 116th Street shall be constructed prior to occupancy of the Project. The cost of the design and modification of the traffic signal shall be the sole responsibility of the Project Applicant. A detailed striping and signal plans shall be submitted to LACDPW Traffic and Lighting Division for review and approval.

- The design/redesign of the intersections (and associated traffic signal installations), roadways, and the site plan layout, including driveway encroachments within Los Angeles County, shall be to the satisfaction of the LACDPW.

MM 5.1-3 The provision, design, and location of parking for the Project shall comply with the Americans with Disabilities Act (ADA).

MM 5.1-4 ~~Prior to~~ **Upon** issuance of the first occupancy permit, the Project Applicant/Developer shall coordinate with the Los Angeles County Department of Public Works regarding a possible ~~restricted~~ **preferential** parking ~~program~~ **district** for **the residential streets** ~~West 117th Street and Judah Avenue~~ adjacent to the Project site, **including but not limited to West 117th Street and Judah Avenue** ~~which currently have unrestricted parking~~. **A preferential parking district shall be** ~~Whether or not restricted parking is~~ implemented **if it is determined to be necessary to the mutual satisfaction of the County and adjacent residents. The Project shall be solely responsible for the costs to establish the preferential parking district. In addition,** ~~and~~ the type of ~~restriction~~ **measures to be** used (e.g., meters, permits, signs) shall **also** be determined to the mutual satisfaction of the ~~Project Applicant/Developer,~~ the County~~,~~ and the adjacent residents. **The Project shall be subject to the requirements of this mitigation measure until two years after the issuance of Phase 2 occupancy permit.**

MM 5.1-5 The Project Applicant/Developer shall demonstrate to the satisfaction of the County of Los Angeles and the Metropolitan Transportation Authority that the relocated Metro bus terminal is fully operational prior to the removal of the existing Metro bus terminal located on Lot 2 of the Project site.

MM 5.1-6 To minimize potential cumulative construction traffic impacts in the Los Angeles International Airport (LAX) area, the Project Applicant/Developer shall provide Los Angeles World Airports with the Project's construction schedule, construction hours, haul routes, and construction personnel contact information at least 10 days before construction activities begin.

In addition, MM 3.2-6 and MM 3.4-3 from Section 3.2, Flood, and Section 3.4, Noise, of the Draft EIR, are applicable to the traffic analysis.

6.3.10 SEWAGE DISPOSAL

The Draft EIR analyzed potential impacts regarding sewage disposal in Section 5.2 of the Draft EIR, the Sewer Area Study located in Appendix I of the Draft EIR, and written correspondence with Sanitation Districts of Los Angeles County and the County of Los Angeles Department of Public Works located in Appendix J of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

The revised approved Sewer Area Study Report dated September 8, 2011 is included as Attachment C to this document.

(a) Treatment Plant Capacity. The Project would not increase the demand for sewage treatment analyzed in the Draft EIR; therefore, no new or more significant impacts would result from Project implementation. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the demand for sewage treatment (MM 5.2-1 would still be required).

(b) Sewer Line Capacity. The Project would not increase the need for sewage infrastructure improvements analyzed in the Draft EIR; therefore, no new or more significant impacts to would result from Project implementation. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the impact to sewage infrastructure (MM 5.2-2, MM 5.2-3, and MM 5.2-4 would still be required).

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 5.2-1 Prior to the issuance of building permits, the Project Applicant/Developer shall pay the applicable connection fees in accordance with the Sanitation Districts of Los Angeles County *Master Connection Fee Ordinance of County Sanitation District No. 5 of Los Angeles County*.

MM 5.2-2 Prior to issuance of building permits, the Project Applicant/Developer shall demonstrate to the Sanitation Districts of Los Angeles County and Los Angeles County Department of Public Works that the Project includes appropriate infrastructure to ensure adequate wastewater conveyance. It is anticipated that segments of the existing eight-inch-diameter local sewer line within Aviation Boulevard (between West 116th Street and West 117th Street) and West 116th Street (between Aviation Boulevard and Judah Avenue) will be removed. The Project shall include the following new wastewater infrastructure:

- An 8-inch-diameter local sewer line within Aviation Boulevard beginning north of West 116th Street and connecting to the sewer line within West 117th Street;
- An 8-inch-diameter local sewer line within West 117th Street connecting the Aviation Boulevard sewer line to the existing sewer line in West 117th Street;

- An 8-inch-diameter local sewer line within Judah Avenue beginning mid-block between West 116th Street and West 117th Street, and connecting to the existing sewer line in West 117th Street;
- An 8-inch-diameter local sewer line within Judah Avenue beginning mid-block between West 116th Street and extending north of West 117th Street, and connecting to the existing sewer line in West 116th Street;
- Six-inch-diameter sewer laterals from each of the four proposed buildings to a local sewer line; and
- Four-inch-diameter sewer laterals from each individual townhome along West 117th Street and Judah Avenue to a local sewer line.

MM 5.2-3 Prior to the issuance of building permits, the Project Applicant/Developer shall complete the annexation of all appropriate local sewer lines and laterals necessary to serve the Project that are currently within the City of Los Angeles into the Los Angeles County Department of Public Works (LACDPW) Consolidated Sewer Maintenance District. All proposed sewer lines shall be constructed in compliance with the LACDPW's sewer design standards to the satisfaction of LACDPW.

MM 5.2-4 Prior to issuance of building permits for the off-site Caltrans-owned property, the Project Applicant/Developer shall demonstrate to the Los Angeles County Department of Public Works that the Project includes adequate wastewater infrastructure. A new sewer lateral line within the off-site, Caltrans-owned property shall be constructed to provide service to the restrooms associated with the new Metro bus terminal. The sewer line shall be connected to the existing eight-inch-diameter local sewer line within the off-site Caltrans property.

6.3.11 EDUCATION

The Draft EIR analyzed potential impacts regarding education in Section 5.3 of the Draft EIR and written correspondence with Wiseburn School District Draft EIR Appendix J), Centinela Valley Union High School District (Draft EIR reference Huttenberger 2010), and the County of Los Angeles Public Library (Draft EIR Appendix A). The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) School District Capacity, (b) Capacity of Individual Schools. The Project would not increase the need for school district capacity. The Project reduces the number of residential units from 390 to 376, thereby reducing the number of students projected to be generated by the Project. Therefore, no new or more significant impacts related to school district capacity or the capacity of individual schools would result from Project implementation (MM 5.3-1 would still be required).

(c) Student Transportation Problems. The Project would not alter student eligibility for school bus services and would slightly reduce the projected demand for special needs student transportation. Therefore, no new or more significant impacts related to student transportation would result from Project implementation.

(d) Increased Library Demand. The Project would not increase the need for library services analyzed in the Draft EIR. The Project reduces the number of residential units from

390 to 376, thereby reducing the amount of demand for library services. Therefore, no new or more significant impacts related to library demand would result from Project implementation (MM 5.3-2 would still be required).

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 5.3-1 The Project Applicant/Developer shall pay new development fees in effect at the time of building permit issuance to the Wiseburn School District and the Centinela Valley Union High School District pursuant to *California Government Code,* Section 65995 (SB 50).

MM 5.3-2 The Project Applicant/Developer shall remit to the Los Angeles County Public Library a fee in effect at the time of building permit issuance, pursuant to the Library Facilities Mitigation Fee Program.

6.3.12 FIRE/SHERIFF SERVICES

The Draft EIR analyzed potential impacts regarding fire and sheriff services in Section 5.4 of the Draft EIR and written correspondence with the Los Angeles County Fire Department and the County of Los Angeles Sheriff's Department, both located in Appendix J of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) Staffing or Response Times at the Fire or Sheriff's Station Serving Project, (b) Special Fire or Law Enforcements Problems. The Project would not increase the need for fire or sheriff resources analyzed in the Draft EIR. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the demand for services provided by fire and sheriff department generated by the Project. The Project includes the potential for a Sheriff convenience station within the community space. Therefore, no new or more significant impacts related to fire or sheriff resources would result from Project implementation (MM 5.4-1 would still be required).

Although less than significant impacts were identified related to sheriff services, the following mitigation is recommended to minimize potential impacts.

MM 5.4-1 Prior to issuance of a certificate of occupancy, the Project Applicant/Developer shall notify the Los Angeles County Sheriff's Department, including the Transportation Bureau-Green Line, of Project completion in order to facilitate their internal assessment to ensure that services are appropriately allocated to areas in need.

In addition, MM 3.3-1, MM 3.4-3, and MM 5.1-1 from Section 3.3, Fire, Section 3.4, Noise, and Section 5.1, Traffic, of the Draft EIR are also applicable to the analysis of fire and sheriff services.

6.3.13 UTILITIES/OTHER SERVICES

The Draft EIR analyzed potential impacts regarding utilities and other services in Section 5.5 of the Draft EIR and written correspondence with the LACSD located in Appendix J of the Draft EIR, and communications with Golden State Water Company (GSWC) personnel. The impacts of the Project compared to the impacts of the original project are presented below, including a

brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) Water Supply, (b) Fire Flows and Pressures. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the amount of potable water demands generated by residents and businesses within the Project. The Project would not alter requirements for compliance with applicable State and County regulations related to water conservation. Therefore, no new or more significant impacts to water supply would result from Project implementation (MM 5.5-1 would still be required).

(c) Utility Service Problems (Electricity, Natural Gas, and Communication Services), (f) Inefficient Use of Energy Resources. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the demand for utility services (e.g. electricity, natural gas, and communication services) generated by residents and businesses within the Project. Therefore, no new or more significant impacts to utility services would result from Project implementation.

(d) Landfill Capacity. The Project would not alter the amount of demolition materials generated by Project-related construction activities because the existing structures on the Project site would still require removal. Additionally, a similar amount of construction and demolition (C&D) debris would be generated by the construction of the structures on Lot 1 and Lot 2. Therefore, no new or more significant impacts to landfill capacity related to construction activities would result from Project implementation (MM 5.5-2 would still be required). The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the demand for landfill capacity generated by residents and businesses within the Project. Therefore, no new or more significant impacts to landfill capacity would result from Project implementation.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 5.5-1 Prior to the issuance of building permits, the Project Applicant/Developer shall pay the applicable connection fees in accordance with the Golden State Water Company standards and requirements.

MM 5.5-2 Prior to commencement of construction activities, a Recycling and Reuse Plan must be submitted to the Los Angeles County Department of Public Works, Environmental Programs Division for review and approval. Construction activities on the Project site shall be conducted in compliance with Section 22.52.2100, Green Building of the Los Angeles County Code, which requires the recycling/reuse of at least 65 percent of non-hazardous construction/demolition debris by weight.

In addition, MM 3.3-2, MM 6.4-1 and MM 6.4-2 from Section 3.3, Fire, and Section 6.4, Greenhouse Gas Emissions and Climate Change, of the Draft EIR are applicable to the analysis of utilities.

6.3.14 ENVIRONMENTAL SAFETY

The Draft EIR analyzed potential impacts regarding environmental safety in Section 6.1 of the Draft EIR and the Environmental Data Resources (EDR) Radius Map™ with GeoCheck® assessment. The impacts of the Project compared to the impacts of the original project are

presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) On-Site Hazardous Materials, (b) Pressurized Tanks or Hazardous Wastes On-Site, (d) Residual Soil Toxicity. The Project would eliminate the subterranean parking structure within Lot 1, thereby reducing the amount of soil disturbance and the potential for construction activities to discover unknown contamination through on-site grading and excavation activities. The Project would not alter the acres of disturbance, location, or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts related to hazardous materials, pressurized tanks, or soil toxicity potentially exposed during excavations would result from Project implementation.

(g) Location on Known Hazardous Waste Site. The Project would not alter the acres of disturbance, location, or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts to known hazardous waste sites would result from Project implementation.

(c) Adversely Affect Residential Land Uses, Schools, or Hospitals, (f) Hazardous Emissions or Materials within ¼-Mile of a School. The Project would not alter the acres of disturbance, location, or area of impact analyzed in the Draft EIR; therefore, no new or more significant impacts related to hazards near schools or other sensitive land uses would result from Project implementation (MM 6.1-1 would still be required).

(e) Accidental Release of Hazardous Materials. The Project would not alter the amount of demolition materials generated by Project-related construction activities because the existing structures on the Project site would still require removal. Additionally, a similar amount of C&D debris would be generated by the construction of the structures on Lot 1 and Lot 2. Therefore, no new or more significant impacts to hazards associated with demolition and construction activities (e.g., PCBs, LBP, ACMs) would result from Project implementation (MM 6.1-2 and MM 6.1-3 would still be required).

(h) Proximity to Airport or Airstrip. The Project does not alter the height, location, or acres of development from the originally proposed Project; therefore, no new or more significant impacts related to the Project's proximity to an airport would result from Project implementation (MM 6.1-4 would still be required).

(i) Interfere With Emergency Response or Evacuation. The Project does not alter the emergency access requirements, including the location, width, and restricted access standards for the emergency access Fire Lanes. Therefore, no new or more significant impacts associated with emergency access would result from Project implementation (MM 6.1-5 would still be required). As part of the Project, vehicular access to the Project site will be provided via one driveway on Aviation Boulevard. The originally proposed project driveway on West 117th Street is eliminated as part of the Project. As summarized in the Memorandum prepared by Linscott Law and Greenspan Engineers, the Project will not create significant impacts at any of the study intersections. Incremental but not significant impacts are noted at the study intersections.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 6.1-1 Prior to the issuance of a grading permit(s), the Project Applicant/Developer shall submit the final contractor specifications that includes a contingency plan to address the potential to encounter unknown subsurface anomalies during site grading and excavation to the satisfaction of the County. The specifications shall

also include the appointment of a Construction Monitor with a CalOSHA Hazardous Waste Operations and Emergency Response Standard (HAZWOPER) certification to identify and provide initial response to any hazard or hazardous material encountered during Project implementation. The contingency plan shall specify that, if construction workers encounter any hazards or hazardous materials (including, but not limited to, pipes, USTs, stained soils, odors, gases, uncontained spills, and/or other unidentified substances), the Contractor shall stop work, notify the Construction Monitor (if not already aware), and cordon off the affected area. The Construction Monitor shall contact the Los Angeles County Certified Unified Program Agency (CUPA), which is the Los Angeles County Fire Department, Health Hazardous Materials Division, who shall determine the next steps regarding possible site evacuations, notification of other oversight agencies, sampling, handling, and disposal of the material(s) consistent with federal, State, and local regulations. If required, the Project site shall be remediated to the satisfaction of the CUPA.

MM 6.1-2 Prior to the issuance of a demolition permit for any structure on the Project site, pre-demolition surveys for ACMs and LBP—including sampling and analysis of all suspected building materials—and inspections for PCB-containing electrical fixtures shall be performed for the structure(s) proposed for demolition. All surveys, inspections, and analyses shall be performed by fully licensed and qualified individuals in accordance with all applicable federal, State, and local regulations, including ASTM E 1527-05; 15 USC Chapter 15 (Toxic Substances Control); CalOSHA requirements; and SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities).

If the pre-demolition surveys/inspections do not identify ACMs, LBP, and/or PCB-containing fixtures, the Project Applicant/Developer shall provide documentation to the County of the survey/inspection showing that no further abatement actions are required as part of the application for a demolition permit.

If the pre-demolition surveys/inspections identify ACMs, LBP, and/or PCB-containing fixtures, all such materials shall be handled in accordance with SCAQMD Rule 1403. The Project Applicant/Developer shall provide documentation to the Los Angeles County Certified Unified Program Agency (CUPA) that appropriately qualified individuals have been retained to manage the identified materials as part of the application for a demolition permit. All demolition activities that may expose construction workers and/or the public to asbestos-containing materials, lead-based paint (LBP), and/or PCB-containing electrical fixtures shall be conducted in accordance with applicable regulations, including, but not limited to 15 *United States Code* (USC) Chapter 53 Toxic Substances Control; CalOSHA regulations (8 CCR Section 1529 [Asbestos] and Section 1532.1 [Lead]); and SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). The requirement to adhere to all applicable regulations shall be included in the contractor specifications, and such inclusion shall be approved by the Los Angeles County CUPA and verified by the County of Los Angeles County Department of Public Works prior to issuance of the demolition permit.

After demolition, the Project Applicant/Developer shall provide documentation (e.g., required waste manifests, air monitoring results, and laboratory analytical results) to the County Department of Public Health (DPH) and CUPA illustrating that abatement of any ACMs, LBP, and/or PCB-containing fixtures identified in

the demolished structure has been completed in full compliance with applicable regulations. The Los Angeles County Department of Public Works shall be copied on all materials submitted to the DPH and CUPA.

MM 6.1-3 Any contaminated soils or other hazardous materials removed from the Project site shall be transported only by a Licensed Hazardous Waste Hauler, who shall be in compliance with all applicable State and federal requirements, including U.S. Department of Transportation regulations under 49 CFR (Hazardous Materials Transportation Act), Caltrans standards, CalOSHA standards, and 40 CFR 263 (Subtitle C of Resource Conservation and Recovery Act).

MM 6.1-4 All structures shall comply with Federal Aviation Administration (FAA) height restrictions, pursuant to Federal Aviation Regulation (FAR) Part 77, Subpart C. The Project Applicant/Developer shall provide the County of Los Angeles Department of Regional Planning with proof of a current and valid FAA "Determination of No Hazard to Air Navigation" at the time of building permit issuance.

MM 6.1-5 Before the start of construction, Worksite Traffic Control Plans (WTCP) and Traffic Circulation Plans, including identification of detour requirements, shall be prepared in cooperation with the County of Los Angeles, the City of Los Angeles, and other affected jurisdictions in accordance with the Work Area Traffic Control Handbook (WATCH) manual and Manual on Uniform Traffic Control Devices (MUTCD), as required by the relevant jurisdiction. Construction activities shall comply with the approved WTCP to the satisfaction of the affected jurisdictions.

MM 6.1-6 Prior to ~~final tract map approval~~ **issuance of a grading permit**, the Project shall be reviewed by Metro to ensure that construction of tie-backs per Specifications Section 2162-Tieback Anchors, drainage, fencing, and other issues, including safety, associated with, and which may have an impact on, the railroad ROW are addressed and that Project plans comply with Metro Design Criteria, Section 5 Structural, and Volume III Adjacent Construction Design Manual. The Rail Division Transportation Manager and Rail Operations Control, as well as the Metro Bus Operations Control Special Events Coordinator and applicable Municipal Bus Service Operators shall be contacted prior to commencement of construction activities that could impact the Metro facilities or transit corridors for the purposes of coordination and to determine whether any construction-related permits are required.

In addition, MM 4.1-1 from Section 4.1, Water Quality, of the Draft EIR is applicable to the analysis of environmental safety.

6.3.15 LAND USE

The Draft EIR analyzed potential impacts regarding land use in Section 6.2 of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) Inconsistent with Land Use Designation, (b) Inconsistent with Zoning. The Project will include a zone change to provide development standards to regulate development for both Lot 1 and Lot 2. The zone change for Lot 1 would be to MXD-84U-DP, Mixed Use Development/84 Dwelling Units per Net Acre/Development Program. The zone change for Lot 2 would be to MXD-43U-DP. The Project would still require a General Plan Amendment to change the land use designation to "High Density Residential" and a conditional use

permit requirements for the Project. No new or more significant impacts related to the land use designation and zoning would result from Project implementation (MM 6.2-1 would still be required).

(c) Inconsistent with Land Use Criteria (Hillside Management, Significant Ecological Area, Other). The Project site does not alter the location or acres of impact analyzed for the original project in the Draft EIR. Therefore, no new or more significant impacts related to the consistency with land use criteria would result from Project implementation.

(d) Divide an Established Community. The Project site does not alter the location or acres of impact analyzed for the original project and would provide the same scale/massing to provide a transition for surrounding land uses, as analyzed in the Draft EIR. Therefore, no new or more significant impacts related to division of an established community would result from Project implementation.

6.3.16 POPULATION, HOUSING, EMPLOYMENT, AND RECREATION

The Draft EIR analyzed potential impacts regarding population, housing, employment, and recreation in Section 6.3 of the Draft EIR and written correspondence with the County of Los Angeles Department of Parks and Recreation located in Appendix A of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(a) Cumulatively Exceed Population Projections. The Project reduces the number of residential units from 390 to 376, thereby reducing the population generated by the Project, which is within the SCAG projections for both the County and the Subregion. Therefore, no new or more significant impacts would result from Project implementation.

(b) Induce Substantial Growth. The Project does not alter the location or land uses (i.e., urban infill, transit-oriented development) analyzed in the Draft EIR. In general, infrastructure requirements for Project implementation would be reduced due to the reduction in the number of residential units from 390 to 376 and the amount of commercial space from 29,500 sf to 17,180 sf. Therefore, no new or more significant impacts would result from direct or indirect growth associated with the extensions of major infrastructure due to Project implementation.

(c) Displace Housing, (f) Displace People. The Project would not alter the number of structures requiring demolition; therefore, there would be no new or more significant impacts related to the displacement of housing or people due to Project implementation.

(d) Substantial Jobs/Housing Imbalance or Increase Vehicle Miles Traveled. The Project reduces the number of residential units from 390 to 376 and the amount of commercial space from 29,500 sf to 17,180 sf, thereby slightly reducing the number of residents and jobs created by the Project. Therefore, no new or more significant impacts associated with the jobs/housing balance would result from Project implementation.

(e) New or Expanded Recreational Facilities. The Project reduces the number of residential units from 390 to 376, thereby slightly reducing the demand for recreational facilities generated by the Project. Therefore, no new or more significant impacts associated with the recreational facilities would result from Project implementation.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measure:

MM 6.3-1 Prior to the clearance of the final map by the Los Angeles County Department of Parks and Recreation (DPR), the Project Applicant/Developer shall provide the DPR with in-lieu fee payment to meet the parkland obligation calculated by the DPR for the Project in accordance with the County Parkland Dedication Ordinance.

6.3.17 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

The Draft EIR analyzed potential impacts regarding greenhouse gas emissions and climate change in Section 6.4 of the Draft EIR and the Climate Change Analysis located in Appendix L of the Draft EIR. The impacts of the Project compared to the impacts of the original project are presented below, including a brief discussion of whether the impacts of the original project would be reduced, increased, or remain the same with Project implementation.

(6.4-1) Generate GHG Emissions Having a Significant Impact. The Project eliminates the subterranean parking garage located under Lot 1; therefore, air quality impacts associated with construction activities, including greenhouse gas emissions, would be reduced due to the reduced excavations. No new or more significant impacts from construction greenhouse gas emissions would result from Project implementation. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the greenhouse gas emissions associated with operation of the Project; no new or more significant impacts from operational greenhouse gas emissions would result from Project implementation (MM 6.4-1 through MM 6.4-3 would still be required).

(6.4-2) Conflict with Applicable GHG-Reduction Plan, Policy, or Regulation. The Project would reduce impacts associated with greenhouse gas emissions due to the reduction in the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf. The Project would comply with County Green Building Ordinance and Attorney General's reduction measures as discussed above. Therefore, no new or significant impacts associated with conflicts with applicable greenhouse gas related plans, policies, or regulations would result from Project implementation.

The significant impacts identified in the Draft EIR are applicable to the Project and would be reduced to a less than significant level with implementation of the following mitigation measures:

MM 6.4-1 The Project shall be designed and constructed in accordance with the following regulations as set forth in the *Los Angeles County Code*: Section 12.84.410 et seq., Low Impact Development; Section 21.52.2200 et seq., Drought Tolerant Landscaping; and Section 22.52.2100, Green Building. The Green Building ordinance requires features/actions relative to the Project including, but not limited to, the following:

- Achievement of at least 15 percent more energy efficiency than the 2005 Title 24 California Energy Efficiency Standards;
- Installation of smart irrigation controllers, drought-tolerant vegetation (per Chapter 22.52 requirements), and high-efficiency toilets in all dwelling units and mixed-use buildings;

- Recycle/reuse of at least 65 percent of non-hazardous construction/demolition debris by weight; and
- Planting of at least one 15-gallon tree for every 5,000 sf of multi-family developed area with at least 50 percent of the trees being drought-tolerant, and plant at least three 15-gallon trees for every 10,000 sf of non-residential developed area with at least 65 percent of the trees being drought-tolerant.

MM 6.4-2 Educational materials regarding water conservation techniques and programs, waste reduction and recycling services, energy conservation, the benefits of mixed-use, transit-oriented developments in support of the reduction of vehicle trips, and information about public transportation options shall be provided to all future homeowners and residents of the Project through the Homeowner's Association and mandated through the Conditions, Covenants, and Restrictions (CCRs).

MM 6.4-3 Preferred parking for low-emission and fuel-efficient vehicles and on-site bicycle storage shall be provided to the satisfaction of Los Angeles County Department of Regional Planning.

6.4 SUPPLEMENTAL ANALYSIS OF REVISED PROJECT IMPACTS FOR ENVIRONMENTAL EFFECTS DETERMINED TO BE SIGNIFICANT AND UNAVOIDABLE AFTER MITIGATION

Based on the Draft EIR, it was determined that after implementation of MMs, the Project will have a significant and unavoidable impact for the following environmental resource areas: Air Quality (short-term local PM10 and PM2.5 emissions only) and Noise Hazards (long-term exterior noise levels only). In accordance with the CEQA Guidelines Section 15093, a Statement of Overriding Considerations has been prepared to substantiate the County's decision to accept these significant unavoidable adverse environmental impacts because of the benefits afforded by the Project.

6.4.1 NOISE (LONG-TERM EXTERIOR NOISE LEVELS ONLY)

Significant and unavoidable direct impacts, after incorporation of mitigation measures, would result for the following threshold:

(c) Substantial Increase in Ambient Noise Levels (long-term exterior noise levels)

As aircraft noise levels at the common exterior residential use areas would be exposed to levels above 65 dBA CNEL due to aircraft noise, and no feasible mitigation is available to mitigate aircraft noise for common exterior areas of the Project, noise impacts to these areas would be significant and unavoidable. The Project would be developed in 2 phases, which separates construction noise impacts into two separate events; however, the Project eliminates the subterranean parking garage within Lot 1, thereby reducing the noise associated with truck traffic required for the export of soils and the timeline for excavation activities. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf, thereby reducing the amount of residents and customers exposed to noise hazards, as well as reduced residential-generated traffic noise.

However, the Project does not avoid the exposure of private exterior residential use areas to levels above 65 dBA CNEL due to transportation noise. Therefore, the Project does not avoid the significant and unavoidable noise impacts of the originally proposed project.

6.5 AIR QUALITY (SHORT-TERM LOCAL PM10 AND PM2.5 EMSSIONS ONLY)

Significant and unavoidable direct and cumulative impacts, after incorporation of mitigation measures, would result for the following threshold:

(c) Local Emissions Exceed South Coast Air Quality Management District Thresholds (for short-term local PM10 and PM2.5 emissions)

In addition to the mass daily emissions (or regional thresholds), the SCAQMD established CEQA significance thresholds for ambient air quality to address localized impacts. The maximum daily particulate matter (PM10 and PM2.5) emissions during Project construction would exceed localized significance thresholds (LSTs). Therefore, the LST analysis indicates a significant impact. The Project reduces the number of residential units from 390 to 376 and reduces the amount of commercial space from 29,500 sf to 17,180 sf and eliminates the subterranean parking garage located under Lot 1; therefore, air quality impacts associated with construction and operational activities, including toxic air contaminants (TACs), would be reduced due to (1) the reduced excavations activities and (2) the reduced emissions because fewer residents and customers are generated by the Project.

However, the Project does not avoid the exposure of local sensitive receptors to short-term local PM10 and PM2.5 emissions that exceed SCAQMD thresholds. Therefore, the Project does not avoid the significant and unavoidable air quality impacts of the originally proposed project.

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION
ENGINEERING AND SURVEY BRANCH
STORM DRAIN AND HYDROLOGY SECTION

TO: LDC
199 South Los Robles Avenue Suite 250
Pasadena, CA 91101 (626) 578-7000
Attn: Chuck Gilman

Date: 9/12/2011

REVIEW OF REVISED HYDROLOGY STUDY/SUSMP/LID

PD/MTD. NO.	**NA**	**CITY OF**	**NA**
TR NO.	**70853**	**THOMAS GUIDE**	**702-J7**
TRANS DATE:	**09/12/2011**	**PLAN CHECK NO.**	**3**

We have reviewed your Revised Hydrology Study / SUSMP / LID Plan.

[X] The Revised Drainage Concept / Hydrology Study / SUSMP / LID Plan has been approved for Area and Q only.

[X] Refer to comments below:

COMMENTS:

1. This revision to the approved hydrology report eliminates the relocation of Dominguez Channel as previously proposed and includes a phase 1 hydrology map to account for the phased construction of the project.

2. A Drainage Benefit Assessment District will be required to finance the future ongoing maintenance and capital replacement cost of all publicly maintained SUSMP BMPs.

APPROVED BY _____
CHRISTOPHER SHEPPARD
(626) 458-4921

REGISTERED PROFESSIONAL ENGINEER
CHRISTOPHER M. SHEPPARD
C 70441
EXP. 9/30/12
CIVIL
STATE OF CALIFORNIA

REVISED
DRAINAGE CONCEPT, HYDROLOGY, S.U.S.M.P. AND L.I.D. ANALYSIS

FOR

VESTING TENTATIVE MAP

TRACT NO. 70853

PREPARED FOR:

Kroeze Family, LLC
11604 Aviation Blvd.,
Inglewood, CA 90304
Tel. (310) 643-9769

January 20, 2010
Approved on February 23, 2010
Revised August 19, 2011
Revised September 12, 2011

REVISED HYDROLOGY STUDY
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO. 70441 DATE 9/12/11
CHECKED BY: _____ DATE 9/12/11
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

REGISTERED PROFESSIONAL ENGINEER
CHARLES A. GHIMAN
No. C54159
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STATE OF CALIFORNIA

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Post-development Time of Concentration & Hydrology Calculations

Appendix-B *Divider-2*

Sub-Area Allowable Q Calculation Table

Hydrographs for Sub-Areas 5A, 6A, 7A, 8A & 9A

Truncated Hydrograph & Minimum Storage Volume Calculations

Appendix-C *Divider-3*

S.U.S.M.P Calculations

Appendix-D *Divider-4*

Required LID Volume Calculations

Appendix-E *Divider-5*

Reference: Design Division Research

Appendix-F *Divider-6*

Phase-1 Time of Concentration, Hydrology, S.U.S.M.P. & L.I.D. Calculations

Hydrology Study Maps ..... *Pocket 1*

Phase-1 Interim Hydrology Study Map ..... *Pocket 2*

1.0 INTRODUCTION

The purpose of this study is to investigate and evaluate hydrological issues and provide a preliminary storm drainage analysis for the Vesting Tentative Map Tract No. 70853 development. The project is proposed by Kroeze Family, LLC. It is located partially in the City of Los Angeles, and partially in unincorporated County of Los Angeles annexed to the County of Los Angeles. The site also includes the park and ride for the Green Line Metro Station.

The Drainage Concept, Hydrology, SUSMP and LID Study was approved on February 23, 2010. The study is here being revised because the development scheme and the corresponding V.T.T.M. has changed. In this report the analysis and maps are consistent with the currently V.T.T.M..

2.0 PROJECT DESCRIPTION

The existing site is a T.O.D. (Transit-Oriented Development) with commercial and residential mixed. The proposed development is approximately 5.9 acres. The buildings between 116th street south and 117th street are apartments and studio units. The proposed buildings on the north side of 116th street have underground parking. The street level will have commercial, shops, offices and stores. Above the commercial level will be apartments and studios (see back pocket 2). North of the proposed development is the park and ride for the Green Line Metro Station south of W Imperial Highway and east of Aviation Blvd. The Glen Anderson Memorial Highway 105 runs above this parking lot as well as the Green Line Station Bridge. The park and ride lot shown here is re-designed, re-stripped. A portioned will be repaved and joined to the existing striping. Portions of the parking areas north of the Metro Station lie under the freeway overpasses. Some drainage from those overpasses drain onto the site. An accounting of the areas balance is part of this report (see sheet 2 of the maps).

3.0 DESIGN CRITERIA

The Drainage Concept Plan (see back pocket 1) delineates the drainage sub-areas of the proposed development along with remaining natural drainage areas tributary to the development. On the 116th street, there is an existing 8' x 10'-3/4" RCB storm drain box crossing the development which will remain in place. All other existing and proposed drainage facilities are shown on the plan. Runoff rates after development are also calculated and indicated on the map.

All of the hydrologic input data used was based on the Los Angeles County Department of Public Works, HYDROLOGY/SEDIMENTATION MANUAL (January 2006). The Hydrology/Sedimentation manual guidelines require that the system shall be analyzed for sump condition or natural area based on 50-year frequency storm. LACDPW Design Division provided research that was done on the Laguna Dominguez Channel Hydrology study dated June 1983; the information was for the total Q at a 50-year frequency storm and the Q allowable for the subareas. As shown on the attached plan, the site is located within the soil classification "009" area, rainfall depth 5.2 inches for 50 year storm frequency. Los Angeles County Department of Public Works "Regression Tc Method" computer program was utilized to calculate the time of concentration for drainage subareas and the volumes for subareas 5A, 6A, 7A, 8A and 9A. The hydrographs were generated from the "Regression Tc Method" computer program (see Appendix B)

As shown on the drainage maps, (see pocket 1), the site is divided by area A and area B. The drainage maps indicate which areas are to be re-surfaced and re-striped, also delineate Caltrans' property. The I-105 Glen Anderson Freeway and the Green Line Metro Station run over the area, though the freeway and the MTA drain on-site. These areas were divided as shown on sheet 2 of maps and treated separately, than added to the on-site flow and accumulate for a total flow.

To prevent pollutants from entering the storm drain system, the storm drain pollution prevention measures are prepared in accordance with the Los Angeles County Department of Public Works, A Manual for the Standard Urban Stormwater Mitigation Plan (SUSMP) and the Los Angeles County Low Impact Development (LID) Standard Manual (January 2009). SUSMP peak flow Qpm and LID required volume ΔV are calculated by using first 0.75 inches rainfall. By following the LID methodology it states that in order to calculate the undeveloped runoff volume it must be consistent with the Los Angeles County Department of Public Works Hydrology Manual, using the parameters that were used in the post-development to assume clear flows. Best Management Practices (BMP's) are required to mitigate LID volume. Two underground infiltration and detention systems are designed to mitigate L.I.D. volumes and excess Qs, the location and volume details are shown on the plan. The SUSMP runoff flow rate calculations and devices are also shown on the map.

This study shows that the proposed development is feasible from a drainage standpoint. The existing Los Angeles County Flood Control District 8'X10'-3/4" RCB known as Dominguez Channel will remain in place. The proposed catch basins and storm drain will be designed for the allowable Q during the engineering phase. No increase in Q will be allowed for the existing RCB.

L.A. County Public Work's Design Division has provided the Laguna Dominguez Channel Hydrology Study dated 1983. The study illustrates the locations and the total Q50 for the watershed at the intersection of Imperial Highway and Aviation Blvd. It was

determined that the existing 8'x10'-3/4" RCB does not have the capacity to carry the total 1983 hydrology Q50=1,873 cfs (the flowing-full capacity of the box is 780 cfs). At this time WMD has no current plans for improving the system.

Design Division also provided the Q allowables (see Appendix E) using the same 1983 study. For each of the on-site areas, a Q allowable was calculated. Since the peak runoff exceeds the Q allowable for each sub-area, storage is required. The storage volumes are quite small when using the program (see Appendix B); therefore it was further analyzed. The truncated hydrographs were analyzed for the purpose of determining minimum storage requirements by reducing the time intervals (see Appendix B; hydrograph analysis). For all detention systems, the underground storage will be sized in the engineering phase and as noted, the actual volume stored may be greater, depending on detention design and calculations to be performed in design phase.

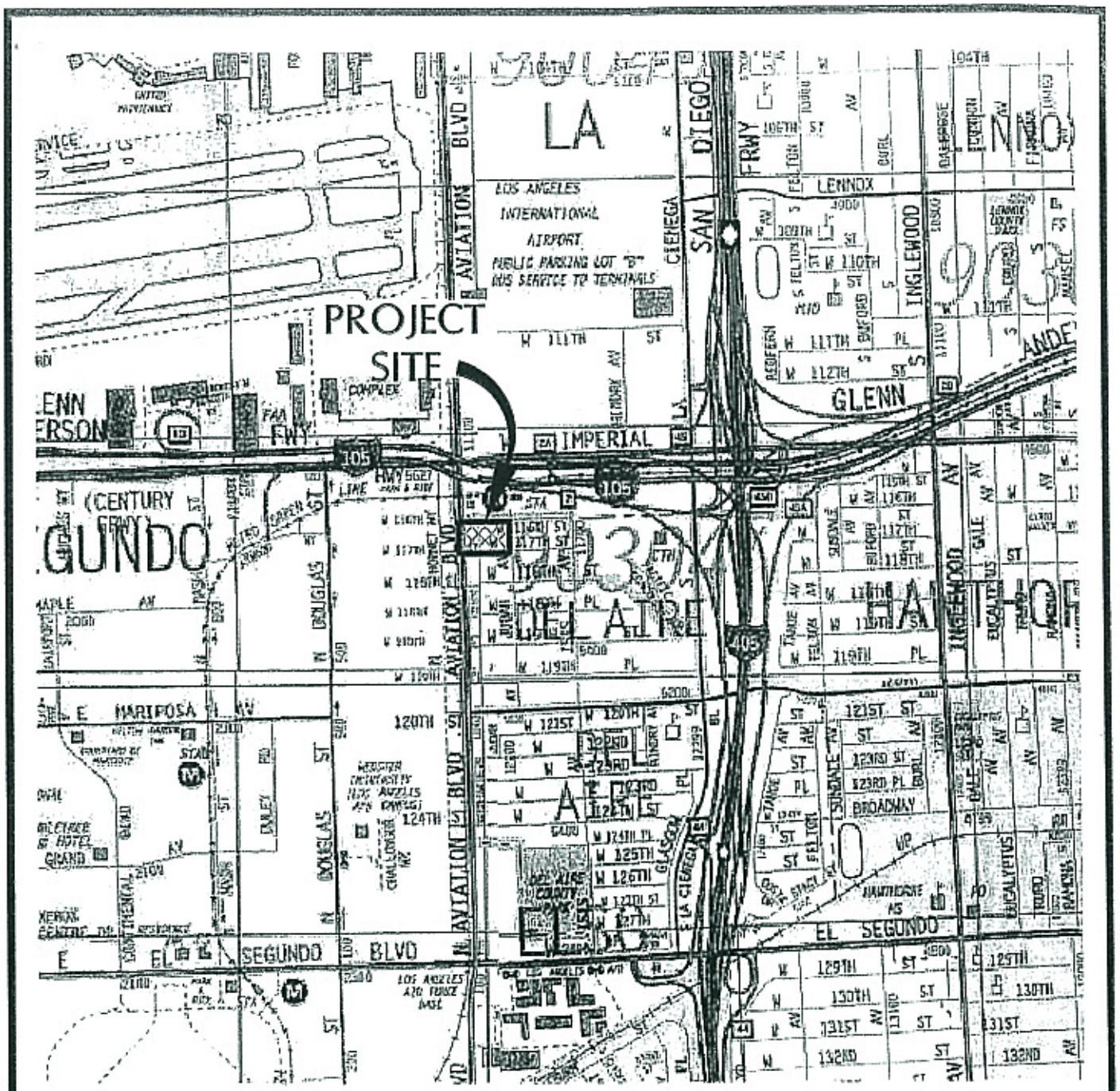
4.0 CONCLUSION

This study shows that, with hydro-modification consisting of a combination of infiltration and detention storage, the site can be developed as proposed without exceeding the County-determined allowable Qs. Also the area that has been outlined to be re-surfaced re-striped and joins to existing will be maintained by Caltrans and the MTA, and is not a part of this project. The drainage systems delineated on the attached map show that the developments will have "no negative impact" on both hydrologic and hydraulic concerns.

Also included in this report is an interim hydrology for phase 1 that meets all of the criteria discussed above, reflecting the conditions after lot 1 is built, but before the detachment and build-out of lot 2. That interim condition will have the following improvements:

1. Aviation Blvd. will be widened by 1 foot and the new catch basin constructed south of 116th street.
2. 116th street west of the curvilinear block wall will be remain in place and only be modified to serve as access to the lot 1 parking. 116th street will continue to provide access to the MTA station.
3. The 116th street cul-de-sac west of Judah Ave. will be removed and the knuckle constructed.
4. The lot 1 improvements constructed.

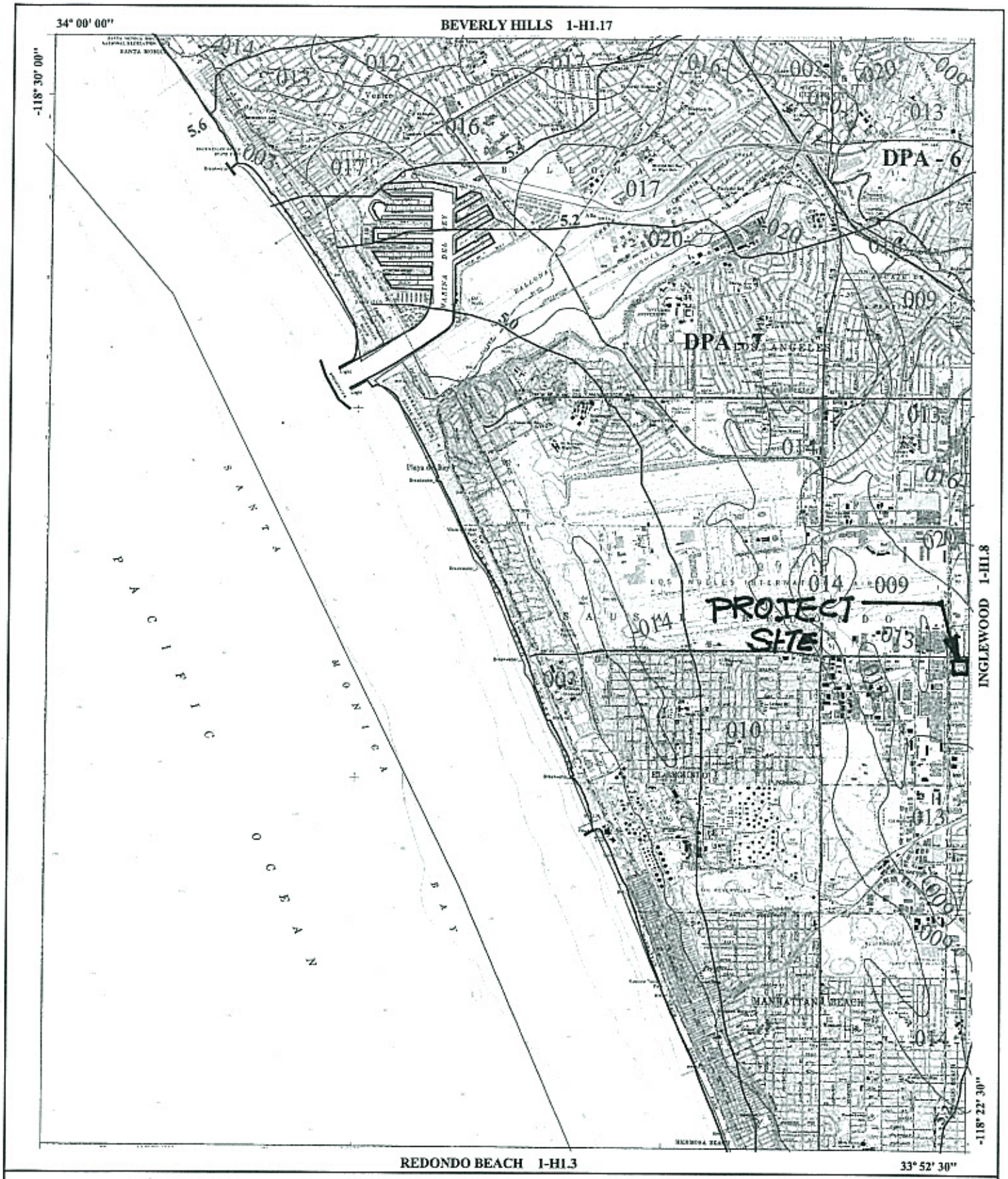
Map sheet 3 shows that interim condition and that the drainage improvements will meet all the criteria discussed in this report.



VICINITY MAP

VESTING TENTATIVE TRACT
NO. 70853

THOMAS GUIDE MAP
PAGE 703 - GRID A7



016 SOIL CLASSIFICATION AREA

7.2 INCHES OF RAINFALL

DPA - 6 DEBRIS POTENTIAL AREA

1 0 1 2 Miles

25-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.878
10-YEAR 24-HOUR ISOHYET REDUCTION FACTOR: 0.714

V E N I C E 1-H1.7

50-YEAR 24-HOUR ISOHYET

LOS ANGELES COUNTY PUBLIC WORKS Public Service That Works

HYDROLOGY INFORMATION

ISOHYET	5.2 INCHES FOR 50 YEAR	
SOIL TYPE:	09	
FREQUENCY:	50-YR.	
Tc	5 MINUTE MIN. OR PER Tc CALCULATION (SEE REPORT)	
IMPERVIOUSNESS (IMP)	0.91	(NON-ATTENDED PARKING)
	0.91	(FREEWAYS & MAJOR ROADS)
	0.95	(REGIONAL SHOPPING CENTER)

Proportion Impervious Data

Code	Land Use Description	% Impervious
1111	High-Density Single Family Residential	42
1112	Low-Density Single Family Residential	21
1121	Mixed Multi-Family Residential	74
1122	Duplexes, Triplexes and 2-or 3-Unit Condominiums and Townhouses	55
1123	Low-Rise Apartments, Condominiums, and Townhouses	86
1124	Medium-Rise Apartments and Condominiums	86
1125	High-Rise Apartments and Condominiums	90
1131	Trailer Parks and Mobile Home Courts, High-Density	91
1132	Mobile Home Courts and Subdivisions, Low-Density	42
1140	Mixed Residential	59
1151	Rural Residential, High-Density	15
1152	Rural Residential, Low-Density	10
1211	Low- and Medium-Rise Major Office Use	91
1212	High-Rise Major Office Use	91
1213	Skyscrapers	91
1221	Regional Shopping Center	95 ✓
1222	Retail Centers (Non-Strip With Contiguous Interconnected Off-Street	96
1223	Modern Strip Development	96
1224	Older Strip Development	97
1231	Commercial Storage	90
1232	Commercial Recreation	90
1233	Hotels and Motels	96
1234	Attended Pay Public Parking Facilities	91
1241	Government Offices	91
1242	Police and Sheriff Stations	91
1243	Fire Stations	91
1244	Major Medical Health Care Facilities	74
1245	Religious Facilities	82
1246	Other Public Facilities	91
1247	Non-Attended Public Parking Facilities	91 ✓
1251	Correctional Facilities	91
1252	Special Care Facilities	74
1253	Other Special Use Facilities	86
1261	Pre-Schools/Day Care Centers	68
1262	Elementary Schools	82
1263	Junior or Intermediate High Schools	82
1264	Senior High Schools	82
1265	Colleges and Universities	47
1266	Trade Schools and Professional Training Facilities	91
1271	Base (Built-up Area)	65
1271.01	Base High-Density Single Family Residential	42
1271.02	Base Duplexes, Triplexes and 2-or 3-Unit Condominiums and T	55

Code	Land Use Description	% Impervious
1271.03	Base Government Offices	91
1271.04	Base Fire Stations	91
1271.05	Base Non-Attended Public Parking Facilities	91
1271.06	Base Air Field	45
1271.07	Base Petroleum Refining and Processing	91
1271.08	Base Mineral Extraction - Oil and Gas	10
1271.09	Base Harbor Facilities	91
1271.10	Base Navigation Aids	47
1271.11	Base Developed Local Parks and Recreation	10
1271.12	Base Vacant Undifferentiated	1
1272	Vacant Area	2
1273	Air Field	45
1274	Former Base (Built-up Area)	65
1275	Former Base Vacant Area	2
1276	Former Base Air Field	91
1311	Manufacturing, Assembly, and Industrial Services	91
1312	Motion Picture and Television Studio Lots	82
1313	Packing Houses and Grain Elevators	96
1314	Research and Development	91
1321	Manufacturing	91
1322	Petroleum Refining and Processing	91
1323	Open Storage	66
1324	Major Metal Processing	91
1325	Chemical Processing	91
1331	Mineral Extraction - Other Than Oil and Gas	10
1332	Mineral Extraction - Oil and Gas	10
1340	Wholesaling and Warehousing	91
1411	Airports	91
1411.01	Airstrip	10
1412	Railroads	15
1412.01	Railroads-Attended Pay Public Parking Facilities	91
1412.02	Railroads-Non-Attended Public Parking Facilities	91
1412.03	Railroads-Manufacturing, Assembly, and Industrial Services	91
1412.04	Railroads-Petroleum Refining and Processing	91
1412.05	Railroads-Open Storage	66
1412.06	Railroads-Truck Terminals	91
1413	Freeways and Major Roads	91
1414	Park-and-Ride Lots	91
1415	Bus Terminals and Yards	91
1416	Truck Terminals	91
1417	Harbor Facilities	91
1418	Navigation Aids	47
1420	Communication Facilities	82
1420.01	Communication Facilities-Antenna	2

Appendix A

Hydrology Table

50-Year Storm Hydrology Table:

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Q50 (cfs)
1A	0.96	0.91	50	9	585	0.01	5.2	8	2.49	0.84	0.89	2.13
2A	0.23	0.91	50	9	361	0.003	5.2	8	2.49	0.84	0.89	0.51
3A	0.1	0.91	50	9	76	0.01	5.2	5	3.1	0.88	0.9	0.28
4A	0.24	0.91	50	9	174	0.01	5.2	5	3.1	0.88	0.9	0.67
5A	0.5	0.91	50	9	310	0.005	5.2	6	2.85	0.87	0.9	1.28
6A	0.72	0.91	50	9	375	0.011	5.2	6	2.85	0.87	0.9	1.85
7A	1.12	0.95	50	9	296	0.005	5.2	6	2.85	0.87	0.9	2.87
8A	0.42	0.95	50	9	460	0.005	5.2	8	2.49	0.84	0.9	0.94
9A	2.57	0.95	50	9	341	0.005	5.2	7	2.65	0.85	0.9	6.13
10A	1.03	0.91	50	9	1045	0.004	5.2	14	1.91	0.75	0.89	1.75
1B	0.96	0.91	50	9	460	0.011	5.2	7	2.65	0.85	0.9	2.29
2B	0.15	0.91	50	9	240	0.01	5.2	5	3.1	0.88	0.9	0.42
3B	0.2	0.91	50	9	160	0.015	5.2	5	3.1	0.88	0.9	0.56
4B	0.07	0.91	50	9	167	0.015	5.2	5	3.1	0.88	0.9	0.2
5B	0.28	0.91	50	9	130	0.018	5.2	5	3.1	0.88	0.9	0.78
6B	0.39	0.91	50	9	169	0.02	5.2	5	3.1	0.88	0.9	1.09

Note: *These Subareas do not include the freeway and MTA overpass*
The length and slope for each subarea is the longest route of the water runoff, with and without the overpass these are the routes of the surface flow

50-Year Storm Hydrology Table: Freeway and MTA

Subarea	*Area (acres)*	*%imp*	*Frequency*	*Soil Type*	*Length (ft)*	*Slope (ft/ft)*	*Isohyet (in.)*	*Tc (min.)*	*I (in./hr)*	*Cu*	*Cd*	*Q50 (cfs)*
1A (Fwy)a	0.23	0.91	50	9	213	0.007	5.2	5	3.10	0.88	0.9	0.64
1A (Fwy)b	0.21	0.91	50	9	153	0.013	5.2	5	3.10	0.88	0.9	0.59
1A (MTA)	0.19	0.91	50	9	180	0.01	5.2	5	3.10	0.88	0.9	0.53
2A (MTA)	0.05	0.91	50	9	72	0.01	5.2	5	3.10	0.88	0.9	0.14
5A (MTA)	0.22	0.91	50	9	315	0.01	5.2	6	2.85	0.87	0.9	0.56
6A (MTA)	0.2	0.91	50	9	320	0.01	5.2	6	2.85	0.87	0.9	0.51
1B (Fwy)a	0.67	0.91	50	9	340	0.005	5.2	7	2.65	0.85	0.9	1.60
1B (Fwy)b	0.24	0.91	50	9	140	0.01	5.2	5	3.10	0.88	0.9	0.67
1B (MTA)	0.15	0.91	50	9	200	0.01	5.2	5	3.10	0.88	0.9	0.42
2B (Fwy)a	0.35	0.91	50	9	180	0.015	5.2	5	3.10	0.88	0.9	0.98
2B (Fwy)b	0.17	0.91	50	9	95	0.015	5.2	5	3.10	0.88	0.9	0.47
2B (MTA)	0.02	0.91	50	9	25	0.01	5.2	5	3.10	0.88	0.9	0.06
3B (Fwy)a	0.12	0.91	50	9	90	0.01	5.2	5	3.10	0.88	0.9	0.33
3B (Fwy)b	0.1	0.91	50	9	94	0.01	5.2	5	3.10	0.88	0.9	0.28
3B (MTA)	0.03	0.91	50	9	35	0.01	5.2	5	3.10	0.88	0.9	0.08
4B(Fwy)	0.14	0.91	50	9	154	0.008	5.2	5	3.10	0.88	0.9	0.39
4B (MTA)	0.11	0.91	50	9	140	0.01	5.2	5	3.10	0.88	0.9	0.31
5B (MTA)	0.04	0.91	50	9	68	0.01	5.2	5	3.10	0.88	0.9	0.11

Note: *This table shows the Q50 for the subarea shown on sheet 2 of the Drainage Map*
Freeway (Fwy) and MTA areas drain on-site and were added to the subarea for a ΣQ50 for that particular area

Appendix B

Sub-Area Allowable Q Calculation Table

Hydrographs for Sub-Areas 5A, 6A, 7A, 8A & 9A

Truncated Hydrograph & Minimum Storage Volume Calculations

Sub-area Allowable Q Calculation Table:

Subarea No.	Area (acres)	Allowable Q Rate* cfs/acres	Allowable Q (cfs)	Peak Q (cfs)	Detention Q Peak Q-Allowable Q
5A	0.72	1.566	**1.13**	1.84	0.71
6A	0.92	1.566	**1.44**	2.36	0.92
7A	1.12	1.566	**1.75**	2.87	1.12
8A	0.42	1.566	**0.66**	0.94	0.28
9A	2.57	1.478	**3.80**	6.13	2.33

* *Per L.A. County Hyrology Information based on 1983 Hydology Study, see Appendix E.*

SUB-AREA: 5A Truncated Hydrograph & Minimum Storage Volume

(Data from "Tc Calculator")

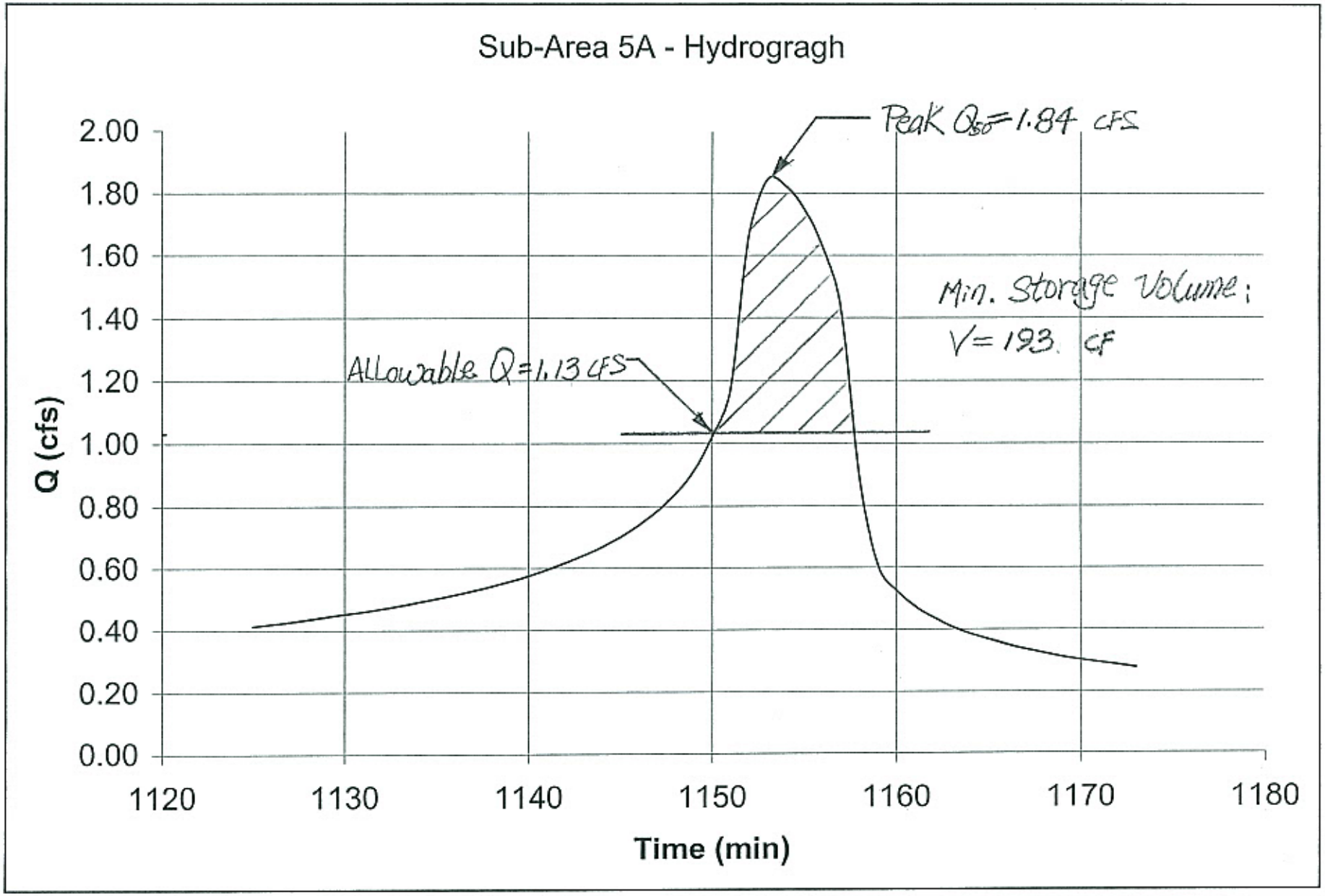
T (min.)	I (in/hr)	Q (cfs)	Average Q over storm minute (cfs)	ΔQ Storage =(Average Q-1.13 cfs) (cfs)	ΔStorage Volume =ΔQx60 sec/min. (C.F.)
1125	0.6386	0.41			
1126	0.6489	0.42			
1127	0.6597	0.43			
1128	0.6712	0.43			
1129	0.6833	0.44			
1130	0.6961	0.45			
1131	0.7096	0.46			
1132	0.7241	0.47			
1133	0.7395	0.48			
1134	0.7560	0.49			
1135	0.7738	0.50			
1136	0.7929	0.51			
1137	0.8135	0.53			
1138	0.8360	0.54			
1139	0.8606	0.56			
1140	0.8876	0.58			
1141	0.9175	0.59			
1142	0.9509	0.62			
1143	0.9884	0.64			
1144	1.0312	0.67			
1145	1.0805	0.70			
1146	1.1383	0.74			
1147	1.2076	0.78			
1148	1.2931	0.84			
1149	1.4030	0.91			
1150	1.5541	1.10			
1151	1.7904	1.16	1.13	0.00	**0.00**
1152	2.5642	1.66	1.41	0.28	**16.85**
1153	2.8450	1.84	1.75	0.62	**37.35**
1154	2.8149	1.82	1.83	0.70	**42.23**
1155	2.7014	1.75	1.79	0.66	**39.44**
1156	2.5105	1.63	1.69	0.56	**33.52**
1157	2.2054	1.43	1.53	0.40	**23.88**
1158	1.3365	0.89	1.13	0.00	**0.00**
1159	0.9332	0.60			
1160	0.8100	0.52			
1161	0.7313	0.47			
1162	0.6740	0.44			
1163	0.6294	0.41			
1164	0.5933	0.38			
1165	0.5632	0.36			
1166	0.5375	0.35			
1167	0.5152	0.33			
1168	0.4956	0.32			
1169	0.4782	0.31			
1170	0.4626	0.30			
1171	0.4486	0.29			
1172	0.4358	0.28			
1173	0.4240	0.27			

A=0.72 ac
Cd=0.9
Q=CIA

Min. Storage Volume: Σ= 193

Note:

** Actual volume stored may be greater, depending on detention design and calculations to be performed at engineering - design phase. Q allowable is not to be exceeded.*


Sub-Area 5A - Hydrogragh
Peak Q50=1.84 cfs
Min. Storage Volume:
V=193. cf
Allowable Q=1.13 cfs
2.00
1.80
1.60
1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Q (cfs)
1120
1130
1140
1150
1160
1170
1180
Time (min)

SUB-AREA: 6A Truncated Hydrograph & Minimum Storage Volume *

(Data from "Tc Calculator")

T (min.)	I (in/hr.)	Q (cfs)
1110	0.5274	0.44
1111	0.5330	0.44
1112	0.5388	0.45
1113	0.5449	0.45
1114	0.5511	0.46
1115	0.5575	0.46
1116	0.5642	0.47
1117	0.5712	0.47
1118	0.5784	0.48
1119	0.5859	0.49
1120	0.5938	0.49
1121	0.6019	0.50
1122	0.6105	0.51
1123	0.6194	0.51
1124	0.6288	0.52
1125	0.6386	0.53
1126	0.6489	0.54
1127	0.6597	0.55
1128	0.6712	0.56
1129	0.6833	0.57
1130	0.6961	0.58
1131	0.7096	0.59
1132	0.7241	0.60
1133	0.7395	0.61
1134	0.7560	0.63
1135	0.7738	0.64
1136	0.7929	0.66
1137	0.8135	0.67
1138	0.8360	0.69
1139	0.8606	0.71
1140	0.8876	0.73
1141	0.9175	0.76
1142	0.9509	0.79
1143	0.9884	0.82
1144	1.0312	0.85
1145	1.0805	0.89
1146	1.1383	0.94
1147	1.2076	1.00
1148	1.2931	1.07
1149	1.4030	1.16
1150	1.5541	1.40
1151	1.7904	1.48
1152	2.5642	2.12
1153	2.8450	2.36
1154	2.8149	2.33
1155	2.7014	2.24
1156	2.5105	2.08
1157	2.2054	1.78
1158	1.3365	1.11
1159	0.9332	0.77
1160	0.8100	0.67
1161	0.7313	0.61
1162	0.6740	0.56
1163	0.6294	0.52
1164	0.5933	0.49
1165	0.5632	0.47
1166	0.5375	0.45
1167	0.5152	0.43
1168	0.4956	0.41
1169	0.4782	0.40
1170	0.4626	0.38
1171	0.4486	0.37
1172	0.4358	0.36
1173	0.4240	0.35
1174	0.4133	0.34
1175	0.4033	0.33
1176	0.3941	0.33
1177	0.3855	0.32
1178	0.3774	0.31
1179	0.3699	0.31
1180	0.3628	0.30
1181	0.3561	0.29
1182	0.3498	0.29
1183	0.3439	0.28
1184	0.3382	0.28
1185	0.3328	0.28

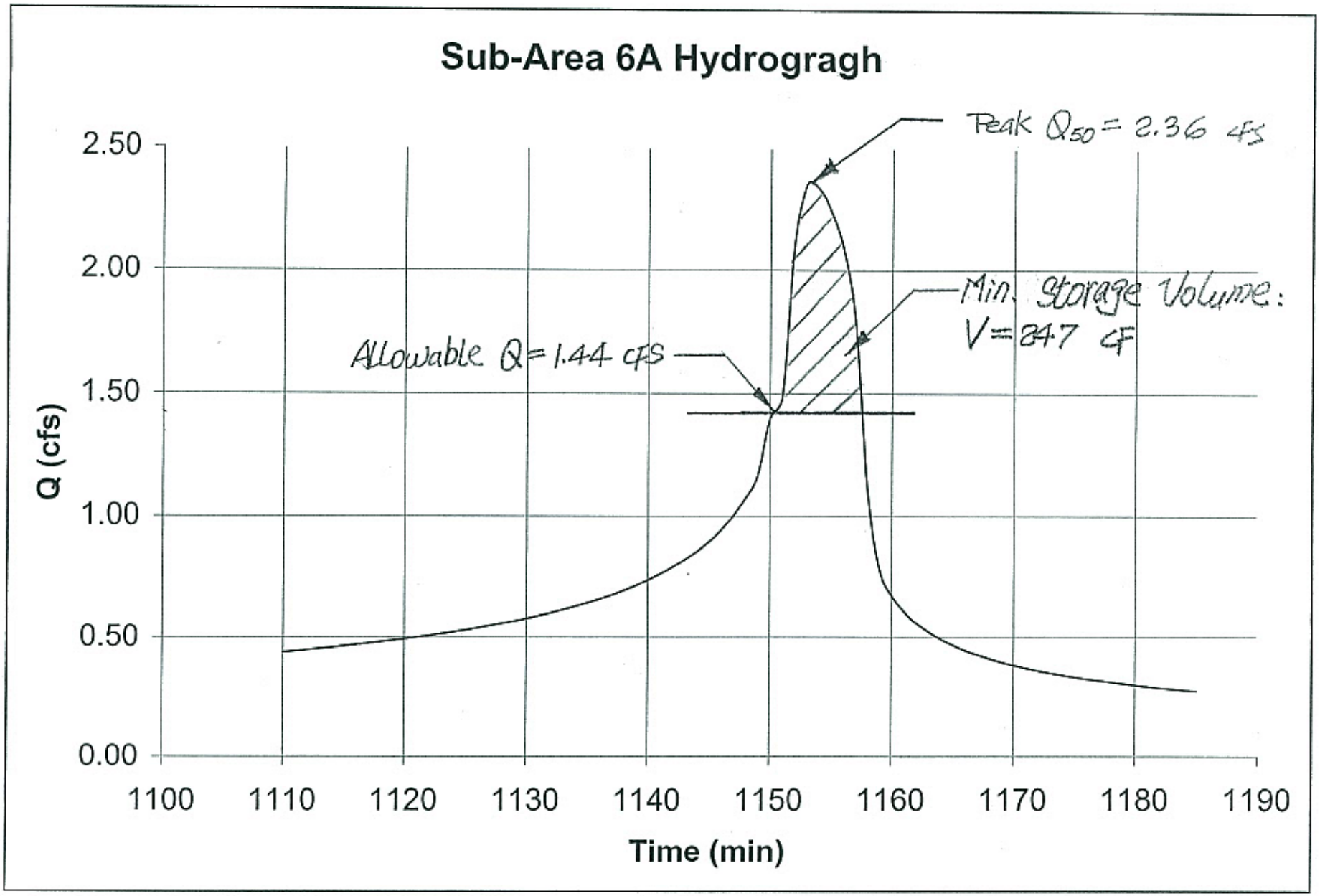
A=0.92 ac
Cd=0.9
Q=CIA

Average Q over storm minute (cfs)	ΔQ Storage =(Average Q -1.44 cfs) (cfs)	ΔStorage Volume =ΔQx60 sec/min. (C.F.)
1.44	0.00	0.00
1.80	0.36	21.77
2.24	0.80	47.96
2.34	0.90	54.19
2.28	0.84	50.63
2.16	0.72	43.06
1.93	0.49	29.36
1.44	0.00	0.00

Min. Storage Volume: Σ= 246.98 C.F.

Note:

** Actual volume stored may be greater, depending on detention design and calculations to be performed at engineering - design phase. Q allowable is not to be exceeded.*


Sub-Area 6A Hydrogragh
Peak Q50 = 2.36 cfs
Min. Storage Volume:
V = 847 cf
Allowable Q = 1.44 cfs
Q (cfs)
2.50
2.00
1.50
1.00
0.50
0.00
1100
1110
1120
1130
1140
1150
1160
1170
1180
1190
Time (min)

SUB-AREA: 7A Truncated Hydrograph & Minimum Storage Volume *

(Data from "Tc Calculator")

T (min.)	I (in/hr)	Q (cfs)
1116	0.5642	0.57
1117	0.5712	0.58
1118	0.5784	0.58
1119	0.5859	0.59
1120	0.5938	0.60
1121	0.6019	0.61
1122	0.6105	0.62
1123	0.6194	0.62
1124	0.6288	0.63
1125	0.6386	0.64
1126	0.6489	0.65
1127	0.6597	0.67
1128	0.6712	0.68
1129	0.6833	0.69
1130	0.6961	0.70
1131	0.7096	0.72
1132	0.7241	0.73
1133	0.7395	0.75
1134	0.7560	0.76
1135	0.7738	0.78
1136	0.7929	0.80
1137	0.8135	0.82
1138	0.8360	0.84
1139	0.8606	0.87
1140	0.8876	0.89
1141	0.9175	0.92
1142	0.9509	0.96
1143	0.9884	1.00
1144	1.0312	1.04
1145	1.0805	1.09
1146	1.1383	1.15
1147	1.2076	1.22
1148	1.2931	1.30
1149	1.4030	1.41
1150	1.5541	1.62
1151	1.7904	1.80
1152	2.5642	2.58
1153	2.8450	2.87
1154	2.8149	2.84
1155	2.7014	2.72
1156	2.5105	2.53
1157	2.2054	2.20
1158	1.3365	1.30
1159	0.9332	0.94
1160	0.8100	0.82
1161	0.7313	0.74
1162	0.6740	0.68
1163	0.6294	0.63
1164	0.5933	0.60
1165	0.5632	0.57
1166	0.5375	0.54
1167	0.5152	0.52
1168	0.4956	0.50
1169	0.4782	0.48
1170	0.4626	0.47
1171	0.4486	0.45
1172	0.4358	0.44
1173	0.4240	0.43
1174	0.4133	0.42
1175	0.4033	0.41
1176	0.3941	0.40
1177	0.3855	0.39
1178	0.3774	0.38
1179	0.3699	0.37
1180	0.3628	0.37
1181	0.3561	0.36
1182	0.3498	0.35
1183	0.3439	0.35
1184	0.3382	0.34
1185	0.3328	0.34
1186	0.3277	0.33
1187	0.3229	0.33
1188	0.3182	0.32
1189	0.3137	0.32
1190	0.3095	0.31
1191	0.3054	0.31

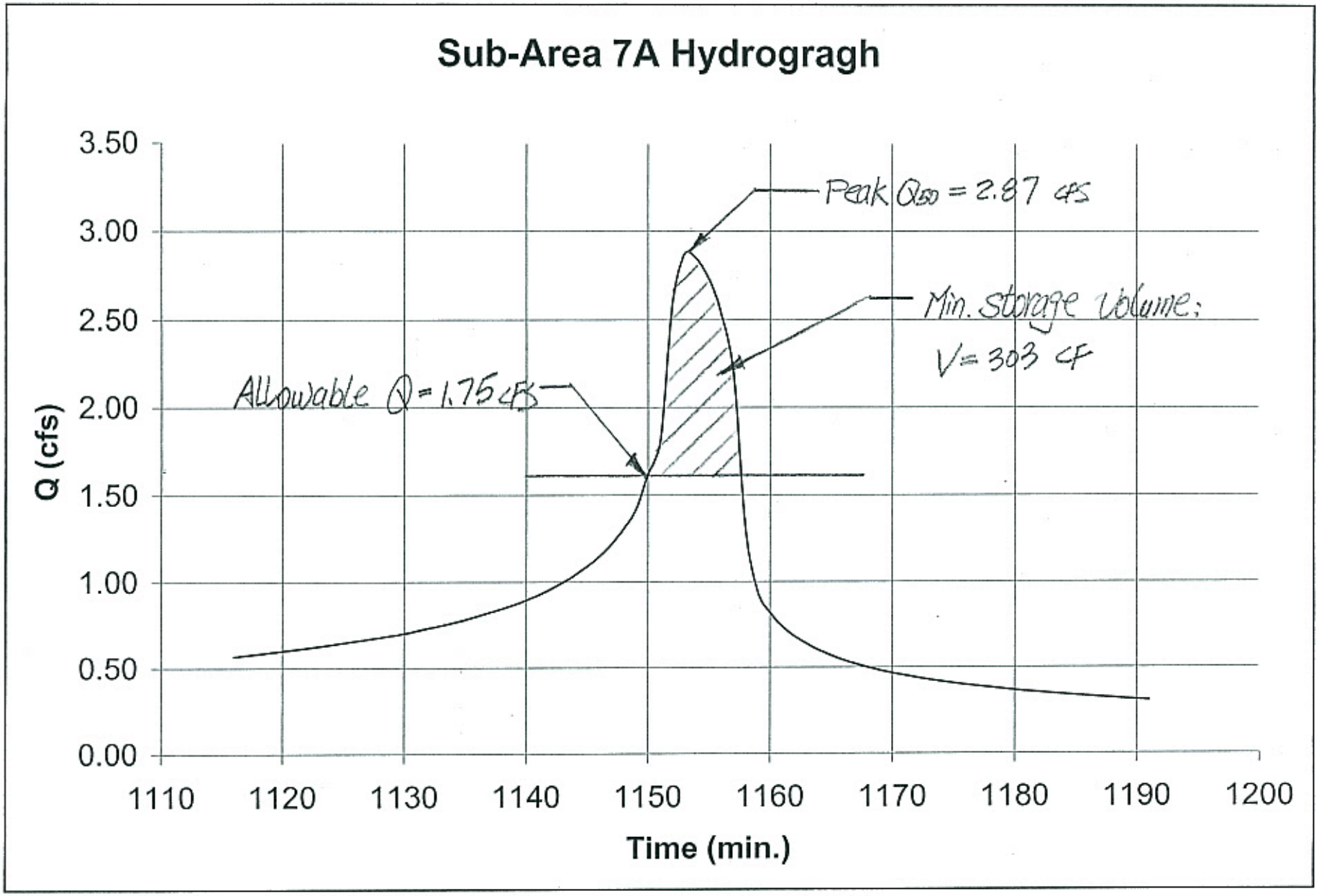
A=1.12 ac
Cd=0.90
Q=CIA

Average Q over storm minute (cfs)	ΔQ Storage =(Average Q-1.75 cfs) (cfs)	ΔStorage Volume =ΔQx60 sec/min. (C.F.)
1.75	0.00	0.00
2.19	0.44	26.68
2.73	0.98	58.57
2.85	1.10	66.16
2.78	1.03	61.81
2.63	0.88	52.61
2.37	0.62	36.92
1.75	0.00	0.00

Min. Storage Volume: Σ= 302.75 C.F.

Note:

** Actual volume stored may be greater, depending on detention design and calculations to be performed at engineering - design phase. Q allowable is not to be exceeded.*


Sub-Area 7A Hydrogragh
Q (cfs)
3.50
3.00
2.50
2.00
1.50
1.00
0.50
0.00
1110
1120
1130
1140
1150
1160
1170
1180
1190
1200
Time (min.)
Peak Q50 = 2.87 cfs
Min. storage volume:
V = 303 cf
Allowable Q = 1.75 cfs

SUB-AREA: 8A Truncated Hydrograph & Minimum Storage Volume *

(Data from "Tc Calculator")

T (min.)	I (in/hr)	Q (cfs)
1118	0.5715	0.22
1119	0.5787	0.22
1120	0.5863	0.22
1121	0.5941	0.22
1122	0.6024	0.23
1123	0.6109	0.23
1124	0.6199	0.23
1125	0.6293	0.24
1126	0.6391	0.24
1127	0.6495	0.25
1128	0.6604	0.25
1129	0.6719	0.25
1130	0.6841	0.26
1131	0.6970	0.26
1132	0.7106	0.27
1133	0.7252	0.27
1134	0.7408	0.28
1135	0.7574	0.29
1136	0.7753	0.29
1137	0.7947	0.30
1138	0.8156	0.31
1139	0.8384	0.32
1140	0.8634	0.33
1141	0.8909	0.34
1142	0.9215	0.35
1143	0.9557	0.36
1144	0.9943	0.38
1145	1.0386	0.39
1146	1.0901	0.41
1147	1.1512	0.44
1148	1.2256	0.46
1149	1.3198	0.50
1150	1.4468	0.55
1151	1.6401	0.66
1152	2.2399	0.85
1153	2.4746	0.94
1154	2.4831	0.94
1155	2.4402	0.92
1156	2.3598	0.89
1157	2.2419	0.85
1158	2.0767	0.78
1159	1.8317	0.72
1160	1.1675	0.59
1161	0.8549	0.32
1162	0.7541	0.29
1163	0.6879	0.26
1164	0.6388	0.24
1165	0.6000	0.23
1166	0.5682	0.21
1167	0.5414	0.20
1168	0.5183	0.20
1169	0.4981	0.19
1170	0.4803	0.18
1171	0.4644	0.18
1172	0.4500	0.17
1173	0.4370	0.17
1174	0.4251	0.16
1175	0.4142	0.16
1176	0.4041	0.15
1177	0.3948	0.15
1178	0.3861	0.15
1179	0.3780	0.14
1180	0.3704	0.14
1181	0.3633	0.14
1182	0.3566	0.13
1183	0.3502	0.13

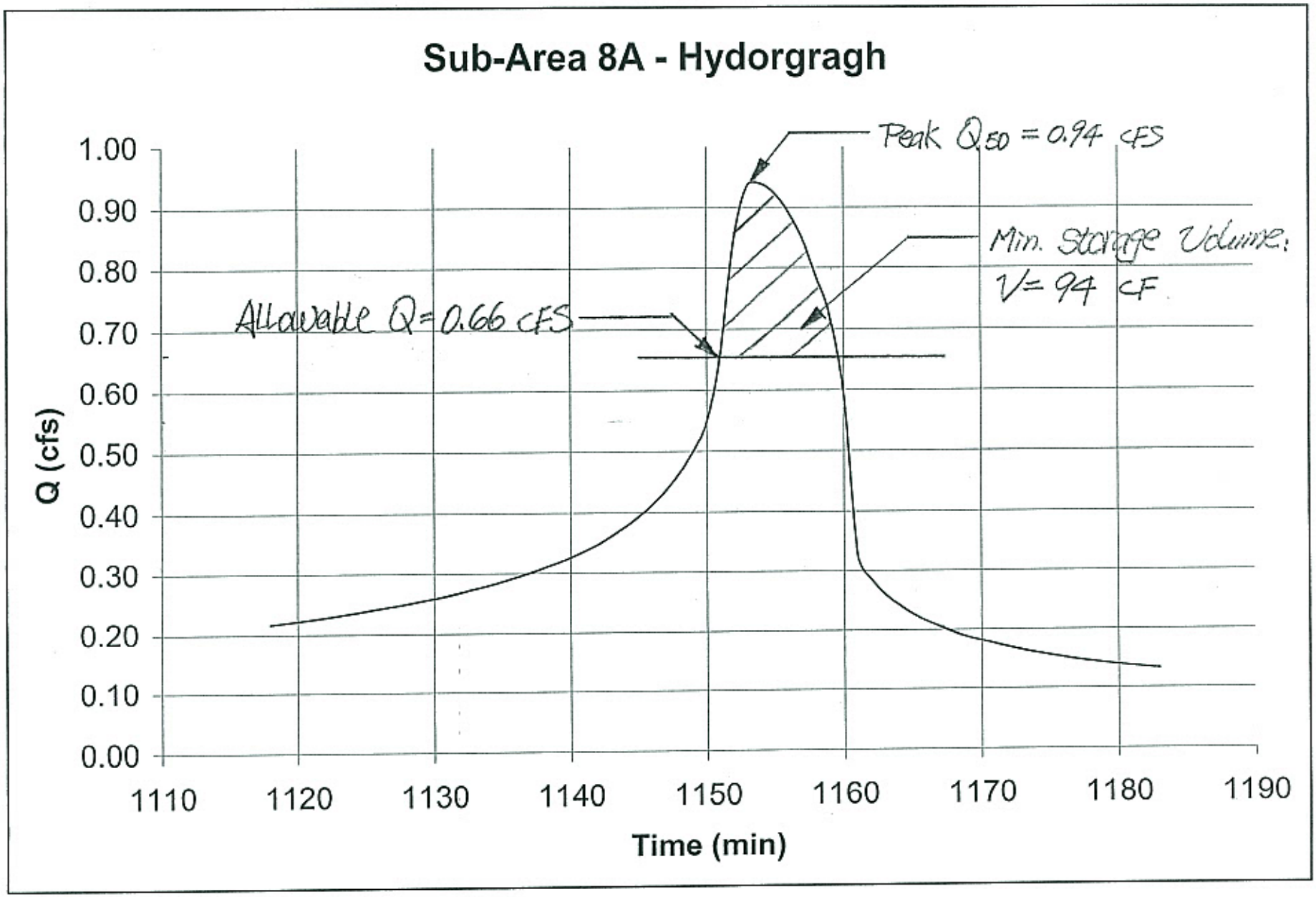
A=0.42 ac
Cd=0.90
Q=CIA

Average Q over storm minute (cfs)	ΔQ Storage =(Average Q-0.66 cfs) (cfs)	ΔStorage Volume =ΔQx60 sec/min. (C.F.)
0.66	0.00	**0.00**
0.75	0.09	**5.60**
0.89	0.23	**13.86**
0.94	0.28	**16.62**
0.93	0.27	**16.23**
0.91	0.25	**14.83**
0.87	0.21	**12.58**
0.82	0.16	**9.37**
0.75	0.09	**5.55**
0.66	-0.01	**-0.30**

***Min. Storage Volume:* Σ= 94.35 C.F.**

Note:

** Actual volume stored may be greater, depending on detention design and calculations to be performed at engineering - design phase. Q allowable is not to be exceeded.*


Sub-Area 8A - Hydorgragh
Peak Q50 = 0.94 CFS
Min. Storage Volume:
V= 94 CF
Allowable Q=0.66 CFS
Q (cfs)
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
1110
1120
1130
1140
1150
1160
1170
1180
1190
Time (min)

SUB-AREA: 9A Truncated Hydrograph & Minimum Storage Volume *

(Data from "Tc Calculator")

T (min.)	I (in/hr)	Q (cfs)
1120	0.5900	1.36
1121	0.5980	1.38
1122	0.6064	1.40
1123	0.6151	1.42
1124	0.6243	1.44
1125	0.6339	1.47
1126	0.6439	1.49
1127	0.6545	1.51
1128	0.6657	1.54
1129	0.6775	1.57
1130	0.6900	1.60
1131	0.7032	1.63
1132	0.7172	1.66
1133	0.7322	1.69
1134	0.7482	1.73
1135	0.7654	1.77
1136	0.7839	1.81
1137	0.8039	1.86
1138	0.8256	1.91
1139	0.8492	1.96
1140	0.8752	2.02
1141	0.9038	2.09
1142	0.9357	2.16
1143	0.9715	2.25
1144	1.0121	2.34
1145	1.0587	2.45
1146	1.1132	2.57
1147	1.1781	2.73
1148	1.2577	2.91
1149	1.3591	3.14
1150	1.4970	3.55
1151	1.7095	3.95
1152	2.3849	5.52
1153	2.6411	6.13
1154	2.6354	6.10
1155	2.5662	5.94
1156	2.4462	5.66
1157	2.2679	5.25
1158	1.9959	4.62
1159	1.2431	2.88
1160	0.8911	2.06
1161	0.7803	1.80
1162	0.7084	1.64
1163	0.6555	1.52
1164	0.6141	1.42
1165	0.5802	1.34
1166	0.5519	1.28
1167	0.5275	1.22
1168	0.5064	1.17
1169	0.4877	1.13
1170	0.4711	1.09
1171	0.4562	1.06
1172	0.4426	1.02
1173	0.4303	1.00
1174	0.4190	0.97
1175	0.4086	0.95
1176	0.3990	0.92

A=2.57 ac
Cd=0.90
Q=CIA

Average Q over storm minute (cfs)	ΔQ Storage =(Average Q-3.8 cfs) (cfs)	ΔStorage Volume =ΔQx60 sec/min. (C.F.)
3.80	0.00	**0.00**
5.04	1.24	**74.53**
5.81	2.01	**120.36**
6.03	2.23	**133.97**
5.88	2.08	**124.61**
5.59	1.79	**107.44**
5.14	1.34	**80.24**
4.06	0.26	**15.63**
3.80	0.00	**0.00**

***Min. Storage Volume:* Σ= 656.76 C.F.**

Note:

** Actual volume stored may be greater, depending on detention design and calculations to be performed at engineering - design phase. Q allowable is not to be exceeded.*

SUB-AREA: 9A Truncated Hydrograph & Minimum Storage Volume *

(Data from "Tc Calculator")

T (min.)	I (in/hr)	Q (cfs)
1120	0.5900	1.36
1121	0.5980	1.38
1122	0.6064	1.40
1123	0.6151	1.42
1124	0.6243	1.44
1125	0.6339	1.47
1126	0.6439	1.49
1127	0.6545	1.51
1128	0.6657	1.54
1129	0.6775	1.57
1130	0.6900	1.60
1131	0.7032	1.63
1132	0.7172	1.66
1133	0.7322	1.69
1134	0.7482	1.73
1135	0.7654	1.77
1136	0.7839	1.81
1137	0.8039	1.86
1138	0.8256	1.91
1139	0.8492	1.96
1140	0.8752	2.02
1141	0.9038	2.09
1142	0.9357	2.16
1143	0.9715	2.25
1144	1.0121	2.34
1145	1.0587	2.45
1146	1.1132	2.57
1147	1.1781	2.73
1148	1.2577	2.91
1149	1.3591	3.14
1150	1.4970	3.55
1151	1.7095	3.95
1152	2.3849	5.52
1153	2.6411	6.13
1154	2.6354	6.10
1155	2.5662	5.94
1156	2.4462	5.66
1157	2.2679	5.25
1158	1.9959	4.62
1159	1.2431	2.88
1160	0.8911	2.06
1161	0.7803	1.80
1162	0.7084	1.64
1163	0.6555	1.52
1164	0.6141	1.42
1165	0.5802	1.34
1166	0.5519	1.28
1167	0.5275	1.22
1168	0.5064	1.17
1169	0.4877	1.13
1170	0.4711	1.09
1171	0.4562	1.06
1172	0.4426	1.02
1173	0.4303	1.00
1174	0.4190	0.97
1175	0.4086	0.95
1176	0.3990	0.92

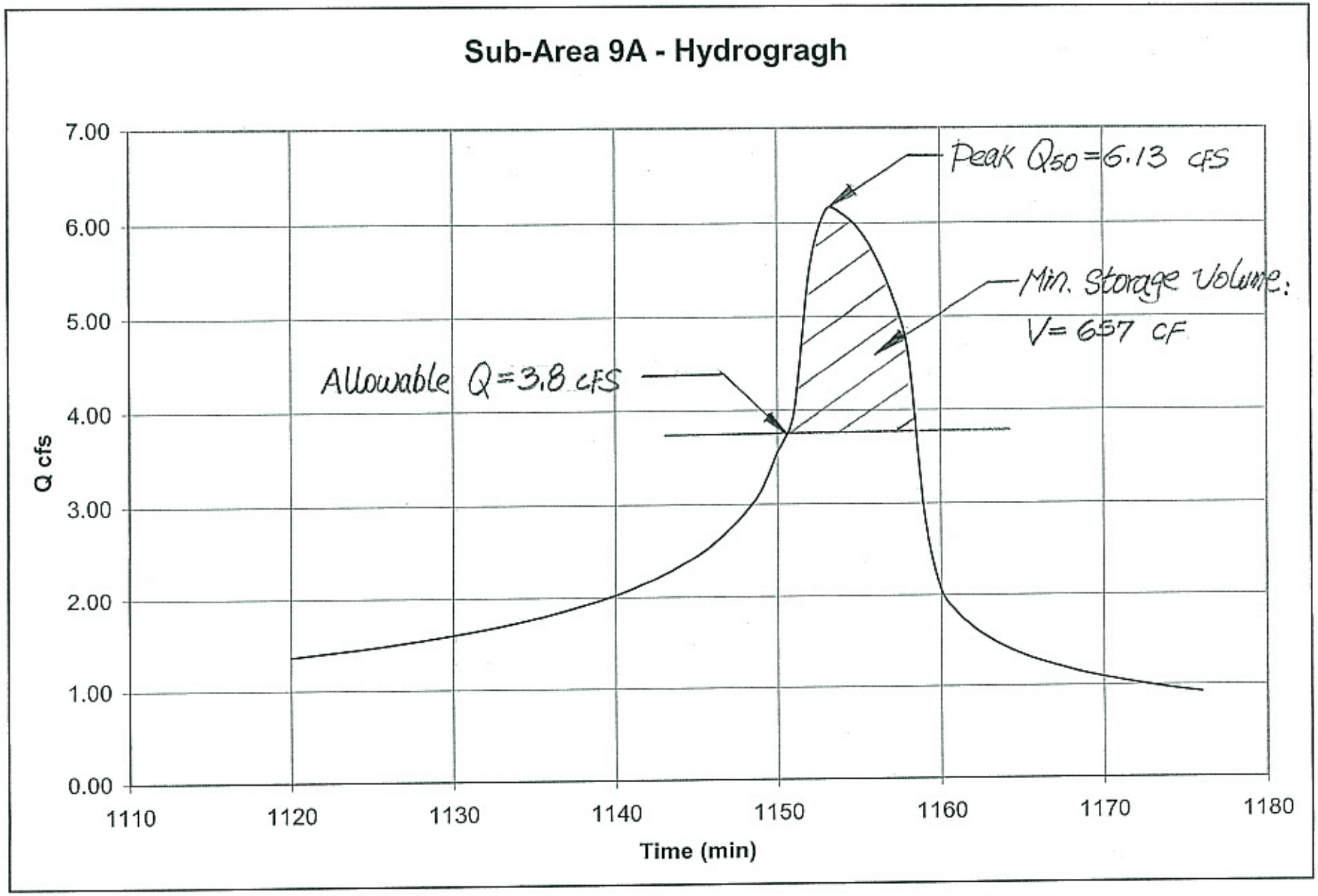
A=2.57 ac
Cd=0.90
Q=CIA

Average Q over storm minute (cfs)	ΔQ Storage =(Average Q-5.88 cfs) (cfs)	ΔStorage Volume =ΔQx60 sec/min. (C.F.)
3.80	0.00	**0.00**
5.04	1.24	**74.53**
5.81	2.01	**120.36**
6.03	2.23	**133.97**
5.88	2.08	**124.61**
5.59	1.79	**107.44**
5.14	1.34	**80.24**
4.06	0.26	**15.63**
3.80	0.00	**0.00**

***Min. Storage Volume:* Σ= 656.76 C.F.**

Note:

** Actual volume stored may be greater, depending on detention design and calculations to be performed at engineering - design phase. Q allowable is not to be exceeded.*


Sub-Area 9A - Hydrogragh
Peak Q50=6.13 cfs
Min. Storage Volume:
V= 657 cf
Allowable Q=3.8 cfs
Q cfs
7.00
6.00
5.00
4.00
3.00
2.00
1.00
0.00
1110
1120
1130
1140
1150
1160
1170
1180
Time (min)

Appendix C

S.U.S.M.P. Table

SUSMP TABLE:

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Qpm (cfs)
3A	0.1	0.91	SUSMP	9	76	0.01	0.75	9	0.34	0.13	0.83	0.03
4A	0.24	0.91	SUSMP	9	174	0.01	0.75	15	0.27	0.1	0.83	0.05
5A	0.72	0.91	SUSMP	9	310	0.005	0.75	25	0.21	0.1	0.83	0.13
6A	0.92	0.91	SUSMP	9	375	0.011	0.75	25	0.21	0.1	0.83	0.16
7A	1.12	0.95	SUSMP	9	296	0.005	0.75	24	0.21	0.1	0.86	0.2
8A	0.42	0.95	SUSMP	9	460	0.005	0.75	30	0.19	0.1	0.86	0.07
9A	2.57	0.95	SUSMP	9	341	0.005	0.75	26	0.21	0.1	0.86	0.46
10A	1.03	0.91	SUSMP	9	1045	0.004	0.75	30	0.19	0.1	0.83	0.16

Note: *SUSMP Peak Flow rate Qpm by using 0.75 inches rainfall*
The Caltrans and MTA areas are excluded because they are not a part of this project and will be maintained by Caltrans and MTA

Appendix D

L.I.D. Table

LOT-1 L.I.D. RUNOFF VOLUME TABLE:

CONDITION	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Volume (acre-ft)
Post-Development	6A	0.92	0.91	LID	9	375	0.011	0.75	25	0.21	0.1	0.83	0.05
	7A	1.12	0.95	LID	9	296	0.005	0.75	24	0.21	0.1	0.86	0.06
	8A	0.42	0.95	LID	9	460	0.005	0.75	30	0.19	0.1	0.86	0.02
										Post-Develoment Total Volume:			**0.13**
Pre-Development	6A	0.92	0.01	LID	9	375	0.011	0.75	30	0.19	0.1	0.11	0.01
	7A	1.12	0.01	LID	9	296	0.005	0.75	30	0.19	0.1	0.11	0.01
	8A	0.42	0.01	LID	9	460	0.005	0.75	30	0.19	0.1	0.11	0
										Pre-Develoment Total Volume:			**0.02**

Required L.I.D. Volume = 0.13-0.02 = 0.11 acre-ft = 4,792 cft

CONDITION	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Volume (acre-ft)
Post-Development	5A	0.72	0.91	LID	9	310	0.005	0.75	25	0.21	0.1	0.83	0.04
Pre-Development	5A	0.72	0.01	LID	9	310	0.005	0.75	30	0.19	0.1	0.11	0.01

Required L.I.D. Volume = 0.04-0.01 =0.03 acre-ft = 1,307 cft

LOT-2 L.I.D. RUNOFF VOLUME TABLE:

CONDITION	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Volume (acre-ft)
Post-Development	9A	2.57	0.95	LID	9	341	0.005	0.75	26	0.21	0.1	0.86	**0.14**
Pre-Development	9A	2.57	0.01	LID	9	341	0.005	0.75	30	0.19	0.1	0.11	**0.02**

Required L.I.D. Volume = 0.14-0.02 =0.12 acre-ft = 5,227 cft

CHAPTER 4: LID HYDROLOGIC ANALYSIS

INTRODUCTION

Southern California has a relatively dry climate with long periods of very little rainfall often followed by intense storm events. The County of Los Angeles Department of Public Works uses the Modified Rational Method of hydrologic analysis. A detailed discussion of the methodology is included in the Los Angeles County Department of Public Works Hydrology Manual. The most recent version is available online at http://www.ladpw.org/wrd/publication/index.cfm.

LID GOALS

The primary benefits expected from implementation of LID are: (1) increased groundwater recharge, (2) enhanced water quality, and (3) stability of downstream natural reaches.

The main benefits of LID can be achieved with relatively simple analysis using tools that are currently available and consistent with approved methods, such as Los Angeles County's Tc calculator available online at http://www.ladpw.org/wrd/publication/Engineering/hydrology/tc_calculator_files.zip.

METHODOLOGY

LID Hydrologic Analysis Steps

Step 1: Determine hydrologic parameters

Determine drainage area of proposed development site (for sites larger than 40 acres use multiple subareas). Calculate slope and length of flow path and identify soil type.

Step 2 Identify design storm

There are several options for an LID design storm. This accounts for regional differences in rainfall and is consistent with existing SUSMP design criteria.

A. The 85th percentile 24-hour runoff event determined, as the maximized capture stormwater volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/SCE Manual of Practice No. 87, (1998), or

B. The volume of annual runoff, based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/Commercial, (1993), or

C. The volume of runoff produced from a 0.75-inch storm event prior to its discharge to a stormwater conveyance system, or

D. The volume of runoff produced from a historical record based reference 24-hour rainfall criterion for treatment 0.75 inch average for the County of Los Angeles area) that achieves approximately the same reduction in pollutant loads achieved by the 85th percentile 24-hour runoff event.

Step 3: Calculate undeveloped runoff volume

Using an approved hydrologic analysis tool consistent with the Los Angeles County Department of Public Works Hydrology Manual, determine the volume associated with the selected design storm assuming clear flows and undeveloped site conditions (0 percent impervious surfaces).

Step 4: Calculate developed runoff volume

Using the same design storm, determine the runoff volume associated with the proposed development. The impervious values shall be consistent with the hydrology manual recommendations based on land-use type.

Step 5: Calculate the excess volume (ΔV)

Subtract the undeveloped runoff volume from the developed runoff volume. This quantity is required to be infiltrated wherever possible at the site level and the BMPs used to accomplish this requirement shall be distributed throughout the project site.

Step 6: Determine water quality treatment volume or flow rate

The entire volume identified in Step 4 must be treated or infiltrated or one of the following flow rate based events can be used to determine the flow rate of runoff that must be treated:

A. The flow of runoff produced from a rain event equal to at least 0.2 inches per hour intensity; or

B. The flow of runoff produced from a rain event equal to at least 2 times the 85th percentile hourly rainfall intensity for the County of Los Angeles; or

C. The flow of runoff produced from a rain event that will result in treatment of the same portion of runoff as treated using volumetric standards above.

Planter Boxes

PLANTER BOXES

POLLUTANT REMOVAL	
Sediment	High
Nutrients	High
Trash	High
Metals	High
Bacteria	High
Oil and Grease	High
Organics	High

DESCRIPTION

There are two types of planter boxes: contained planters and infiltration planters. Contained planters are used for planting trees, shrubs, and ground cover to be placed over impervious surface. The planter may be a prefabricated pot of various dimensions or may be constructed in place and have an infinite variety of shapes and sizes. Contained planters are placed on impervious surfaces such as sidewalks, plazas, and rooftops. Drainage is allowed through the bottom of the planter.

Infiltration planters are structural landscaped reservoirs used to collect, filter, and infiltrate stormwater runoff allowing pollutants to settle and filter out as the water percolates through the planter soil and infiltrates into the ground. In addition to providing pollution reduction, flow rates and volumes can also be managed with infiltration planters. Planters can be used to reduce the total impervious area and should be integrated into the overall site design. Numerous design variations of shape, wall treatment, and planting scheme can be used to fit the character of a site. An overflow to an approved conveyance and disposal method will be required.

ADVANTAGES	LIMITATIONS
• Requires very little space • Aesthetically pleasing • Can provide water treatment or infiltration • Wide applicability • Useful for disconnecting downspouts	• Infiltration rate limited to infiltration capacity of underlying soil • A relatively limited volume of stormwater can be mitigated using planter boxes

GENERAL CONSTRAINTS AND SITE CONCERNS

Contained planter boxes are suitable for any location as they are placed over impervious surfaces. Planter boxes are ideal for urban infill environments where space is limited. For infiltration planters, the infiltration rate of the native soil is a key element in determining size.

DESIGN SPECIFICATIONS

DESIGN CONSIDERATIONS

Plants shall be relatively self-sustaining with little need for fertilizers or pesticides. Irrigation is optional, although plant viability must be maintained. Trees are encouraged for stormwater interception. Planter storage depth must be at least 12 inches unless a larger than --required planter square footage is used. Minimum planter width is 30 inches. Planters shall be constructed without slope.

SOIL SUITABILITY

Contained planters are appropriate for all soil types as they are placed over impervious surface. Topsoil shall be used within the top 12 to 18 inches of the facility. Infiltration planters are appropriate for soils with a minimum infiltration rate of 0.5 inch per hour. There shall be no less than 3 feet of undisturbed infiltration medium between the bottom of the facility and any impervious layer (i.e., hardpan, solid rock, high groundwater levels, etc.). Topsoil shall be used within the top 18 inches of the facility.

PLANTER WALLS

Planter walls shall be made of stone, concrete, brick, clay, plastic, wood, or other stable material. Chemically treated wood that can leach out toxic chemicals and contaminate stormwater shall not be used.

SIZING

Individual infiltration planters sized with the simplified approach shall be designed to receive less than 15,000 square feet of impervious area runoff. Planters shall be designed to pond water for less than 36 hours after each storm event.

LANDSCAPING

Contained planters shall be planted to cover at least 50 percent of the planter surface. Tree planting is not required in planters, but is encouraged where practical. Tree planting is also encouraged near planters.

CONSTRUCTION CONSIDERATIONS

Infiltration planter areas should be clearly marked before site work begins to avoid soil disturbance during construction. No vehicular traffic, except that specifically used to construct the facility, should be allowed within 10 feet of planter areas.

OPERATIONS AND MAINTENANCE

INSPECTION AND MAINTENANCE ACTIVITIES SUMMARY	
ROUTINE MAINTENANCE	• Downspout from rooftop or sheet flow from paving allows unimpeded stormwater flow to the planter. Debris shall be removed routinely (e.g., no less than every 6 months) and upon discovery. Damaged pipe shall be repaired upon discovery. • Planter reservoir receives and detains stormwater prior to infiltration. Water should drain from reservoir within 3 to 4 hours of storm event. Sources of clogging shall be identified and corrected. Topsoil may need to be amended with sand or replaced all together. • Overflow pipe safely conveys flow exceeding reservoir capacity to an approved stormwater receiving system. Overflow pipe shall be cleared of sediment and debris when 50 percent of the conveyance capacity is plugged. Damaged pipe shall be repaired or replaced upon discovery. • Spill prevention measures shall be exercised when handling substances that contaminate stormwater. Releases of pollutants shall be corrected as soon as identified. • Training and/or written guidance information for operating and maintaining stormwater planters shall be provided to all property owners and tenants. A copy of the Operations and Maintenance Plan shall be provided to all property owners and tenants.

ROUTINE MAINTENANCE	• Vegetation shall be healthy and dense enough to provide filtering while protecting underlying soils from erosion. Mulch shall be replenished at least annually. Vegetation, large shrubs, or trees that limit access or interfere with planter operation shall be pruned or removed. Fallen leaves and debris from deciduous plant foliage shall be raked and removed. Nuisance or prohibited vegetation shall be removed when discovered. Invasive vegetation contributing up to 25 percent of vegetation of all species shall be removed and replaced. Dead vegetation shall be removed to maintain less than 10 percent of area coverage or when planter function is impaired. Vegetation shall be replaced within a specific timeframe (e.g., 3 months) or immediately, if required, to maintain cover density and control erosion where soils are exposed. • Access to the stormwater planter shall be safe and efficient. Egress and ingress routes shall be maintained to design standards. Roadways shall be maintained to accommodate size and weight of vehicles if applicable. Obstacles preventing maintenance personnel and/or equipment access to the stormwater planter shall be removed. Gravel or ground cover shall be added if erosion occurs (e.g., due to vehicular or pedestrian traffic). • Insects and rodents shall not be harbored in the stormwater planter. Pest control measures shall be taken when insects/rodents are found to be present. If sprays are considered, then a mosquito larvicide such as Bacillus thurendensis or Altoside formulations can be applied only if absolutely necessary, and only by a licensed individual or contractor. Holes in the ground located in and around the stormwater planter shall be filled and compacted.
MAJOR MAINTENANCE	• Splash blocks prevent splashing against adjacent structures and convey water without disrupting media. Any deficiencies in structure such as cracking, rotting, and failure shall be repaired. • Planter shall contain filter media and vegetation. Structural deficiencies in the planter including rot, cracks, and failure shall be repaired. • Filter media consisting of sand, gravel, and topsoil shall allow stormwater to percolate uniformly through the planter. The planter shall be excavated and cleaned; and gravel or soil shall be replaced to correct low infiltration rates. Holes that are not consistent with the design and allow water to flow directly through the planter to the ground shall be plugged. Sediment accumulation shall be hand removed with minimum damage to vegetation using proper erosion control measures. Sediment shall be removed if it is more than 4 inches thick or so thick as to damage or kill vegetation. Litter and debris shall be removed routinely (e.g., no less than quarterly) and upon discovery.

Appendix E

Reference

Design Division Research

Office Use Only
☐ Sent Initials: _____
☐ Fax ☐ Email ☐ Other: _____
Date: _____ Time: _____

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
DESIGN DIVISION – HYDRAULIC ANALYSIS UNIT

INFORMATION REQUEST SUMMARY

INFORMATION REQUESTED BY
Requester's Name: Chuck Gilman
Company: Land Design
Phone Number: (626) 528-7000 Fax Number: (626) 578-7373
Email: cgilman@ldcla.com

Method of Contact: ☑ Walk-in ☐ Phone ☐ Fax ☐ Email ☐ Prelim. Mtg. Date: _____

Intended Use: hydrology/drainage concept/ETR

Proposed Project Type: commercial/residential Acreage Involved: 7.2

Will information be used in any litigation? ☐ YES ☑ NO
Case Info Name: _____ No: _____ Location: _____

Requester's Signature: [signature]

INFORMATION REQUESTED (Attach site map if available)
LACFCD Facility: Name: Dominguez Channel System Dwg# 28-D58.6
Unit: _____ Line: _____ Station: _____
City: El Segundo
Street/Cross-street: _____
Thomas Guide: Page: 703 Grid: 47 ☒ Site Map/Plans Submitted
Info. Requested: Allowable

BELOW SECTION TO BE COMPLETED BY THE HYDRAULIC ANALYSIS UNIT

INFORMATION PROVIDED: Laguna Dominguez Channel Allowable Q for Subareas 38A, 37A, 36A, & 6B
(1) Subarea 38A allowable Q = 96/29 x 780/1868 = 1.382 cfs/acre
(2) Subarea 37A allowable Q = 67/19 x 780/1860 = 1.478 cfs/acre
(3) Subarea 36A allowable Q = 67/18 x 780/1853 = 1.566 cfs/acre.
(4) Subarea 6B Allowable Q = 1.386 cfs/acre.

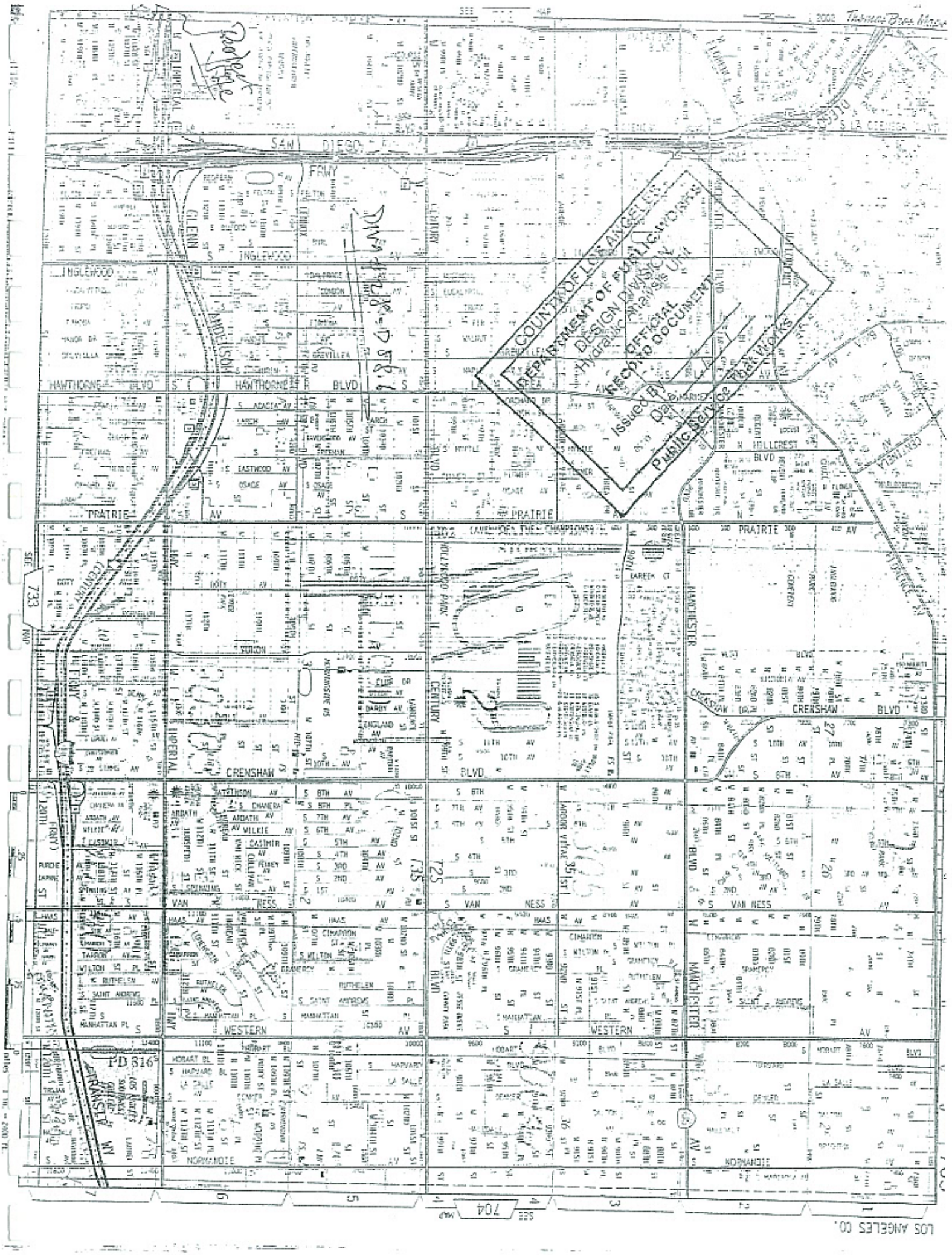
REFERENCES SEARCHED: Dominguez channel Files F31 & Water Resources Division Files

COMMENTS, ETC: ~~PLEASE PROVIDE SITE PLAN~~
As Built Design Capacity for existing Dominguez channel within Project site is 2780 cfs.

FOLLOW-UP REQUIRED: NO

INFORMATION PROVIDED BY: George Antablian
INFORMATION REVIEWED BY: _____

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
DESIGN DIVISION
Hydraulic Analysis Unit
OFFICIAL
RECORD DOCUMENT
Date: 12/22/2009
Issued By: C.K.H.
Date: / /
Date: / /
Public Service That Works



COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
DESIGN DIVISION
Hydraulic Analysis Unit
OFFICIAL RECORD DOCUMENT
Issued By
Date
Public Service That Works

WATER RESOURCES DIVISION
Hydrology Section

Q1990-C

INFORMATION REQUEST SUMMARY

Date: 12/07/09

Project Name: *Laguna Dominguez Channel*

Project Location: Imperial Hwy ☐ Aviation Blvd, El Segundo (TG pg. 703 ☐ A7)

Project Engineer: Peter Imaa

Technical Review by: Peter Imaa PI

Information Requested: Hydrologic information

Information Requested By: George Aintablian of Design Division, Ext. 7959

Information To Be Used For: Planning Purposes

Will Information Be Used In Any Litigation? : *Yes* x: *No*

Information Provided:
Drainage map (provided previously) and the following hydrologic data:

Location	Subarea (acres)	Subarea Q_{50} (cfs)	Total Area (acres)	Total Q_{50} (cfs)
36A	18	67	881	1,853
37A	19	67	900	1,860
38A	29	96	929	1,868
6B	42	147	88	275
7AB	-	-	219	571
34AC	-	-	863	1,873

Subarea 36A Allowable $Q = \frac{67}{18} \times \frac{780}{1853} = 1.566$ cfs/acre

Subarea 37A Allowable $Q = \frac{67}{19} \times \frac{780}{1860} = 1.478$ cfs/acre

Subarea 38A Allowable $Q = \frac{96}{29} \times \frac{780}{1868} = 1.382$ cfs/acre

Subarea 6B Allowable $Q = \frac{147}{42} \times \frac{780}{1868} = 1.386$ cfs/acre

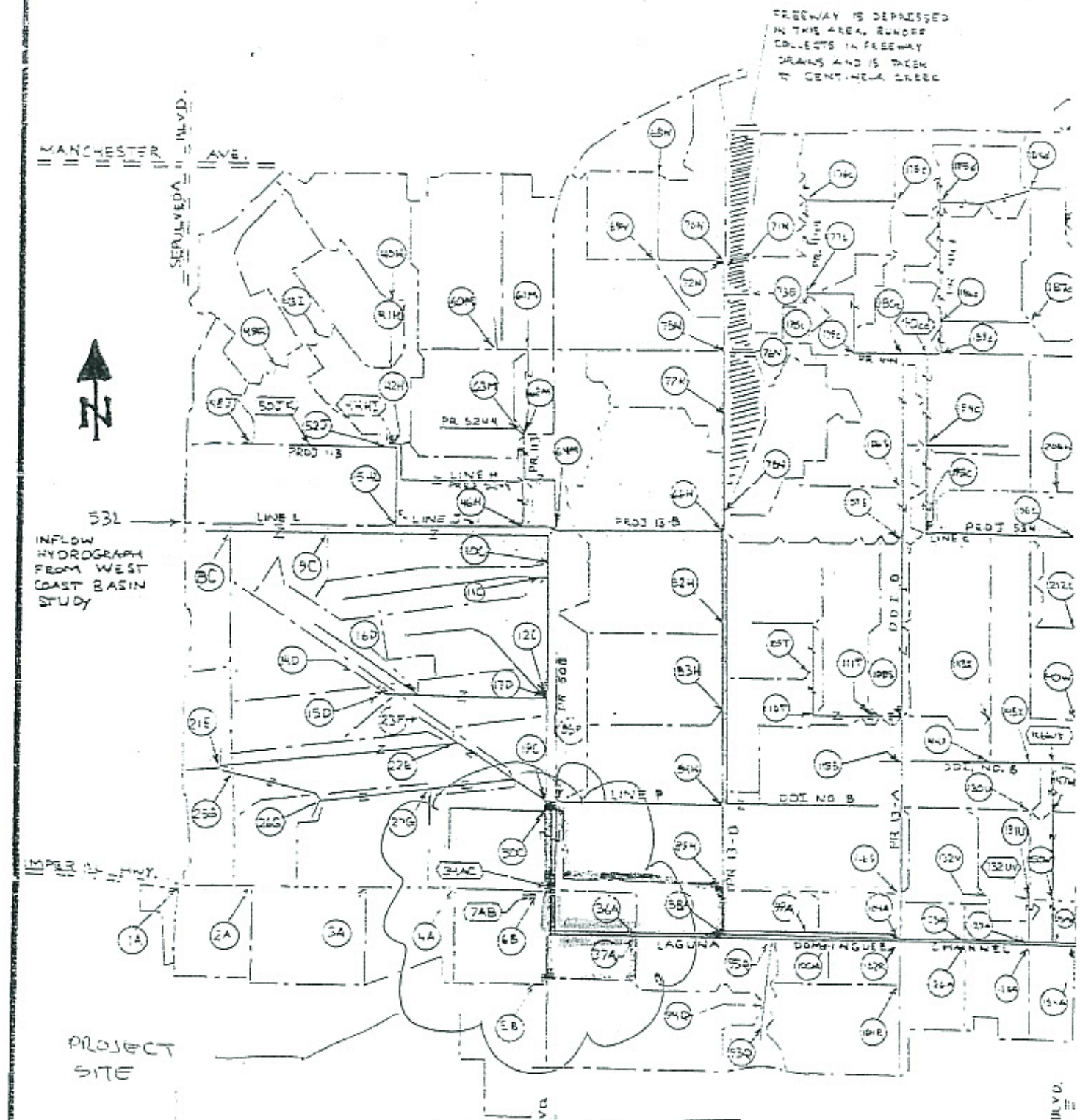
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
DESIGN DIVISION
Hydraulic Analysis Unit
OFFICIAL RECORD DOCUMENT
Issued By: GKA
Date: 12/22/2009
Public Service That Works

Date Provided: 12/07/09

References: Laguna Dominguez Channel Hydrology Study dated June 1983.

Calculations, Comments, Etc.: The information provided above should be used for planning purposes.

Q.199D Page 2 of 2



COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
DESIGN DIVISION
Hydraulic Analysis Unit
OFFICIAL RECORD DOCUMENT
Issued By: _____
Date: ___/___/___
Public Service That Works

Appendix F

Phase-1 Time of Concentration, Hydrology,
S.U.S.M.P. & L.I.D. Calculations

PHASE -1 SUSMP TABLE:

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Qpm (cfs)
4A	0.24	0.91	SUSMP	9	174	0.01	0.75	15	0.27	0.1	0.83	0.05
9A	2.57	0.95	SUSMP	9	341	0.005	0.75	26	0.21	0.1	0.86	0.46
10A	1.03	0.91	SUSMP	9	1045	0.004	0.75	30	0.19	0.1	0.83	0.16

Note: *SUSMP Peak Flow rate Qpm by using 0.75 inches rainfall*

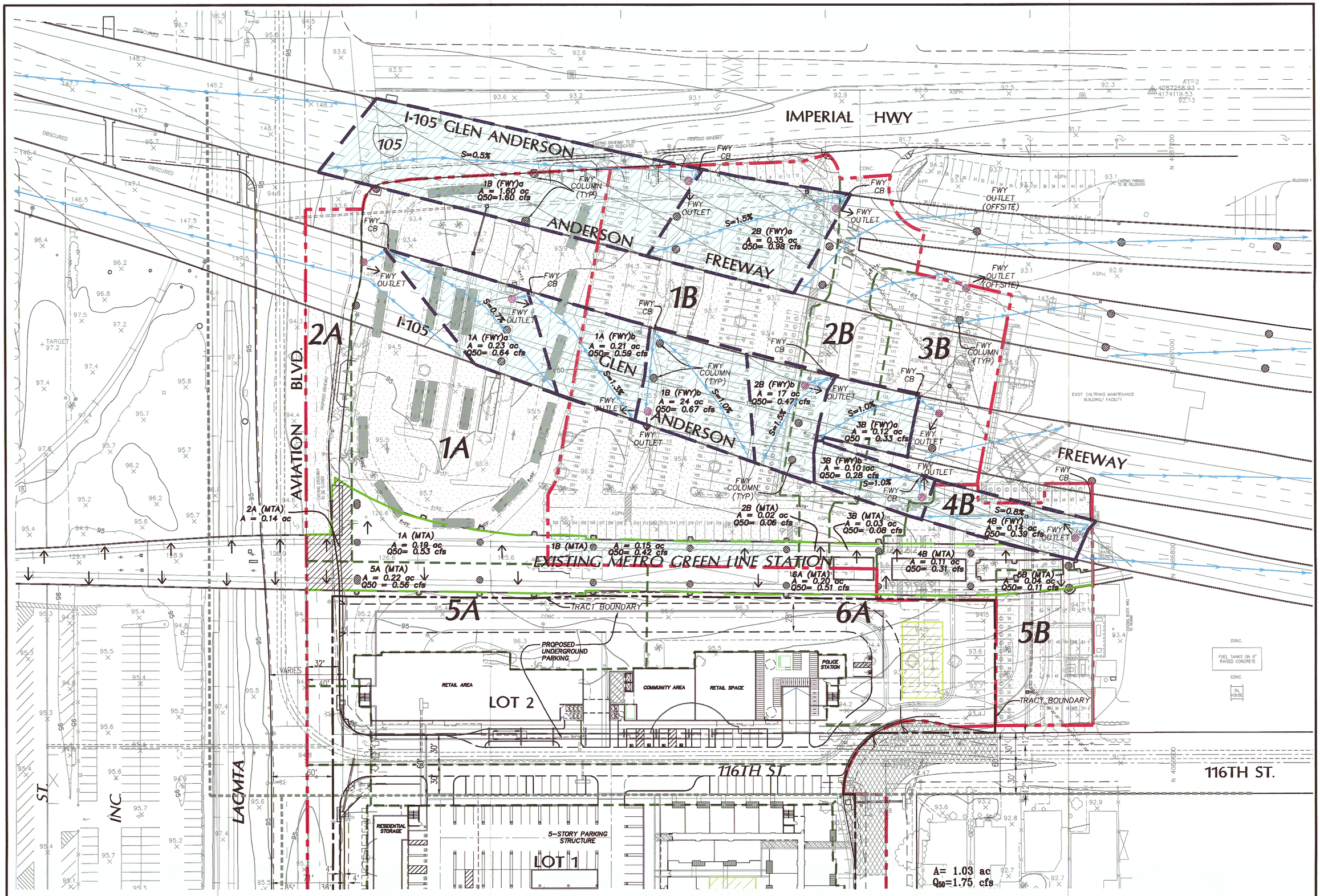
PHASE - 1 L.I.D. RUNOFF VOLUME TABLE:

CONDITION	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Volume (acre-ft)
Post-Development	9A	2.57	0.95	LID	9	341	0.005	0.75	26	0.21	0.1	0.86	**0.14**
Pre-Development	9A	2.57	0.01	LID	9	341	0.005	0.75	30	0.19	0.1	0.11	**0.02**

Required L.I.D. Volume = 0.14-0.02 =0.12 acre-ft = 5,227 cft

PHASE-1 50-Year Storm Hydrology Table:

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Q50 (cfs)
4A	0.24	0.91	50	9	174	0.01	5.2	5	3.1	0.88	0.9	0.67
8A-a	0.22	0.95	50	9	203	0.005	5.2	5	3.1	0.88	0.9	0.61
8A-b	0.2	0.95	50	9	237	0.005	5.2	5	3.1	0.88	0.9	0.56
9A	2.57	0.95	50	9	341	0.005	5.2	7	2.65	0.85	0.9	6.13
10A	1.03	0.91	50	9	1045	0.004	5.2	14	1.91	0.75	0.89	1.75



LEGEND:

- DRAINAGE BOUNDARY
- SUBAREA BOUNDARY
- FREEWAY BOUNDARY LIMITS DRAIN ON-SITE
- MTA BOUNDARY LIMITS DRAIN ON-SITE
- FLOW PATH OF FREEWAY & CONNECTION TO OUTLET
- DIRECTION OF MTA OVERPASS FLOW
- 6A — SUBAREA NUMBER
- 1 AC — DRAINAGE AREA (ACRES)
- HP — HIGH POINT
- COLUMN OUTLET & DIRECTION OF FLOW
- OVERPASS AREA
- STREET LEVEL AREA

OVERPASS NOTES

1. FREEWAY DRAINS OUTLET ONTO SITE VIA COLUMNS AS DEPICTED HEREON. LOCATIONS ARE PER FIELD SURVEY
2. METRO AREA DRAINS PER UNDERGROUND PIPE AS DEPICTED HEREON.
3. AREA ADDED TO RESPECTED DRAINAGE AREA FOR A TOTAL AS SHOWN IN SHEET 1.
4. FREEWAY & METRO AREA NOT SHOWN WAS NOT DRAINED ON-SITE.

50-Year Storm Hydrology Table: Freeway and MTA

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	I (in./hr)	Cu	Cd	Q50 (cfs)
1A (Fwy)a	0.23	0.91	50	9	213	0.007	5.2	5	3.10	0.88	0.9	0.64
1A (Fwy)b	0.21	0.91	50	9	153	0.013	5.2	5	3.10	0.88	0.9	0.59
1A (MTA)	0.19	0.91	50	9	180	0.01	5.2	5	3.10	0.88	0.9	0.53
2A (MTA)	0.05	0.91	50	9	72	0.01	5.2	5	3.10	0.88	0.9	0.14
5A (MTA)	0.22	0.91	50	9	315	0.01	5.2	6	2.85	0.87	0.9	0.56
6A (MTA)	0.2	0.91	50	9	320	0.01	5.2	6	2.85	0.87	0.9	0.51
1B (Fwy)a	0.67	0.91	50	9	340	0.005	5.2	7	2.65	0.85	0.9	1.60
1B (Fwy)b	0.24	0.91	50	9	140	0.01	5.2	5	3.10	0.88	0.9	0.67
1B (MTA)	0.15	0.91	50	9	200	0.01	5.2	5	3.10	0.88	0.9	0.42
2B (Fwy)a	0.35	0.91	50	9	180	0.015	5.2	5	3.10	0.88	0.9	0.98
2B (Fwy)b	0.17	0.91	50	9	95	0.015	5.2	5	3.10	0.88	0.9	0.47
2B (MTA)	0.02	0.91	50	9	25	0.01	5.2	5	3.10	0.88	0.9	0.06
3B (Fwy)a	0.12	0.91	50	9	90	0.01	5.2	5	3.10	0.88	0.9	0.33
3B (Fwy)b	0.1	0.91	50	9	94	0.01	5.2	5	3.10	0.88	0.9	0.28
3B (MTA)	0.03	0.91	50	9	35	0.01	5.2	5	3.10	0.88	0.9	0.08
4B(Fwy)	0.14	0.91	50	9	154	0.008	5.2	5	3.10	0.88	0.9	0.39
4B (MTA)	0.11	0.91	50	9	140	0.01	5.2	5	3.10	0.88	0.9	0.31
5B (MTA)	0.04	0.91	50	9	68	0.01	5.2	5	3.10	0.88	0.9	0.11

Note: This table shows the Q50 for the subarea shown on sheet 2 of the Drainage Map
Freeway (Fwy) and MTA areas drain on-site and were added to the subarea for a ΣQ50 for that particular area

REVISED HYDROLOGY STUDY /SUSMP/LID
APPROVED FOR AREA AND Q ONLY
APPROVED BY: _____ RCE NO. 70441 DATE 9/12/11
CHECKED BY: _____ DATE 9/12/11
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

40 20 0 40 80 120
GRAPHIC SCALE (IN FEET)
1 inch = 40 ft.

DRAWN BY	DATE CHANGED	CHANGED BY	REVISION
SF	09/2011	LDC	REVISED TO REFLECT REVISED DEVELOPMENT PROPOSAL
CHECKED BY CG			
DESIGNED BY SF			

REGISTERED PROFESSIONAL ENGINEER CHARLES A. GRAY C 34153 EXP. 12-31-11 CIVIL STATE OF CALIFORNIA

DEVELOPER:
KROEZE FAMILY, LLC
11604 AVIATION BLVD., INGLEWOOD, CA, 90304
PH: (310) 643-9769

REVISED DRAINAGE CONCEPT / HYDROLOGY, SUSMP & LID STUDY

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.
70853
COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
199 South Los Robles Ave., Suite 250, Pasadena, California 91101
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com
09/12/2011 DATE

LDC
Proj. No. 08005-001
SHEET 2 OF 3

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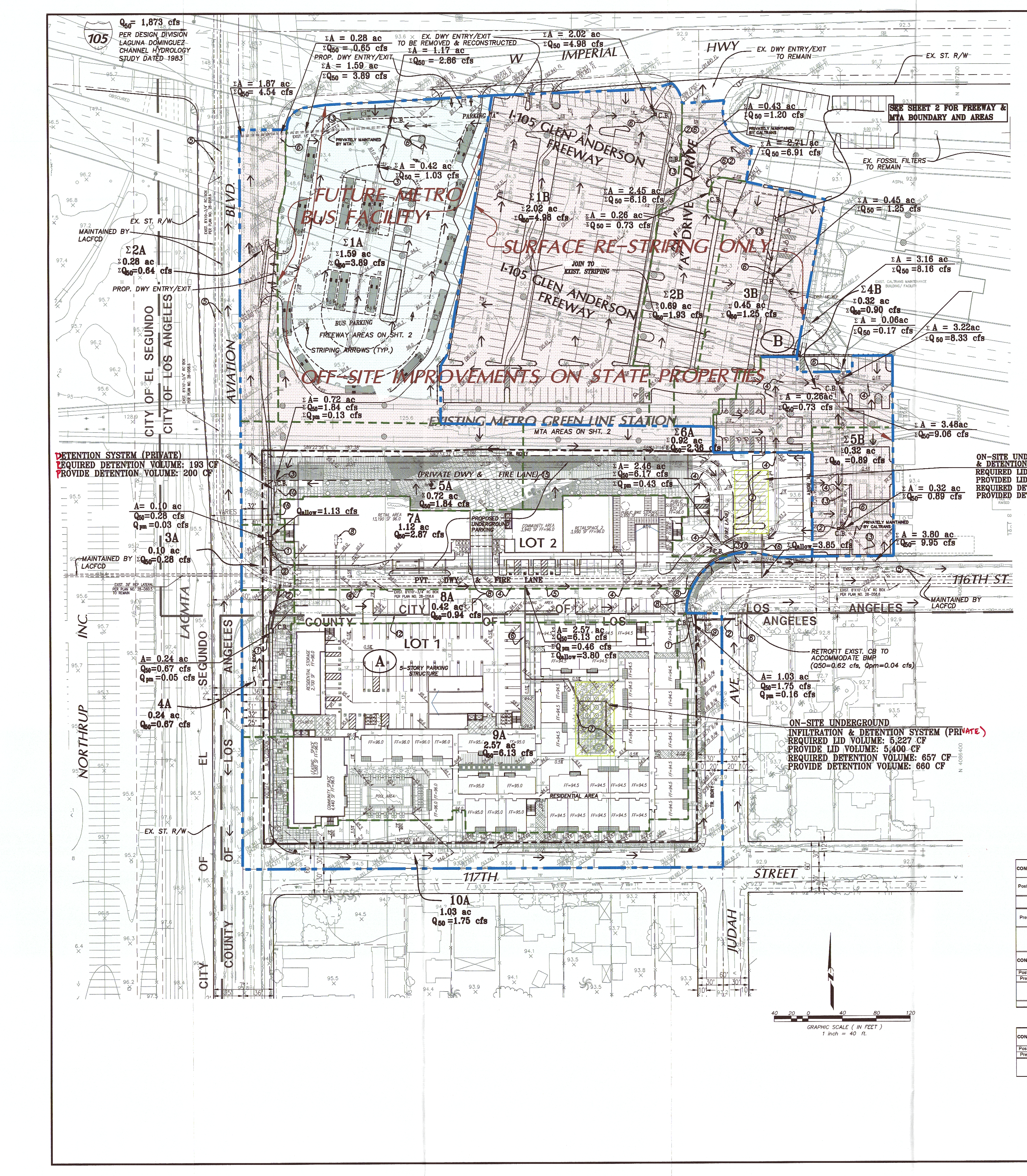
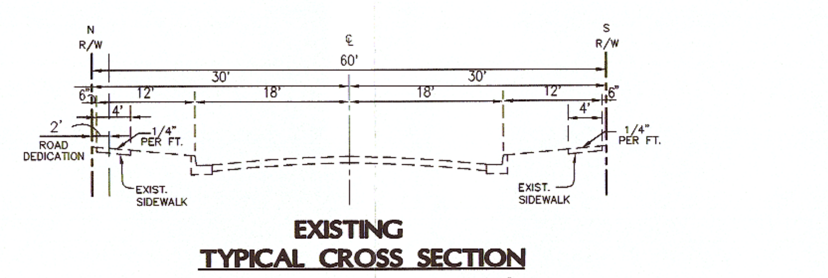
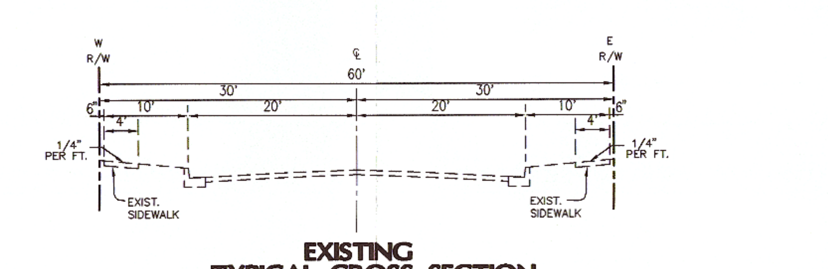
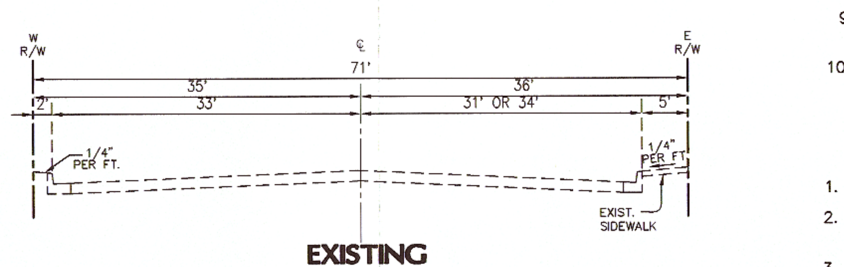




EXISTING TYPICAL CROSS SECTION FOR 116TH ST. & 117TH ST.
NOT TO SCALE



EXISTING TYPICAL CROSS SECTION JUDAH AVE.
NOT TO SCALE



EXISTING AVIATION BLVD.
NOT TO SCALE

GENERAL NOTES:

1. ENTIRE PROJECT TO BE ANNEXED TO COUNTY OF LOS ANGELES
2. NOT WITHIN COUNTY ADOPTED FLOODWAY
3. NOT WITHIN FEMA FLOOD ZONE "A"
4. PROPOSED IMPROVEMENTS NOT A PART OF TR. 70853 SUBJECT TO REVIEW AND APPROVAL PER PROPER PERMIT; NOT A PART OF THIS REVIEW

DRAINAGE CONCEPT NOTES

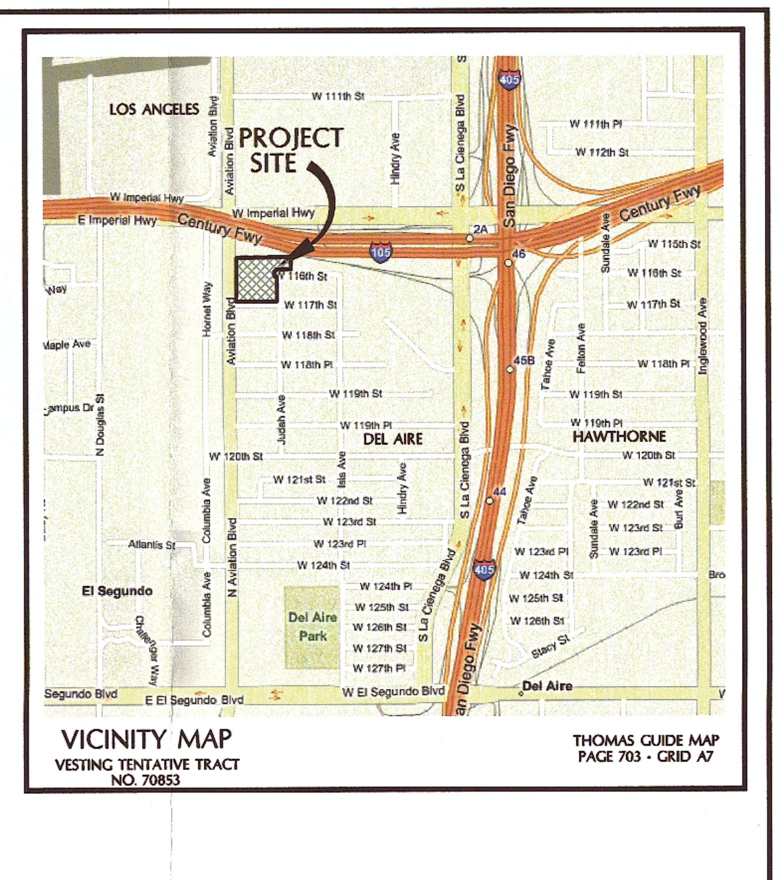
1. HYDROLOGY INFORMATION AND STORM DRAIN ALIGNMENTS SHOWN ARE NOT NECESSARILY APPROVED.
2. COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENTS OF PUBLIC WORKS.
3. NECESSARY EASEMENTS WILL BE DEDICATED FOR THE STORM DRAIN SYSTEM TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
4. VEHICULAR ACCESS WILL BE PROVIDED TO ALL INLETS AND OUTLETS TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
5. APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTED).
6. AN OFFSITE DRAINAGE CONVENT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
7. A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
8. A DRAINAGE BENEFIT ASSESSMENT AREA WILL BE REQUIRED FOR THE MAINTENANCE OF THE PROPOSED DETENTION BASIN AND STORM DRAIN FACILITIES.
9. A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
10. PROPOSED DRAINAGE DEVICES TO BE PRIVATELY MAINTAINED UNLESS OTHERWISE NOTED.

BEST MANAGEMENT PRACTICES (BMP's) LIST

1. ALL PROPOSED CATCH BASINS SHALL HAVE CATCH BASIN INSERT FILTERS OR APPROVED EQUIVALENT.
2. ALL CATCH BASINS SHALL BE STENCILED WITH "WARNING! DRAIN TO OCEAN" NOTES & SYMBOLS PER NPDES BMP STANDARDS OR AS APPROVED BY D.P.W.
3. ROOFTOP DRAIN SHALL CONVEYED TO THE PROPOSED PLANTER OR APPROVED EQUIVALENT PER LOS ANGELES COUNTY LID PRIOR ENTERING A PUBLIC STORM DRAIN
4. UNDERGROUND INFILTRATION SYSTEM OR APPROVED EQUIVALENT TO INFILTRATE REQUIRED LID VOLUME

HYDROLOGY NOTES:

① PROPOSED CATCH BASIN W/ FILTER INSERTS, L.A.C.F.C.D. MAINTAINED.
② PROPOSED STORM DRAIN, L.A.C.F.C.D. MAINTAINED.
③ PROPOSED CATCH BASIN W/ FILTER INSERTS, PRIVATELY MAINTAINED.
④ PROPOSED 4' CONCRETE GUTTER, PRIVATELY MAINTAINED.
⑤ EXISTING 8'X10'-3/4" RC BOX TO REMAIN.
⑥ EXISTING CATCH BASIN TO REMAIN.
⑦ PROPOSED UNDERGROUND INFILTRATION/DETENTION BASIN SYSTEM, PRIVATELY MAINTAINED.
⑧ EXISTING CATCH BASIN TO BE REMOVED.
⑨ EXISTING CATCH BASIN TO BE REMOVED AND NEW CATCH BASIN CONSTRUCTED AS SHOWN.
⑩ PROPOSED UNDERGROUND DETENTION SYSTEM, PRIVATELY MAINTAINED.
⑫ PROJECT TO BE ANNEXED TO THE COUNTY OF LOS ANGELES (DETACHED FROM CITY OF LA).
⑬ EXISTING 18" RCP TO REMAIN.
⑮ PROPOSED PLANTER BOXES PER LOS ANGELES COUNTY LID MANUAL.
⑯ PROPOSED STORM DRAIN, PRIVATELY MAINTAINED



VICINITY MAP
VESTING TENTATIVE TRACT NO. 70853

THOMAS GUIDE MAP PAGE 703 - GRID A7

LEGEND:

▬ ▬	PROPERTY LINE
— —	CENTER LINE
——	RIGHT OF WAY LINE
▬ ▬	JOIN LINE TO EXIST. STRIPING
(A)	DRAINAGE AREA
▬ ▬	DRAINAGE BOUNDARY
▬ ▬	SUBAREA BOUNDARY
→ →	DIRECTION OF SURFACE FLOW
6A	SUBAREA NUMBER
1 AC	DRAINAGE AREA (ACRES)
Q_{50}	50 YEAR FLOW RATE (CFS)
Q_{PM}	S.U.S.M.P. Q (CFS)
Q_{ALLOW}	Q ALLOWABLE (CFS)
HP	HIGH POINT
	RE-STRIPING AREA (SURFACE TO REMAIN)
	RE-SURFACE AREA
	UNDERGROUND INFILTRATION SYSTEM

HYDROLOGY INFORMATION

ISOHYET	5.2 INCHES FOR 50 YEAR
SOIL TYPE:	09
FREQUENCY:	50-YR.
Tc	5 MINUTE MIN. OR PER Tc CALCULATION (SEE REPORT)
IMPERVIOUSNESS (IMP)	0.91 (NON-ATTENDED PARKING)
	0.91 (FREEWAYS & MAJOR ROADS)
	0.95 (REGIONAL SHOPPING CENTER)

50-Year Storm Hydrology Table:

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Q50 (cfs)
1A	0.96	0.91	50	9	585	0.01	5.2	8	2.49	0.84	0.89	2.13
2A	0.23	0.91	50	9	361	0.003	5.2	8	2.49	0.84	0.89	0.51
3A	0.1	0.91	50	9	76	0.01	5.2	5	3.1	0.88	0.9	0.28
4A	0.24	0.91	50	9	174	0.01	5.2	5	3.1	0.88	0.9	0.67
5A	0.5	0.91	50	9	310	0.005	5.2	6	2.85	0.87	0.9	1.28
6A	0.72	0.91	50	9	375	0.011	5.2	6	2.85	0.87	0.9	1.85
7A	1.12	0.95	50	9	296	0.005	5.2	6	2.85	0.87	0.9	2.87
8A	0.42	0.95	50	9	460	0.005	5.2	8	2.49	0.84	0.9	0.94
9A	2.57	0.95	50	9	341	0.005	5.2	7	2.65	0.85	0.9	6.13
10A	1.03	0.91	50	9	1045	0.004	5.2	14	1.91	0.75	0.89	1.75
1B	0.96	0.91	50	9	460	0.011	5.2	7	2.65	0.85	0.9	2.29
2B	0.15	0.91	50	9	240	0.01	5.2	5	3.1	0.88	0.9	0.42
3B	0.2	0.91	50	9	160	0.015	5.2	5	3.1	0.88	0.9	0.56
4B	0.07	0.91	50	9	167	0.015	5.2	5	3.1	0.88	0.9	0.2
5B	0.28	0.91	50	9	130	0.018	5.2	5	3.1	0.88	0.9	0.78
6B	0.39	0.91	50	9	169	0.02	5.2	5	3.1	0.88	0.9	1.09

Note: These Subareas do not include the freeway and MTA overpass
The length and slope for each subarea is the longest route of the water runoff, with and without the overpass these are the routes of the surface flow

50-Year Storm Hydrology Table: Freeway and MTA

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc (min.)	I (in./hr)	Cu	Cd	Q50 (cfs)
1A (Fwy)a	0.23	0.91	50	9	213	0.007	5.2	5	3.10	0.88	0.9	0.64
1A (Fwy)b	0.21	0.91	50	9	153	0.013	5.2	5	3.10	0.88	0.9	0.59
1A (MTA)	0.19	0.91	50	9	180	0.01	5.2	5	3.10	0.88	0.9	0.53
2A (MTA)	0.05	0.91	50	9	72	0.01	5.2	5	3.10	0.88	0.9	0.14
5A (MTA)	0.22	0.91	50	9	315	0.01	5.2	6	2.85	0.87	0.9	0.56
6A (MTA)	0.2	0.91	50	9	320	0.01	5.2	6	2.85	0.87	0.9	0.51
1B (Fwy)a	0.67	0.91	50	9	340	0.005	5.2	7	2.65	0.85	0.9	1.60
1B (Fwy)b	0.24	0.91	50	9	140	0.01	5.2	5	3.10	0.88	0.9	0.67
1B (MTA)	0.15	0.91	50	9	200	0.01	5.2	5	3.10	0.88	0.9	0.42
2B (Fwy)a	0.35	0.91	50	9	180	0.015	5.2	5	3.10	0.88	0.9	0.98
2B (Fwy)b	0.17	0.91	50	9	95	0.015	5.2	5	3.10	0.88	0.9	0.47
2B (MTA)	0.02	0.91	50	9	25	0.01	5.2	5	3.10	0.88	0.9	0.06
3B (Fwy)a	0.12	0.91	50	9	90	0.01	5.2	5	3.10	0.88	0.9	0.33
3B (Fwy)b	0.1	0.91	50	9	94	0.01	5.2	5	3.10	0.88	0.9	0.28
3B (MTA)	0.03	0.91	50	9	35	0.01	5.2	5	3.10	0.88	0.9	0.08
4B(Fwy)	0.14	0.91	50	9	154	0.008	5.2	5	3.10	0.88	0.9	0.39
4B (MTA)	0.11	0.91	50	9	140	0.01	5.2	5	3.10	0.88	0.9	0.31
5B (MTA)	0.04	0.91	50	9	68	0.01	5.2	5	3.10	0.88	0.9	0.11

Note: This table shows the Q50 for the subarea shown on sheet 2 of the Drainage Map
Freeway (Fw) and MTA areas drain on-site and were added to the subarea for a ΣQ50 for that particular area

SUSMP TABLE:

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Qpm (cfs)
3A	0.1	0.91	SUSMP	9	76	0.01	0.75	9	0.34	0.13	0.83	0.03
4A	0.24	0.91	SUSMP	9	174	0.01	0.75	15	0.27	0.1	0.83	0.05
5A	0.72	0.91	SUSMP	9	310	0.005	0.75	25	0.21	0.1	0.83	0.13
6A	0.92	0.91	SUSMP	9	375	0.011	0.75	25	0.21	0.1	0.83	0.16
7A	1.12	0.95	SUSMP	9	296	0.005	0.75	24	0.21	0.1	0.86	0.2
8A	0.42	0.95	SUSMP	9	460	0.005	0.75	30	0.19	0.1	0.86	0.07
9A	2.57	0.95	SUSMP	9	341	0.005	0.75	26	0.21	0.1	0.86	0.46
10A	1.03	0.91	SUSMP	9	1045	0.004	0.75	30	0.19	0.1	0.83	0.16

Note: SUSMP Peak Flow rate Qpm by using 0.75 inches rainfall
The Caltrans and MTA areas are excluded because they are not a part of this project and will be maintained by Caltrans and MTA

LOT-1 L.I.D. RUNOFF VOLUME TABLE:

CONDITION	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Volume (acre-ft)
Post-Development	6A	0.92	0.91	LID	9	375	0.011	0.75	25	0.21	0.1	0.83	0.05
	7A	1.12	0.95	LID	9	296	0.005	0.75	24	0.21	0.1	0.86	0.06
	8A	0.42	0.95	LID	9	460	0.005	0.75	30	0.19	0.1	0.86	0.02
										Post-Develoment Total Volume:			0.13
Pre-Development	6A	0.92	0.01	LID	9	375	0.011	0.75	30	0.19	0.1	0.11	0.01
	7A	1.12	0.01	LID	9	296	0.005	0.75	30	0.19	0.1	0.11	0.01
	8A	0.42	0.01	LID	9	460	0.005	0.75	30	0.19	0.1	0.11	0
										Pre-Develoment Total Volume:			0.02

Required L.I.D. Volume = 0.13-0.02 = 0.11 acre-ft = 4,792 cft

CONDITION	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Volume (acre-ft)
Post-Development	5A	0.72	0.91	LID	9	310	0.005	0.75	25	0.21	0.1	0.83	0.04
Pre-Development	5A	0.72	0.01	LID	9	310	0.005	0.75	30	0.19	0.1	0.11	0.01

Required L.I.D. Volume = 0.04-0.01 =0.03 acre-ft = 1,307 cft

TOTAL REQUIRE L.I.D. VOLUME FOR LOT-1 = 4,792 + 1,307 = 6,099 CF

LOT-2 L.I.D. RUNOFF VOLUME TABLE:

CONDITION	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Volume (acre-ft)
Post-Development	9A	2.57	0.95	LID	9	341	0.005	0.75	26	0.21	0.1	0.86	0.14
Pre-Development	9A	2.57	0.01	LID	9	341	0.005	0.75	30	0.19	0.1	0.11	0.02

Required L.I.D. Volume = 0.14-0.02 =0.12 acre-ft = 5,227 cft

REVISED HYDROLOGY STUDY/SUSMP/LID
APPROVED FOR AREA AND Q ONLY

APPROVED BY: [signature] RCE NO. 70491 DATE 9/12/11
CHECKED BY: [signature] DATE 9/12/11

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

DEVELOPER:
KROEZE FAMILY, LLC
11604 AVIATION BLVD, INGLEWOOD, CA 90304
PH: (310) 643-9769

REVISED DRAINAGE CONCEPT / HYDROLOGY, SUSMP & LID STUDY

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.

70853

COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
199 South Los Robles Ave., Suite 250, Pasadena, California 91101
Ph: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

LDC

REGISTERED PROFESSIONAL ENGINEER CHARLES T. KINGMAN No. 54155 EXP. 12-31-11 CIVIL STATE OF CALIFORNIA

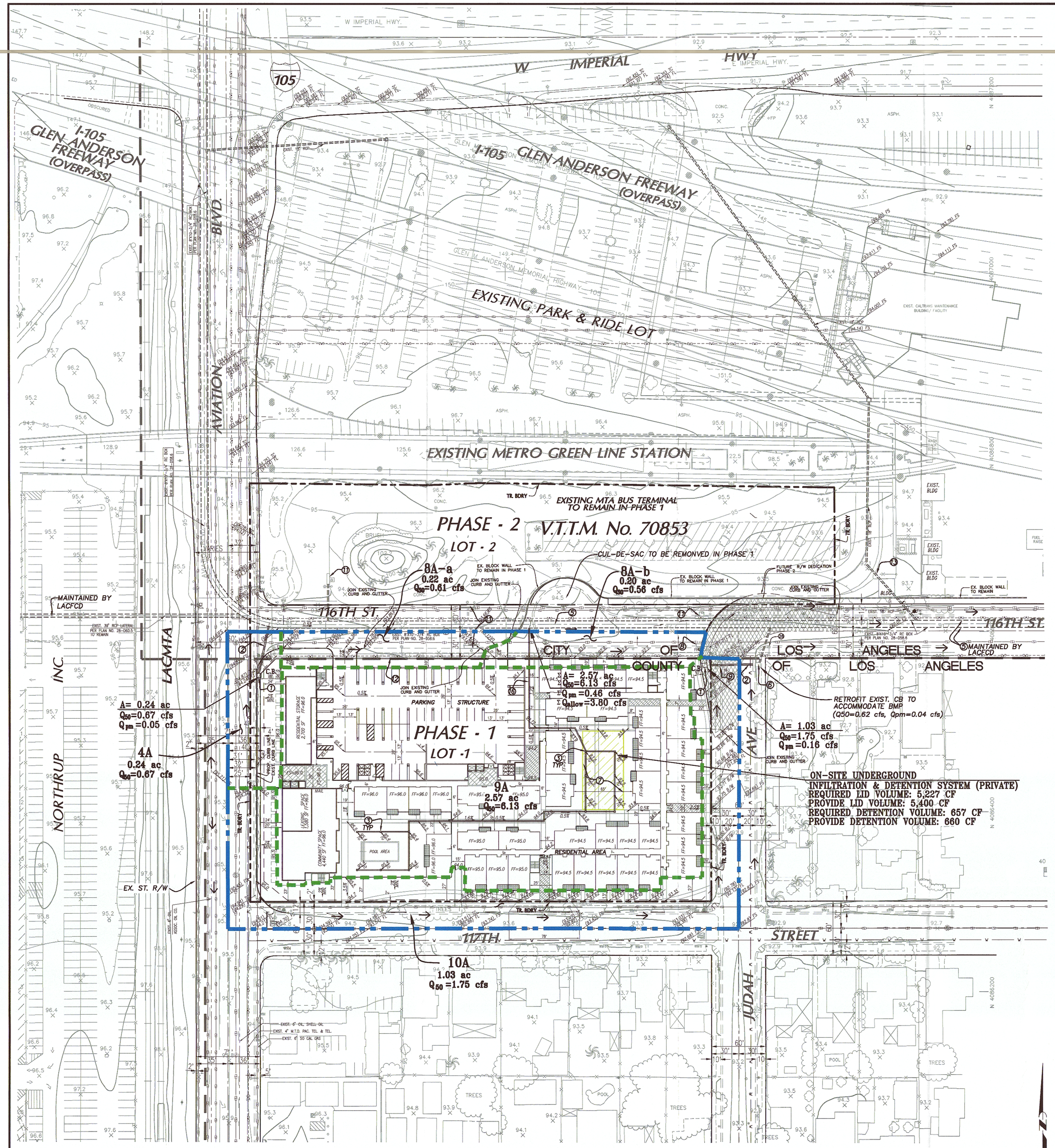
DRAWN BY	HZ
CHECKED BY	CG
DESIGNED BY	HZ

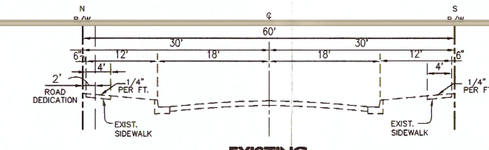
DATE CHANGED	CHANGED BY	REVISION
09/2011	LDC	REVISED TO REFLECT REVISED DEVELOPMENT PROPOSAL

09/12/2011 DATE

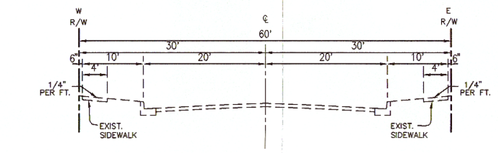
Proj. No. 08005-001
SHEET 1 OF 3

J:\PROJ\0800501\PLANNING\DRAINCPT\SHEETS\DC-01.dwg 09/12/11 13:43:11 hzhang



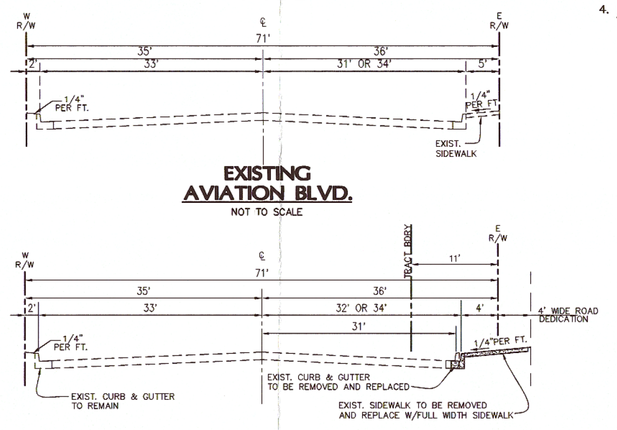


EXISTING TYPICAL CROSS SECTION FOR 116TH ST. & 117TH ST.
NOT TO SCALE



EXISTING TYPICAL CROSS SECTION JUDAH AVE.
NOT TO SCALE

EXISTING AVIATION BLVD.
NOT TO SCALE



PROPOSED AVIATION BLVD.
NOT TO SCALE

GENERAL NOTES:

1. ENTIRE PROJECT TO BE ANNEXED TO COUNTY OF LOS ANGELES
2. NOT WITHIN COUNTY ADOPTED FLOODWAY
3. NOT WITHIN FEMA FLOOD ZONE "A"

DRAINAGE CONCEPT NOTES

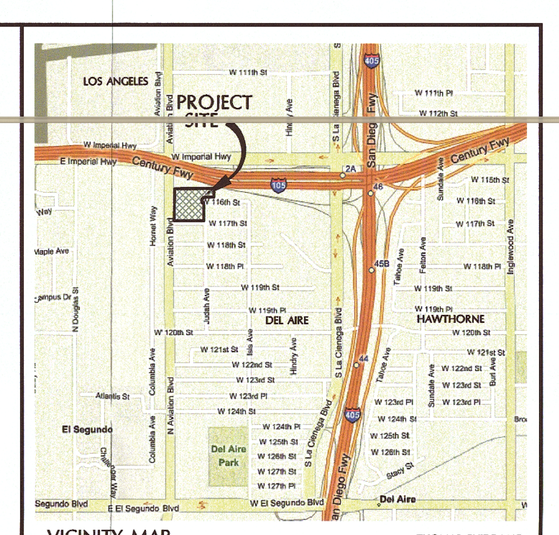
1. HYDROLOGY INFORMATION AND STORM DRAIN ALIGNMENTS SHOWN ARE NOT NECESSARILY APPROVED.
2. COMPLIANCE OF ALL STREET DRAINAGE REQUIREMENTS WILL BE MET TO THE SATISFACTION OF THE DEPARTMENTS OF PUBLIC WORKS.
3. NECESSARY EASEMENTS WILL BE DEDICATED FOR THE STORM DRAIN SYSTEM TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
4. VEHICULAR ACCESS WILL BE PROVIDED TO ALL INLETS AND OUTLETS TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
5. APPROVAL OF THE DRAINAGE CONCEPT DOES NOT CONSTITUTE DETERMINATION THAT THE OFFSITE IMPROVEMENTS ARE REQUIRED WITHIN THE MEANING OF GOVERNMENT CODE SECTION 66462.5, (EXCEPT AS NOTED).
6. AN OFFSITE DRAINAGE CONVENT FOR ACCEPTANCE OR DRAINAGE (AND DRAINAGE FACILITIES) MAY BE REQUIRED WHERE INDICATED.
7. A NOTE OF FLOOD HAZARD WILL BE REQUIRED WHERE INDICATED ON THIS PLAN.
8. A DRAINAGE BENEFIT ASSESSMENT AREA WILL BE REQUIRED FOR THE MAINTENANCE OF THE PROPOSED DETENTION BASIN AND STORM DRAIN FACILITIES.
9. A SOIL REPORT WILL BE REQUIRED TO VERIFY THAT A 7-DAY PERCOLATION RATE CAN BE OBTAINED.
10. PROPOSED DRAINAGE DEVICES TO BE PRIVATELY MAINTAINED UNLESS OTHERWISE NOTED.

BEST MANAGEMENT PRACTICES (BMP's) LIST

1. ALL PROPOSED CATCH BASINS SHALL HAVE CATCH BASIN INSERT FILTERS OR APPROVED EQUIVALENT.
2. ALL CATCH BASINS SHALL BE STENCILED WITH "WARNING: DRAIN TO OCEAN" NOTES & SYMBOLS PER NPDES BMP STANDARDS OR AS APPROVED BY D.P.W.
3. ROOFTOP DRAIN SHALL CONVEYED TO THE PROPOSED PLANTER OR APPROVED EQUIVALENT PER LOS ANGELES COUNTY LID PRIOR ENTERING A PUBLIC STORM DRAIN
4. UNDERGROUND INFILTRATION SYSTEM OR APPROVED EQUIVALENT TO INFILTRATE REQUIRED LID VOLUME

HYDROLOGY NOTES:

1. PROPOSED CATCH BASIN W/ FILTER INSERTS, L.A.C.F.C.D. MAINTAINED.
2. PROPOSED STORM DRAIN, L.A.C.F.C.D. MAINTAINED.
3. PROPOSED CATCH BASIN W/ FILTER INSERTS, PRIVATELY MAINTAINED.
4. EXISTING 8'X10'-3/4" RC BOX TO REMAIN.
5. EXISTING CATCH BASIN TO REMAIN.
6. PROPOSED UNDERGROUND INFILTRATION/DETENTION BASIN SYSTEM, PRIVATELY MAINTAINED.
7. EXISTING CATCH BASIN TO BE REMOVED.
8. EXISTING CATCH BASIN TO BE REMOVED AND NEW CATCH BASIN CONSTRUCTED AS SHOWN.
9. EXISTING CATCH BASIN TO REMAIN IN PLACE IN PHASE-1, AND TO BE REMOVED IN PHASE-2.
10. PROJECT TO BE ANNEXED TO THE COUNTY OF LOS ANGELES (DETACHED FROM CITY OF LA)
11. EXISTING 18" RCP TO REMAIN.
12. PROPOSED STORM DRAIN, PRIVATELY MAINTAINED.



VICINITY MAP
VESTING TENTATIVE TRACT NO. 70853

THOMAS GUIDE MAP PAGE 703 - GRID A7

LEGEND:

	PROPERTY LINE
	CENTER LINE
	RIGHT OF WAY LINE
	DRAINAGE BOUNDARY
	SUBAREA BOUNDARY
	DIRECTION OF SURFACE FLOW
6A	SUBAREA NUMBER
1 AC	DRAINAGE AREA (ACRES)
Q_{50}	50 YEAR FLOW RATE (CFS)
Q_{PM}	S.U.S.M.P. Q (CFS)
Q_{ALLOW}	Q ALLOWABLE (CFS)
HP	HIGH POINT
	UNDERGROUND INFILTRATION & DETENTION SYSTEM

HYDROLOGY INFORMATION

ISOHYET	5.2 INCHES FOR 50 YEAR	
SOIL TYPE:	09	
FREQUENCY:	50-YR.	
Tc	5 MINUTE MIN. OR PER Tc CALCULATION (SEE REPORT)	
IMPERVIOUSNESS (IMP)	0.91	(NON-ATTENDED PARKING)
	0.91	(FREEWAYS & MAJOR ROADS)
	0.95	(REGIONAL SHOPPING CENTER)

PHASE-1 50-Year Storm Hydrology Table:

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Q50 (cfs)
4A	0.24	0.91	50	9	174	0.01	5.2	5	3.1	0.88	0.9	0.67
6A-a	0.22	0.95	50	9	203	0.005	5.2	5	3.1	0.88	0.9	0.61
8A-b	0.2	0.95	50	9	237	0.005	5.2	5	3.1	0.88	0.9	0.56
9A	2.57	0.99	50	9	341	0.005	5.2	7	2.65	0.85	0.9	6.13
10A	1.03	0.91	50	9	1045	0.004	5.2	14	1.91	0.75	0.89	1.75

PHASE -1 SUSMP TABLE:

Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Qpm (cfs)
4A	0.24	0.91	SUSMP	9	174	0.01	0.75	15	0.27	0.1	0.83	0.05
9A	2.57	0.95	SUSMP	9	341	0.005	0.75	26	0.21	0.1	0.86	0.46
10A	1.03	0.91	SUSMP	9	1045	0.004	0.75	30	0.19	0.1	0.83	0.16

Note: SUSMP Peak Flow rate Qpm by using 0.75 inches rainfall

PHASE - 1 L.I.D. RUNOFF VOLUME TABLE:

CONDITION	Subarea	Area (acres)	%imp	Frequency	Soil Type	Length (ft)	Slope (ft/ft)	Isohyet (in.)	Tc-calculated (min.)	Intensity (in./hr)	Cu	Cd	Volume (acre-ft)
Post-Development	9A	2.57	0.95	LID	9	341	0.005	0.75	26	0.21	0.1	0.86	0.14
Pre-Development	9A	2.57	0.01	LID	9	341	0.005	0.75	30	0.19	0.1	0.11	**0.02**

Required L.I.D. Volume = 0.14-0.02 =0.12 acre-ft = 5,227 cft

REVISED HYDROLOGY STUDY/SUSMP/LID
APPROVED FOR AREA AND Q ONLY
APPROVED BY: [signature] RCE NO. 70441 DATE 9/18/11
CHECKED BY: [signature] DATE 9/21/11
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

DEVELOPER:
KROEZE FAMILY, LLC
11604 AVIATION BLVD, INGLEWOOD, CA, 90304
PH: (310) 643-9769

PHASE-1 INTERIM HYDROLOGY, SUSMP & LID STUDY

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.
70853
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

DRAWN BY HZ	09/2011	LDC	REVISED TO REFLECT REVISED DEVELOPMENT PROPOSAL
CHECKED BY CC			
DESIGNED BY HZ			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER — CHRISTOPHER CHUNG — C71512 — STATE OF CALIFORNIA

PREPARED BY:
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Land Planning, Civil Engineering, Surveying & Environmental Services
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http://www.ldcla.com

09/13/2011
DATE

LDC
Proj. No. 08005-001
SHEET 3 OF 3

Scale: 01=23'-12'; 11/21/09; Dwg: LDCTEMPLATE-1 1=30'x42'LDCTEMPLATE-1 1=30'x42'LDCTEMPLATE-1 1=30'x42'LDCTEMPLATE-1 1=30'x42'; Layout: 4

MEMORANDUM

To:	Mr. Jeff Pletyak County of Los Angeles Department of Public Works, Traffic and Lighting Division	Date:	August 31, 2011
From:	David S. Shender, P.E. Francesca S. Bravo Linscott, Law & Greenspan, Engineers	LLG Ref:	1-09-3778-1
Subject:	Aviation Station Project – Modified Project Supplemental Traffic Analysis		

LINSCOTT LAW & GREENSPAN engineers

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Parking

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This memorandum has been prepared by Linscott, Law & Greenspan, Engineers (LLG Engineers) to summarize the supplemental analysis prepared for the proposed Aviation Station project (Vesting Tentative Tract Map 70853) located in the Del Aire area of the unincorporated County of Los Angeles. LLG Engineers previously prepared the traffic impact study for the project dated November 17, 2009 for a prior project development program. The findings of the November 17, 2009 traffic study report were confirmed based on the County of Los Angeles Department of Public Works assessment letter dated August 12, 2010. LLG Engineers has prepared this supplemental traffic analysis to evaluate modifications to the project development program and associated changes to the project trip generation and trip distribution/assignment, as well as to assess the potential traffic impacts related to the modified project description. This memorandum also includes a comparison of traffic effects due to the modified project description to what was analyzed in the approved traffic impact study.

Briefly, it is concluded that the modified Aviation Station project will not change the overall results and conclusions of the November 17, 2009 traffic impact study. We have prepared revised intersection Level of Service calculations for the study locations analyzed in the November 17, 2009 traffic impact study as well as the Aviation Boulevard/El Segundo Boulevard intersection. No changes to the impact analyses would occur as a result of the modified project. It is concluded that the project will not create significant traffic impacts at any of the ten study intersections, and therefore, no mitigation measures are required or recommended.

We have prepared updated intersection Level of Service calculations for the study locations analyzed in the November 17, 2009 traffic impact study to evaluate potential traffic impacts due to the modified project. The Aviation Boulevard/El Segundo Boulevard intersection was also reviewed as part of this analysis. This supplemental analysis includes updates to the project trip generation forecast based on the modified project description and changes to the trip distribution pattern associated with the removal of the previously planned project driveway on 117th Street.

LINSCOTT LAW & GREENSPAN engineers

Modified Project Description

The modified Aviation Station project consists of the construction of a transit-oriented mixed-use development with a total of 376 multi-family residential dwelling units and 17,180 square feet of commercial retail floor area within the two parcels. A breakdown of the project land uses and their corresponding sizes are listed below:

Lot 1:

- Condominiums/Townhomes: 264 Dwelling Units
- Community/Leasing Space: 8,720 Square Feet

Lot 2:

- Apartments: 112 Dwelling Units
- Retail/Commercial: 17,180 Square Feet
- Community/Leasing Space: 8,180 Square Feet

The proposed project will be constructed in two phases of development. Phase I of the proposed project consists of the development of 264 residential dwelling units in Lot 1 and 8,720 square feet of community/leasing space. The existing Metro Green Line Station bus terminal located on Lot 2 will remain as part of the Phase I development. Phase II of the proposed project consists of the development of 112 residential dwelling units and 17,180 square feet of commercial space in Lot 2 and construction of the bus facilities and re-striping of the Metro Park and Ride. Phase II will also include approximately 8,180 square feet of community space for use by residents only. Vehicular access to the project site under the modified project development program will be provided via one driveway on Aviation Boulevard. The previously proposed project driveway on 117th Street has been eliminated as part of the modified project. The project site plan and modified site access scheme is illustrated in ***Figure A***.

It should be noted that with development of the Phase I project, vehicular access to the project site via 116th Street will be shared with the existing Metro Green Line Station bus terminal located on Lot 2. As part of the Phase II project, the existing Metro Green Line Station bus terminal currently located on Lot 2 will be relocated to the existing Metro Park and Ride surface parking lot located north of the Aviation/LAX Metro Green Line Station. The existing Metro Park and Ride surface parking lot as well as the adjacent surface parking lot associated with the existing Caltrans Maintenance Facility will be reconfigured to accommodate the relocation of the Metro Green Line Station bus terminal. The existing Metro Park and Ride driveway on Aviation Boulevard will be relocated approximately 100 feet northerly and will accommodate right-turn ingress and egress movements only. A new

driveway on Imperial Highway will be constructed for the relocated Metro bus terminal and will provide right-turn ingress and egress movements. Access to the Metro Park and Ride parking lot will be provided via the driveway on Imperial Highway serving the existing Caltrans Maintenance Facility and will be enhanced with a proposed traffic signal. It is also proposed that the existing Metro Park and Ride driveway on Imperial Highway be relocated approximately 30 feet easterly and used as an exit only driveway (i.e., limited to right-turn egress movements only).

Update Project Trip Generation

The updated trip generation forecast for the modified Aviation Station project is summarized in ***Table A***. As with the trip generation forecast provided in the November 17, 2009 traffic study, the trip generation forecast considers the trip generation potential of the modified project and the existing trip generation of the current uses on the site. As shown in *Table A*, the Phase I project is expected to generate an increase of 106 net new vehicle trips (11 inbound trips and 95 outbound trips) during the AM peak hour. During the PM peak hour, the modified project is expected to generate a decrease of 35 vehicle trips (a decrease of 21 inbound trips and 14 outbound trips). Over a 24-hour period, the Phase I project is forecast to generate a decrease of 196 daily trip ends during a typical weekday (a decrease of 98 inbound trips and 98 outbound trips).

The trip generation forecast for the full build out of the project (i.e., Phases I and II) is also summarized in *Table A*. As presented in *Table A*, the modified project is expected to generate an increase of 161 net new vehicle trips (25 inbound trips and 136 outbound trips) during the AM peak hour. During the PM peak hour, the modified project is expected to generate an increase of 54 net new vehicle trips (31 inbound trips and 23 outbound trips). Over a 24-hour period, the modified project is forecast to generate an increase of 792 net new daily trip ends during a typical weekday (396 inbound trips and 396 outbound trips).

When compared with the trip generation forecast for the previously proposed Aviation Station project analyzed in the November 17, 2009 traffic impact study, it is concluded that the trip generation forecast for the modified project description results in a decrease in traffic volumes for the AM and PM peak hours, as well as on a daily basis. The prior proposed project was forecast to generate a net increase of 171 vehicle trips during the AM peak hour, 83 vehicle trips during the PM peak hour, and 1,114 vehicle trip ends during a typical weekday. As such, the trip generation forecast for the modified Aviation Station project reflects a decrease of 10 vehicle trips during the AM peak hour, 29 vehicle trips during the PM peak hour, and 322 vehicle trips on a daily basis when compared to the previously proposed project.

Modified Site Access and Circulation

As part of the modified project, vehicular access to the project site will be provided via one driveway on Aviation Boulevard. It should be noted that the previously proposed project driveway on 117th Street has been eliminated as part of the modified project. As such, the project trip distribution pattern has been updated to account for the change in the site access and circulation scheme for the modified project.

The modified project traffic volume distribution percentages for the Aviation Station project during AM and PM peak hours at the study intersections are illustrated in ***Figure B.*** The forecast AM and PM peak hour project traffic volumes associated with the Phase I project are presented in ***Figures C*** and ***D***, respectively. The forecast net project (i.e., Phases I and II) traffic volumes for the study intersections during the weekday AM and PM peak hours are displayed in ***Figures E*** and ***F***, respectively. It should be noted that forecast net project traffic volumes account for the redistribution of existing trips associated with the Metro Bus and Park and Ride facilities which would be reconfigured as part of the Phase II project.

Updated Level of Service Analysis

The nine study intersections evaluated in the November 17, 2009 traffic study were re-evaluated as part of the supplemental analysis for the modified project. In addition, the Aviation Boulevard/El Segundo Boulevard intersection was also evaluated as part of this analysis. The Intersection Capacity Utilization (ICU) methodology was used to determine Volume-to-Capacity ratios and corresponding Levels of Service at the three study intersections located in the County of Los Angeles and at the five study intersections located in the City of El Segundo. The Critical Movement Analysis (CMA) method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service at the four study intersections located in the City of Los Angeles. The overall intersection *v/c* ratio is subsequently assigned a Level of Service (LOS) value to describe intersection operations. Level of Service varies from LOS A (free flow) to LOS F (jammed condition).

The relative impact of the added project traffic volumes to be generated by the modified Aviation Station project during the AM and PM peak hours was evaluated based on analysis of future operating conditions at the nine study intersections, without and with the proposed project. The previously discussed capacity analysis procedures were utilized to evaluate the future *v/c* relationships and service level characteristics at each study intersection. The significance of the potential project generated traffic impacts at the seven County of Los Angeles study intersections was identified using criteria set forth in the Los Angeles County Department of Public Works' *Traffic Impact Analysis Report Guidelines*, January, 1997. The significance of the potential impacts of project generated traffic at each of the City of Los Angeles study intersections was identified using criteria set forth in the LADOT's *Traffic Study Policies and Procedures*, March, 2002. The significance of the potential impacts of project generated traffic at the City of El Segundo study intersection was

LINSCOTT LAW & GREENSPAN engineers

identified using criteria set forth in the criteria set forth in the *2004 Congestion Management Program for Los Angeles County*, County of Los Angeles Metropolitan Transportation Authority, July 2004.

The traffic impact analysis prepared for the seven study intersections using the ICU methodology and application of the County of Los Angeles significant traffic impact criteria is summarized in ***Table B***. ***Table C*** provides a summary of the traffic impact analysis prepared for the four study intersections located in the City of Los Angeles using the CMA methodology and application of the City of Los Angeles traffic impact significance criteria. ***Table D*** provides a summary of the traffic impact analysis prepared for the one study intersection located in the City of El Segundo using the ICU methodology and application of the Los Angeles County CMP significant traffic impact criteria. As summarized in *Tables B, C and D*, the Phase I project is not expected to create significant impacts at any of the study intersections. Similarly, ***Tables E, F and G*** provide summaries of the traffic impact analysis prepared for the study intersections for the full build-out (i.e., Phases I and II) of the project. As summarized in *Tables E, F and G*, the modified project is not expected to create significant impacts at any of the study intersections. Incremental but not significant impacts are noted at the study intersections.

As no significant impacts are expected due to the modified project, no traffic mitigation measures are required or recommended for the study intersections. It should be noted that these results for the modified project are consistent with the results contained in the November 17, 2009 traffic impact study. The future with Phase I project (existing, ambient growth and Phase I project) traffic volumes at the study intersections during the AM and PM peak hours are shown in ***Figures G*** and ***H***, respectively. The future with modified project (existing, ambient growth and Phases I and II of the proposed project) traffic volumes at the study intersections during the AM and PM peak hours are shown in ***Figures I*** and ***J***, respectively. The ICU and CMA Levels of Service description and data worksheets for the analyzed intersections during the AM and PM peak commuter hours are contained in the attached appendix.

Please feel free to contact us should you have any questions or comments regarding this supplemental traffic analysis.

Attachments

c:

Table A

MODIFIED PROJECT TRIP GENERATION [1]

LAND USE	SIZE	DAILY TRIP ENDS [2] VOLUMES	AM PEAK HOUR VOLUMES [2]			PM PEAK HOUR VOLUMES [2]		
			IN	OUT	TOTAL	IN	OUT	TOTAL
Phase I Project (Lot 1)								
Condominium/Townhome [3]	264 DU	2,112	16	127	143	124	69	193
Less 20% Transit [4]		(422)	(3)	(25)	(28)	(25)	(14)	(39)
Subtotal Phase I Project:		1,690	13	102	115	99	55	154
Less Existing Uses								
Adult Entertainment [5]	(4,568) GSF	(1,770)	Nom.	Nom.	Nom.	(113)	(64)	(177)
Motel [6]	(6) Rooms	(34)	(1)	(2)	(3)	(2)	(1)	(3)
Single Family Residential [7]	(7) DU	(66)	(1)	(4)	(5)	(4)	(3)	(7)
Duplex/Townhouse[3]	(2) DU	(16)	0	(1)	(1)	(1)	(1)	(2)
Subtotal Existing:		(1,886)	(2)	(7)	(9)	(120)	(69)	(189)
Phase I Project:		**(196)**	**11**	**95**	**106**	**(21)**	**(14)**	**(35)**
Phase II Project (Lot 2)								
Apartment [8]	112 DU	744	11	46	57	45	24	69
Shopping Center [9]	17,180 GLSF	738	10	7	17	31	33	64
Less 5% Walk-In/Internal Capture [10]		(37)	(1)	0	(1)	(2)	(2)	(4)
Less 30% Pass-by [11]		(210)	(3)	(2)	(5)	(9)	(9)	(18)
Less 20% Transit [4]		(247)	(3)	(10)	(13)	(13)	(9)	(22)
Phase II Project:		**988**	**14**	**41**	**55**	**52**	**37**	**89**
TOTAL NET NEW TRIPS		**792**	**25**	**136**	**161**	**31**	**23**	**54**

[1] Source: ITE "Trip Generation", 8th Edition, 2008.
[2] Trips are one-way traffic movements, entering or leaving.
[3] Trip generation rates for condominiums/townhomes obtained from the Los Angeles County Public Works "Traffic Impact Analysis Guidelines," January 1, 1997.
- Daily Trip Rate: 8 trips/Dwelling Unit (DU)
- AM Peak Hour Trip Rate: 0.06/DU inbound, 0.48/DU outbound
- PM Peak Hour Trip Rate: 0.47/DU inbound, 0.26/DU outbound

[4] The transit reduction is based on a review of the 2004 Los Angeles County Congestion Management Program, the site's proximity to the adjacent Aviation/LAX Metro Green Line station and associated bus transfer center and park-and-ride lot, as well as the land use characteristics of the project.
[5] ITE Land Use Code 440 (Adult Caberet) trip generation average rates.
- Daily trip rates not provided in the ITE Trip Generation manual. Thus, it is assumed that the PM peak hour traffic volumes represent ten percent of the daily trip generation forecast.
- AM Peak Hour Trip Rate: Nominal
- PM Peak Hour Trip Rate: 38.67 trips/1,000 GSF; 64% inbound/36% outbound

[6] ITE Land Use Code 320 (Motel) trip generation average rates.
- Daily Trip Rate: 5.63 trips/Room; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.45 trips/Room; 36% inbound/64% outbound
- PM Peak Hour Trip Rate: 0.47 trips/Room; 54% inbound/46% outbound

[7] ITE Land Use Code 210 (Single-Family Detached Housing) trip generation average rates.
- Daily Trip Rate: 9.57 trips/DU; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.75 trips/DU; 25% inbound/75% outbound
- PM Peak Hour Trip Rate: 1.01 trips/DU; 63% inbound/37% outbound

[8] ITE Land Use Code 220 (Apartment) trip generation average rates.
- Daily Trip Rate: 6.65 trips/DU; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 0.61 trips/DU; 20% inbound/80% outbound
- PM Peak Hour Trip Rate: 0.62 trips/DU; 65% inbound/35% outbound

[9] ITE Land Use Code 820 (Shopping Center) trip generation average rates.
- Daily Trip Rate: 42.94 trips/1,000 GLSF; 50% inbound/50% outbound
- AM Peak Hour Trip Rate: 1.00 trips/1,000 GLSF; 61% inbound/39% outbound
- PM Peak Hour Trip Rate: 3.73 trips/1,000 GLSF; 49% inbound/51% outbound

[10] The walk-in/internal capture reduction for the commercial use is based on the synergy between the residential and commercial uses provided within the project site, the project characteristics, and the characteristics of the surrounding project area. The walk-in trip reduction accounts for the walk-in patronage both from within the project as well as other surrounding uses.
[11] Pass-by trips are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street on roadway that offers direct access to the generator. The trip reduction for pass-by trips has been applied to the commercial component of the project based on a review of the recommended practice in the ITE "Trip Generation Handbook", June 2004, the project characteristics, the characteristics of the surrounding project area and existing traffic volumes on Aviation Boulevard.

Table B
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE
AM AND PM PEAK HOURS
County of Los Angeles Study Intersections
Reduced Project - Phase I

NO.	INTERSECTION	PEAK HOUR	[1] EXISTING V/C	[1] EXISTING LOS	[2] YEAR 2014 W/ AMBIENT GROWTH V/C	[2] YEAR 2014 W/ AMBIENT GROWTH LOS	[3] YEAR 2014 W/ PHASE I PROJECT V/C	[3] YEAR 2014 W/ PHASE I PROJECT LOS	[3] CHANGE V/C [(3)-(2)]	[3] SIGNIF. IMPACT [a]	[4] YEAR 2014 W/ RELATED PROJECTS V/C	[4] YEAR 2014 W/ RELATED PROJECTS LOS	[4] CHANGE V/C [(4)-(2)]	[4] SIGNIF. IMPACT [a]
2	Aviation Boulevard/	AM	0.374	A	0.387	A	0.437	A	0.050	NO	0.444	A	0.057	NO
	116th Street (Site Driveway)	PM	0.417	A	0.432	A	0.427	A	-0.005	NO	0.433	A	0.001	NO
3	Aviation Boulevard/	AM	0.426	A	0.437	A	0.438	A	0.001	NO	0.445	A	0.008	NO
	117th Street	PM	0.496	A	0.510	A	0.509	A	-0.001	NO	0.515	A	0.005	NO
4	Aviation Boulevard/	AM	0.608	B	0.626	B	0.633	B	0.007	NO	0.640	B	0.014	NO
	120th Street	PM	0.619	B	0.637	B	0.638	B	0.001	NO	0.643	B	0.006	NO
6	La Cienega Boulevard/	AM	0.449	A	0.464	A	0.468	A	0.004	NO	0.493	A	0.029	NO
	I-405 Freeway SB Ramps	PM	0.391	A	0.405	A	0.404	A	-0.001	NO	0.412	A	0.007	NO
	(North of Imperial Highway)													
7	La Cienega Boulevard/	AM	0.470	A	0.487	A	0.491	A	0.004	NO	0.508	A	0.021	NO
	Imperial Highway	PM	0.652	B	0.675	B	0.675	B	0.000	NO	0.620	B	-0.055	NO
8	La Cienega Boulevard/	AM	0.507	A	0.521	A	0.521	A	0.000	NO	0.526	A	0.005	NO
	120th Street	PM	0.713	C	0.735	C	0.736	C	0.001	NO	0.745	C	0.010	NO
9	La Cienega Boulevard/	AM	0.528	A	0.542	A	0.546	A	0.004	NO	0.557	A	0.015	NO
	I-405 Freeway SB Ramps	PM	0.740	C	0.762	C	0.764	C	0.002	NO	0.774	C	0.012	NO
	(South of 120th Street)													

[a] According to the County of Los Angeles Department of Public Works' "Traffic Impact Analysis Report Guidelines, " January 1, 1997, Page 6:
"an impact is considered significant if the project related increase in the volume-to-capacity ratio (v/c) equals or exceeds the thresholds shown below:

Level of Service	Existing ICU	Project-Related Increase in V/C
C	>= 0.71 - 0.80	equal to or greater than 0.040
D	>= 0.81 - 0.90	equal to or greater than 0.020
E/F	>= 0.91	equal to or greater than 0.010

Table C
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE
AM AND PM PEAK HOURS
City of Los Angeles Study Intersections
Reduced Project - Phase I

NO.	INTERSECTION	PEAK HOUR	[1] EXISTING V/C	[1] EXISTING LOS	[2] YEAR 2014 W/ AMBIENT GROWTH V/C	[2] YEAR 2014 W/ AMBIENT GROWTH LOS	[3] YEAR 2014 W/ RELATED PROJECTS V/C	[3] YEAR 2014 W/ RELATED PROJECTS LOS	[4] YEAR 2014 W/PHASE I PROJECT V/C	[4] YEAR 2014 W/PHASE I PROJECT LOS	[4] CHANGE V/C [(4)-(3)]	[4] SIGNIF. IMPACT [A]
1	Aviation Boulevard/	AM	0.712	C	0.740	C	0.744	C	0.749	C	0.005	NO
	Imperial Highway	PM	0.719	C	0.747	C	0.760	C	0.758	C	-0.002	NO
5	I-105 Freeway Ramps/	AM	0.847	D	0.880	D	0.889	D	0.891	D	0.002	NO
	Imperial Highway	PM	0.619	B	0.644	B	0.653	B	0.653	B	0.000	NO
6	La Cienega Boulevard/	AM	0.403	A	0.420	A	0.449	A	0.452	A	0.003	NO
	I-405 Freeway SB Ramps	PM	0.338	A	0.354	A	0.363	A	0.362	A	-0.001	NO
	(North of Imperial Highway)											
7	La Cienega Boulevard/	AM	0.430	A	0.448	A	0.462	A	0.467	A	0.005	NO
	Imperial Highway	PM	0.731	C	0.760	C	0.774	C	0.773	C	-0.001	NO

(A) According to LADOT's "Traffic Study Policies and Procedures, " March 2002, Page 10, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

Final v/c	LOS	Project Related Increase in v/c
> 0.700 - 0.800	C	equal to or greater than 0.040
> 0.800 - 0.900	D	equal to or greater than 0.020
> 0.900	E,F	equal to or greater than 0.010

Table D
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE
AM AND PM PEAK HOURS
City of El Segundo Study Intersection
Reduced Project - Phase I

NO.	INTERSECTION	PEAK HOUR	[1] EXISTING V/C	[1] EXISTING LOS	[2] YEAR 2014 W/ AMBIENT GROWTH V/C	[2] YEAR 2014 W/ AMBIENT GROWTH LOS	[3] YEAR 2014 W/ PHASE I PROJECT V/C	[3] YEAR 2014 W/ PHASE I PROJECT LOS	[3] CHANGE V/C [(3)-(2)]	[3] SIGNIF. IMPACT [a]	[4] YEAR 2014 W/ RELATED PROJECTS V/C	[4] YEAR 2014 W/ RELATED PROJECTS LOS	[4] CHANGE V/C [(4)-(2)]	[4] SIGNIF. IMPACT [a]
10	Aviation Boulevard/	AM	0.781	C	0.796	C	0.799	C	0.003	NO	0.806	D	0.010	NO
	El Segundo Boulevard	PM	1.051	F	1.071	F	1.070	F	-0.001	NO	1.077	F	0.006	NO

[a] According to the "2004 Congestion Management Program for Los Angeles County", County of Los Angeles Metropolitan Transportation Authority, July 2004: "an impact is considered significant if the project related increase in the volume-to-capacity ratio (v/c) equals or exceeds the thresholds shown below:

Level of Service	ICU	Project-Related Increase in V/C
F	> 1.00	equal to or greater than 0.020"

Table E
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE
AM AND PM PEAK HOURS
County of Los Angeles Study Intersections
Reduced Project - Phases I and II

NO.	INTERSECTION	PEAK HOUR	[1] EXISTING V/C	[1] EXISTING LOS	[2] YEAR 2014 W/ AMBIENT GROWTH V/C	[2] YEAR 2014 W/ AMBIENT GROWTH LOS	[3] YEAR 2014 W/ PROPOSED PROJECT V/C	[3] YEAR 2014 W/ PROPOSED PROJECT LOS	[3] CHANGE V/C [(3)-(2)]	[3] SIGNIF. IMPACT [a]	[4] YEAR 2014 W/ RELATED PROJECTS V/C	[4] YEAR 2014 W/ RELATED PROJECTS LOS	[4] CHANGE V/C [(4)-(2)]	[4] SIGNIF. IMPACT [a]
2	Aviation Boulevard/	AM	0.374	A	0.387	A	0.410	A	0.023	NO	0.417	A	0.030	NO
	116th Street (Site Driveway)	PM	0.417	A	0.432	A	0.416	A	-0.016	NO	0.423	A	-0.009	NO
3	Aviation Boulevard/	AM	0.426	A	0.437	A	0.441	A	0.004	NO	0.448	A	0.011	NO
	117th Street	PM	0.496	A	0.510	A	0.495	A	-0.015	NO	0.502	A	-0.008	NO
4	Aviation Boulevard/	AM	0.608	B	0.626	B	0.638	B	0.012	NO	0.646	B	0.020	NO
	120th Street	PM	0.619	B	0.637	B	0.645	B	0.008	NO	0.650	B	0.013	NO
6	La Cienega Boulevard/	AM	0.449	A	0.464	A	0.467	A	0.003	NO	0.493	A	0.029	NO
	I-405 Freeway SB Ramps	PM	0.391	A	0.405	A	0.407	A	0.002	NO	0.415	A	0.010	NO
	(North of Imperial Highway)													
7	La Cienega Boulevard/	AM	0.470	A	0.487	A	0.489	A	0.002	NO	0.506	A	0.019	NO
	Imperial Highway	PM	0.652	B	0.675	B	0.676	B	0.001	NO	0.621	B	-0.054	NO
8	La Cienega Boulevard/	AM	0.507	A	0.521	A	0.521	A	0.000	NO	0.526	A	0.005	NO
	120th Street	PM	0.713	C	0.735	C	0.737	C	0.002	NO	0.746	C	0.011	NO
9	La Cienega Boulevard/	AM	0.528	A	0.542	A	0.547	A	0.005	NO	0.558	A	0.016	NO
	I-405 Freeway SB Ramps	PM	0.740	C	0.762	C	0.766	C	0.004	NO	0.775	C	0.013	NO
	(South of 120th Street)													

[a] According to the County of Los Angeles Department of Public Works' "Traffic Impact Analysis Report Guidelines, " January 1, 1997, Page 6:
"an impact is considered significant if the project related increase in the volume-to-capacity ratio (v/c) equals or exceeds the thresholds shown below:

Level of Service	Existing ICU	Project-Related Increase in V/C
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D	>= 0.81 - 0.90	equal to or greater than 0.020
E/F	>= 0.91	equal to or greater than 0.010

Table F
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE
AM AND PM PEAK HOURS
City of Los Angeles Study Intersections
Reduced Project - Phases I and II

NO.	INTERSECTION	PEAK HOUR	[1] EXISTING V/C	[1] EXISTING LOS	[2] YEAR 2014 W/ AMBIENT GROWTH V/C	[2] YEAR 2014 W/ AMBIENT GROWTH LOS	[3] YEAR 2014 W/ RELATED PROJECTS V/C	[3] YEAR 2014 W/ RELATED PROJECTS LOS	[4] YEAR 2014 W/ PROPOSED PROJECT V/C	[4] YEAR 2014 W/ PROPOSED PROJECT LOS	[4] CHANGE V/C [(4)-(3)]	[4] SIGNIF. IMPACT [A]
1	Aviation Boulevard/	AM	0.712	C	0.740	C	0.744	C	0.755	C	0.011	NO
	Imperial Highway	PM	0.719	C	0.747	C	0.760	C	0.789	C	0.029	NO
5	I-105 Freeway Ramps/	AM	0.847	D	0.880	D	0.889	D	0.892	D	0.003	NO
	Imperial Highway	PM	0.619	B	0.644	B	0.653	B	0.653	B	0.000	NO
6	La Cienega Boulevard/	AM	0.403	A	0.420	A	0.449	A	0.452	A	0.003	NO
	I-405 Freeway SB Ramps	PM	0.338	A	0.354	A	0.363	A	0.365	A	0.002	NO
	(North of Imperial Highway)											
7	La Cienega Boulevard/	AM	0.430	A	0.448	A	0.462	A	0.465	A	0.003	NO
	Imperial Highway	PM	0.731	C	0.760	C	0.774	C	0.775	C	0.001	NO

(A) According to LADOT's "Traffic Study Policies and Procedures, " March 2002, Page 10, a transportation impact on an intersection shall be deemed significant in accordance with the following table:

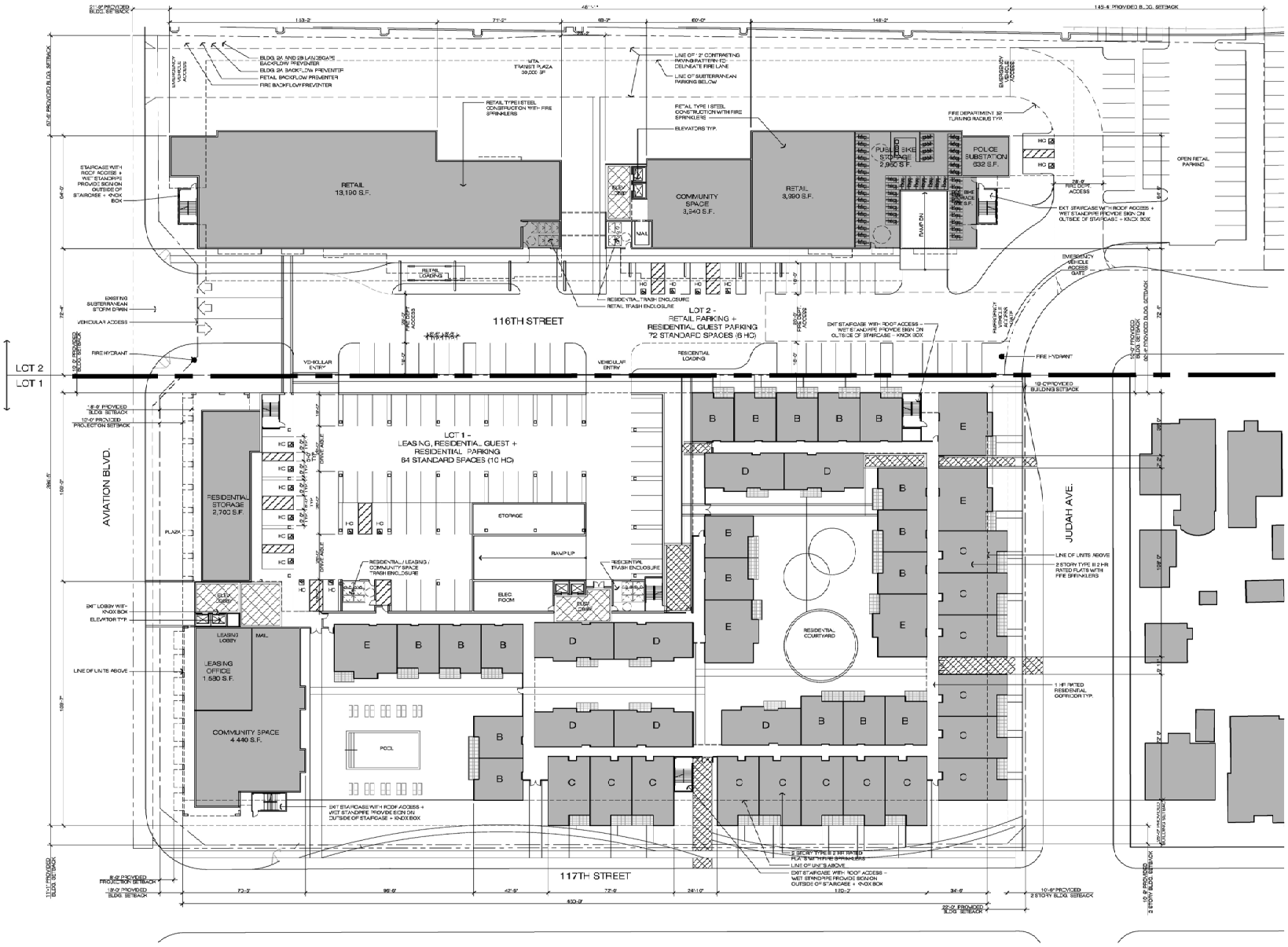
Final v/c	LOS	Project Related Increase in v/c
> 0.700 - 0.800	C	equal to or greater than 0.040
> 0.800 - 0.900	D	equal to or greater than 0.020
> 0.900	E,F	equal to or greater than 0.010

Table G
SUMMARY OF VOLUME TO CAPACITY RATIOS
AND LEVELS OF SERVICE
AM AND PM PEAK HOURS
City of El Segundo Study Intersection
Reduced Project - Phases I and II

NO.	INTERSECTION	PEAK HOUR	[1] EXISTING V/C	[1] EXISTING LOS	[2] YEAR 2014 W/ AMBIENT GROWTH V/C	[2] YEAR 2014 W/ AMBIENT GROWTH LOS	[3] YEAR 2014 W/ PROPOSED PROJECT V/C	[3] YEAR 2014 W/ PROPOSED PROJECT LOS	[3] CHANGE V/C [(3)-(2)]	[3] SIGNIF. IMPACT [a]	[4] YEAR 2014 W/ RELATED PROJECTS V/C	[4] YEAR 2014 W/ RELATED PROJECTS LOS	[4] CHANGE V/C [(4)-(2)]	[4] SIGNIF. IMPACT [a]
10	Aviation Boulevard/	AM	0.781	C	0.796	C	0.802	D	0.006	NO	0.809	D	0.013	NO
	El Segundo Boulevard	PM	1.051	F	1.071	F	1.063	F	-0.008	NO	1.070	F	-0.001	NO

[a] According to the "2004 Congestion Management Program for Los Angeles County", County of Los Angeles Metropolitan Transportation Authority, July 2004: "an impact is considered significant if the project related increase in the volume-to-capacity ratio (v/c) equals or exceeds the thresholds shown below:

Level of Service	ICU	Project-Related Increase in V/C
F	> 1.00	equal to or greater than 0.020"



SOURCE: WITHEE MALCOLM ARCHITECTS, LLP

N

NOT TO SCALE

LINSCOTT, LAW & GREENSPAN, engineers

FIGURE A
SITE PLAN
PROJECT BUILDOUT
AVIATION STATION PROJECT

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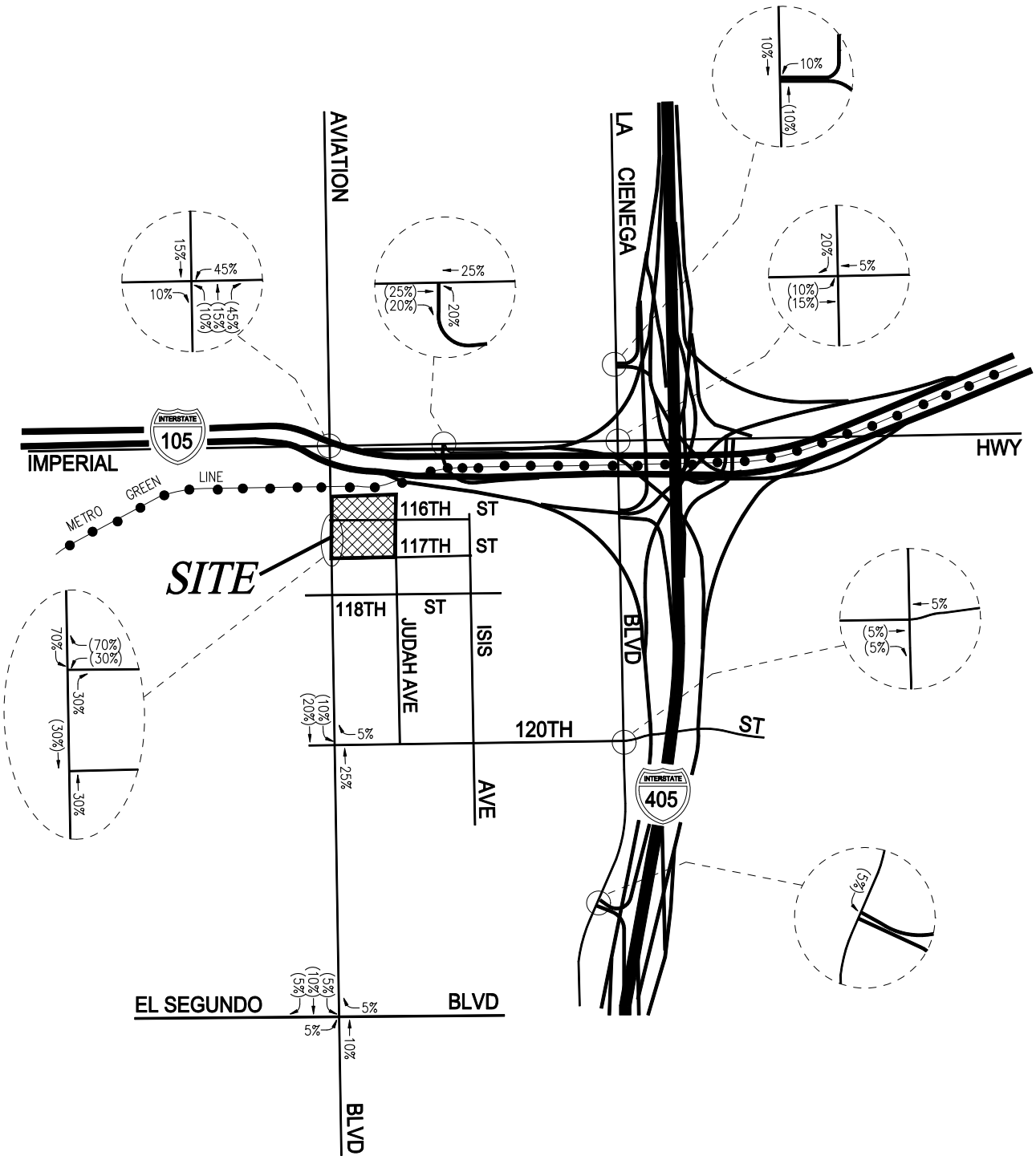

XX = INBOUND PERCENTAGES
(XX) = OUTBOUND PERCENTAGES

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FIGURE B
MODIFIED PROJECT TRIP DISTRIBUTION

LINSCOTT, LAW & GREENSPAN, engineers

AVIATION STATION PROJECT

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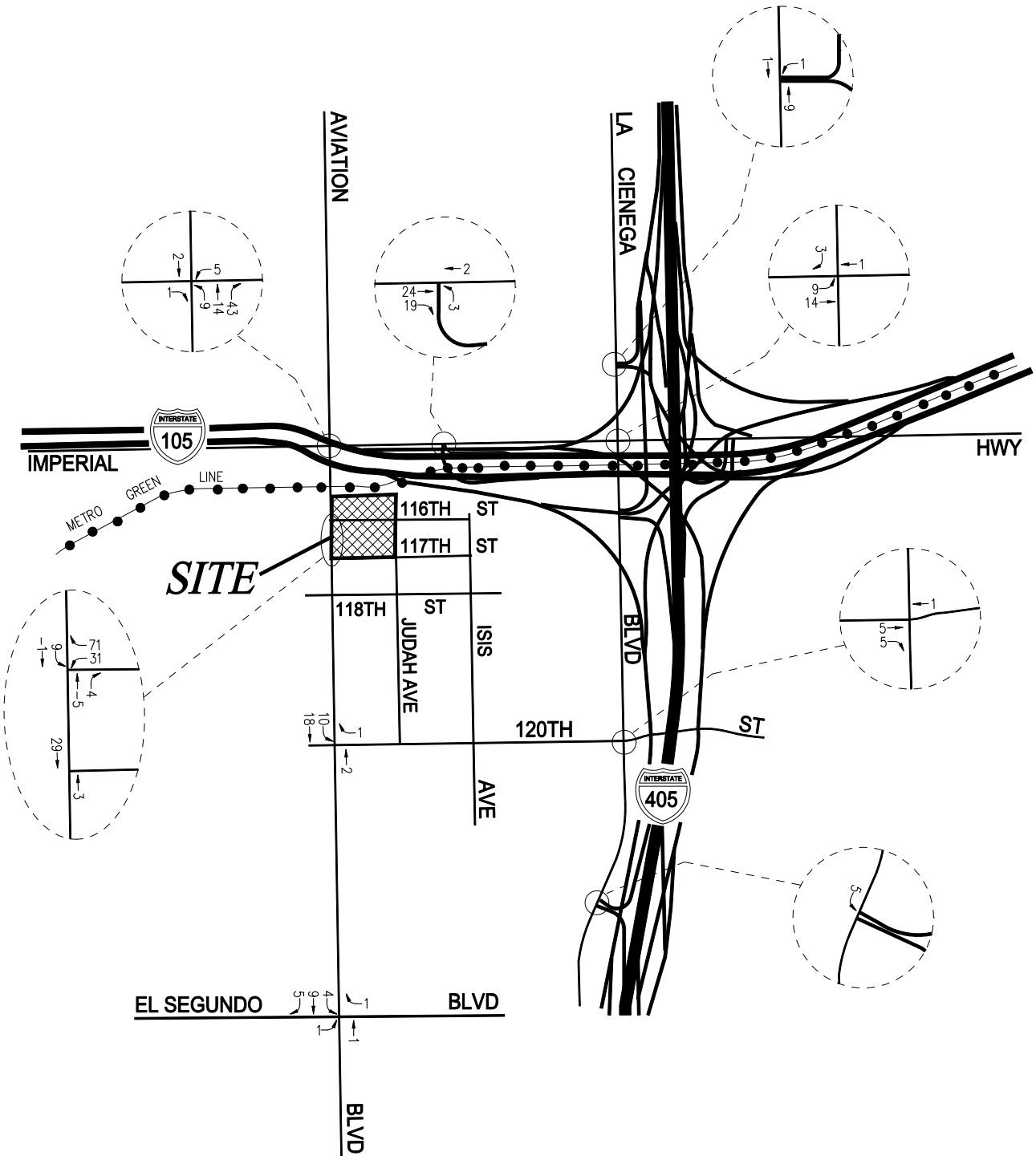

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FIGURE C
PROJECT TRAFFIC VOLUMES
AM PEAK HOUR - PHASE I
AVIATION STATION PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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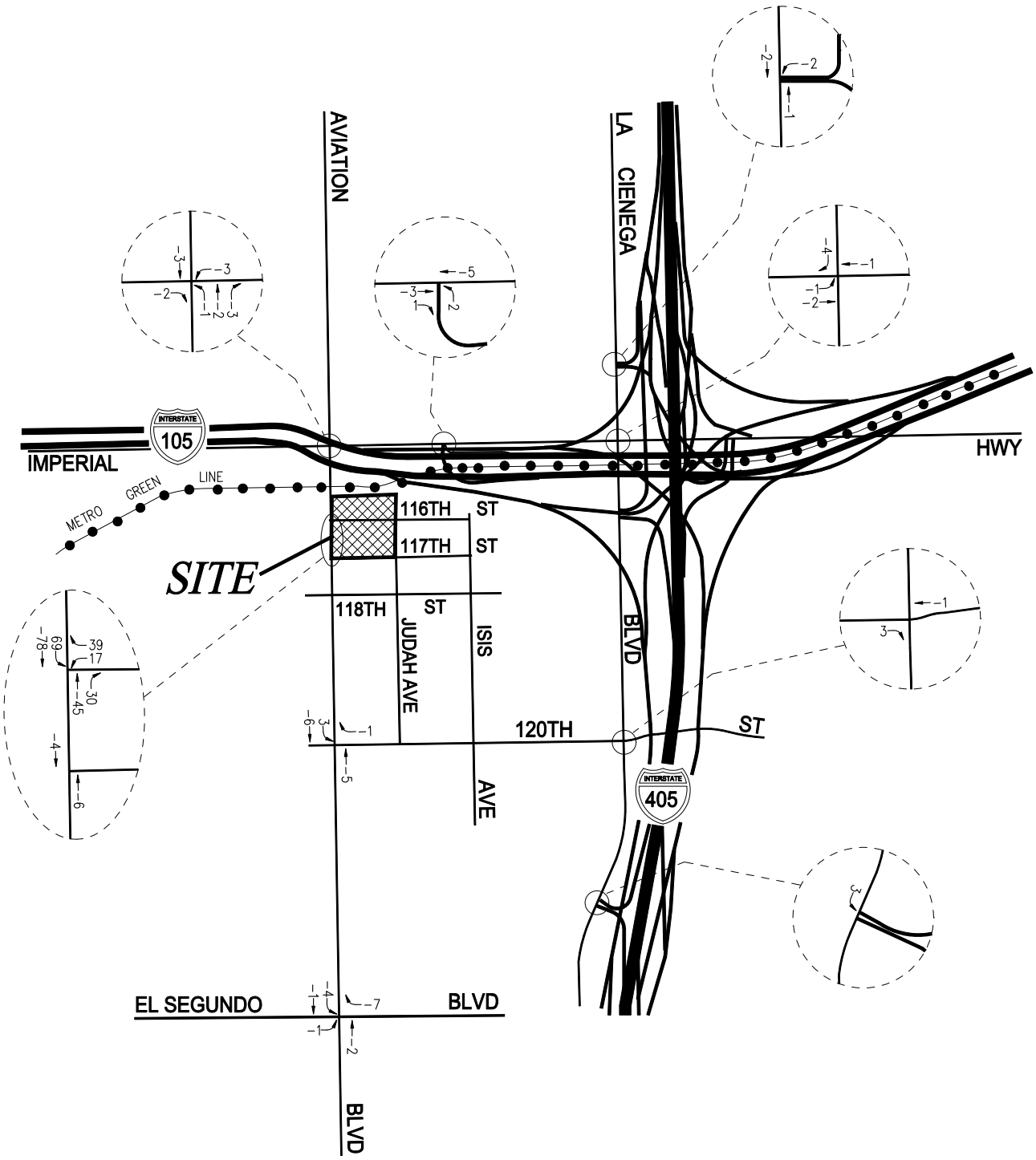

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FIGURE D
PROJECT TRAFFIC VOLUMES

PM PEAK HOUR - PHASE I

AVIATION STATION PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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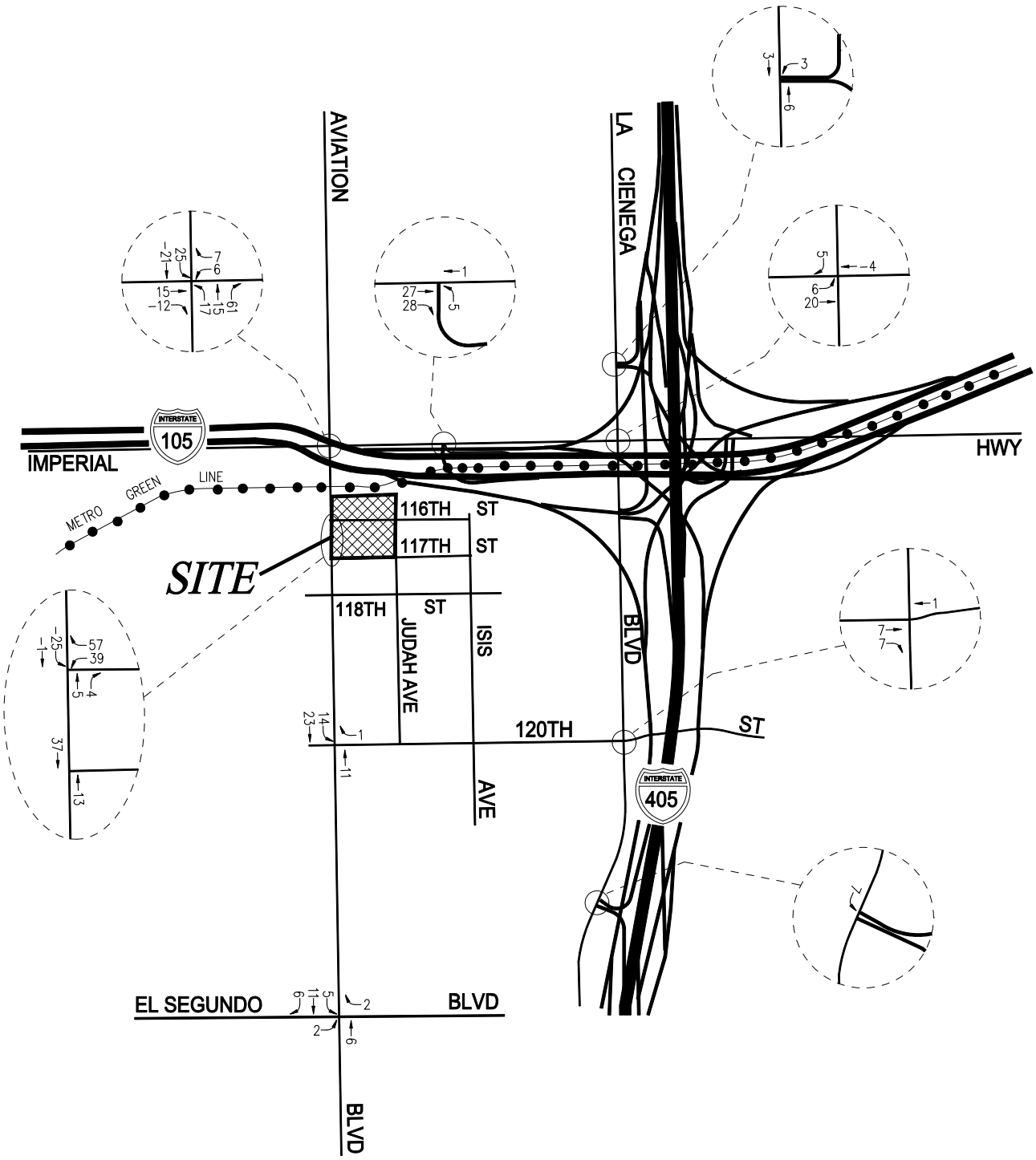

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FIGURE E
NET NEW PROJECT TRAFFIC VOLUMES
AM PEAK HOUR - PHASES I & II

LINSCOTT, LAW & GREENSPAN, engineers

AVIATION STATION PROJECT

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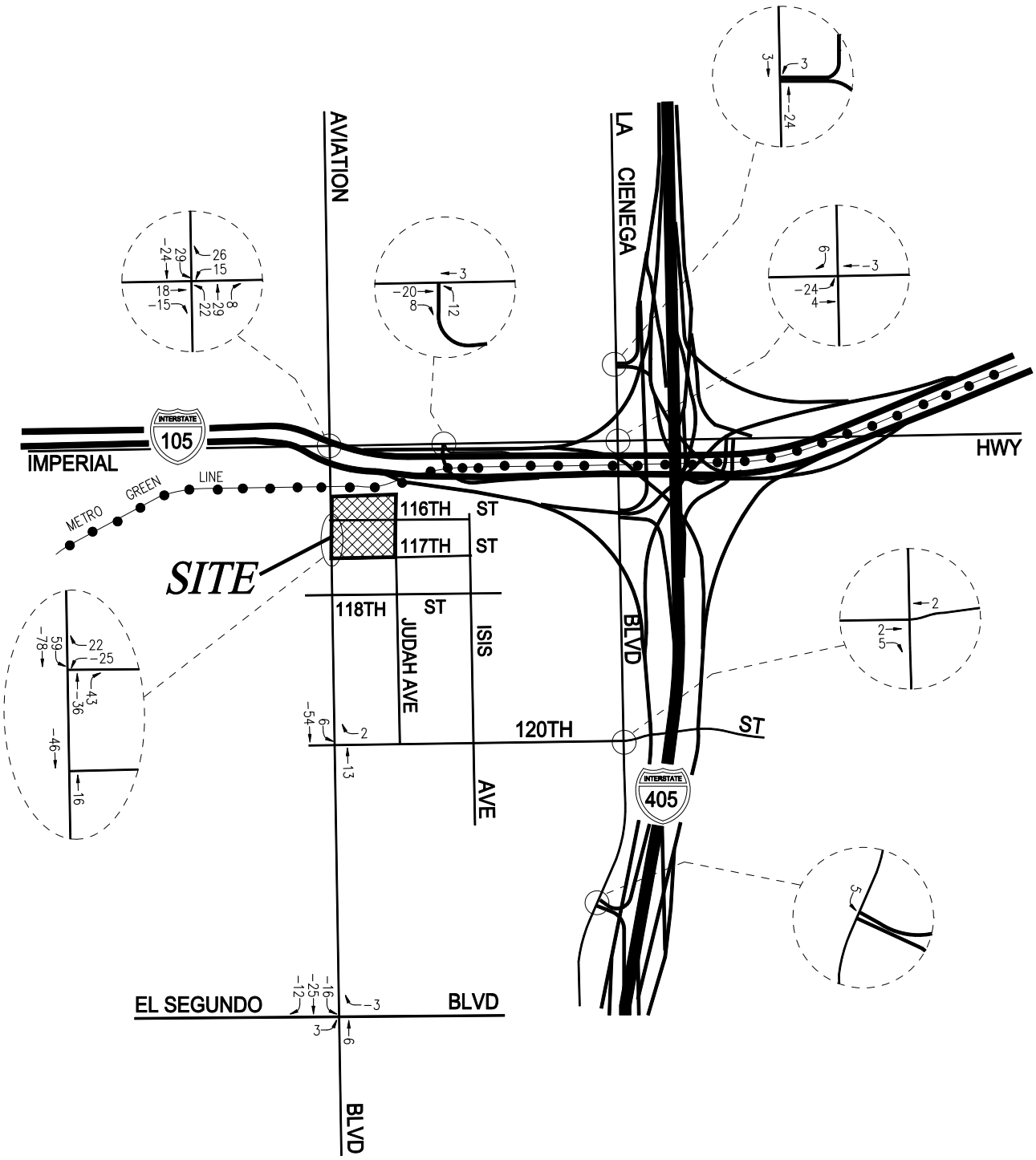

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FIGURE F
NET NEW PROJECT TRAFFIC VOLUMES
PM PEAK HOUR - PHASES I & II

LINSCOTT, LAW & GREENSPAN, engineers

AVIATION STATION PROJECT

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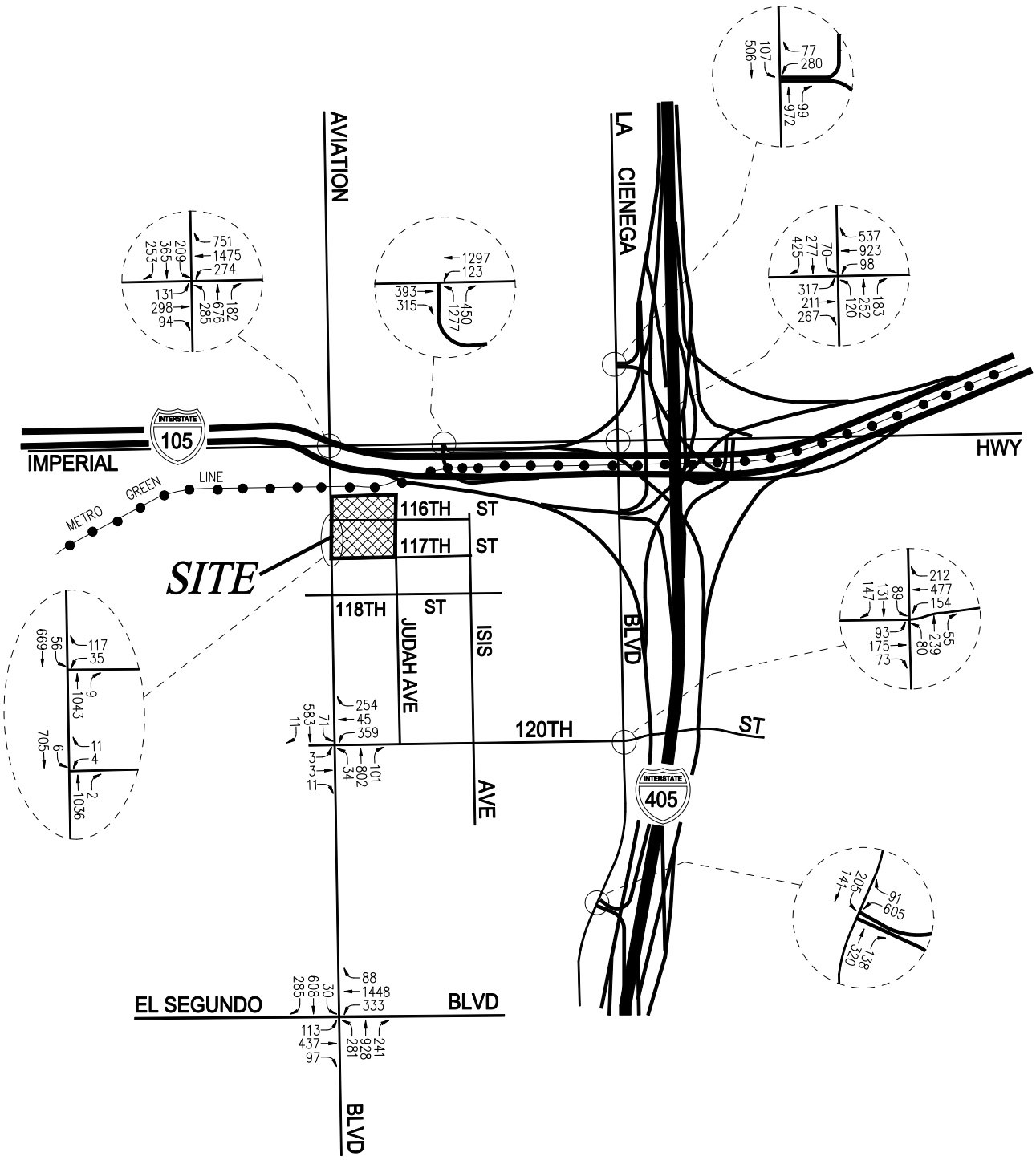

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FIGURE G
FUTURE WITH PROJECT TRAFFIC VOLUMES
AM PEAK HOUR - PHASE I

LINSCOTT, LAW & GREENSPAN, engineers

AVIATION STATION PROJECT

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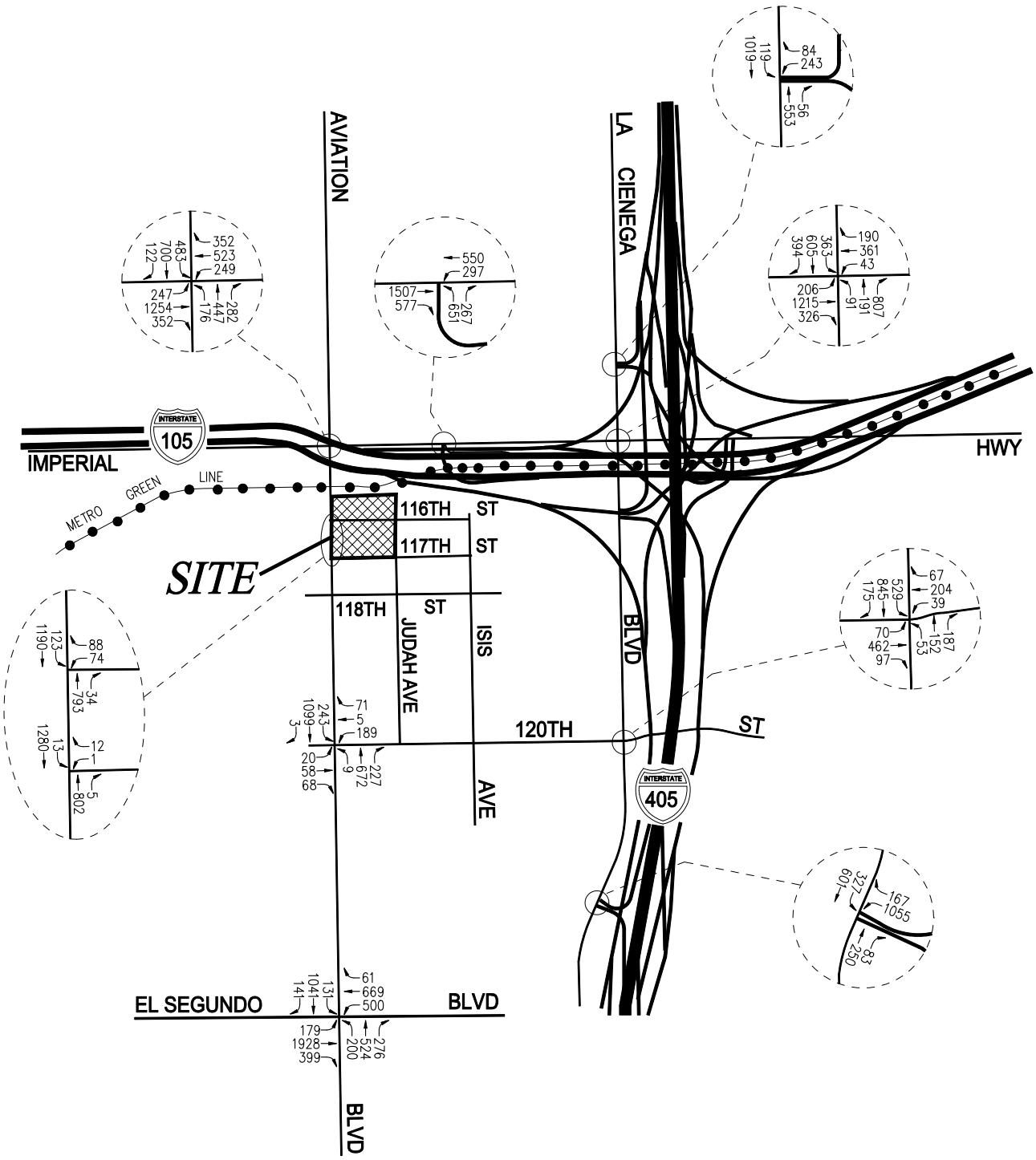

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FIGURE H
FUTURE WITH PROJECT TRAFFIC VOLUMES
PM PEAK HOUR - PHASE I
AVIATION STATION PROJECT

LINSCOTT, LAW & GREENSPAN, engineers

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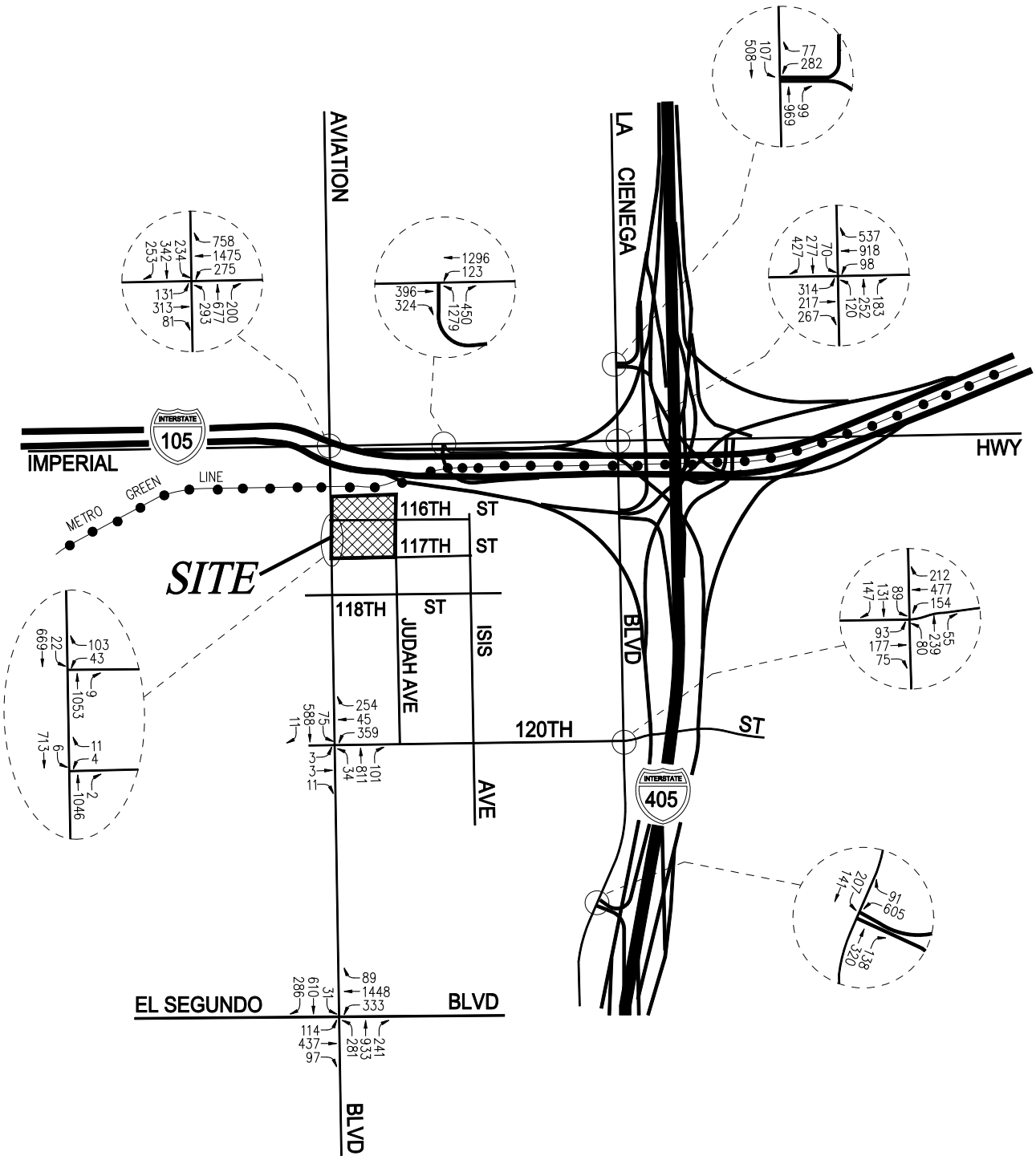

NOT TO SCALE

FIGURE I
FUTURE WITH PROJECT TRAFFIC VOLUMES
AM PEAK HOUR - PHASES I & II

LINSCOTT, LAW & GREENSPAN, engineers

AVIATION STATION PROJECT

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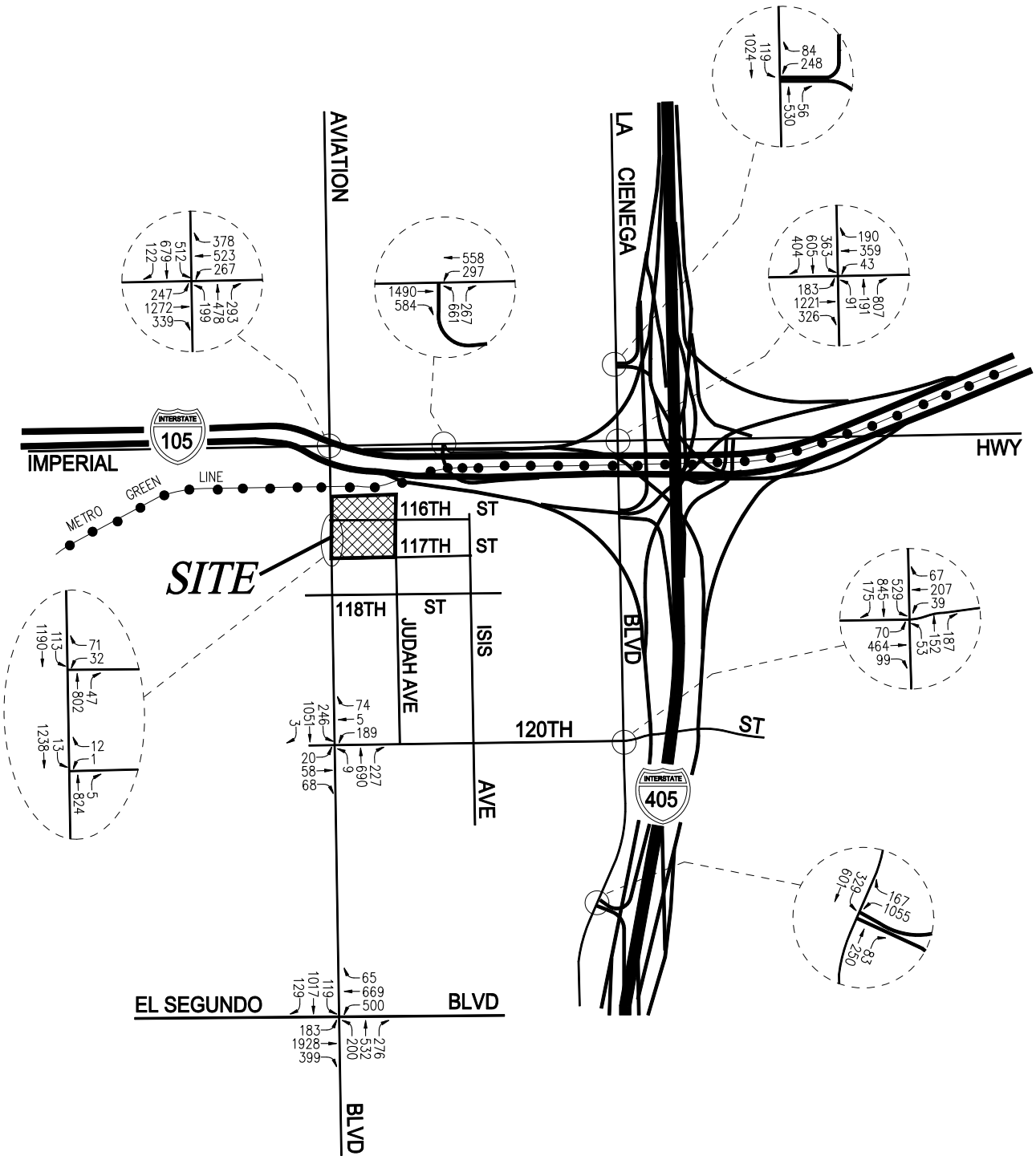

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FIGURE J

FUTURE WITH PROJECT TRAFFIC VOLUMES

PM PEAK HOUR - PHASES I & II

LINSCOTT, LAW & GREENSPAN, engineers

AVIATION STATION PROJECT

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APPENDIX

ICU AND CMA LEVELS OF SERVICE EXPLANATION
ICU AND CMA DATA WORKSHEETS
AM & PM PEAK HOURS

INTERSECTION CAPACITY UTILIZATION (ICU) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Levels of Service concept denotes any one of a number of differing combinations of operating conditions which may occur as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*, published by the Transportation Research Board. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

The Intersection Capacity Utilization (ICU) method of intersection capacity analysis has been used in our studies. It directly relates traffic demand and available capacity for key intersection movements, regardless of present signal timing, The capacity per hour of green time for each approach is calculated based on the methods of the *Highway Capacity Manual*. The proportion of total signal time needed by each key movement is determined and compared to the total time available (100 percent of the hour). The result of summing the requirements of the conflicting key movements plus an allowance for clearance times is expressed as a decimal fraction. Conflicting key traffic movements are those opposing movements whose combined green time requirements are greatest.

The resulting ICU represents the proportion of the total hour required to accommodate intersection demand volumes if the key conflicting traffic movements are operating at capacity. Other movements may be operating near capacity, or may be operating at significantly better levels. The ICU may be translated to a Level of Service as tabulated below.

The Levels of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding ICU and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Intersection Capacity Utilization Characteristics

Level of Service	Load Factor	Equivalent ICU
A	0.0	0.00 - 0.60
B	0.0 - 0.1	0.61 - 0.70
C	0.1 - 0.3	0.71 - 0.80
D	0.3 - 0.7	0.81 - 0.90
E	0.7 - 1.0	0.91 - 1.00
F	Not Applicable	Not Applicable

SERVICE LEVEL A
There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B
This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C
At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more than one red signal indication and back ups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D
This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E
This represents near capacity and capacity operation. At capacity (ICU = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F
Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

CRITICAL MOVEMENT ANALYSIS (CMA) DESCRIPTION

Level of Service is a term used to describe prevailing conditions and their effect on traffic. Broadly interpreted, the Level of Service concept denotes any one of a number of differing combinations of operating conditions which may take place as a roadway is accommodating various traffic volumes. Level of Service is a qualitative measure of the effect of such factors as travel speed, travel time, interruptions, freedom to maneuver, safety, driving comfort and convenience.

Six Levels of Service, A through F, have been defined in the 1965 *Highway Capacity Manual*. Level of Service A describes a condition of free flow, with low traffic volumes and relatively high speeds, while Level of Service F describes forced traffic flow at low speeds with jammed conditions and queues which cannot clear during the green phases.

Critical Movement Analysis (CMA) is a procedure which provides a capacity and level of service geometry and traffic signal operation and results in a level of service determination for the intersection as a whole operating unit.

The per lane volume for each movement in the intersection is determined and the per lane intersection capacity based on the Transportation Research Board (TRB) Report 212 (*Interim Materials on Highway Capacity*). The resulting CMA represents the ratio of the intersection's cumulative volume over its respective capacity (V/C ratio). Critical Movement Analysis takes into account lane widths, bus and truck operations, pedestrian activity and parking activity, as well as number of lanes and geometrics.

The Level of Service (abbreviated from the *Highway Capacity Manual*) are listed here with their corresponding CMA and Load Factor equivalents. Load Factor is that proportion of the signal cycles during the peak hour which are fully loaded; i.e. when all of the vehicles waiting at the beginning of green are not able to clear on that green phase.

Critical Movement Analysis Characteristics		
Level of Service	Load Factor	Equivalent CMA
A (free flow)	0.0	0.00 - 0.60
B (rural design)	0.0 - 0.1	0.61 - 0.70
C (urban design)	0.1 - 0.3	0.71 - 0.80
D (maximum urban design)	0.3 - 0.7	0.81 - 0.90
E (capacity)	0.7 - 1.0	0.91 - 1.00
F (force flow)	Not Applicable	Not Applicable

SERVICE LEVEL A
There are no loaded cycles and few are even close to loaded at this service level. No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.

SERVICE LEVEL B
This level represents stable operation where an occasional approach phase is fully utilized and a substantial number are approaching full use. Many drivers begin to feel restricted within platoons of vehicles.

SERVICE LEVEL C
At this level stable operation continues. Loading is still intermittent but more frequent than at Level B. Occasionally drivers may have to wait through more one red signal indication and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.

SERVICE LEVEL D
This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak hour, but enough cycles with lower demand occur to permit periodic clearance of queues, thus preventing excessive backups. Drivers frequently have to wait through more than one red signal. This level is the lower limit of acceptable operation to most drivers.

SERVICE LEVEL E
This represents near capacity and capacity operation. At capacity (CMA = 1.0) it represents the most vehicles that the particular intersection can accommodate. However, full utilization of every signal cycle is seldom attained no matter how great the demand. At this level all drivers wait through more than one red signal, and frequently through several.

SERVICE LEVEL F
Jammed conditions. Traffic backed up from a downstream location on one of the street restricts or prevents movement of traffic through the intersection under consideration.

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ Imperial Highway
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU1

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	267	2880	0.093	9	276	0.096	9	285	2880	0.099	0	285	2880	0.099	7	292	2880	0.102	0	292	2880	0.102
Nb Thru	640	3200	0.200 *	22	662	0.207 *	14	676	3200	0.211 *	0	676	3200	0.211 *	10	686	3200	0.215 *	0	686	3200	0.215 *
Nb Right [4]	134	1600	0.000	5	139	0.000	43	182	1600	0.018	0	182	1600	0.018	5	187	1600	0.021	0	187	1600	0.021
Sb Left	202	2880	0.070 *	7	209	0.073 *	0	209	2880	0.073 *	0	209	2880	0.073 *	0	209	2880	0.073 *	0	209	2880	0.073 *
Sb Thru	351	3200	0.110	12	363	0.114	2	365	3200	0.114	0	365	3200	0.114	7	372	3200	0.116	0	372	3200	0.116
Sb Right [4]	244	1600	0.108	9	253	0.112	0	253	1600	0.112	0	253	1600	0.112	14	267	1600	0.120	0	267	1600	0.120
Eb Left	127	2880	0.044 *	4	131	0.046 *	0	131	2880	0.046 *	0	131	2880	0.046 *	2	133	2880	0.046 *	0	133	2880	0.046 *
Eb Thru	288	4800	0.079	10	298	0.082	0	298	4800	0.082	0	298	4800	0.082	12	310	4800	0.085	0	310	4800	0.085
Eb Right	90	0	-	3	93	-	1	94	0	-	0	94	0	-	3	97	0	-	0	97	0	-
Wb Left	260	2880	0.090	9	269	0.093	5	274	2880	0.095	0	274	2880	0.095	2	276	2880	0.096	0	276	2880	0.096
Wb Thru	1425	4800	0.297	50	1475	0.307	0	1475	4800	0.307	0	1475	4800	0.307	22	1497	4800	0.312	0	1497	4800	0.312
Wb Right [4	726	1600	0.384 *	25	751	0.397 *	0	751	1600	0.397 *	0	751	1600	0.397 *	0	751	1600	0.397 *	0	751	1600	0.397 *
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.698		[5]	0.722			[5]	0.727			[5]	0.727			[5]	0.730			[5]	0.730
LOS			B			C				C				C				C				C

04:46 PM

**Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
4 The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The southbound right-turn movement has an overlapping phase with the eastbound left-turn phase. The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ Imperial Highway
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU1

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	171	2880	0.059	6	177	0.061	-1	176	2880	0.061	0	176	2880	0.061	4	180	2880	0.062	0	180	2880	0.062
Nb Thru	434	3200	0.136 *	15	449	0.140 *	-2	447	3200	0.140 *	0	447	3200	0.140 *	9	456	3200	0.143 *	0	456	3200	0.143 *
Nb Right [4]	275	1600	0.088	10	285	0.091	-3	282	1600	0.090	0	282	1600	0.090	3	285	1600	0.090	0	285	1600	0.090
Sb Left	467	2880	0.162 *	16	483	0.168 *	0	483	2880	0.168 *	0	483	2880	0.168 *	0	483	2880	0.168 *	0	483	2880	0.168 *
Sb Thru	679	3200	0.212	24	703	0.220	-3	700	3200	0.219	0	700	3200	0.219	11	711	3200	0.222	0	711	3200	0.222
Sb Right [4]	118	1600	0.000	4	122	0.000	0	122	1600	0.000	0	122	1600	0.000	3	125	1600	0.000	0	125	1600	0.000
Eb Left	239	2880	0.083	8	247	0.086	0	247	2880	0.086	0	247	2880	0.086	10	257	2880	0.089	0	257	2880	0.089
Eb Thru	1212	4800	0.324 *	42	1254	0.335 *	0	1254	4800	0.335 *	0	1254	4800	0.335 *	24	1278	4800	0.341 *	0	1278	4800	0.341 *
Eb Right	342	0	-	12	354	-	-2	352	0	-	0	352	0	-	7	359	0	-	0	359	0	-
Wb Left	243	2880	0.084 *	9	252	0.087 *	-3	249	2880	0.086 *	0	249	2880	0.086 *	5	254	2880	0.088 *	0	254	2880	0.088 *
Wb Thru	505	4800	0.105	18	523	0.109	0	523	4800	0.109	0	523	4800	0.109	14	537	4800	0.112	0	537	4800	0.112
Wb Right [4]	340	1600	0.050	12	352	0.052	0	352	1600	0.052	0	352	1600	0.052	0	352	1600	0.052	0	352	1600	0.052
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.706		[5]	0.731			[5]	0.729			[5]	0.729			[5]	0.740			[5]	0.740
LOS			C			C				C				C				C				C

04:46 PM

** Key conflicting movement as a part of ICU*
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4 The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The southbound right-turn movement has an overlapping phase with the eastbound left-turn phase. The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 116th Street
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: 116th Street
Project: Aviation Station Project/1-093778-1
File: ICU2

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	1013	3200	0.318 *	35	1048	0.329 *	-5	1043	3200	0.329 *	0	1043	3200	0.329 *	23	1066	3200	0.336 *	0	1066	3200	0.336 *
Nb Right	5	0	-	0	5	-	4	9	0	-	0	9	0	-	0	9	0	-	0	9	0	-
Sb Left	45	1600	0.028 *	2	47	0.029 *	9	56	1600	0.035 *	0	56	1600	0.035 *	0	56	1600	0.035 *	0	56	1600	0.035 *
Sb Thru	647	3200	0.202	23	670	0.209	-1	669	3200	0.209	0	669	3200	0.209	11	680	3200	0.212	0	680	3200	0.212
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	4	1600	0.003	0	4	0.003	31	35	1600	0.022	0	35	1600	0.022	0	35	1600	0.022	0	35	1600	0.022
Wb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Wb Right	44	1600	0.028 *	2	46	0.028 *	71	117	1600	0.073 *	0	117	1600	0.073 *	0	117	1600	0.073 *	0	117	1600	0.073 *
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		*[4]*	0.374		*[4]*	0.387			*[4]*	0.437			*[4]*	0.437			*[4]*	0.444			*[4]*	0.444
LOS		A			A				A				A				A				A	

01:56 PM

** Key conflicting movement as a part of ICU*
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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 116th Street
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: 116th Street
Project: Aviation Station Project/1-093778-1
File: ICU2

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Nb Thru	810	3200	0.254	28	838	0.263	-45	793	3200	0.259	0	793	3200	0.259	17	810	3200	0.264	0	810	3200	0.264
Nb Right	4	0	-	0	4	-	30	34	0	-	0	34	0	-	0	34	0	-	0	34	0	-
Sb Left	52	1600	0.033	2	54	0.034	69	123	1600	0.077	0	123	1600	0.077	0	123	1600	0.077	0	123	1600	0.077
Sb Thru	1225	3200	0.383 *	43	1268	0.396 *	-78	1190	3200	0.372 *	0	1190	3200	0.372 *	22	1212	3200	0.379 *	0	1212	3200	0.379 *
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	55	1600	0.034	2	57	0.036	17	74	1600	0.046	0	74	1600	0.046	0	74	1600	0.046	0	74	1600	0.046
Wb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Wb Right	47	1600	0.029	2	49	0.030	39	88	1600	0.055 *	0	88	1600	0.055 *	0	88	1600	0.055 *	0	88	1600	0.055 *
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		*[4]*	0.417		*[4]*	0.432			*[4]*	0.427			*[4]*	0.427			*[4]*	0.433			*[4]*	0.433
LOS		A			A				A				A				A				A	

01:56 PM

** Key conflicting movement as a part of ICU*
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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 117th Street
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: 117th Street
Project: Aviation Station Project/1-093778-1
File: ICU3

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	998	3200	0.313 *	35	1033	0.323 *	3	1036	3200	0.324 *	0	1036	3200	0.324 *	23	1059	3200	0.332 *	0	1059	3200	0.332 *
Nb Right	2	0	-	0	2	-	0	2	0	-	0	2	0	-	0	2	0	-	0	2	0	-
Sb Left	6	1600	0.004 *	0	6	0.004 *	0	6	1600	0.004 *	0	6	1600	0.004 *	0	6	1600	0.004 *	0	6	1600	0.004 *
Sb Thru	653	3200	0.204	23	676	0.211	29	705	3200	0.220	0	705	3200	0.220	11	716	3200	0.224	0	716	3200	0.224
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	4	0	0.003	0	4	0.003	0	4	0	0.003	0	4	0	0.003	0	4	0	0.003	0	4	0	0.003
Wb Thru	0	1600	0.009 *	0	0	0.010 *	0	0	1600	0.010 *	0	0	1600	0.010 *	0	0	1600	0.010 *	0	0	1600	0.010 *
Wb Right	11	0	-	0	11	-	0	11	0	-	0	11	0	-	0	11	0	-	0	11	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.426			0.437				0.438				0.438				0.445				0.445
LOS			A			A				A				A				A				A

01:57 PM

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 117th Street
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: 117th Street
Project: Aviation Station Project/1-093778-1
File: ICU3

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Nb Thru	781	3200	0.246	27	808	0.254	-6	802	3200	0.252	0	802	3200	0.252	17	819	3200	0.258	0	819	3200	0.258
Nb Right	5	0	-	0	5	-	0	5	0	-	0	5	0	-	0	5	0	-	0	5	0	-
Sb Left	13	1600	0.008	0	13	0.008	0	13	1600	0.008	0	13	1600	0.008	0	13	1600	0.008	0	13	1600	0.008
Sb Thru	1241	3200	0.388 *	43	1284	0.401 *	-4	1280	3200	0.400 *	0	1280	3200	0.400 *	22	1302	3200	0.407 *	0	1302	3200	0.407 *
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	1	0	0.001	0	1	0.001	0	1	0	0.001	0	1	0	0.001	0	1	0	0.001	0	1	0	0.001
Wb Thru	0	1600	0.008 *	0	0	0.008 *	0	0	1600	0.008 *	0	0	1600	0.008 *	0	0	1600	0.008 *	0	0	1600	0.008 *
Wb Right	12	0	-	0	12	-	0	12	0	-	0	12	0	-	0	12	0	-	0	12	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.496			0.510				0.509				0.509				0.515				0.515
LOS			A			A				A				A				A				A

01:57 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).

LINSCOTT, LAW & GREENSPAN, ENGINEERS
236 N. Chester Avenue, Suite 200, Pasadena CA 91106
(626) 796.2322 Fax (626) 792-0941

INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 120th Street
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: 120th Street
Project: Aviation Station Project/1-093778-1
File: ICU4

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	33	1600	0.021	1	34	0.021	0	34	1600	0.021	0	34	1600	0.021	0	34	1600	0.021	0	34	1600	0.021
Nb Thru	773	3200	0.272 *	27	800	0.282 *	2	802	3200	0.282 *	0	802	3200	0.282 *	23	825	3200	0.290 *	0	825	3200	0.290 *
Nb Right	98	0	-	3	101	-	0	101	0	-	0	101	0	-	0	101	0	-	0	101	0	-
Sb Left	59	1600	0.037 *	2	61	0.038 *	10	71	1600	0.044 *	0	71	1600	0.044 *	0	71	1600	0.044 *	0	71	1600	0.044 *
Sb Thru	546	3200	0.174	19	565	0.180	18	583	3200	0.186	0	583	3200	0.186	11	594	3200	0.189	0	594	3200	0.189
Sb Right	11	0	-	0	11	-	0	11	0	-	0	11	0	-	0	11	0	-	0	11	0	-
Eb Left	3	0	0.001 *	0	3	0.001 *	0	3	0	0.001 *	0	3	0	0.001 *	0	3	0	0.001 *	0	3	0	0.001 *
Eb Thru	3	3200	0.005	0	3	0.005	0	3	3200	0.005	0	3	3200	0.005	0	3	3200	0.005	0	3	3200	0.005
Eb Right	11	0	-	0	11	-	0	11	0	-	0	11	0	-	0	11	0	-	0	11	0	-
Wb Left	347	0	0.108	12	359	0.112	0	359	0	0.112	0	359	0	0.112	0	359	0	0.112	0	359	0	0.112
Wb Thru	43	3200	0.198 *	2	45	0.205 *	0	45	3200	0.205 *	0	45	3200	0.205 *	0	45	3200	0.205 *	0	45	3200	0.205 *
Wb Right	244	0	-	9	253	-	1	254	0	-	0	254	0	-	0	254	0	-	0	254	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.608			0.626				0.633				0.633				0.640				0.640
LOS			B			B				B				B				B				B

01:57 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 120th Street
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: 120th Street
Project: Aviation Station Project/1-093778-1
File: ICU4

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	9	1600	0.006	0	9	0.006	0	9	1600	0.006	0	9	1600	0.006	0	9	1600	0.006	0	9	1600	0.006
Nb Thru	654	3200	0.273 *	23	677	0.282 *	-5	672	3200	0.281 *	0	672	3200	0.281 *	17	689	3200	0.286 *	0	689	3200	0.286 *
Nb Right	219	0	-	8	227	-	0	227	0	-	0	227	0	-	0	227	0	-	0	227	0	-
Sb Left	232	1600	0.145 *	8	240	0.150 *	3	243	1600	0.152 *	0	243	1600	0.152 *	0	243	1600	0.152 *	0	243	1600	0.152 *
Sb Thru	1068	3200	0.335	37	1105	0.346	-6	1099	3200	0.345	0	1099	3200	0.345	22	1121	3200	0.351	0	1121	3200	0.351
Sb Right	3	0	-	0	3	-	0	3	0	-	0	3	0	-	0	3	0	-	0	3	0	-
Eb Left	19	0	0.006	1	20	0.006	0	20	0	0.006	0	20	0	0.006	0	20	0	0.006	0	20	0	0.006
Eb Thru	56	3200	0.044 *	2	58	0.046 *	0	58	3200	0.046 *	0	58	3200	0.046 *	0	58	3200	0.046 *	0	58	3200	0.046 *
Eb Right	66	0	-	2	68	-	0	68	0	-	0	68	0	-	0	68	0	-	0	68	0	-
Wb Left	183	0	0.057 *	6	189	0.059 *	0	189	0	0.059 *	0	189	0	0.059 *	0	189	0	0.059 *	0	189	0	0.059 *
Wb Thru	5	3200	0.081	0	5	0.083	0	5	3200	0.083	0	5	3200	0.083	0	5	3200	0.083	0	5	3200	0.083
Wb Right	70	0	-	2	72	-	-1	71	0	-	0	71	0	-	0	71	0	-	0	71	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.619			0.637				0.638				0.638				0.643				0.643
LOS			B			B				B				B				B				B

01:57 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).

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INTERSECTION CAPACITY UTILIZATION

I-105 Freeway Ramps @ Imperial Highway
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: I-105 Freeway Ramps
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU5

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	1231	2880	0.427	43	1274	0.442	3	1277	2880	0.443	0	1277	2880	0.443	0	1277	2880	0.443	0	1277	2880	0.443
Nb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Right [4]	435	2880	0.110	15	450	0.114	0	450	2880	0.114	0	450	2880	0.114	16	466	2880	0.116	0	466	2880	0.116
Sb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	357	4800	0.074	12	369	0.077	24	393	4800	0.082	0	393	4800	0.082	17	410	4800	0.086	0	410	4800	0.086
Eb Right [4]	296	1600	0.000	0	296	0.000	19	315	1600	0.000	0	315	1600	0.000	0	315	1600	0.000	0	315	1600	0.000
Wb Left	119	2880	0.041	4	123	0.043	0	123	2880	0.043	0	123	2880	0.043	8	131	2880	0.046	0	131	2880	0.046
Wb Thru	1251	3200	0.391 *	44	1295	0.405 *	2	1297	3200	0.405 *	0	1297	3200	0.405 *	24	1321	3200	0.413 *	0	1321	3200	0.413 *
Wb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.818		[5]	0.847			[5]	0.849			[5]	0.849			[5]	0.856			[5]	0.856
LOS			D			D				D				D				D				D

04:49 PM

**Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
4 The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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INTERSECTION CAPACITY UTILIZATION

I-105 Freeway Ramps @ Imperial Highway

N-S St: I-105 Freeway Ramps
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU5

Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	627	2880	0.218	22	649	0.225	2	651	2880	0.226	0	651	2880	0.226	0	651	2880	0.226	0	651	2880	0.226
Nb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Right [4]	258	2880	0.000	9	267	0.000	0	267	2880	0.000	0	267	2880	0.000	19	286	2880	0.000	0	286	2880	0.000
Sb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Thru	1459	4800	0.304 *	51	1510	0.315 *	-3	1507	4800	0.314 *	0	1507	4800	0.314 *	27	1534	4800	0.320 *	0	1534	4800	0.320 *
Eb Right [4]	576	1600	0.142	0	576	0.135	1	577	1600	0.135	0	577	1600	0.135	0	577	1600	0.135	0	577	1600	0.135
Wb Left	287	2880	0.100 *	10	297	0.103 *	0	297	2880	0.103 *	0	297	2880	0.103 *	5	302	2880	0.105 *	0	302	2880	0.105 *
Wb Thru	536	3200	0.168	19	555	0.173	-5	550	3200	0.172	0	550	3200	0.172	19	569	3200	0.178	0	569	3200	0.178
Wb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			*[5]* 0.621			*[5]* 0.643				*[5]* 0.643				*[5]* 0.643				*[5]* 0.650				*[5]* 0.650
LOS			B			B				B				B				B				B

04:49 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
4 The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ I-405 Freeway SB Ramps (North of Imperial Highway)

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps (North of Imperial Highway)
Project: Aviation Station Project/1-093778-1
File: ICU-6

Peak hr: AM
Annual Growth: 0.70%

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

REDUCED PROJECT - PHASE I

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	10	1600	0.006	0	10	0.006	0	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006
Nb Thru	930	3200	0.291 *	33	963	0.301 *	9	972	3200	0.304 *	0	972	3200	0.304 *	63	1035	3200	0.323 *	0	1035	3200	0.323 *
Nb Right [4]	96	1600	0.000	3	99	0.000	0	99	1600	0.000	0	99	1600	0.000	0	99	1600	0.000	0	99	1600	0.000
Sb Left	103	1600	0.064 *	4	107	0.067 *	0	107	1600	0.067 *	0	107	1600	0.067 *	8	115	1600	0.072 *	0	115	1600	0.072 *
Sb Thru	488	3200	0.154	17	505	0.159	1	506	3200	0.159	0	506	3200	0.159	27	533	3200	0.168	0	533	3200	0.168
Sb Right	4	0	-	0	4	-	0	4	0	-	0	4	0	-	0	4	0	-	0	4	0	-
Eb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	270	2880	0.094	9	279	0.097	1	280	2880	0.097	0	280	2880	0.097	2	282	2880	0.098	0	282	2880	0.098
Wb Thru	1	0	0.000	0	1	0.000	0	1	0	0.000	0	1	0	0.000	0	1	0	0.000	0	1	0	0.000
Wb Right	74	1600	0.046	3	77	0.048	0	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.449		[5]	0.464			[5]	0.468			[5]	0.468			[5]	0.493			[5]	0.493
LOS			A			A				A				A				A				A

04:50 PM

**Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
4 The northbound right-turn lane has an overlapping phase with the westbound left-turn phase.
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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ I-405 Freeway SB Ramps (North of Imperial Highway)

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps (North of Imperial Highway)
Project: Aviation Station Project/1-093778-1
File: ICU-6

Peak hr: PM
Annual Growth: 0.70%

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

REDUCED PROJECT - PHASE I

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	1	1600	0.001 *	0	1	0.001 *	0	1	1600	0.001 *	0	1	1600	0.001 *	0	1	1600	0.001 *	0	1	1600	0.001 *
Nb Thru	535	3200	0.167	19	554	0.173	-1	553	3200	0.173	0	553	3200	0.173	75	628	3200	0.196	0	628	3200	0.196
Nb Right [4]	54	1600	0.000	2	56	0.000	0	56	1600	0.000	0	56	1600	0.000	0	56	1600	0.000	0	56	1600	0.000
Sb Left	115	1600	0.072	4	119	0.074	0	119	1600	0.074	0	119	1600	0.074	5	124	1600	0.078	0	124	1600	0.078
Sb Thru	986	3200	0.308 *	35	1021	0.319 *	-2	1019	3200	0.319 *	0	1019	3200	0.319 *	19	1038	3200	0.325 *	0	1038	3200	0.325 *
Sb Right	1	0	-	0	1	-	0	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-
Eb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	237	2880	0.082	8	245	0.085	-2	243	2880	0.084	0	243	2880	0.084	7	250	2880	0.087	0	250	2880	0.087
Wb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Wb Right	81	1600	0.051	3	84	0.052	0	84	1600	0.052	0	84	1600	0.052	0	84	1600	0.052	0	84	1600	0.052
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			*[5]* 0.391			*[5]* 0.405				*[5]* 0.404				*[5]* 0.404				*[5]* 0.412				*[5]* 0.412
LOS			A			A				A				A				A				A

04:50 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
4 The northbound right-turn lane has an overlapping phase with the westbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ Imperial Highway

N-S St: La Cienega Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU7

Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	116	2880	0.040 *	4	120	0.042 *	0	120	2880	0.042 *	0	120	2880	0.042 *	0	120	2880	0.042 *	0	120	2880	0.042 *
Nb Thru	243	4800	0.088	9	252	0.091	0	252	4800	0.091	0	252	4800	0.091	15	267	4800	0.094	0	267	4800	0.094
Nb Right	177	0	-	6	183	-	0	183	0	-	0	183	0	-	1	184	0	-	0	184	0	-
Sb Left	68	2880	0.024	2	70	0.024	0	70	2880	0.024	0	70	2880	0.024	4	74	2880	0.026	0	74	2880	0.026
Sb Thru	268	4800	0.141 *	9	277	0.146 *	0	277	4800	0.146 *	0	277	4800	0.146 *	18	295	4800	0.152 *	0	295	4800	0.152 *
Sb Right	408	0	-	14	422	-	3	425	0	-	0	425	0	-	10	435	0	-	0	435	0	-
Eb Left	298	2880	0.103 *	10	308	0.107 *	9	317	2880	0.110 *	0	317	2880	0.110 *	19	336	2880	0.117 *	0	336	2880	0.117 *
Eb Thru	190	4800	0.040	7	197	0.041	14	211	4800	0.044	0	211	4800	0.044	14	225	4800	0.047	0	225	4800	0.047
Eb Right [4]	244	2880	0.044	23	267	0.051	0	267	2880	0.051	0	267	2880	0.051	0	267	2880	0.051	0	267	2880	0.051
Wb Left	95	2880	0.033	3	98	0.034	0	98	2880	0.034	0	98	2880	0.034	7	105	2880	0.037	0	105	2880	0.037
Wb Thru	891	4800	0.186 *	31	922	0.192 *	1	923	4800	0.192 *	0	923	4800	0.192 *	22	945	4800	0.197 *	0	945	4800	0.197 *
Wb Right [4	519	2880	0.157	18	537	0.162	0	537	2880	0.162	0	537	2880	0.162	19	556	2880	0.167	0	556	2880	0.167
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.470		[5]	0.487			[5]	0.491			[5]	0.491			[5]	0.508			[5]	0.508
LOS			A			A				A				A				A				A

04:50 PM

**Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
4 The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase. The westbound right-turn movement has an overlapping phase with the southbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ Imperial Highway

N-S St: La Cienega Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU7

Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	88	2880	0.031	3	91	0.032	0	91	2880	0.032	0	91	2880	0.032	0	91	2880	0.032	0	91	2880	0.032
Nb Thru	185	1600	0.116	6	191	0.120	0	191	1600	0.120	0	191	1600	0.120	17	208	4800	0.212 *	0	208	4800	0.212 *
Nb Right [6]	780	2880	0.271 *	27	807	0.280 *	0	807	2880	0.280 *	0	807	2880	0.280 *	4	811	0	-	0	811	0	-
Sb Left	351	2880	0.122 *	12	363	0.126 *	0	363	2880	0.126 *	0	363	2880	0.126 *	8	371	2880	0.129 *	0	371	2880	0.129 *
Sb Thru	585	4800	0.202	20	605	0.209	0	605	4800	0.208	0	605	4800	0.208	15	620	4800	0.212	0	620	4800	0.212
Sb Right	385	0	-	13	398	-	-4	394	0	-	0	394	0	-	5	399	0	-	0	399	0	-
Eb Left	200	2880	0.069	7	207	0.072	-1	206	2880	0.072	0	206	2880	0.072	23	229	2880	0.080	0	229	2880	0.080
Eb Thru	1176	4800	0.245 *	41	1217	0.254 *	-2	1215	4800	0.253 *	0	1215	4800	0.253 *	23	1238	4800	0.258 *	0	1238	4800	0.258 *
Eb Right [4]	315	2880	0.079	11	326	0.082	0	326	2880	0.082	0	326	2880	0.082	0	326	2880	0.082	0	326	2880	0.082
Wb Left	42	2880	0.015 *	1	43	0.015 *	0	43	2880	0.015 *	0	43	2880	0.015 *	15	58	2880	0.020 *	0	58	2880	0.020 *
Wb Thru	350	4800	0.073	12	362	0.075	-1	361	4800	0.075	0	361	4800	0.075	18	379	4800	0.079	0	379	4800	0.079
Wb Right [4	184	2880	0.000	6	190	0.000	0	190	2880	0.000	0	190	2880	0.000	23	213	2880	0.000	0	213	2880	0.000
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.652		[5]	0.675		[5]	0.675			[5]	0.675			[5]	0.620			[5]	0.620	
LOS		B			B			B				B				B				B		

04:50 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
4 The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase. The westbound right-turn movement has an overlapping phase with the southbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.
6 The northbound shared through/right-turn and right-turn only lanes function as dual right-turn lanes during the PM peak hour.

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ 120th Street
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: La Cienega Boulevard
E-W St: 120th Street
Project: Aviation Station Project/1-093778-1
File: ICU8

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	77	1600	0.048	3	80	0.050	0	80	1600	0.050	0	80	1600	0.050	0	80	1600	0.050	0	80	1600	0.050
Nb Thru	231	3200	0.089 *	8	239	0.092 *	0	239	3200	0.092 *	0	239	3200	0.092 *	16	255	3200	0.097 *	0	255	3200	0.097 *
Nb Right	53	0	-	2	55	-	0	55	0	-	0	55	0	-	0	55	0	-	0	55	0	-
Sb Left	86	1600	0.054 *	3	89	0.056 *	0	89	1600	0.056 *	0	89	1600	0.056 *	0	89	1600	0.056 *	0	89	1600	0.056 *
Sb Thru	127	3200	0.084	4	131	0.087	0	131	3200	0.087	0	131	3200	0.087	14	145	3200	0.091	0	145	3200	0.091
Sb Right	142	0	-	5	147	-	0	147	0	-	0	147	0	-	0	147	0	-	0	147	0	-
Eb Left	90	1600	0.056 *	3	93	0.058 *	0	93	1600	0.058 *	0	93	1600	0.058 *	0	93	1600	0.058 *	0	93	1600	0.058 *
Eb Thru	164	3200	0.072	6	170	0.074	5	175	3200	0.078	0	175	3200	0.078	0	175	3200	0.078	0	175	3200	0.078
Eb Right	66	0	-	2	68	-	5	73	0	-	0	73	0	-	0	73	0	-	0	73	0	-
Wb Left	149	1600	0.093	5	154	0.096	0	154	1600	0.096	0	154	1600	0.096	7	161	1600	0.101	0	161	1600	0.101
Wb Thru	460	3200	0.208 *	16	476	0.215 *	1	477	3200	0.215 *	0	477	3200	0.215 *	0	477	3200	0.215 *	0	477	3200	0.215 *
Wb Right	205	0	-	7	212	-	0	212	0	-	0	212	0	-	0	212	0	-	0	212	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.507			0.521				0.521				0.521				0.526				0.526
LOS			A			A				A				A				A				A

01:58 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ 120th Street

N-S St: La Cienega Boulevard
E-W St: 120th Street
Project: Aviation Station Project/1-093778-1
File: ICU8

Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	51	1600	0.032	2	53	0.033	0	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033
Nb Thru	147	3200	0.103 *	5	152	0.106 *	0	152	3200	0.106 *	0	152	3200	0.106 *	21	173	3200	0.113 *	0	173	3200	0.113 *
Nb Right	181	0	-	6	187	-	0	187	0	-	0	187	0	-	0	187	0	-	0	187	0	-
Sb Left	511	1600	0.319 *	18	529	0.331 *	0	529	1600	0.331 *	0	529	1600	0.331 *	0	529	1600	0.331 *	0	529	1600	0.331 *
Sb Thru	816	3200	0.308	29	845	0.319	0	845	3200	0.319	0	845	3200	0.319	10	855	3200	0.322	0	855	3200	0.322
Sb Right	169	0	-	6	175	-	0	175	0	-	0	175	0	-	0	175	0	-	0	175	0	-
Eb Left	68	1600	0.043	2	70	0.044	0	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044
Eb Thru	446	3200	0.168 *	16	462	0.174 *	0	462	3200	0.175 *	0	462	3200	0.175 *	0	462	3200	0.175 *	0	462	3200	0.175 *
Eb Right	91	0	-	3	94	-	3	97	0	-	0	97	0	-	0	97	0	-	0	97	0	-
Wb Left	38	1600	0.024 *	1	39	0.025 *	0	39	1600	0.025 *	0	39	1600	0.025 *	4	43	1600	0.027 *	0	43	1600	0.027 *
Wb Thru	198	3200	0.082	7	205	0.085	-1	204	3200	0.085	0	204	3200	0.085	0	204	3200	0.085	0	204	3200	0.085
Wb Right	65	0	-	2	67	-	0	67	0	-	0	67	0	-	0	67	0	-	0	67	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.713			0.735				0.736				0.736				0.745				0.745
LOS			C			C				C				C				C				C

01:58 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ I-405 Freeway SB Ramps (South of 120th Street)

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps (South of 120th Street)
Project: Aviation Station Project/1-093778-1
File: ICU9

Peak hr: AM
Annual Growth: 0.70%

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

REDUCED PROJECT - PHASE I

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	309	3200	0.097 *	11	320	0.100 *	0	320	3200	0.100 *	0	320	3200	0.100 *	16	336	3200	0.105 *	0	336	3200	0.105 *
Nb Right [4]	133	1600	0.083	5	138	0.086	0	138	1600	0.086	0	138	1600	0.086	0	138	1600	0.086	0	138	1600	0.086
Sb Left	193	1600	0.121 *	7	200	0.125 *	5	205	1600	0.128 *	0	205	1600	0.128 *	7	212	1600	0.132 *	0	212	1600	0.132 *
Sb Thru	136	4800	0.028	5	141	0.029	0	141	4800	0.029	0	141	4800	0.029	14	155	4800	0.032	0	155	4800	0.032
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	585	0	0.183	20	605	0.189	0	605	0	0.189	0	605	0	0.189	7	612	0	0.191	0	612	0	0.191
Wb Thru	0	3200	0.210 *	0	0	0.218 *	0	0	3200	0.218 *	0	0	3200	0.218 *	0	0	3200	0.220 *	0	0	3200	0.220 *
Wb Right	88	0	-	3	91	-	0	91	0	-	0	91	0	-	0	91	0	-	0	91	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.528			0.542				0.546				0.546				0.557				0.557
LOS			A			A				A				A				A				A

01:58 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
4 The northbound approach consisting of one through lane, one shared through/right-turn lane, and one right-turn only lane functions as two through lanes and one right-turn only lane during the AM and PM peak hours.

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ I-405 Freeway SB Ramps (South of 120th Street)

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps (South of 120th Street)
Project: Aviation Station Project/1-093778-1
File: ICU9

Peak hr: PM
Annual Growth: 0.70%

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

REDUCED PROJECT - PHASE I

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	242	3200	0.076 *	8	250	0.078 *	0	250	3200	0.078 *	0	250	3200	0.078 *	21	271	3200	0.085 *	0	271	3200	0.085 *
Nb Right [4]	80	1600	0.050	3	83	0.052	0	83	1600	0.052	0	83	1600	0.052	0	83	1600	0.052	0	83	1600	0.052
Sb Left	313	1600	0.196 *	11	324	0.202 *	3	327	1600	0.204 *	0	327	1600	0.204 *	4	331	1600	0.207 *	0	331	1600	0.207 *
Sb Thru	581	4800	0.121	20	601	0.125	0	601	4800	0.125	0	601	4800	0.125	10	611	4800	0.127	0	611	4800	0.127
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	1019	0	0.318	36	1055	0.330	0	1055	0	0.330	0	1055	0	0.330	1	1056	0	0.330	0	1056	0	0.330
Wb Thru	0	3200	0.369 *	0	0	0.382 *	0	0	3200	0.382 *	0	0	3200	0.382 *	0	0	3200	0.382 *	0	0	3200	0.382 *
Wb Right	161	0	-	6	167	-	0	167	0	-	0	167	0	-	0	167	0	-	0	167	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.740			0.762				0.764				0.764				0.774				0.774
LOS			C			C				C				C				C				C

01:58 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
4 The northbound approach consisting of one through lane, one shared through/right-turn lane, and one right-turn only lane functions as two through lanes and one right-turn only lane during the AM and PM peak hours.

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ El Segundo Boulevard
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: El Segundo Boulevard
Project: Aviation Station Project/1-093778-1
File: ICU10

Date: 08/18/2011
Date of Count: 2011
Projection Year: 2014

	2011 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	275	2880	0.095	6	281	0.097	0	281	2880	0.097	0	281	2880	0.097	0	281	2880	0.097	0	281	2880	0.097
Nb Thru	908	3200	0.284 *	19	927	0.290 *	1	928	3200	0.290 *	0	928	3200	0.290 *	23	951	3200	0.297 *	0	951	3200	0.297 *
Nb Right	236	1600	0.148	5	241	0.151	0	241	1600	0.151	0	241	1600	0.151	0	241	1600	0.151	0	241	1600	0.151
Sb Left	25	1600	0.016 *	1	26	0.016 *	4	30	1600	0.018 *	0	30	1600	0.018 *	0	30	1600	0.018 *	0	30	1600	0.018 *
Sb Thru	587	3200	0.183	12	599	0.187	9	608	3200	0.190	0	608	3200	0.190	11	619	3200	0.194	0	619	3200	0.194
Sb Right	274	1600	0.171	6	280	0.175	5	285	1600	0.178	0	285	1600	0.178	0	285	1600	0.178	0	285	1600	0.178
Eb Left	110	1600	0.069 *	2	112	0.070 *	1	113	1600	0.071 *	0	113	1600	0.071 *	0	113	1600	0.071 *	0	113	1600	0.071 *
Eb Thru	428	4800	0.089	9	437	0.091	0	437	4800	0.091	0	437	4800	0.091	0	437	4800	0.091	0	437	4800	0.091
Eb Right	95	1600	0.059	2	97	0.061	0	97	1600	0.061	0	97	1600	0.061	0	97	1600	0.061	0	97	1600	0.061
Wb Left	326	2880	0.113	7	333	0.116	0	333	2880	0.116	0	333	2880	0.116	0	333	2880	0.116	0	333	2880	0.116
Wb Thru	1418	4800	0.313 *	30	1448	0.320 *	0	1448	4800	0.320 *	0	1448	4800	0.320 *	0	1448	4800	0.320 *	0	1448	4800	0.320 *
Wb Right	85	0	-	2	87	-	1	88	0	-	0	88	0	-	0	88	0	-	0	88	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.781			0.796				0.799				0.799				0.806				0.806
LOS			C			C				C				C				D				D

05:39 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ El Segundo Boulevard
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I

N-S St: Aviation Boulevard
E-W St: El Segundo Boulevard
Project: Aviation Station Project/1-093778-1
File: ICU10

Date: 08/18/2011
Date of Count: 2011
Projection Year: 2014

	2011 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	196	2880	0.068 *	4	200	0.069 *	0	200	2880	0.069 *	0	200	2880	0.069 *	0	200	2880	0.069 *	0	200	2880	0.069 *
Nb Thru	515	3200	0.161	11	526	0.164	-2	524	3200	0.164	0	524	3200	0.164	17	541	3200	0.169	0	541	3200	0.169
Nb Right	270	1600	0.169	6	276	0.172	0	276	1600	0.172	0	276	1600	0.172	0	276	1600	0.172	0	276	1600	0.172
Sb Left	132	1600	0.083	3	135	0.084	-4	131	1600	0.082	0	131	1600	0.082	0	131	1600	0.082	0	131	1600	0.082
Sb Thru	1021	3200	0.319 *	21	1042	0.326 *	-1	1041	3200	0.325 *	0	1041	3200	0.325 *	22	1063	3200	0.332 *	0	1063	3200	0.332 *
Sb Right	138	1600	0.086	3	141	0.088	0	141	1600	0.088	0	141	1600	0.088	0	141	1600	0.088	0	141	1600	0.088
Eb Left	176	1600	0.110	4	180	0.112	-1	179	1600	0.112	0	179	1600	0.112	0	179	1600	0.112	0	179	1600	0.112
Eb Thru	1888	4800	0.393 *	40	1928	0.402 *	0	1928	4800	0.402 *	0	1928	4800	0.402 *	0	1928	4800	0.402 *	0	1928	4800	0.402 *
Eb Right	391	1600	0.244	8	399	0.250	0	399	1600	0.250	0	399	1600	0.250	0	399	1600	0.250	0	399	1600	0.250
Wb Left	490	2880	0.170 *	10	500	0.174 *	0	500	2880	0.174 *	0	500	2880	0.174 *	0	500	2880	0.174 *	0	500	2880	0.174 *
Wb Thru	655	4800	0.150	14	669	0.154	0	669	4800	0.152	0	669	4800	0.152	0	669	4800	0.152	0	669	4800	0.152
Wb Right	67	0	-	1	68	-	-7	61	0	-	0	61	0	-	0	61	0	-	0	61	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			1.051			1.071				1.070				1.070				1.077				1.077
LOS			F			F				F				F				F				F

05:39 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).

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CRITICAL MOVEMENT ANALYSIS

Aviation Boulevard @ Imperial Highway
Peak Hour: AM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I
CITY OF LOS ANGELES METHODOLOGY

N-S St: Aviation Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA1
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	267	2	147	9	276	2	152	7	283	2	156	9	292	2	161	0	292	2	161
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	640	2	320	22	662	2	331	10	672	2	336	14	686	2	343	0	686	2	343
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	134	1	134	5	139	1	139	5	144	1	144	43	187	1	187	0	187	1	187
Comb. L-T-R -		0				0				0				0				0	
SB Left	202	2	111	7	209	2	115	0	209	2	115	0	209	2	115	0	209	2	115
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	351	2	176	12	363	2	182	7	370	2	185	2	372	2	186	0	372	2	186
Comb. T-R		0	-			0	-			0	-			0	-			0	-
SB Right [2]	244	1	244	9	253	1	253	14	267	1	267	0	267	1	267	0	267	1	267
Comb. L-T-R -		0				0				0				0				0	
EB Left	127	2	70	4	131	2	72	2	133	2	73	0	133	2	73	0	133	2	73
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	288	2	126	10	298	2	130	12	310	2	135	0	310	2	136	0	310	2	136
Comb. T-R		1	126			1	130			1	135			1	136			1	136
EB Right	90	0	-	3	93	0	-	3	96	0	-	1	97	0	-	0	97	0	-
Comb. L-T-R -		0				0				0				0				0	
WB Left	260	2	143	9	269	2	148	2	271	2	149	5	276	2	152	0	276	2	152
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	1425	3	475	50	1475	3	492	22	1497	3	499	0	1497	3	499	0	1497	3	499
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right [2]	726	1	726	25	751	1	751	0	751	1	751	0	751	1	751	0	751	1	751
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	431			N-S:	446			N-S:	451			N-S:	458			N-S:	458
		E-W:	685			E-W:	709			E-W:	710			E-W:	710			E-W:	710
		SUM:	1116			SUM:	1155			SUM:	1161			SUM:	1168			SUM:	1168
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.712			[3]	0.740			[3]	0.744			[3]	0.749			[3]	0.749
Level of Service:			C				C				C				C				C

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
[2] The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The southbound right-turn movement has an overlapping phase with the eastbound left-turn phase. The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

Aviation Boulevard @ Imperial Highway
Peak Hour: PM Peak Hour
Annual Growth: 0.70%

N-S St: Aviation Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA1
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

REDUCED PROJECT - PHASE I
CITY OF LOS ANGELES METHODOLOGY

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	171	2	94	6	177	2	97	4	181	2	100	-1	180	2	99	0	180	2	99
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	434	2	217	15	449	2	225	9	458	2	229	-2	456	2	228	0	456	2	228
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	275	1	275	10	285	1	285	3	288	1	288	-3	285	1	285	0	285	1	285
Comb. L-T-R -		0				0				0				0				0	
SB Left	467	2	257	16	483	2	266	0	483	2	266	0	483	2	266	0	483	2	266
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	679	2	340	24	703	2	351	11	714	2	357	-3	711	2	355	0	711	2	355
Comb. T-R		0	-			0	-			0	-			0	-			0	-
SB Right [2]	118	1	118	4	122	1	122	3	125	1	125	0	125	1	125	0	125	1	125
Comb. L-T-R -		0				0				0				0				0	
EB Left	239	2	131	8	247	2	136	10	257	2	142	0	257	2	142	0	257	2	142
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	1212	2	518	42	1254	2	536	24	1278	2	546	0	1278	2	546	0	1278	2	546
Comb. T-R		1	518			1	536			1	546			1	546			1	546
EB Right	342	0	-	12	354	0	-	7	361	0	-	-2	359	0	-	0	359	0	-
Comb. L-T-R -		0				0				0				0				0	
WB Left	243	2	134	9	252	2	138	5	257	2	141	-3	254	2	139	0	254	2	139
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	505	3	168	18	523	3	174	14	537	3	179	0	537	3	179	0	537	3	179
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right [2]	340	1	340	12	352	1	352	0	352	1	352	0	352	1	352	0	352	1	352
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	474			N-S:	490			N-S:	495			N-S:	494			N-S:	494
		E-W:	652			E-W:	674			E-W:	688			E-W:	685			E-W:	685
		SUM:	1126			SUM:	1165			SUM:	1182			SUM:	1179			SUM:	1179
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.719			[3]	0.747			[3]	0.760			[3]	0.758			[3]	0.758
Level of Service:			C				C				C				C				C

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
[2] The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The southbound right-turn movement has an overlapping phase with the eastbound left-turn phase. The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

I-105 Freeway Ramps @ Imperial Highway
Peak Hour: AM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I
CITY OF LOS ANGELES METHODOLOGY

N-S St: I-105 Freeway Ramps
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA5
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	1231	2	677	43	1274	2	701	0	1274	2	701	3	1277	2	702	0	1277	2	702
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	435	2	239	15	450	2	248	16	466	2	256	0	466	2	256	0	466	2	256
Comb. L-T-R -		0				0				0				0				0	
SB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
SB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	357	3	119	12	369	3	123	17	386	3	129	24	410	3	137	0	410	3	137
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right [2]	296	1	296	0	296	1	296	0	296	1	296	19	315	1	315	0	315	1	315
Comb. L-T-R -		0				0				0				0				0	
WB Left	119	2	65	4	123	2	68	8	131	2	72	0	131	2	72	0	131	2	72
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	1251	2	626	44	1295	2	647	24	1319	2	659	2	1321	2	660	0	1321	2	660
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	677			N-S:	701			N-S:	701			N-S:	702			N-S:	702
		E-W:	626			E-W:	647			E-W:	659			E-W:	660			E-W:	660
		SUM:	1303			SUM:	1348			SUM:	1360			SUM:	1363			SUM:	1363
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.847			[3]	0.880			[3]	0.889			[3]	0.891			[3]	0.891
Level of Service:			D				D				D				D				D

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
[2] The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

I-105 Freeway Ramps @ Imperial Highway
Peak Hour: PM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I
CITY OF LOS ANGELES METHODOLOGY

N-S St: I-105 Freeway Ramps
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA5
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	627	2	345	22	649	2	357	0	649	2	357	2	651	2	358	0	651	2	358
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	258	2	142	9	267	2	147	19	286	2	157	0	286	2	157	0	286	2	157
Comb. L-T-R -		0				0				0				0				0	
SB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
SB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	1459	3	486	51	1510	3	503	27	1537	3	512	-3	1534	3	511	0	1534	3	511
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right [2]	576	1	576	0	576	1	576	0	576	1	576	1	577	1	577	0	577	1	577
Comb. L-T-R -		0				0				0				0				0	
WB Left	287	2	158	10	297	2	163	5	302	2	166	0	302	2	166	0	302	2	166
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	536	2	268	19	555	2	277	19	574	2	287	-5	569	2	284	0	569	2	284
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	345			N-S:	357			N-S:	357			N-S:	358			N-S:	358
		E-W:	644			E-W:	667			E-W:	678			E-W:	677			E-W:	677
		SUM:	989			SUM:	1024			SUM:	1035			SUM:	1035			SUM:	1035
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.619			[3]	0.644			[3]	0.653			[3]	0.653			[3]	0.653
Level of Service:			B				B				B				B				B

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
[2] The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

La Cienega Boulevard @ I-405 Freeway SB Ramps
Peak Hour: AM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I
CITY OF LOS ANGELES METHODOLOGY

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps
Project: Aviation Station Project/1-093778-1
File Name: CMA6
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	10	1	10	0	10	1	10	0	10	1	10	0	10	1	10	0	10	1	10
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	930	2	465	33	963	2	481	63	1026	2	513	9	1035	2	517	0	1035	2	517
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	96	1	96	3	99	1	99	0	99	1	99	0	99	1	99	0	99	1	99
Comb. L-T-R -		0				0				0				0				0	
SB Left	103	1	103	4	107	1	107	8	115	1	115	0	115	1	115	0	115	1	115
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	488	1	246	17	505	1	255	27	532	1	268	1	533	1	269	0	533	1	269
Comb. T-R		1	246			1	255			1	268			1	269			1	269
SB Right	4	0	-	0	4	0	-	0	4	0	-	0	4	0	-	0	4	0	-
Comb. L-T-R -		0				0				0				0				0	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
WB Left	270	2	149	9	279	2	154	2	281	2	155	1	282	2	155	0	282	2	155
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right	74	1	74	3	77	1	77	0	77	1	77	0	77	1	77	0	77	1	77
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	568			N-S:	588			N-S:	627			N-S:	632			N-S:	632
		E-W:	149			E-W:	154			E-W:	155			E-W:	155			E-W:	155
		SUM:	717			SUM:	742			SUM:	782			SUM:	787			SUM:	787
No. of Phases:			3				3				3				3				3
Volume / Capacity:		[3]	0.403			[3]	0.420			[3]	0.449			[3]	0.452			[3]	0.452
Level of Service:			A				A				A				A				A

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
[2] The northbound right-turn lane has an overlapping phase with the westbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

La Cienega Boulevard @ I-405 Freeway SB Ramps
Peak Hour: PM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I
CITY OF LOS ANGELES METHODOLOGY

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps
Project: Aviation Station Project/1-093778-1
File Name: CMA6
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	535	2	268	19	554	2	277	75	629	2	314	-1	628	2	314	0	628	2	314
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	54	1	54	2	56	1	56	0	56	1	56	0	56	1	56	0	56	1	56
Comb. L-T-R -		0				0				0				0				0	
SB Left	115	1	115	4	119	1	119	5	124	1	124	0	124	1	124	0	124	1	124
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	986	1	494	35	1021	1	511	19	1040	1	520	-2	1038	1	519	0	1038	1	519
Comb. T-R		1	494			1	511			1	520			1	519			1	519
SB Right	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-
Comb. L-T-R -		0				0				0				0				0	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
WB Left	237	2	130	8	245	2	135	7	252	2	139	-2	250	2	138	0	250	2	138
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right	81	1	81	3	84	1	84	0	84	1	84	0	84	1	84	0	84	1	84
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	495			N-S:	512			N-S:	521			N-S:	520			N-S:	520
		E-W:	130			E-W:	135			E-W:	139			E-W:	138			E-W:	138
		SUM:	625			SUM:	647			SUM:	660			SUM:	658			SUM:	658
No. of Phases:			3				3				3				3				3
Volume / Capacity:		[3]	0.338			[3]	0.354			[3]	0.363			[3]	0.362			[3]	0.362
Level of Service:			A				A				A				A				A

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
[2] The northbound right-turn lane has an overlapping phase with the westbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

N-S St: La Cienega Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA7
Counts by: The Traffic Solution

La Cienega Boulevard @ Imperial Highway
Peak Hour: AM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I
CITY OF LOS ANGELES METHODOLOGY

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	116	2	64	4	120	2	66	0	120	2	66	0	120	2	66	0	120	2	66
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	243	1	148	9	252	1	153	15	267	1	161	0	267	1	161	0	267	1	161
Comb. T-R		1	148			1	153			1	161			1	161			1	161
NB Right	177	1	124	6	183	1	128	1	184	1	129	0	184	1	129	0	184	1	129
Comb. L-T-R -		0				0				0				0				0	
SB Left	68	2	37	2	70	2	39	4	74	2	41	0	74	2	41	0	74	2	41
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	268	1	195	9	277	1	202	18	295	1	213	0	295	1	213	0	295	1	213
Comb. T-R		1	195			1	202			1	213			1	213			1	213
SB Right	408	1	286	14	422	1	296	10	432	1	303	3	435	1	305	0	435	1	305
Comb. L-T-R -		0				0				0				0				0	
EB Left	298	2	164	10	308	2	170	19	327	2	180	9	336	2	185	0	336	2	185
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	190	3	63	7	197	3	66	14	211	3	70	14	225	3	75	0	225	3	75
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right [2]	244	2	134	23	267	2	147	0	267	2	147	0	267	2	147	0	267	2	147
Comb. L-T-R -		0				0				0				0				0	
WB Left	95	2	52	3	98	2	54	7	105	2	58	0	105	2	58	0	105	2	58
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	891	3	297	31	922	3	307	22	944	3	315	1	945	3	315	0	945	3	315
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right [2]	519	2	285	18	537	2	295	19	556	2	306	0	556	2	306	0	556	2	306
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	267			N-S:	277			N-S:	279			N-S:	279			N-S:	279
		E-W:	461			E-W:	477			E-W:	495			E-W:	500			E-W:	500
		SUM:	728			SUM:	754			SUM:	773			SUM:	779			SUM:	779
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.430			[3]	0.448			[3]	0.462			[3]	0.467			[3]	0.467
Level of Service:			A				A				A				A				A

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
[2] The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase. The westbound right-turn movement has an overlapping phase with the southbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

N-S St: La Cienega Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA7
Counts by: The Traffic Solution

La Cienega Boulevard @ Imperial Highway
Peak Hour: PM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASE I
CITY OF LOS ANGELES METHODOLOGY

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	88	2	48	3	91	2	50	0	91	2	50	0	91	2	50	0	91	2	50
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	185	1	185	6	191	1	191	17	208	1	208	0	208	1	208	0	208	1	208
Comb. T-R		1	234			1	242			1	243			1	243			1	243
NB Right	780	1	546	27	807	1	565	4	811	1	568	0	811	1	568	0	811	1	568
Comb. L-T-R -		0				0				0				0				0	
SB Left	351	2	193	12	363	2	200	8	371	2	204	0	371	2	204	0	371	2	204
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	585	1	350	20	605	1	363	15	620	1	371	0	620	1	370	0	620	1	370
Comb. T-R		1	350			1	363			1	371			1	370			1	370
SB Right	385	1	270	13	398	1	279	5	403	1	282	-4	399	1	280	0	399	1	280
Comb. L-T-R -		0				0				0				0				0	
EB Left	200	2	110	7	207	2	114	23	230	2	127	-1	229	2	126	0	229	2	126
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	1176	3	392	41	1217	3	406	23	1240	3	413	-2	1238	3	413	0	1238	3	413
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right [2]	315	2	173	11	326	2	179	0	326	2	179	0	326	2	179	0	326	2	179
Comb. L-T-R -		0				0				0				0				0	
WB Left	42	2	23	1	43	2	24	15	58	2	32	0	58	2	32	0	58	2	32
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	350	3	117	12	362	3	121	18	380	3	127	-1	379	3	126	0	379	3	126
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right [2]	184	2	101	6	190	2	105	23	213	2	117	0	213	2	117	0	213	2	117
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	728			N-S:	753			N-S:	756			N-S:	756			N-S:	756
		E-W:	415			E-W:	430			E-W:	446			E-W:	445			E-W:	445
		SUM:	1143			SUM:	1183			SUM:	1202			SUM:	1201			SUM:	1201
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.731			[3]	0.760			[3]	0.774			[3]	0.773			[3]	0.773
Level of Service:			C				C				C				C				C

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes less existing use traffic volumes).
[2] The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase. The westbound right-turn movement has an overlapping phase with the southbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ Imperial Highway
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU1

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	267	2880	0.093	9	276	0.096	17	293	2880	0.102	0	293	2880	0.102	7	300	2880	0.104	0	300	2880	0.104
Nb Thru	640	3200	0.200 *	22	662	0.207 *	15	677	3200	0.212 *	0	677	3200	0.212 *	10	687	3200	0.215 *	0	687	3200	0.215 *
Nb Right [4]	134	1600	0.000	5	139	0.000	61	200	1600	0.029	0	200	1600	0.029	5	205	1600	0.032	0	205	1600	0.032
Sb Left	202	2880	0.070 *	7	209	0.073 *	25	234	2880	0.081 *	0	234	2880	0.081 *	0	234	2880	0.081 *	0	234	2880	0.081 *
Sb Thru	351	3200	0.110	12	363	0.114	-21	342	3200	0.107	0	342	3200	0.107	7	349	3200	0.109	0	349	3200	0.109
Sb Right [4]	244	1600	0.108	9	253	0.112	0	253	1600	0.112	0	253	1600	0.112	14	267	1600	0.120	0	267	1600	0.120
Eb Left	127	2880	0.044 *	4	131	0.046 *	0	131	2880	0.046 *	0	131	2880	0.046 *	2	133	2880	0.046 *	0	133	2880	0.046 *
Eb Thru	288	4800	0.079	10	298	0.082	15	313	4800	0.082	0	313	4800	0.082	12	325	4800	0.085	0	325	4800	0.085
Eb Right	90	0	-	3	93	-	-12	81	0	-	0	81	0	-	3	84	0	-	0	84	0	-
Wb Left	260	2880	0.090	9	269	0.093	6	275	2880	0.096	0	275	2880	0.096	2	277	2880	0.096	0	277	2880	0.096
Wb Thru	1425	4800	0.297	50	1475	0.307	0	1475	4800	0.307	0	1475	4800	0.307	22	1497	4800	0.312	0	1497	4800	0.312
Wb Right [4	726	1600	0.384 *	25	751	0.397 *	7	758	1600	0.393 *	0	758	1600	0.393 *	0	758	1600	0.393 *	0	758	1600	0.393 *
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.698		[5]	0.722			[5]	0.731			[5]	0.731			[5]	0.735			[5]	0.735
LOS			B			C				C				C				C				C

04:53 PM

**Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
4 The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The southbound right-turn movement has an overlapping phase with the eastbound left-turn phase. The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

LINSCOTT, LAW & GREENSPAN, ENGINEERS
236 N. Chester Avenue, Suite 200, Pasadena CA 91106
(626) 796.2322 Fax (626) 792-0941

INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ Imperial Highway
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU1

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	171	2880	0.059	6	177	0.061	22	199	2880	0.069	0	199	2880	0.069	4	203	2880	0.070	0	203	2880	0.070
Nb Thru	434	3200	0.136 *	15	449	0.140 *	29	478	3200	0.149 *	0	478	3200	0.149 *	9	487	3200	0.152 *	0	487	3200	0.152 *
Nb Right [4]	275	1600	0.088	10	285	0.091	8	293	1600	0.090	0	293	1600	0.090	3	296	1600	0.090	0	296	1600	0.090
Sb Left	467	2880	0.162 *	16	483	0.168 *	29	512	2880	0.178 *	0	512	2880	0.178 *	0	512	2880	0.178 *	0	512	2880	0.178 *
Sb Thru	679	3200	0.212	24	703	0.220	-24	679	3200	0.212	0	679	3200	0.212	11	690	3200	0.216	0	690	3200	0.216
Sb Right [4]	118	1600	0.000	4	122	0.000	0	122	1600	0.000	0	122	1600	0.000	3	125	1600	0.000	0	125	1600	0.000
Eb Left	239	2880	0.083	8	247	0.086	0	247	2880	0.086	0	247	2880	0.086	10	257	2880	0.089	0	257	2880	0.089
Eb Thru	1212	4800	0.324 *	42	1254	0.335 *	18	1272	4800	0.336 *	0	1272	4800	0.336 *	24	1296	4800	0.342 *	0	1296	4800	0.342 *
Eb Right	342	0	-	12	354	-	-15	339	0	-	0	339	0	-	7	346	0	-	0	346	0	-
Wb Left	243	2880	0.084 *	9	252	0.087 *	15	267	2880	0.093 *	0	267	2880	0.093 *	5	272	2880	0.094 *	0	272	2880	0.094 *
Wb Thru	505	4800	0.105	18	523	0.109	0	523	4800	0.109	0	523	4800	0.109	14	537	4800	0.112	0	537	4800	0.112
Wb Right [4]	340	1600	0.050	12	352	0.052	26	378	1600	0.058	0	378	1600	0.058	0	378	1600	0.058	0	378	1600	0.058
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.706		[5]	0.731			[5]	0.756			[5]	0.756			[5]	0.767			[5]	0.767
LOS			C			C				C				C				C				C

04:53 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
4 The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The southbound right-turn movement has an overlapping phase with the eastbound left-turn phase. The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 116th Street
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: 116th Street
Project: Aviation Station Project/1-093778-1
File: ICU2

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	1013	3200	0.318 *	35	1048	0.329 *	5	1053	3200	0.332 *	0	1053	3200	0.332 *	23	1076	3200	0.339 *	0	1076	3200	0.339 *
Nb Right	5	0	-	0	5	-	4	9	0	-	0	9	0	-	0	9	0	-	0	9	0	-
Sb Left	45	1600	0.028 *	2	47	0.029 *	-25	22	1600	0.013 *	0	22	1600	0.013 *	0	22	1600	0.013 *	0	22	1600	0.013 *
Sb Thru	647	3200	0.202	23	670	0.209	-1	669	3200	0.209	0	669	3200	0.209	11	680	3200	0.212	0	680	3200	0.212
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	4	1600	0.003	0	4	0.003	39	43	1600	0.027	0	43	1600	0.027	0	43	1600	0.027	0	43	1600	0.027
Wb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Wb Right	44	1600	0.028 *	2	46	0.028 *	57	103	1600	0.064 *	0	103	1600	0.064 *	0	103	1600	0.064 *	0	103	1600	0.064 *
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		*[4]*	0.374		*[4]*	0.387			*[4]*	0.410			*[4]*	0.410			*[4]*	0.417			*[4]*	0.417
LOS		A			A				A				A				A				A	

02:40 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 116th Street
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: 116th Street
Project: Aviation Station Project/1-093778-1
File: ICU2

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Nb Thru	810	3200	0.254	28	838	0.263	-36	802	3200	0.265	0	802	3200	0.265	17	819	3200	0.271	0	819	3200	0.271
Nb Right	4	0	-	0	4	-	43	47	0	-	0	47	0	-	0	47	0	-	0	47	0	-
Sb Left	52	1600	0.033	2	54	0.034	59	113	1600	0.071	0	113	1600	0.071	0	113	1600	0.071	0	113	1600	0.071
Sb Thru	1225	3200	0.383 *	43	1268	0.396 *	-78	1190	3200	0.372 *	0	1190	3200	0.372 *	22	1212	3200	0.379 *	0	1212	3200	0.379 *
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000	0	0	0.000	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	55	1600	0.034	2	57	0.036	-25	32	1600	0.020	0	32	1600	0.020	0	32	1600	0.020	0	32	1600	0.020
Wb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Wb Right	47	1600	0.029	2	49	0.030	22	71	1600	0.044 *	0	71	1600	0.044 *	0	71	1600	0.044 *	0	71	1600	0.044 *
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		*[4]*	0.417		*[4]*	0.432			*[4]*	0.416			*[4]*	0.416			*[4]*	0.423			*[4]*	0.423
LOS		A			A				A				A				A				A	

02:40 PM

** Key conflicting movement as a part of ICU*
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2 Capacity expressed in veh/hour of green
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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 117th Street
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: 117th Street
Project: Aviation Station Project/1-093778-1
File: ICU3

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	998	3200	0.313 *	35	1033	0.323 *	13	1046	3200	0.328 *	0	1046	3200	0.328 *	23	1069	3200	0.335 *	0	1069	3200	0.335 *
Nb Right	2	0	-	0	2	-	0	2	0	-	0	2	0	-	0	2	0	-	0	2	0	-
Sb Left	6	1600	0.004 *	0	6	0.004 *	0	6	1600	0.004 *	0	6	1600	0.004 *	0	6	1600	0.004 *	0	6	1600	0.004 *
Sb Thru	653	3200	0.204	23	676	0.211	37	713	3200	0.223	0	713	3200	0.223	11	724	3200	0.226	0	724	3200	0.226
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	4	0	0.003	0	4	0.003	0	4	0	0.003	0	4	0	0.003	0	4	0	0.003	0	4	0	0.003
Wb Thru	0	1600	0.009 *	0	0	0.010 *	0	0	1600	0.010 *	0	0	1600	0.010 *	0	0	1600	0.010 *	0	0	1600	0.010 *
Wb Right	11	0	-	0	11	-	0	11	0	-	0	11	0	-	0	11	0	-	0	11	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.426			0.437				0.441				0.441				0.448				0.448
LOS			A			A				A				A				A				A

02:41 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 117th Street
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: 117th Street
Project: Aviation Station Project/1-093778-1
File: ICU3

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Nb Thru	781	3200	0.246	27	808	0.254	16	824	3200	0.259	0	824	3200	0.259	17	841	3200	0.265	0	841	3200	0.265
Nb Right	5	0	-	0	5	-	0	5	0	-	0	5	0	-	0	5	0	-	0	5	0	-
Sb Left	13	1600	0.008	0	13	0.008	0	13	1600	0.008	0	13	1600	0.008	0	13	1600	0.008	0	13	1600	0.008
Sb Thru	1241	3200	0.388 *	43	1284	0.401 *	-46	1238	3200	0.387 *	0	1238	3200	0.387 *	22	1260	3200	0.394 *	0	1260	3200	0.394 *
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	1	0	0.001	0	1	0.001	0	1	0	0.001	0	1	0	0.001	0	1	0	0.001	0	1	0	0.001
Wb Thru	0	1600	0.008 *	0	0	0.008 *	0	0	1600	0.008 *	0	0	1600	0.008 *	0	0	1600	0.008 *	0	0	1600	0.008 *
Wb Right	12	0	-	0	12	-	0	12	0	-	0	12	0	-	0	12	0	-	0	12	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.496			0.510				0.495				0.495				0.502				0.502
LOS			A			A				A				A				A				A

02:41 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 120th Street
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: 120th Street
Project: Aviation Station Project/1-093778-1
File: ICU4

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	33	1600	0.021	1	34	0.021	0	34	1600	0.021	0	34	1600	0.021	0	34	1600	0.021	0	34	1600	0.021
Nb Thru	773	3200	0.272 *	27	800	0.282 *	11	811	3200	0.285 *	0	811	3200	0.285 *	23	834	3200	0.292 *	0	834	3200	0.292 *
Nb Right	98	0	-	3	101	-	0	101	0	-	0	101	0	-	0	101	0	-	0	101	0	-
Sb Left	59	1600	0.037 *	2	61	0.038 *	14	75	1600	0.047 *	0	75	1600	0.047 *	0	75	1600	0.047 *	0	75	1600	0.047 *
Sb Thru	546	3200	0.174	19	565	0.180	23	588	3200	0.187	0	588	3200	0.187	11	599	3200	0.191	0	599	3200	0.191
Sb Right	11	0	-	0	11	-	0	11	0	-	0	11	0	-	0	11	0	-	0	11	0	-
Eb Left	3	0	0.001 *	0	3	0.001 *	0	3	0	0.001 *	0	3	0	0.001 *	0	3	0	0.001 *	0	3	0	0.001 *
Eb Thru	3	3200	0.005	0	3	0.005	0	3	3200	0.005	0	3	3200	0.005	0	3	3200	0.005	0	3	3200	0.005
Eb Right	11	0	-	0	11	-	0	11	0	-	0	11	0	-	0	11	0	-	0	11	0	-
Wb Left	347	0	0.108	12	359	0.112	0	359	0	0.112	0	359	0	0.112	0	359	0	0.112	0	359	0	0.112
Wb Thru	43	3200	0.198 *	2	45	0.205 *	0	45	3200	0.205 *	0	45	3200	0.205 *	0	45	3200	0.205 *	0	45	3200	0.205 *
Wb Right	244	0	-	9	253	-	1	254	0	-	0	254	0	-	0	254	0	-	0	254	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.608			0.626				0.638				0.638				0.646				0.646
LOS			B			B				B				B				B				B

02:41 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ 120th Street
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: 120th Street
Project: Aviation Station Project/1-093778-1
File: ICU4

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	9	1600	0.006	0	9	0.006	0	9	1600	0.006	0	9	1600	0.006	0	9	1600	0.006	0	9	1600	0.006
Nb Thru	654	3200	0.273 *	23	677	0.282 *	13	690	3200	0.286 *	0	690	3200	0.286 *	17	707	3200	0.292 *	0	707	3200	0.292 *
Nb Right	219	0	-	8	227	-	0	227	0	-	0	227	0	-	0	227	0	-	0	227	0	-
Sb Left	232	1600	0.145 *	8	240	0.150 *	6	246	1600	0.154 *	0	246	1600	0.154 *	0	246	1600	0.154 *	0	246	1600	0.154 *
Sb Thru	1068	3200	0.335	37	1105	0.346	-54	1051	3200	0.330	0	1051	3200	0.330	22	1073	3200	0.336	0	1073	3200	0.336
Sb Right	3	0	-	0	3	-	0	3	0	-	0	3	0	-	0	3	0	-	0	3	0	-
Eb Left	19	0	0.006	1	20	0.006	0	20	0	0.006	0	20	0	0.006	0	20	0	0.006	0	20	0	0.006
Eb Thru	56	3200	0.044 *	2	58	0.046 *	0	58	3200	0.046 *	0	58	3200	0.046 *	0	58	3200	0.046 *	0	58	3200	0.046 *
Eb Right	66	0	-	2	68	-	0	68	0	-	0	68	0	-	0	68	0	-	0	68	0	-
Wb Left	183	0	0.057 *	6	189	0.059 *	0	189	0	0.059 *	0	189	0	0.059 *	0	189	0	0.059 *	0	189	0	0.059 *
Wb Thru	5	3200	0.081	0	5	0.083	0	5	3200	0.084	0	5	3200	0.084	0	5	3200	0.084	0	5	3200	0.084
Wb Right	70	0	-	2	72	-	2	74	0	-	0	74	0	-	0	74	0	-	0	74	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.619			0.637				0.645				0.645				0.650				0.650
LOS			B			B				B				B				B				B

02:41 PM

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INTERSECTION CAPACITY UTILIZATION

I-105 Freeway Ramps @ Imperial Highway

N-S St: I-105 Freeway Ramps
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU5

Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	1231	2880	0.427	43	1274	0.442	5	1279	2880	0.444	0	1279	2880	0.444	0	1279	2880	0.444	0	1279	2880	0.444
Nb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Right [4]	435	2880	0.110	15	450	0.114	0	450	2880	0.114	0	450	2880	0.114	16	466	2880	0.116	0	466	2880	0.116
Sb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	357	4800	0.074	12	369	0.077	27	396	4800	0.083	0	396	4800	0.083	17	413	4800	0.086	0	413	4800	0.086
Eb Right [4]	296	1600	0.000	0	296	0.000	28	324	1600	0.000	0	324	1600	0.000	0	324	1600	0.000	0	324	1600	0.000
Wb Left	119	2880	0.041	4	123	0.043	0	123	2880	0.043	0	123	2880	0.043	8	131	2880	0.046	0	131	2880	0.046
Wb Thru	1251	3200	0.391 *	44	1295	0.405 *	1	1296	3200	0.405 *	0	1296	3200	0.405 *	24	1320	3200	0.412 *	0	1320	3200	0.412 *
Wb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.818		[5]	0.847			[5]	0.849			[5]	0.849			[5]	0.857			[5]	0.857
LOS			D			D				D				D				D				D

04:54 PM

**Key conflicting movement as a part of ICU*
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4 The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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INTERSECTION CAPACITY UTILIZATION

I-105 Freeway Ramps @ Imperial Highway
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: I-105 Freeway Ramps
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU5

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	627	2880	0.218	22	649	0.225	12	661	2880	0.229	0	661	2880	0.229	0	661	2880	0.229	0	661	2880	0.229
Nb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Right [4]	258	2880	0.000	9	267	0.000	0	267	2880	0.000	0	267	2880	0.000	19	286	2880	0.000	0	286	2880	0.000
Sb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Thru	1459	4800	0.304 *	51	1510	0.315 *	-20	1490	4800	0.310 *	0	1490	4800	0.310 *	27	1517	4800	0.316 *	0	1517	4800	0.316 *
Eb Right [4]	576	1600	0.142	0	576	0.135	8	584	1600	0.136	0	584	1600	0.136	0	584	1600	0.136	0	584	1600	0.136
Wb Left	287	2880	0.100 *	10	297	0.103 *	0	297	2880	0.103 *	0	297	2880	0.103 *	5	302	2880	0.105 *	0	302	2880	0.105 *
Wb Thru	536	3200	0.168	19	555	0.173	3	558	3200	0.174	0	558	3200	0.174	19	577	3200	0.180	0	577	3200	0.180
Wb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			*[5]* 0.621			*[5]* 0.643				*[5]* 0.643				*[5]* 0.643				*[5]* 0.650				*[5]* 0.650
LOS			B			B				B				B				B				B

04:54 PM

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1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
4 The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase.
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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ I-405 Freeway SB Ramps (North of Imperial Highway)

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps (North of Imperial Highway)
Project: Aviation Station Project/1-093778-1
File: ICU-6

Peak hr: AM
Annual Growth: 0.70%

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

REDUCED PROJECT - PHASES I AND II

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	10	1600	0.006	0	10	0.006	0	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006	0	10	1600	0.006
Nb Thru	930	3200	0.291 *	33	963	0.301 *	6	969	3200	0.303 *	0	969	3200	0.303 *	63	1032	3200	0.322 *	0	1032	3200	0.322 *
Nb Right [4]	96	1600	0.000	3	99	0.000	0	99	1600	0.000	0	99	1600	0.000	0	99	1600	0.000	0	99	1600	0.000
Sb Left	103	1600	0.064 *	4	107	0.067 *	0	107	1600	0.067 *	0	107	1600	0.067 *	8	115	1600	0.072 *	0	115	1600	0.072 *
Sb Thru	488	3200	0.154	17	505	0.159	3	508	3200	0.160	0	508	3200	0.160	27	535	3200	0.169	0	535	3200	0.169
Sb Right	4	0	-	0	4	-	0	4	0	-	0	4	0	-	0	4	0	-	0	4	0	-
Eb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	270	2880	0.094	9	279	0.097	3	282	2880	0.098	0	282	2880	0.098	2	284	2880	0.099	0	284	2880	0.099
Wb Thru	1	0	0.000	0	1	0.000	0	1	0	0.000	0	1	0	0.000	0	1	0	0.000	0	1	0	0.000
Wb Right	74	1600	0.046	3	77	0.048	0	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048	0	77	1600	0.048
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		*[5]*	0.449		*[5]*	0.464			*[5]*	0.467			*[5]*	0.467			*[5]*	0.493			*[5]*	0.493
LOS			A			A				A				A				A				A

04:54 PM

**Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ I-405 Freeway SB Ramps (North of Imperial Highway)

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps (North of Imperial Highway)
Project: Aviation Station Project/1-093778-1
File: ICU-6

Peak hr: PM
Annual Growth: 0.70%

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

REDUCED PROJECT - PHASES I AND II

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	1	1600	0.001 *	0	1	0.001 *	0	1	1600	0.001 *	0	1	1600	0.001 *	0	1	1600	0.001 *	0	1	1600	0.001 *
Nb Thru	535	3200	0.167	19	554	0.173	-24	530	3200	0.166	0	530	3200	0.166	75	605	3200	0.189	0	605	3200	0.189
Nb Right [4]	54	1600	0.000	2	56	0.000	0	56	1600	0.000	0	56	1600	0.000	0	56	1600	0.000	0	56	1600	0.000
Sb Left	115	1600	0.072	4	119	0.074	0	119	1600	0.074	0	119	1600	0.074	5	124	1600	0.078	0	124	1600	0.078
Sb Thru	986	3200	0.308 *	35	1021	0.319 *	3	1024	3200	0.320 *	0	1024	3200	0.320 *	19	1043	3200	0.326 *	0	1043	3200	0.326 *
Sb Right	1	0	-	0	1	-	0	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-
Eb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	237	2880	0.082	8	245	0.085	3	248	2880	0.086	0	248	2880	0.086	7	255	2880	0.089	0	255	2880	0.089
Wb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Wb Right	81	1600	0.051	3	84	0.052	0	84	1600	0.052	0	84	1600	0.052	0	84	1600	0.052	0	84	1600	0.052
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			*[5]* 0.391			*[5]* 0.405				*[5]* 0.407				*[5]* 0.407				*[5]* 0.415				*[5]* 0.415
LOS			A			A				A				A				A				A

04:54 PM

** Key conflicting movement as a part of ICU*
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2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ Imperial Highway

N-S St: La Cienega Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU7

Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	116	2880	0.040 *	4	120	0.042 *	0	120	2880	0.042 *	0	120	2880	0.042 *	0	120	2880	0.042 *	0	120	2880	0.042 *
Nb Thru	243	4800	0.088	9	252	0.091	0	252	4800	0.091	0	252	4800	0.091	15	267	4800	0.094	0	267	4800	0.094
Nb Right	177	0	-	6	183	-	0	183	0	-	0	183	0	-	1	184	0	-	0	184	0	-
Sb Left	68	2880	0.024	2	70	0.024	0	70	2880	0.024	0	70	2880	0.024	4	74	2880	0.026	0	74	2880	0.026
Sb Thru	268	4800	0.141 *	9	277	0.146 *	0	277	4800	0.147 *	0	277	4800	0.147 *	18	295	4800	0.153 *	0	295	4800	0.153 *
Sb Right	408	0	-	14	422	-	5	427	0	-	0	427	0	-	10	437	0	-	0	437	0	-
Eb Left	298	2880	0.103 *	10	308	0.107 *	6	314	2880	0.109 *	0	314	2880	0.109 *	19	333	2880	0.116 *	0	333	2880	0.116 *
Eb Thru	190	4800	0.040	7	197	0.041	20	217	4800	0.045	0	217	4800	0.045	14	231	4800	0.048	0	231	4800	0.048
Eb Right [4]	244	2880	0.044	23	267	0.051	0	267	2880	0.051	0	267	2880	0.051	0	267	2880	0.051	0	267	2880	0.051
Wb Left	95	2880	0.033	3	98	0.034	0	98	2880	0.034	0	98	2880	0.034	7	105	2880	0.037	0	105	2880	0.037
Wb Thru	891	4800	0.186 *	31	922	0.192 *	-4	918	4800	0.191 *	0	918	4800	0.191 *	22	940	4800	0.196 *	0	940	4800	0.196 *
Wb Right [4	519	2880	0.157	18	537	0.162	0	537	2880	0.162	0	537	2880	0.162	19	556	2880	0.167	0	556	2880	0.167
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		*[5]*	0.470		*[5]*	0.487			*[5]*	0.489			*[5]*	0.489			*[5]*	0.506			*[5]*	0.506
LOS			A			A				A				A				A				A

04:54 PM

**Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
4 The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase. The westbound right-turn movement has an overlapping phase with the southbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ Imperial Highway

N-S St: La Cienega Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File: ICU7

Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

Date: 08/23/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	88	2880	0.031	3	91	0.032	0	91	2880	0.032	0	91	2880	0.032	0	91	2880	0.032	0	91	2880	0.032
Nb Thru	185	1600	0.116	6	191	0.120	0	191	1600	0.120	0	191	1600	0.120	17	208	4800	0.212 *	0	208	4800	0.212 *
Nb Right [6]	780	2880	0.271 *	27	807	0.280 *	0	807	2880	0.280 *	0	807	2880	0.280 *	4	811	0	-	0	811	0	-
Sb Left	351	2880	0.122 *	12	363	0.126 *	0	363	2880	0.126 *	0	363	2880	0.126 *	8	371	2880	0.129 *	0	371	2880	0.129 *
Sb Thru	585	4800	0.202	20	605	0.209	0	605	4800	0.210	0	605	4800	0.210	15	620	4800	0.215	0	620	4800	0.215
Sb Right	385	0	-	13	398	-	6	404	0	-	0	404	0	-	5	409	0	-	0	409	0	-
Eb Left	200	2880	0.069	7	207	0.072	-24	183	2880	0.064	0	183	2880	0.064	23	206	2880	0.072	0	206	2880	0.072
Eb Thru	1176	4800	0.245 *	41	1217	0.254 *	4	1221	4800	0.254 *	0	1221	4800	0.254 *	23	1244	4800	0.259 *	0	1244	4800	0.259 *
Eb Right [4]	315	2880	0.079	11	326	0.082	0	326	2880	0.082	0	326	2880	0.082	0	326	2880	0.082	0	326	2880	0.082
Wb Left	42	2880	0.015 *	1	43	0.015 *	0	43	2880	0.015 *	0	43	2880	0.015 *	15	58	2880	0.020 *	0	58	2880	0.020 *
Wb Thru	350	4800	0.073	12	362	0.075	-3	359	4800	0.075	0	359	4800	0.075	18	377	4800	0.079	0	377	4800	0.079
Wb Right [4]	184	2880	0.000	6	190	0.000	0	190	2880	0.000	0	190	2880	0.000	23	213	2880	0.000	0	213	2880	0.000
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU		[5]	0.652		[5]	0.675		[5]		0.676		[5]		0.676		[5]		0.621		[5]		0.621
LOS			B			B				B				B				B				B

04:54 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
4 The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase. The westbound right-turn movement has an overlapping phase with the southbound left-turn phase.
5 The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.
6 The northbound shared through/right-turn and right-turn only lanes function as dual right-turn lanes during the PM peak hour.

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ 120th Street
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: La Cienega Boulevard
E-W St: 120th Street
Project: Aviation Station Project/1-093778-1
File: ICU8

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	77	1600	0.048	3	80	0.050	0	80	1600	0.050	0	80	1600	0.050	0	80	1600	0.050	0	80	1600	0.050
Nb Thru	231	3200	0.089 *	8	239	0.092 *	0	239	3200	0.092 *	0	239	3200	0.092 *	16	255	3200	0.097 *	0	255	3200	0.097 *
Nb Right	53	0	-	2	55	-	0	55	0	-	0	55	0	-	0	55	0	-	0	55	0	-
Sb Left	86	1600	0.054 *	3	89	0.056 *	0	89	1600	0.056 *	0	89	1600	0.056 *	0	89	1600	0.056 *	0	89	1600	0.056 *
Sb Thru	127	3200	0.084	4	131	0.087	0	131	3200	0.087	0	131	3200	0.087	14	145	3200	0.091	0	145	3200	0.091
Sb Right	142	0	-	5	147	-	0	147	0	-	0	147	0	-	0	147	0	-	0	147	0	-
Eb Left	90	1600	0.056 *	3	93	0.058 *	0	93	1600	0.058 *	0	93	1600	0.058 *	0	93	1600	0.058 *	0	93	1600	0.058 *
Eb Thru	164	3200	0.072	6	170	0.074	7	177	3200	0.079	0	177	3200	0.079	0	177	3200	0.079	0	177	3200	0.079
Eb Right	66	0	-	2	68	-	7	75	0	-	0	75	0	-	0	75	0	-	0	75	0	-
Wb Left	149	1600	0.093	5	154	0.096	0	154	1600	0.096	0	154	1600	0.096	7	161	1600	0.101	0	161	1600	0.101
Wb Thru	460	3200	0.208 *	16	476	0.215 *	1	477	3200	0.215 *	0	477	3200	0.215 *	0	477	3200	0.215 *	0	477	3200	0.215 *
Wb Right	205	0	-	7	212	-	0	212	0	-	0	212	0	-	0	212	0	-	0	212	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.507			0.521				0.521				0.521				0.526				0.526
LOS			A			A				A				A				A				A

02:42 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ 120th Street
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: La Cienega Boulevard
E-W St: 120th Street
Project: Aviation Station Project/1-093778-1
File: ICU8

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	51	1600	0.032	2	53	0.033	0	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033	0	53	1600	0.033
Nb Thru	147	3200	0.103 *	5	152	0.106 *	0	152	3200	0.106 *	0	152	3200	0.106 *	21	173	3200	0.113 *	0	173	3200	0.113 *
Nb Right	181	0	-	6	187	-	0	187	0	-	0	187	0	-	0	187	0	-	0	187	0	-
Sb Left	511	1600	0.319 *	18	529	0.331 *	0	529	1600	0.331 *	0	529	1600	0.331 *	0	529	1600	0.331 *	0	529	1600	0.331 *
Sb Thru	816	3200	0.308	29	845	0.319	0	845	3200	0.319	0	845	3200	0.319	10	855	3200	0.322	0	855	3200	0.322
Sb Right	169	0	-	6	175	-	0	175	0	-	0	175	0	-	0	175	0	-	0	175	0	-
Eb Left	68	1600	0.043	2	70	0.044	0	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044	0	70	1600	0.044
Eb Thru	446	3200	0.168 *	16	462	0.174 *	2	464	3200	0.176 *	0	464	3200	0.176 *	0	464	3200	0.176 *	0	464	3200	0.176 *
Eb Right	91	0	-	3	94	-	5	99	0	-	0	99	0	-	0	99	0	-	0	99	0	-
Wb Left	38	1600	0.024 *	1	39	0.025 *	0	39	1600	0.025 *	0	39	1600	0.025 *	4	43	1600	0.027 *	0	43	1600	0.027 *
Wb Thru	198	3200	0.082	7	205	0.085	2	207	3200	0.086	0	207	3200	0.086	0	207	3200	0.086	0	207	3200	0.086
Wb Right	65	0	-	2	67	-	0	67	0	-	0	67	0	-	0	67	0	-	0	67	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.713			0.735				0.737				0.737				0.746				0.746
LOS			C			C				C				C				C				C

02:42 PM

** Key conflicting movement as a part of ICU*
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2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ I-405 Freeway SB Ramps (South of 120th Street)

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps (South of 120th Street)
Project: Aviation Station Project/1-093778-1
File: ICU9

Peak hr: AM
Annual Growth: 0.70%

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

REDUCED PROJECT - PHASES I AND II

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	309	3200	0.097 *	11	320	0.100 *	0	320	3200	0.100 *	0	320	3200	0.100 *	16	336	3200	0.105 *	0	336	3200	0.105 *
Nb Right [4]	133	1600	0.083	5	138	0.086	0	138	1600	0.086	0	138	1600	0.086	0	138	1600	0.086	0	138	1600	0.086
Sb Left	193	1600	0.121 *	7	200	0.125 *	7	207	1600	0.129 *	0	207	1600	0.129 *	7	214	1600	0.134 *	0	214	1600	0.134 *
Sb Thru	136	4800	0.028	5	141	0.029	0	141	4800	0.029	0	141	4800	0.029	14	155	4800	0.032	0	155	4800	0.032
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	585	0	0.183	20	605	0.189	0	605	0	0.189	0	605	0	0.189	7	612	0	0.191	0	612	0	0.191
Wb Thru	0	3200	0.210 *	0	0	0.218 *	0	0	3200	0.218 *	0	0	3200	0.218 *	0	0	3200	0.220 *	0	0	3200	0.220 *
Wb Right	88	0	-	3	91	-	0	91	0	-	0	91	0	-	0	91	0	-	0	91	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.528			0.542				0.547				0.547				0.558				0.558
LOS			A			A				A				A				A				A

02:42 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
4 The northbound approach consisting of one through lane, one shared through/right-turn lane, and one right-turn only lane functions as two through lanes and one right-turn only lane during the AM and PM peak hours.

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INTERSECTION CAPACITY UTILIZATION

La Cienega Boulevard @ I-405 Freeway SB Ramps (South of 120th Street)

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps (South of 120th Street)
Project: Aviation Station Project/1-093778-1
File: ICU9

Peak hr: PM
Annual Growth: 0.70%

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

REDUCED PROJECT - PHASES I AND II

	2009 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Nb Thru	242	3200	0.076 *	8	250	0.078 *	0	250	3200	0.078 *	0	250	3200	0.078 *	21	271	3200	0.085 *	0	271	3200	0.085 *
Nb Right [4]	80	1600	0.050	3	83	0.052	0	83	1600	0.052	0	83	1600	0.052	0	83	1600	0.052	0	83	1600	0.052
Sb Left	313	1600	0.196 *	11	324	0.202 *	5	329	1600	0.206 *	0	329	1600	0.206 *	4	333	1600	0.208 *	0	333	1600	0.208 *
Sb Thru	581	4800	0.121	20	601	0.125	0	601	4800	0.125	0	601	4800	0.125	10	611	4800	0.127	0	611	4800	0.127
Sb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Eb Left	0	0	0.000 *	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *	0	0	0	0.000 *
Eb Thru	0	0	0.000	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000	0	0	0	0.000
Eb Right	0	0	-	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Wb Left	1019	0	0.318	36	1055	0.330	0	1055	0	0.330	0	1055	0	0.330	1	1056	0	0.330	0	1056	0	0.330
Wb Thru	0	3200	0.369 *	0	0	0.382 *	0	0	3200	0.382 *	0	0	3200	0.382 *	0	0	3200	0.382 *	0	0	3200	0.382 *
Wb Right	161	0	-	6	167	-	0	167	0	-	0	167	0	-	0	167	0	-	0	167	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.740			0.762				0.766				0.766				0.775				0.775
LOS			C			C				C				C				C				C

02:42 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: The Traffic Solution
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
4 The northbound approach consisting of one through lane, one shared through/right-turn lane, and one right-turn only lane functions as two through lanes and one right-turn only lane during the AM and PM peak hours.

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ El Segundo Boulevard
Peak hr: AM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: El Segundo Boulevard
Project: Aviation Station Project/1-093778-1
File: ICU10

Date: 08/18/2011
Date of Count: 2011
Projection Year: 2014

	2011 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	275	2880	0.095	6	281	0.097	0	281	2880	0.097	0	281	2880	0.097	0	281	2880	0.097	0	281	2880	0.097
Nb Thru	908	3200	0.284 *	19	927	0.290 *	6	933	3200	0.292 *	0	933	3200	0.292 *	23	956	3200	0.299 *	0	956	3200	0.299 *
Nb Right	236	1600	0.148	5	241	0.151	0	241	1600	0.151	0	241	1600	0.151	0	241	1600	0.151	0	241	1600	0.151
Sb Left	25	1600	0.016 *	1	26	0.016 *	5	31	1600	0.019 *	0	31	1600	0.019 *	0	31	1600	0.019 *	0	31	1600	0.019 *
Sb Thru	587	3200	0.183	12	599	0.187	11	610	3200	0.191	0	610	3200	0.191	11	621	3200	0.194	0	621	3200	0.194
Sb Right	274	1600	0.171	6	280	0.175	6	286	1600	0.179	0	286	1600	0.179	0	286	1600	0.179	0	286	1600	0.179
Eb Left	110	1600	0.069 *	2	112	0.070 *	2	114	1600	0.071 *	0	114	1600	0.071 *	0	114	1600	0.071 *	0	114	1600	0.071 *
Eb Thru	428	4800	0.089	9	437	0.091	0	437	4800	0.091	0	437	4800	0.091	0	437	4800	0.091	0	437	4800	0.091
Eb Right	95	1600	0.059	2	97	0.061	0	97	1600	0.061	0	97	1600	0.061	0	97	1600	0.061	0	97	1600	0.061
Wb Left	326	2880	0.113	7	333	0.116	0	333	2880	0.116	0	333	2880	0.116	0	333	2880	0.116	0	333	2880	0.116
Wb Thru	1418	4800	0.313 *	30	1448	0.320 *	0	1448	4800	0.320 *	0	1448	4800	0.320 *	0	1448	4800	0.320 *	0	1448	4800	0.320 *
Wb Right	85	0	-	2	87	-	2	89	0	-	0	89	0	-	0	89	0	-	0	89	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			0.781			0.796				0.802				0.802				0.809				0.809
LOS			C			C				D				D				D				D

02:42 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).

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INTERSECTION CAPACITY UTILIZATION

Aviation Boulevard @ El Segundo Boulevard
Peak hr: PM
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II

N-S St: Aviation Boulevard
E-W St: El Segundo Boulevard
Project: Aviation Station Project/1-093778-1
File: ICU10

Date: 08/18/2011
Date of Count: 2011
Projection Year: 2014

	2011 EXIST. TRAFFIC			2014 W/AMBIENT GROWTH			2014 W/PROJECT SITE TRAFFIC				2014 W/PROJECT MITIGATION				2014 W/RELATED PROJECTS				2014 W/REGIONAL MITIGATION			
	1	2	V/C	Added	Total	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C	Added	Total	2	V/C
Movement	Volume	Capacity	Ratio	Volume	Volume	Ratio	Volume 3	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio	Volume	Volume	Capacity	Ratio
Nb Left	196	2880	0.068 *	4	200	0.069 *	0	200	2880	0.069 *	0	200	2880	0.069 *	0	200	2880	0.069 *	0	200	2880	0.069 *
Nb Thru	515	3200	0.161	11	526	0.164	6	532	3200	0.166	0	532	3200	0.166	17	549	3200	0.172	0	549	3200	0.172
Nb Right	270	1600	0.169	6	276	0.172	0	276	1600	0.172	0	276	1600	0.172	0	276	1600	0.172	0	276	1600	0.172
Sb Left	132	1600	0.083	3	135	0.084	-16	119	1600	0.074	0	119	1600	0.074	0	119	1600	0.074	0	119	1600	0.074
Sb Thru	1021	3200	0.319 *	21	1042	0.326 *	-25	1017	3200	0.318 *	0	1017	3200	0.318 *	22	1039	3200	0.325 *	0	1039	3200	0.325 *
Sb Right	138	1600	0.086	3	141	0.088	-12	129	1600	0.081	0	129	1600	0.081	0	129	1600	0.081	0	129	1600	0.081
Eb Left	176	1600	0.110	4	180	0.112	3	183	1600	0.114	0	183	1600	0.114	0	183	1600	0.114	0	183	1600	0.114
Eb Thru	1888	4800	0.393 *	40	1928	0.402 *	0	1928	4800	0.402 *	0	1928	4800	0.402 *	0	1928	4800	0.402 *	0	1928	4800	0.402 *
Eb Right	391	1600	0.244	8	399	0.250	0	399	1600	0.250	0	399	1600	0.250	0	399	1600	0.250	0	399	1600	0.250
Wb Left	490	2880	0.170 *	10	500	0.174 *	0	500	2880	0.174 *	0	500	2880	0.174 *	0	500	2880	0.174 *	0	500	2880	0.174 *
Wb Thru	655	4800	0.150	14	669	0.154	0	669	4800	0.153	0	669	4800	0.153	0	669	4800	0.153	0	669	4800	0.153
Wb Right	67	0	-	1	68	-	-3	65	0	-	0	65	0	-	0	65	0	-	0	65	0	-
Yellow Allowance:			0.100 *			0.100 *				0.100 *				0.100 *				0.100 *				0.100 *
ICU			1.051			1.071				1.063				1.063				1.070				1.070
LOS			F			F				F				F				F				F

02:42 PM

** Key conflicting movement as a part of ICU*
1 Counts conducted by: City Traffic Counters
2 Capacity expressed in veh/hour of green
3 Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).

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CRITICAL MOVEMENT ANALYSIS

Aviation Boulevard @ Imperial Highway
Peak Hour: AM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II
CITY OF LOS ANGELES METHODOLOGY

N-S St: Aviation Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA1
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	267	2	147	9	276	2	152	7	283	2	156	17	300	2	165	0	300	2	165
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	640	2	320	22	662	2	331	10	672	2	336	15	687	2	344	0	687	2	344
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	134	1	134	5	139	1	139	5	144	1	144	61	205	1	205	0	205	1	205
Comb. L-T-R -		0				0				0				0				0	
SB Left	202	2	111	7	209	2	115	0	209	2	115	25	234	2	129	0	234	2	129
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	351	2	176	12	363	2	182	7	370	2	185	-21	349	2	175	0	349	2	175
Comb. T-R		0	-			0	-			0	-			0	-			0	-
SB Right [2]	244	1	244	9	253	1	253	14	267	1	267	0	267	1	267	0	267	1	267
Comb. L-T-R -		0				0				0				0				0	
EB Left	127	2	70	4	131	2	72	2	133	2	73	0	133	2	73	0	133	2	73
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	288	2	126	10	298	2	130	12	310	2	135	15	325	2	136	0	325	2	136
Comb. T-R		1	126			1	130			1	135			1	136			1	136
EB Right	90	0	-	3	93	0	-	3	96	0	-	-12	84	0	-	0	84	0	-
Comb. L-T-R -		0				0				0				0				0	
WB Left	260	2	143	9	269	2	148	2	271	2	149	6	277	2	152	0	277	2	152
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	1425	3	475	50	1475	3	492	22	1497	3	499	0	1497	3	499	0	1497	3	499
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right [2]	726	1	726	25	751	1	751	0	751	1	751	7	758	1	758	0	758	1	758
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	431			N-S:	446			N-S:	451			N-S:	472			N-S:	472
		E-W:	685			E-W:	709			E-W:	710			E-W:	703			E-W:	703
		SUM:	1116			SUM:	1155			SUM:	1161			SUM:	1176			SUM:	1176
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.712			[3]	0.740			[3]	0.744			[3]	0.755			[3]	0.755
Level of Service:			C				C				C				C				C

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
[2] The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The southbound right-turn movement has an overlapping phase with the eastbound left-turn phase. The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

Aviation Boulevard @ Imperial Highway
Peak Hour: PM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II
CITY OF LOS ANGELES METHODOLOGY

N-S St: Aviation Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA1
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	171	2	94	6	177	2	97	4	181	2	100	22	203	2	112	0	203	2	112
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	434	2	217	15	449	2	225	9	458	2	229	29	487	2	244	0	487	2	244
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	275	1	275	10	285	1	285	3	288	1	288	8	296	1	296	0	296	1	296
Comb. L-T-R -		0				0				0				0				0	
SB Left	467	2	257	16	483	2	266	0	483	2	266	29	512	2	282	0	512	2	282
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	679	2	340	24	703	2	351	11	714	2	357	-24	690	2	345	0	690	2	345
Comb. T-R		0	-			0	-			0	-			0	-			0	-
SB Right [2]	118	1	118	4	122	1	122	3	125	1	125	0	125	1	125	0	125	1	125
Comb. L-T-R -		0				0				0				0				0	
EB Left	239	2	131	8	247	2	136	10	257	2	142	0	257	2	142	0	257	2	142
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	1212	2	518	42	1254	2	536	24	1278	2	546	18	1296	2	547	0	1296	2	547
Comb. T-R		1	518			1	536			1	546			1	547			1	547
EB Right	342	0	-	12	354	0	-	7	361	0	-	-15	346	0	-	0	346	0	-
Comb. L-T-R -		0				0				0				0				0	
WB Left	243	2	134	9	252	2	138	5	257	2	141	15	272	2	149	0	272	2	149
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	505	3	168	18	523	3	174	14	537	3	179	0	537	3	179	0	537	3	179
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right [2]	340	1	340	12	352	1	352	0	352	1	352	26	378	1	378	0	378	1	378
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	474			N-S:	490			N-S:	495			N-S:	525			N-S:	525
		E-W:	652			E-W:	674			E-W:	688			E-W:	697			E-W:	697
		SUM:	1126			SUM:	1165			SUM:	1182			SUM:	1222			SUM:	1222
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.719			[3]	0.747			[3]	0.760			[3]	0.789			[3]	0.789
Level of Service:			C				C				C				C				C

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
[2] The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The southbound right-turn movement has an overlapping phase with the eastbound left-turn phase. The westbound right-turn lane has an overlapping phase with the southbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

I-105 Freeway Ramps @ Imperial Highway
Peak Hour: AM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II
CITY OF LOS ANGELES METHODOLOGY

N-S St: I-105 Freeway Ramps
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA5
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	1231	2	677	43	1274	2	701	0	1274	2	701	5	1279	2	703	0	1279	2	703
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	435	2	239	15	450	2	248	16	466	2	256	0	466	2	256	0	466	2	256
Comb. L-T-R -		0				0				0				0				0	
SB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
SB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	357	3	119	12	369	3	123	17	386	3	129	27	413	3	138	0	413	3	138
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right [2]	296	1	296	0	296	1	296	0	296	1	296	28	324	1	324	0	324	1	324
Comb. L-T-R -		0				0				0				0				0	
WB Left	119	2	65	4	123	2	68	8	131	2	72	0	131	2	72	0	131	2	72
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	1251	2	626	44	1295	2	647	24	1319	2	659	1	1320	2	660	0	1320	2	660
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	677			N-S:	701			N-S:	701			N-S:	703			N-S:	703
		E-W:	626			E-W:	647			E-W:	659			E-W:	660			E-W:	660
		SUM:	1303			SUM:	1348			SUM:	1360			SUM:	1363			SUM:	1363
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.847			[3]	0.880			[3]	0.889			[3]	0.892			[3]	0.892
Level of Service:			D				D				D				D				D

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
[2] The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

I-105 Freeway Ramps @ Imperial Highway
Peak Hour: PM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II
CITY OF LOS ANGELES METHODOLOGY

N-S St: I-105 Freeway Ramps
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA5
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	627	2	345	22	649	2	357	0	649	2	357	12	661	2	364	0	661	2	364
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	258	2	142	9	267	2	147	19	286	2	157	0	286	2	157	0	286	2	157
Comb. L-T-R -		0				0				0				0				0	
SB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
SB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	1459	3	486	51	1510	3	503	27	1537	3	512	-20	1517	3	506	0	1517	3	506
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right [2]	576	1	576	0	576	1	576	0	576	1	576	8	584	1	584	0	584	1	584
Comb. L-T-R -		0				0				0				0				0	
WB Left	287	2	158	10	297	2	163	5	302	2	166	0	302	2	166	0	302	2	166
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	536	2	268	19	555	2	277	19	574	2	287	3	577	2	288	0	577	2	288
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	345			N-S:	357			N-S:	357			N-S:	364			N-S:	364
		E-W:	644			E-W:	667			E-W:	678			E-W:	672			E-W:	672
		SUM:	989			SUM:	1024			SUM:	1035			SUM:	1035			SUM:	1035
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.619			[3]	0.644			[3]	0.653			[3]	0.653			[3]	0.653
Level of Service:			B				B				B				B				B

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
[2] The northbound right-turn movement has an overlapping phase with the westbound left-turn phase. The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps
Project: Aviation Station Project/1-093778-1
File Name: CMA6
Counts by: The Traffic Solution

La Cienega Boulevard @ I-405 Freeway SB Ramps
Peak Hour: AM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II
CITY OF LOS ANGELES METHODOLOGY

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	10	1	10	0	10	1	10	0	10	1	10	0	10	1	10	0	10	1	10
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	930	2	465	33	963	2	481	63	1026	2	513	6	1032	2	516	0	1032	2	516
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	96	1	96	3	99	1	99	0	99	1	99	0	99	1	99	0	99	1	99
Comb. L-T-R -		0				0				0				0				0	
SB Left	103	1	103	4	107	1	107	8	115	1	115	0	115	1	115	0	115	1	115
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	488	1	246	17	505	1	255	27	532	1	268	3	535	1	270	0	535	1	270
Comb. T-R		1	246			1	255			1	268			1	270			1	270
SB Right	4	0	-	0	4	0	-	0	4	0	-	0	4	0	-	0	4	0	-
Comb. L-T-R -		0				0				0				0				0	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
WB Left	270	2	149	9	279	2	154	2	281	2	155	3	284	2	156	0	284	2	156
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right	74	1	74	3	77	1	77	0	77	1	77	0	77	1	77	0	77	1	77
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	568			N-S:	588			N-S:	627			N-S:	630			N-S:	630
		E-W:	149			E-W:	154			E-W:	155			E-W:	156			E-W:	156
		SUM:	717			SUM:	742			SUM:	782			SUM:	787			SUM:	787
No. of Phases:			3				3				3				3				3
Volume / Capacity:		[3]	0.403			[3]	0.420			[3]	0.449			[3]	0.452			[3]	0.452
Level of Service:			A				A				A				A				A

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
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CRITICAL MOVEMENT ANALYSIS

La Cienega Boulevard @ I-405 Freeway SB Ramps
Peak Hour: PM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II
CITY OF LOS ANGELES METHODOLOGY

N-S St: La Cienega Boulevard
E-W St: I-405 Freeway SB Ramps
Project: Aviation Station Project/1-093778-1
File Name: CMA6
Counts by: The Traffic Solution

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1	0	1	1	1
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	535	2	268	19	554	2	277	75	629	2	314	-24	605	2	302	0	605	2	302
Comb. T-R		0	-			0	-			0	-			0	-			0	-
NB Right [2]	54	1	54	2	56	1	56	0	56	1	56	0	56	1	56	0	56	1	56
Comb. L-T-R -		0				0				0				0				0	
SB Left	115	1	115	4	119	1	119	5	124	1	124	0	124	1	124	0	124	1	124
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	986	1	494	35	1021	1	511	19	1040	1	520	3	1043	1	522	0	1043	1	522
Comb. T-R		1	494			1	511			1	520			1	522			1	522
SB Right	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-	0	1	0	-
Comb. L-T-R -		0				0				0				0				0	
EB Left	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. L-T-R -		0				0				0				0				0	
WB Left	237	2	130	8	245	2	135	7	252	2	139	3	255	2	140	0	255	2	140
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-	0	0	0	-
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right	81	1	81	3	84	1	84	0	84	1	84	0	84	1	84	0	84	1	84
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	495			N-S:	512			N-S:	521			N-S:	523			N-S:	523
		E-W:	130			E-W:	135			E-W:	139			E-W:	140			E-W:	140
		SUM:	625			SUM:	647			SUM:	660			SUM:	663			SUM:	663
No. of Phases:			3				3				3				3				3
Volume / Capacity:		[3]	0.338			[3]	0.354			[3]	0.363			[3]	0.365			[3]	0.365
Level of Service:			A				A				A				A				A

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
[2] The northbound right-turn lane has an overlapping phase with the westbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

N-S St: La Cienega Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA7
Counts by: The Traffic Solution

La Cienega Boulevard @ Imperial Highway
Peak Hour: AM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II
CITY OF LOS ANGELES METHODOLOGY

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	116	2	64	4	120	2	66	0	120	2	66	0	120	2	66	0	120	2	66
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	243	1	148	9	252	1	153	15	267	1	161	0	267	1	161	0	267	1	161
Comb. T-R		1	148			1	153			1	161			1	161			1	161
NB Right	177	1	124	6	183	1	128	1	184	1	129	0	184	1	129	0	184	1	129
Comb. L-T-R -		0				0				0				0				0	
SB Left	68	2	37	2	70	2	39	4	74	2	41	0	74	2	41	0	74	2	41
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	268	1	195	9	277	1	202	18	295	1	213	0	295	1	213	0	295	1	213
Comb. T-R		1	195			1	202			1	213			1	213			1	213
SB Right	408	1	286	14	422	1	296	10	432	1	303	5	437	1	306	0	437	1	306
Comb. L-T-R -		0				0				0				0				0	
EB Left	298	2	164	10	308	2	170	19	327	2	180	6	333	2	183	0	333	2	183
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	190	3	63	7	197	3	66	14	211	3	70	20	231	3	77	0	231	3	77
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right [2]	244	2	134	23	267	2	147	0	267	2	147	0	267	2	147	0	267	2	147
Comb. L-T-R -		0				0				0				0				0	
WB Left	95	2	52	3	98	2	54	7	105	2	58	0	105	2	58	0	105	2	58
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	891	3	297	31	922	3	307	22	944	3	315	-4	940	3	313	0	940	3	313
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right [2]	519	2	285	18	537	2	295	19	556	2	306	0	556	2	306	0	556	2	306
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	267			N-S:	277			N-S:	279			N-S:	280			N-S:	280
		E-W:	461			E-W:	477			E-W:	495			E-W:	497			E-W:	497
		SUM:	728			SUM:	754			SUM:	773			SUM:	777			SUM:	777
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.430			[3]	0.448			[3]	0.462			[3]	0.465			[3]	0.465
Level of Service:			A				A				A				A				A

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
Right turns on red from excl. lanes = 50% of overlapping left turn.
[1] Added volume reflects net new traffic volumes (i.e., proposed project traffic volumes, less existing use traffic volumes and the MTA traffic volumes shifts due to the reconfigured site access driveways).
[2] The eastbound right-turn movement has an overlapping phase with the northbound left-turn phase. The westbound right-turn movement has an overlapping phase with the southbound left-turn phase.
[3] The volume to capacity ratios have been reduced by 0.10 to account for the installation of the City of Los Angeles Airport ATSAC/ATCS system improvements.

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CRITICAL MOVEMENT ANALYSIS

N-S St: La Cienega Boulevard
E-W St: Imperial Highway
Project: Aviation Station Project/1-093778-1
File Name: CMA7
Counts by: The Traffic Solution

La Cienega Boulevard @ Imperial Highway
Peak Hour: PM Peak Hour
Annual Growth: 0.70%

REDUCED PROJECT - PHASES I AND II
CITY OF LOS ANGELES METHODOLOGY

Date: 08/18/2011
Date of Count: 2009
Projection Year: 2014

	2009 EXIST. TRAFFIC			2014 W/ AMBIENT GROWTH				2014 W/ OTHER PROJECTS				2014 W/ PROPOSED PROJECT [1]				2014 W/ MITIGATION			
Movement	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
NB Left	88	2	48	3	91	2	50	0	91	2	50	0	91	2	50	0	91	2	50
Comb. L-T		0	-			0	-			0	-			0	-			0	-
NB Thru	185	1	185	6	191	1	191	17	208	1	208	0	208	1	208	0	208	1	208
Comb. T-R		1	234			1	242			1	243			1	243			1	243
NB Right	780	1	546	27	807	1	565	4	811	1	568	0	811	1	568	0	811	1	568
Comb. L-T-R -		0				0				0				0				0	
SB Left	351	2	193	12	363	2	200	8	371	2	204	0	371	2	204	0	371	2	204
Comb. L-T		0	-			0	-			0	-			0	-			0	-
SB Thru	585	1	350	20	605	1	363	15	620	1	371	0	620	1	372	0	620	1	372
Comb. T-R		1	350			1	363			1	371			1	372			1	372
SB Right	385	1	270	13	398	1	279	5	403	1	282	6	409	1	287	0	409	1	287
Comb. L-T-R -		0				0				0				0				0	
EB Left	200	2	110	7	207	2	114	23	230	2	127	-24	206	2	113	0	206	2	113
Comb. L-T		0	-			0	-			0	-			0	-			0	-
EB Thru	1176	3	392	41	1217	3	406	23	1240	3	413	4	1244	3	415	0	1244	3	415
Comb. T-R		0	-			0	-			0	-			0	-			0	-
EB Right [2]	315	2	173	11	326	2	179	0	326	2	179	0	326	2	179	0	326	2	179
Comb. L-T-R -		0				0				0				0				0	
WB Left	42	2	23	1	43	2	24	15	58	2	32	0	58	2	32	0	58	2	32
Comb. L-T		0	-			0	-			0	-			0	-			0	-
WB Thru	350	3	117	12	362	3	121	18	380	3	127	-3	377	3	126	0	377	3	126
Comb. T-R		0	-			0	-			0	-			0	-			0	-
WB Right [2]	184	2	101	6	190	2	105	23	213	2	117	0	213	2	117	0	213	2	117
Comb. L-T-R -		0				0				0				0				0	
Crit. Volumes:		N-S:	728			N-S:	753			N-S:	756			N-S:	756			N-S:	756
		E-W:	415			E-W:	430			E-W:	446			E-W:	447			E-W:	447
		SUM:	1143			SUM:	1183			SUM:	1202			SUM:	1203			SUM:	1203
No. of Phases:			4				4				4				4				4
Volume / Capacity:		[3]	0.731			[3]	0.760			[3]	0.774			[3]	0.775			[3]	0.775
Level of Service:			C				C				C				C				C

Assumptions:
Maximum Sum of Critical Volumes (Intersection Capacity): 2 Phase=1500, 3 Phase=1425, 4+ Phase=1375, Unsignalized=1200.
For dual turn lanes, 55% of volume is assigned to heavier lane.
For one excl. and one opt. turn lane, 70% of volume is assigned to exclusive lane.
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REVISED
SEWER AREA STUDY REPORT

FOR

V.T.T.M. No. 70853
P.C. 12111 AS

RECEIVED
SEP - 7 2011
PROCESSING CENTER
LAND DEVELOPMENT DIVISION

SEWER AREA STUDY
APPROVED
APPROVED BY: RCE NO. 65401 DATE 9-8-11
CHECKED BY: DATE
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

PREPARED FOR:

KROEZE FAMILY, LLC

11604 AVIATION BLVD
INGLEWOOD, CA, 90304

REGISTERED PROFESSIONAL ENGINEER
CHARLES A. GILLMAN
No. C54155
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STATE OF CALIFORNIA

October 13, 2009
Approved by December 17, 2009
Revised August 10, 2011
Revised September 7, 2011

LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services

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As-Built Sewer Plans (for Reference Purposes)	Pocket-3
Sheet No. 6, 9 and 10 of CUP	Pocket-4

INTRODUCTION

The purpose of this study is to provide analysis of the capacities of the existing sanitary sewer systems downstream of V.T.T.M. No. 70853, located near the intersection of Aviation Boulevard and West 117th street in the Del Aire area, unincorporated County of Los Angeles, California. The study is based on the proposed development of mixed use residential and retail. The existing site is comprised of mixed commercial, residential and motels.

The Sewer Area Study was approved on December 17, 2009. The study is here being revised because the development scheme and the corresponding V.T.T.M. have changed. In this report the analysis and maps are consistence with the currently V.T.T.M..

The V.T.T.M. shows that the existing 116th street from Aviation Blvd to Judah Ave. will be quitclaimed for the proposed project. All of 116th street from Aviation Blvd to Isis Ave. and that portion of the project north of 116th street will be detached from the City of Los Angeles in the second phase of the project. so as to be unincorporated County of Los Angeles. See tentative map for details (see pocket-2).

On 116th street near it's center line, there is an existing 8' x 10'-3/4" RCB storm drain box which, under this plan, it will remain in place. Two existing sewer lines are on either side of the storm drain box. The south side of the street is L.A. County's 8" sewer (per C.I. 1123), which will remain in place. On the north side of the street is the city of L.A.'s 8" sewer per plan No. D-1108. Part of the 8" sewer line (from Aviation Blvd to Judah Ave.) will be removed and relocated due to conflicts with the proposed underground parking. The new location of the 8" sewer is shown on the Sewer Area Study map.

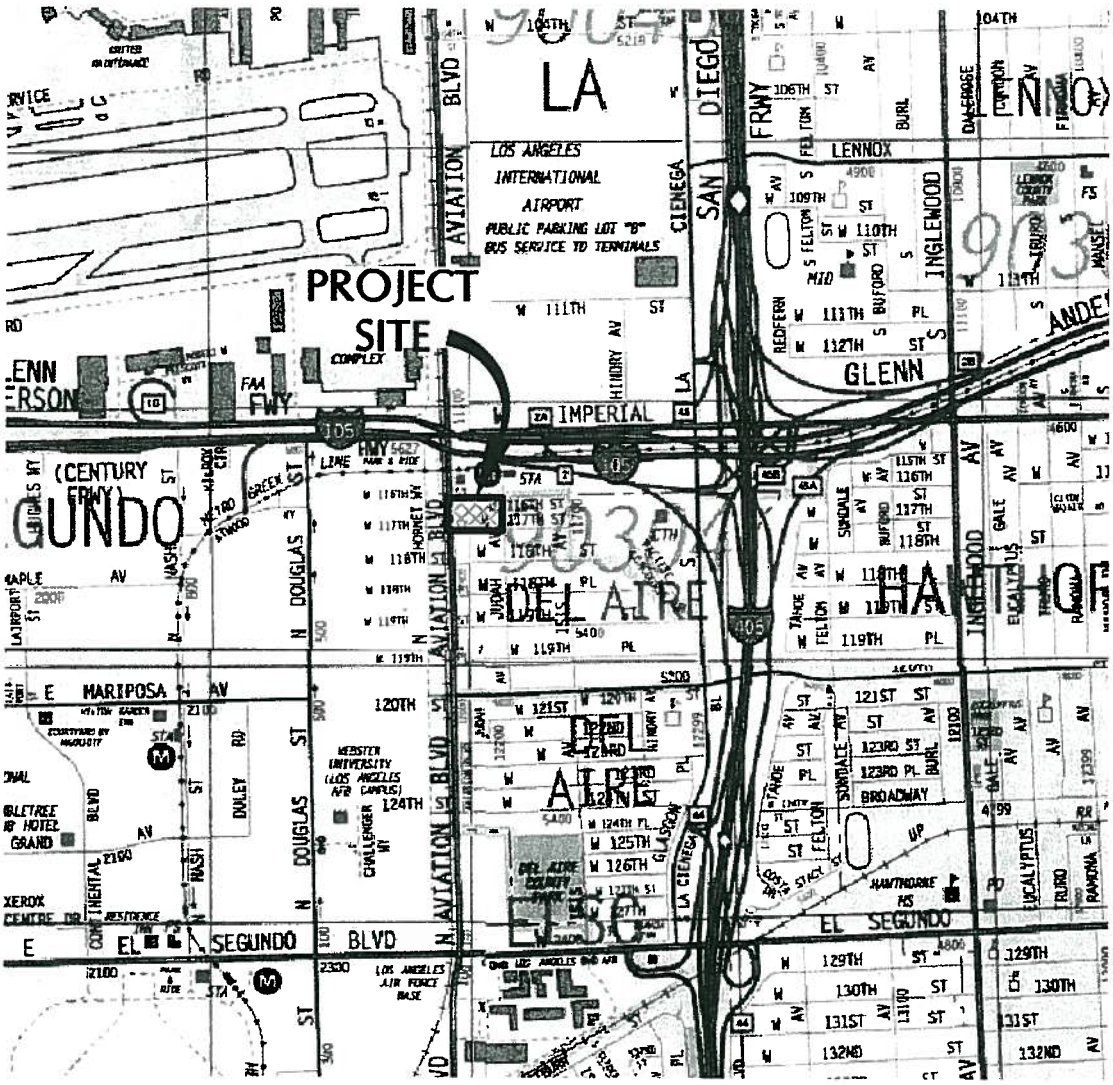
The proposed buildings on Aviation Blvd. and north of 116th street are to be mixed use. The first floor will be commercial, shops, office and stores. Above the commercial level will be apartments and studios. The buildings between 116th street south and 117th street are apartments and studio units.

In this report, Table-1 represents the peak flow calculation which is uses the Zoning Method for the commercial area plus unit sewer flow calculation for the apartments and studios above. Outside the project, the existing areas contributing to the sewer system were calculated by using the Zoning Method.

Table-2 is the sewer area study table per L.A. County's sewer area study guideline requirement. The computer program "Flow Master" and Kutter's formula were utilized to calculate the existing pipe capacity from the site to the trunk line. All of the peak-flow coefficients were based on the County of Los Angeles Department of Public Works, Land Development Division, Sewer Area Study Guidelines. The evaluation is required to the trunk line. All sewers are gravity flow only.

In conclusion, this study shows that the all existing sewer pipe has enough capacity for the proposed development. There is no upgrade of pipe size needed.

Upgrades or modifications may be needed for the segment of sewer within the area which will be detached from the City of Loa Angeles prior to it being accepted for maintenance and operation by the Consolidated Sewer Maintenance Districts of the County of Los Angeles, However, these requirements will be analyzed as part of the detachment procedure and are outside the scope of this area study.

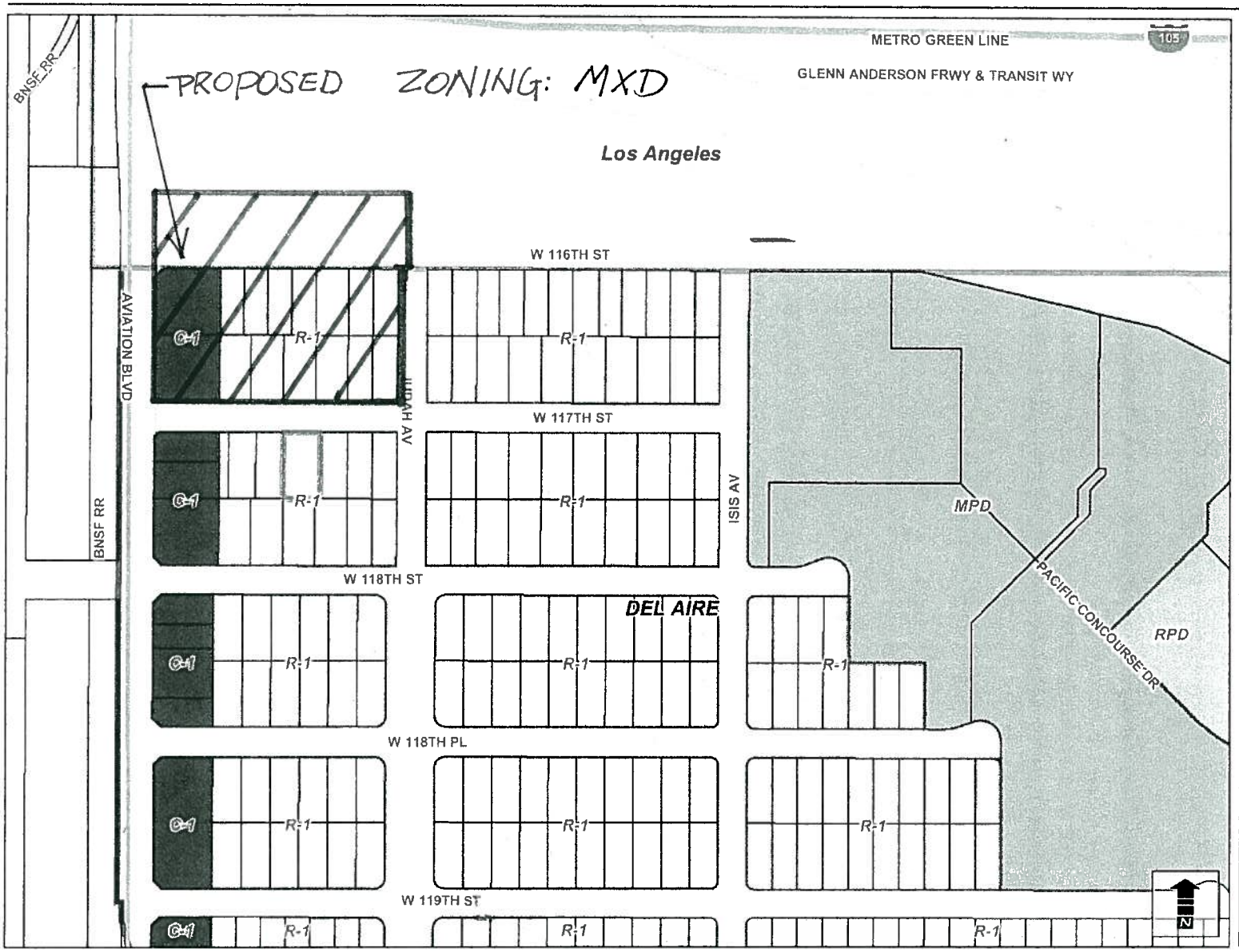


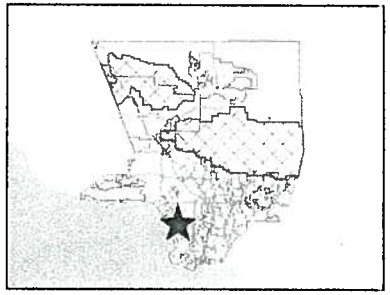
LDC

VICINITY MAP

VESTING TENTATIVE TRACT NO. 70853

Los Angeles County
Department *of* Regional Planning | ZONE





Legend

Base Layers

- LOS ANGELES COUNTY
- OTHER COUNTY
- PACIFIC OCEAN
- UNINCORPORATED AREAS
- INCORPORATED CITIES
- HYDRO - PERENNIAL
- HYDRO - INTERMITTENT
- HYDRO - DRY
- HYDRO - LINE
- FREEWAYS
- NATIONAL FOREST
- PARCEL BOUNDARY
- SUPERVISORIAL DISTRICT
- TRANSIT - RAILROAD
- TRANSIT - RAPID TRANSIT
- TRANSIT - UNDERGROUND
- SUBDIVISION ACTIVITY - APPROVED
- SUBDIVISION ACTIVITY - INACTIVE
- SUBDIVISION ACTIVITY - PENDING
- SUBDIVISION ACTIVITY - RECORDED
- AND (ASSESSOR MAP BOOK) GRID
- SEA (SIGNIFICANT ECOLOGICAL AREA)
- CSD (COM. STANDARDS DISTRICT)
- OSD - AREA SPECIFIC
- VERY HIGH FIRE HAZARD SEVERITY
- TOD (TRANSIT ORIENTED DISTRICT)
- EQD (EQUESTRIAN DISTRICT)
- THE THOMAS GUIDE - PAGE
- THE THOMAS GUIDE - PAGE GRID
- ZD (ZONED DISTRICT)
- ZONING INDEX MAP GRID
- ZONING MAP GRID
- TOWNSHIP & RANGE GRID
- USGS QUAD SHEET GRID

Zoning

- ZONE A-1
- ZONE A-2
- ZONE R-1
- ZONE R-2
- ZONE O-1
- ZONE O-2
- ZONE O-3
- ZONE O-H
- ZONE O-M
- ZONE OPD
- ZONE O-R
- ZONE O-S
- ZONE IT
- ZONE M-1
- ZONE M-1.5
- ZONE M-2
- ZONE M-3
- ZONE MPD
- ZONE MXD
- ZONE O-S
- ZONE P-R
- ZONE R-1
- ZONE R-2
- ZONE R-3-CUV
- ZONE R-4-CUV
- ZONE R-R
- ZONE RPD
- ZONE S-R
- ZONE SP
- ZONE SR-D
- ZONE W

LOS ANGELES - REGION
LAR | IC
Imagery acquisition consortium

LEGEND MAY NOT CONTAIN ALL LAYERS REPRESENTED IN THE MAP

Scale: 1:3,677
Printed On: Jun 1, 2009
GIS-NET | Public Web Mapping Application

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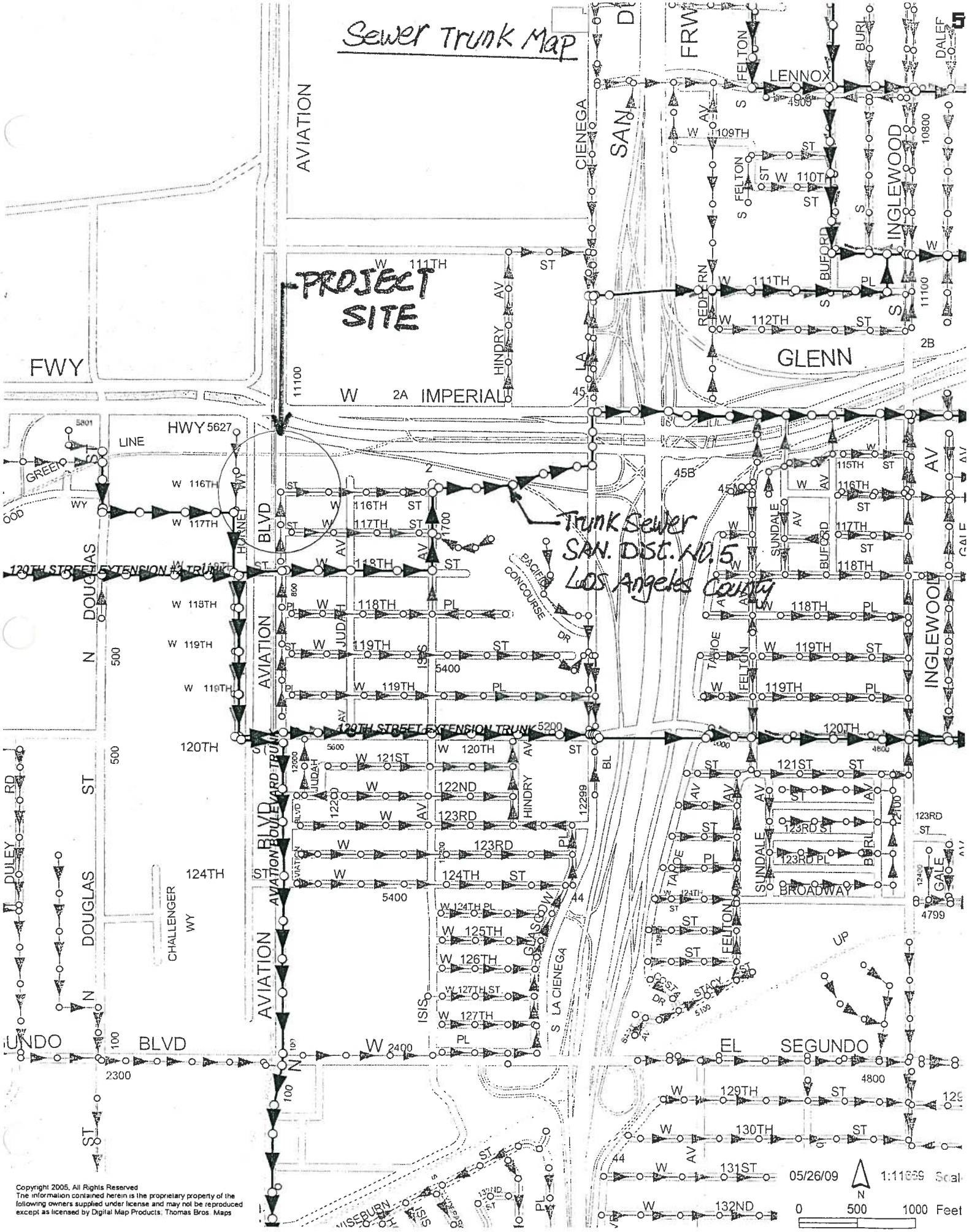
LOS ANGELES COUNTY DEPARTMENT of REGIONAL PLANNING

Sewer Trunk Map



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Estimated Average Daily Sewage Flows for Various Occupancies

Occupancy	Abbreviation	*Average daily flow	
Apartment Buildings:			
Bachelor or Single dwelling units	Apt	100	gal/D.U. → 150
1 bedroom dwelling units	Apt	150	gal/D.U. → 200
2 bedroom dwelling units	Apt	200	gal/D.U. → 250
3 bedroom or more dwelling units	Apt	250	gal/D.U. → use 300 GPD per SMD =0.0046 cfs
Auditoriums, churches, etc.	Aud	5	gal/seat
Automobile parking	P	25	gal/1000 sq ft gross floor area
Bars, cocktails lounges, etc.	Bar	20	gal/seat
Commercial Shops & Stores	CS ✓	100	gal/1000 sq ft gross floor area
Hospitals (surgical)	HS	500	gal/bed
Hospitals (convalescent)	HC	85	gal/bed
Hotels	H	150	gal/room
Medical Buildings	MB	300	gal/1000 sq ft gross floor area
Motels	M	150	gal/unit
Office Buildings	Off ✓	200	gal/1000 sq ft gross floor area
Restaurants, cafeterias, etc.	R ✓	50	gal/seat
Schools:			
Elementary or Jr. High	S	10	gal/student
High Schools	HS	15	gal/student
Universities or Colleges	U	20	gal/student
College Dormitories	CD	85	gal/student

*Multiply the average daily flow by 2.5 to obtain the peak flow

Zoning Coefficients

Zone	Coefficient (cfs/Acre)
Agriculture	**0.001**
Residential+:	
R-1	**0.004**
R-2	**0.008**
R-3	**0.012**
R-4	**0.016***
Commercial:	
C-1 through C-4	**0.015***
Heavy Industrial:	
M1 through M-4	**0.021***

***Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown**

+ Use 0.001 (cfs/unit) for condominiums only ✓

TABLE-1: PEAK FLOW CALCULATION

LOT NO.	SUB-AREA No.	ZONE or occupancy	FLOOR AREA (sft)	PEAK FLOW COEFFICIENT (gal/1000 sft per day)	UNIT	PEAK COEFFICIENT (gal/D.U. per day)	PEAK FLOW (cfs)	SUB-AREA TOTAL PEAK Q (cfs)	CALCULATED PEAK Q AT REACH (cfs)	REACH No. Δ
	SOUTH SIDE 116 th STREET									
	AREA-1	C-1	0.8 ac	0.015			0.012	0.012	0.012	1
	AREA-2	CS	8995	250			0.003			
	BUILDING-UNIT B	APT-1BR			28	500	0.022			
	BUILDING-UNIT E	APT-2BR			16	625	0.016			
								0.041	0.053	2
	AREA-3									
	BUILDING-UNIT B	APT-1BR			40	500	0.031			
LOT 1	BUILDING-UNIT C	APT-2BR			15	625	0.015			
	BUILDING-UNIT D	APT-2BR			10	625	0.010			
	BUILDING-UNIT E	APT-2BR			15	625	0.015	0.070	0.122	3
	AREA-4	R-1	1.95 ac	0.004			0.008	0.008	0.130	4 *
	117th STREET									
	AREA-5									
	BUILDING-UNIT A	STUDIO			44	375	0.026			
	BUILDING-UNIT B	APT-1BR			50	500	0.039			
	BUILDING-UNIT C	APT-2BR			11	625	0.011			
	BUILDING-UNIT D	APT-2BR			25	625	0.024			
	BUILDING-UNIT E	APT-2BR			10	625	0.010	0.109	0.109	5
	AREA-6	R-1	1.2 ac	0.004			0.005	0.005	0.114	6
	AREA-7	R-1	2 x 1.95 ac	0.004			0.016	0.016	0.129	7 *
	NORTH SIDE 116 th STREET									
	AREA-8	CS	20791	250			0.008			
LOT 2		OFFCE	4572	500			0.004			
	BUILDING-UNIT B	APT-1BR			60	500	0.047			
	BUILDING-UNIT E	APT-2BR			36	625	0.035			
	BUILDING-UNIT F	APT-3BR			16	750	0.019	0.112	0.112	8
	AREA-9	PRKING LOT/W BUILDINGS	1.69 ac	0.015			0.025	0.025	0.137	9 *

NOTE: *1.> PROPOSED DEVELOPMENT IS IN ZONE MIXED, COMMERCIAL AND RESIDENTIAL MIXED*
THE FLOW RATE CALCULATED BY USING UNIT METHOD IN THIS STUDY
2.> EXISTING AREAS WHICH CONTRIBUTED TO THE SEWER SYSTEM BY USING ZONING METHOD FOR THIS STUDY
3.> CS - COMMERCIAL SHOPS & STORES
APT - APARTMENT
4.> UNIT: 1 cfs = 646316.9 gallon/day; 1 gallon/day = 0.00000155 cfs
*5.> * REACH TO TRUNK*

TABLE-2: SEWER AREA STUDY

Street Name	Segment		Pipe		Capacity		Area (Acres)	Zoning	Zoning Coeff (cfs/acre) or cfs	Calculated Peak Flow (cfs)	Cumulated Peak Flow (cfs)	Flow Depth (ft)	PC or CI Construction Plan #	Comment SP=Specific Plan	% Full		Study of
	M.H. #	M.H. #	Size (in.)	Slope (%)	1/2 Full(<15")	3/4 Full(>15")									Flow Depth/ (0.5 X Pipe Dia.)	Calculated Flow/ Capacity	Ex. Pipe Capacity
					(cfs)	(cfs)											
AVIATION BLVD	72	71	8	0.4	0.35		0.80	C-1	0.015	0.012	0.012	0.07	C.I. 1123	EX. SEWER	21%	3%	OK
AVIATION BLVD	71	70	8	0.4	0.35		-	CS & APT	SEE TABLE 1	0.041	0.053	0.13	C.I. 1123	EX. SEWER	39%	15%	OK
116th St. SOUTH SIDE	70	68	8	0.32	0.31		-	APT	SEE TABLE 1	0.070	0.122	0.21	C.I. 1123	EX. SEWER	63%	39%	OK
116th St. SOUTH SIDE	68	67	8	0.32	0.31		1.95	R-1	0.004	0.008	0.130	0.21	C.I. 1123	EX. SEWER	63%	42%	OK
TO TRUNK																	
117th Street	78	79	8	0.4	0.35		-	APT	SEE TABLE 1	0.109	0.109	0.18	C.I. 1123	EX. SEWER	54%	31%	OK
117th Street	79	80	8	0.4	0.35		1.20	R-1	0.004	0.005	0.114	0.19	C.I. 1123	EX. SEWER	57%	33%	OK
117th Street	80	TRUNK	8	0.4	0.35		1.90	R-1	0.004	0.016	0.129	0.20	C.I. 1123	EX. SEWER	60%	37%	OK
TO TRUNK																	
116th St. NORTH SIDE	A	B	8	0.04	0.35		-	CS, OFFICE & APT	SEE TABLE 1	0.112	0.112	0.11		NEW SEWER	33%	32%	OK
116th St. NORTH SIDE	B	TRUNK	8	0.04	0.35		1.69	PARKING LOT W/ BUILDINGS	0.015	0.025	0.137	0.12	TO CITY OF LA SEWER. PLAN NO. D-11088	EX. SEWER	36%	39%	OK

Note:

1> Calculated using Kutter's Formula with n=0.013 (as in S-C4 graph in PC Procedural Manual)

2> Based on current land use and coefficients per LA County,.

3> For pipes > 15% Full should be calculated by taking flow depth divided by 0.75 times the pipe diameter

SEWER AREA STUDY
APPROVED

APPROVED BY: _____ RCE NO. 65401 DATE 9-8-11

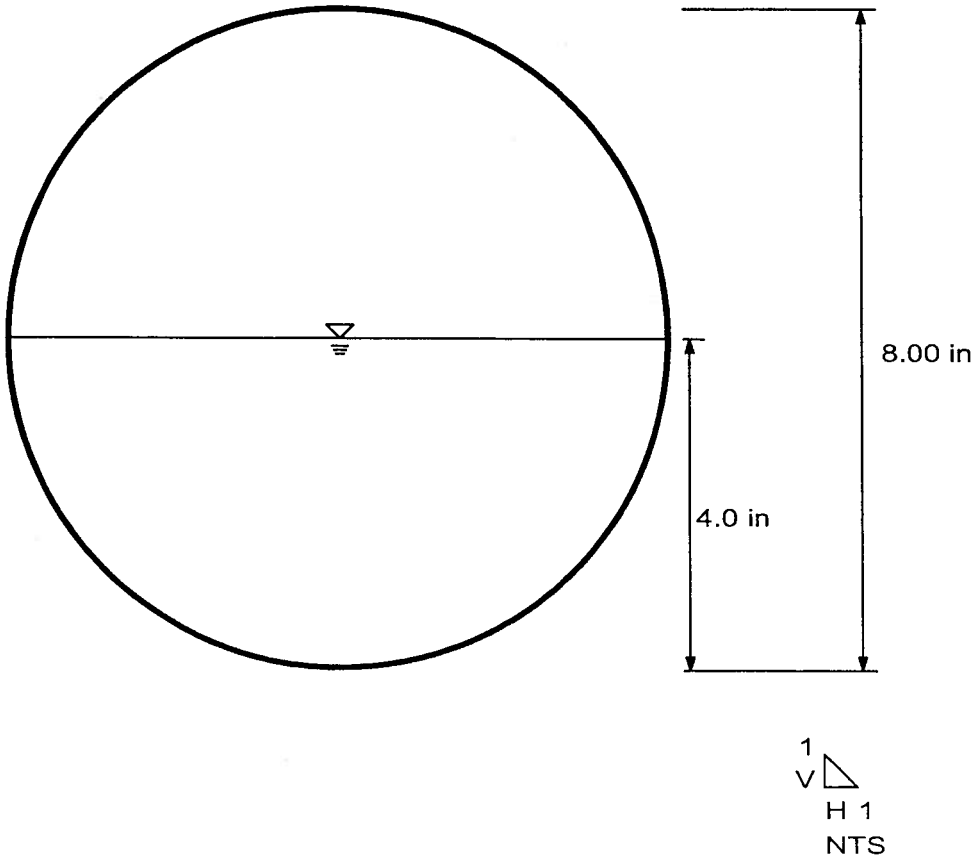
CHECKED BY; _____ DATE _____

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

8" SEWER AT S=0.004 SLOPE 1/2 FULL CAPACITY
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Discharge

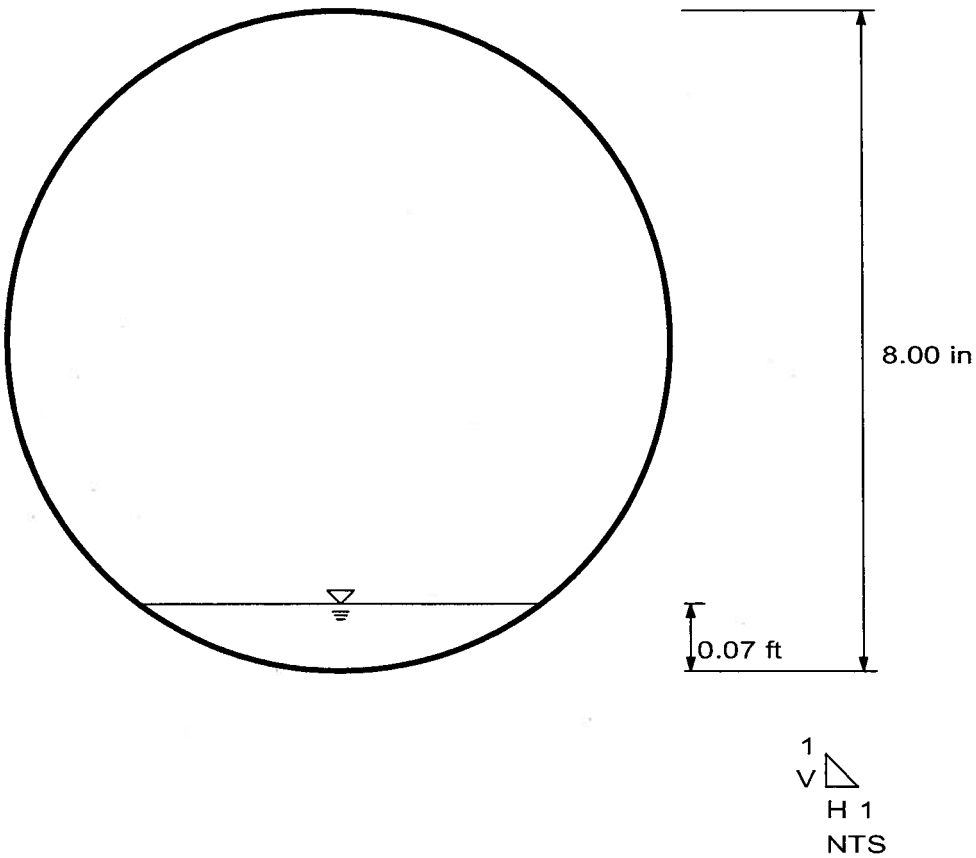
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.004000	ft/ft
Depth	4.0	in
Diameter	8.00	in
Discharge	0.35	cfs



AVIATION BLVD. M.H. 72 ~ M.H. 71
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

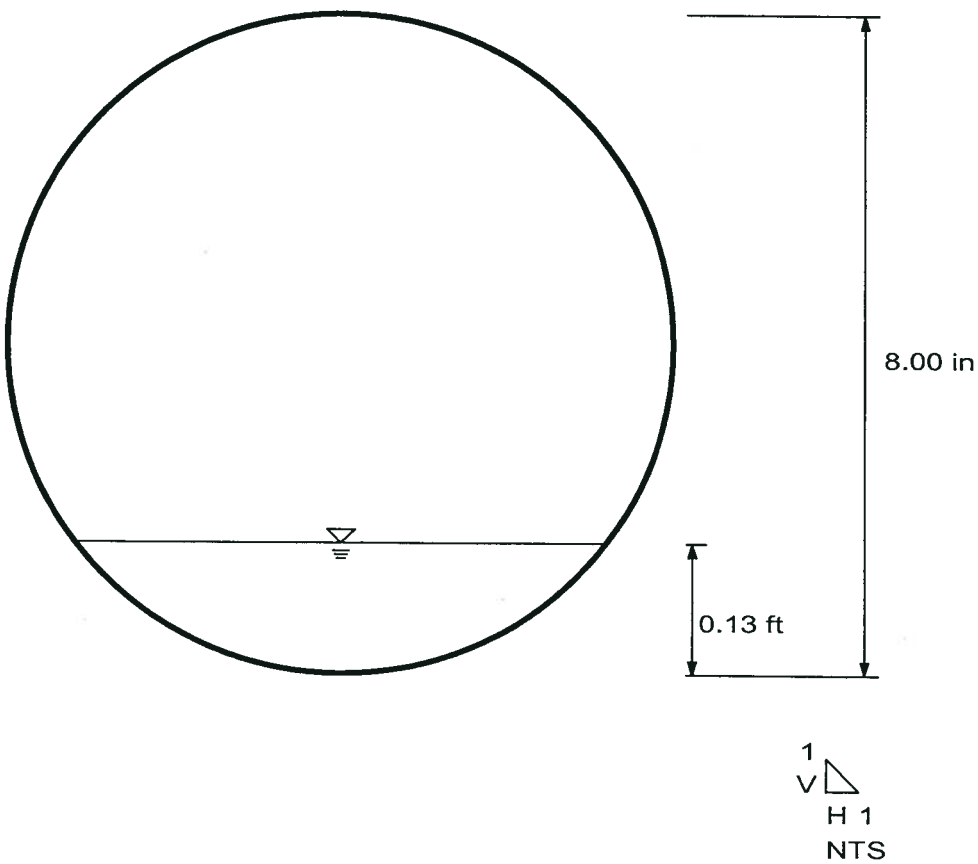
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.004000	ft/ft
Depth	0.07	ft
Diameter	8.00	in
Discharge	0.01	cfs



AVIATION BLVD. M.H. 71 ~ M.H. 70
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

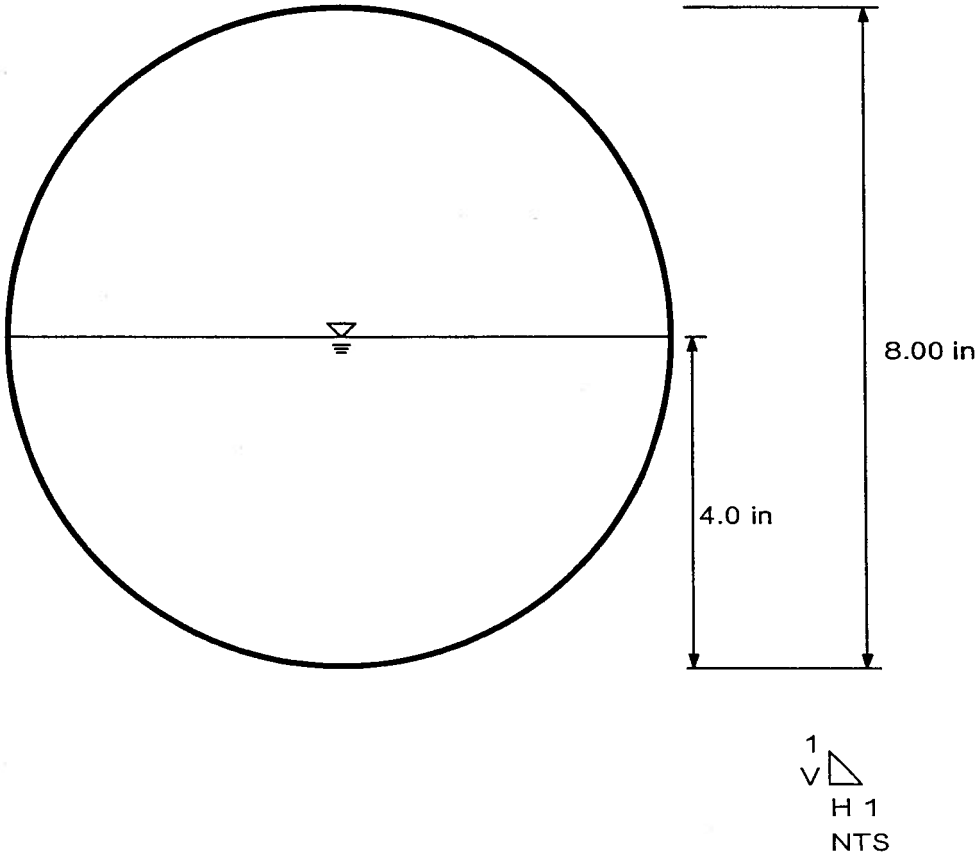
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.004000	ft/ft
Depth	0.13	ft
Diameter	8.00	in
Discharge	0.05	cfs



8" SEWER AT S=0.0032 SLOPE 1/2 FULL CAPACITY
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Discharge

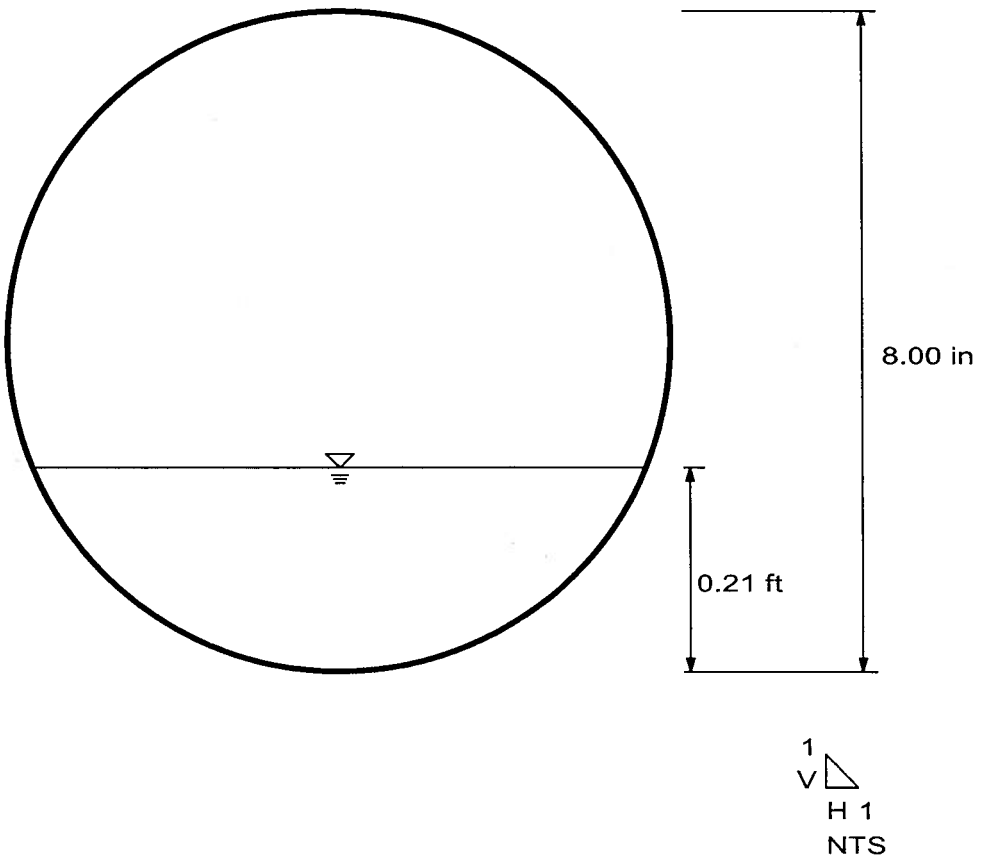
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.003200	ft/ft
Depth	4.0	in
Diameter	8.00	in
Discharge	0.31	cfs



AVIATION BLVD. M.H. 70 ~ M.H. 68
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

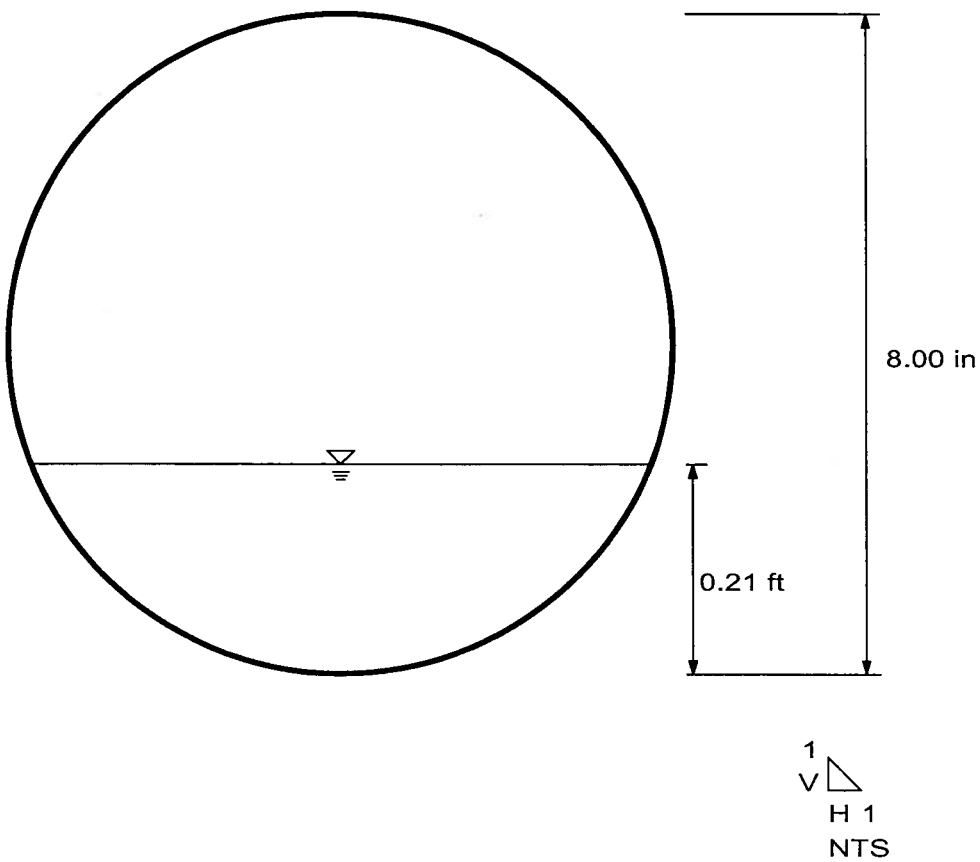
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.003200	ft/ft
Depth	0.21	ft
Diameter	8.00	in
Discharge	0.12	cfs



116TH STREET M.H. 68 ~ M.H. 67
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

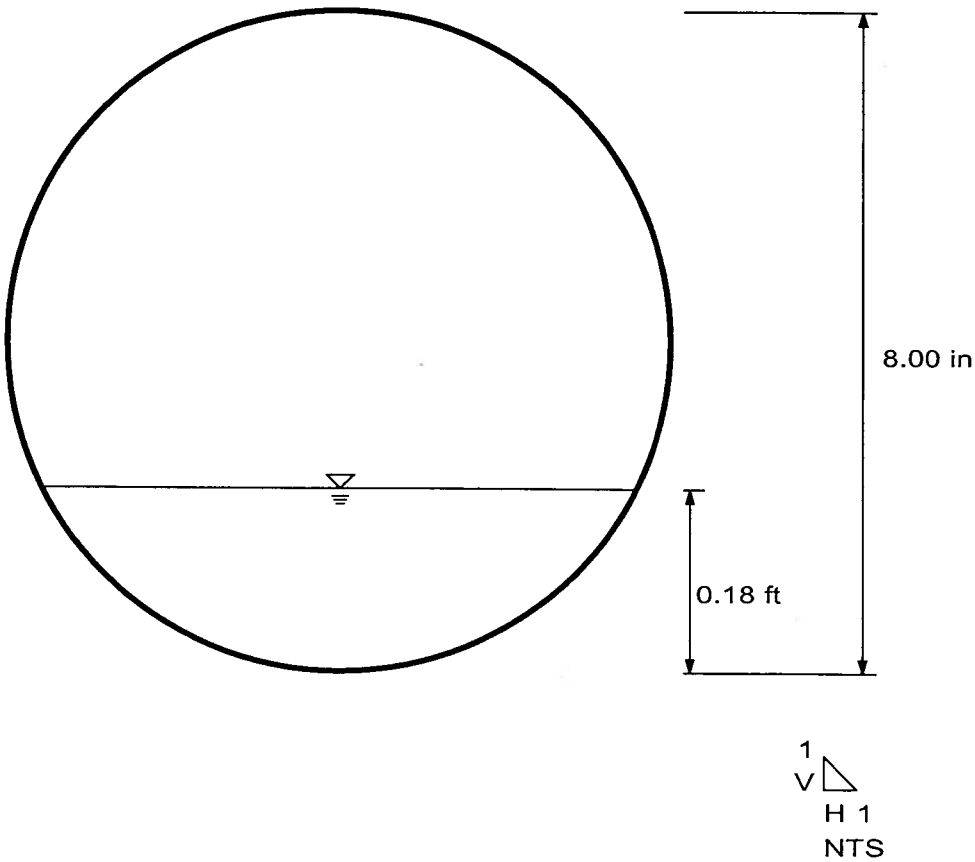
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.003200	ft/ft
Depth	0.21	ft
Diameter	8.00	in
Discharge	0.13	cfs



117 TH STREET M.H. 78 ~ M.H. 79
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

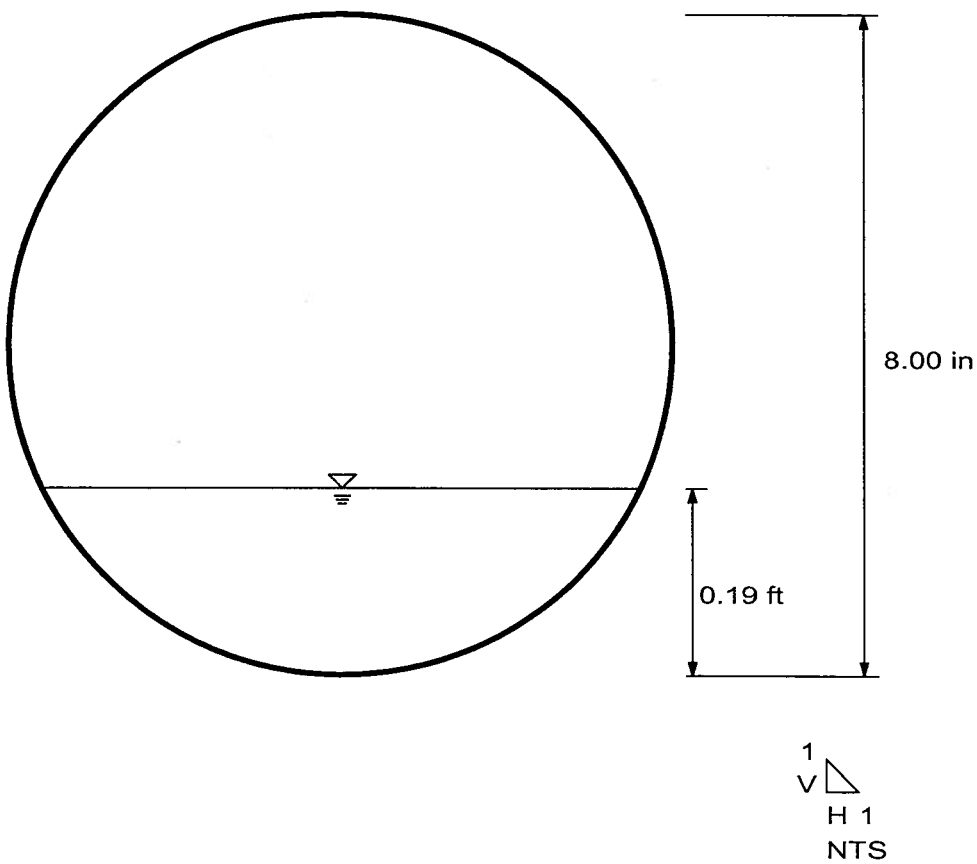
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.004000	ft/ft
Depth	0.18	ft
Diameter	8.00	in
Discharge	0.11	cfs



117 TH STREET M.H. 79 ~ M.H. 80
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

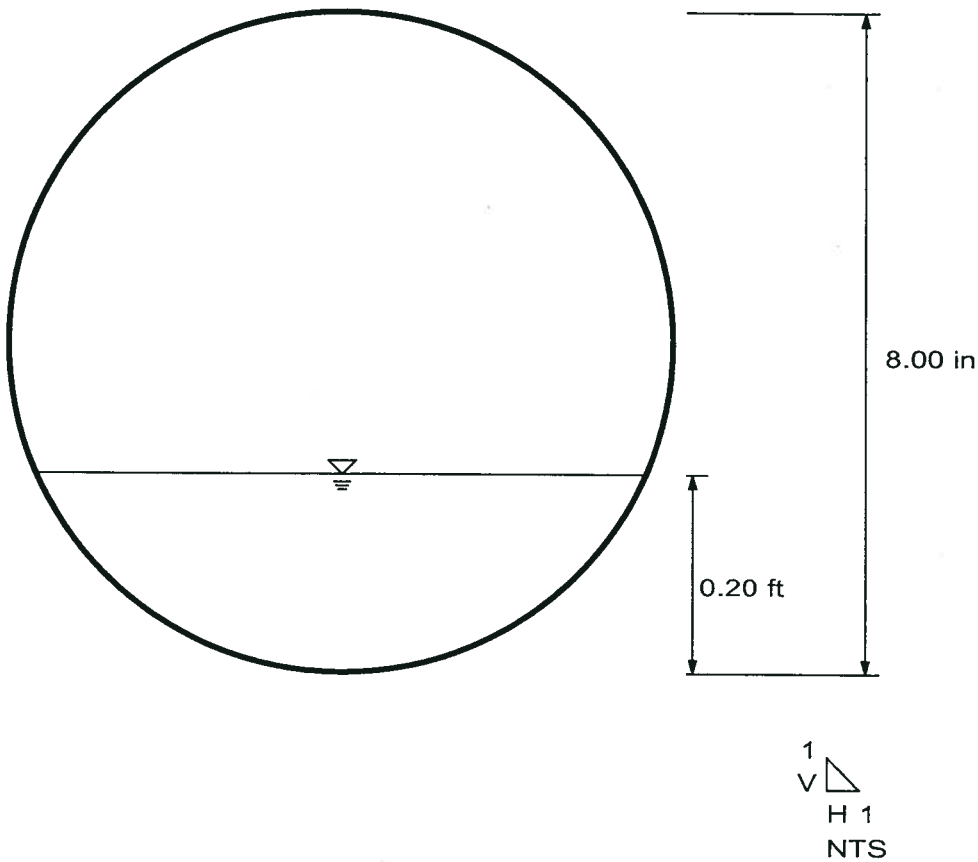
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.004000	ft/ft
Depth	0.19	ft
Diameter	8.00	in
Discharge	0.11	cfs



117 TH STREET M.H. 80 ~ M.H. TRUNK
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

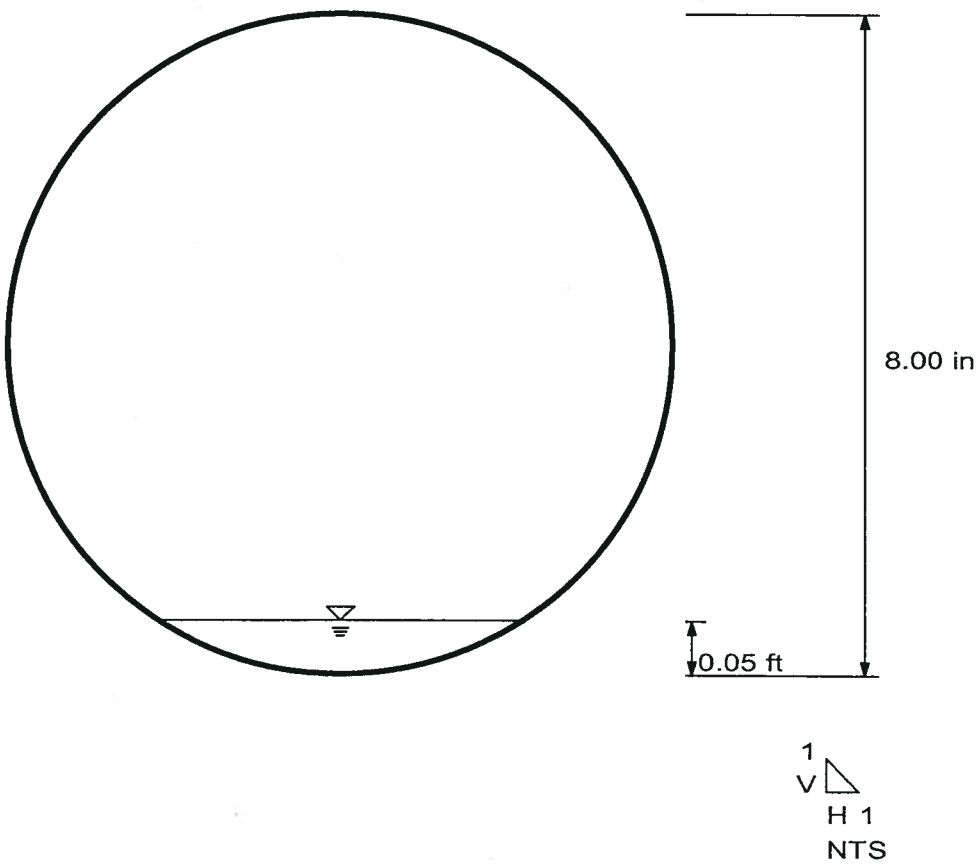
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.004000	ft/ft
Depth	0.20	ft
Diameter	8.00	in
Discharge	0.13	cfs



117 ST. M.H. 80 ~ M.H. TRUNK
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

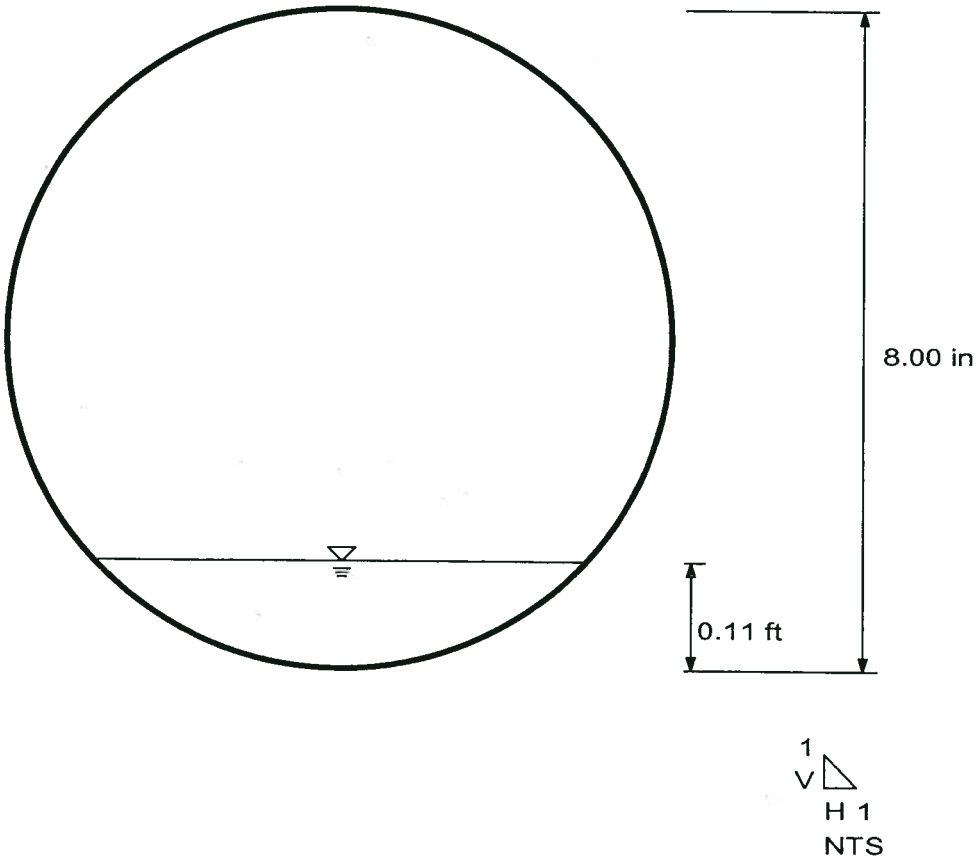
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.040000	ft/ft
Depth	0.05	ft
Diameter	8.00	in
Discharge	0.02	cfs



116 ST. NORTH SIDE M.H. A ~ M.H. C
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

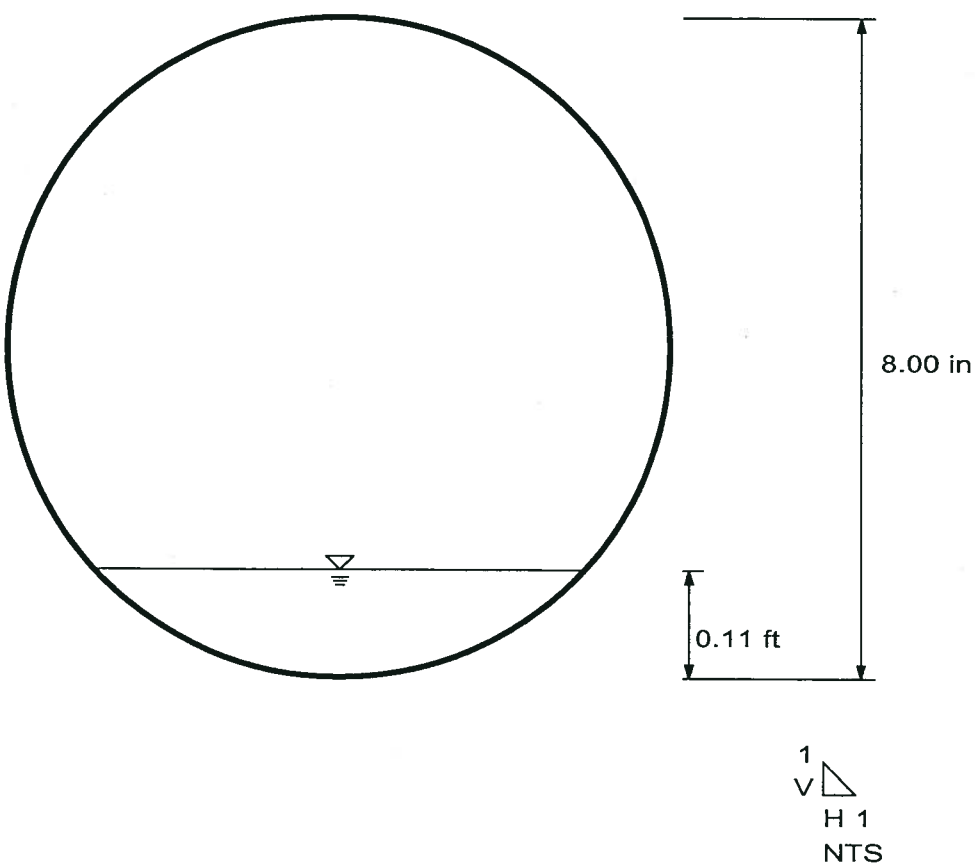
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.040000	ft/ft
Depth	0.11	ft
Diameter	8.00	in
Discharge	0.11	cfs



116 ST. NORTH SIDE M.H. A ~ M.H. B
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

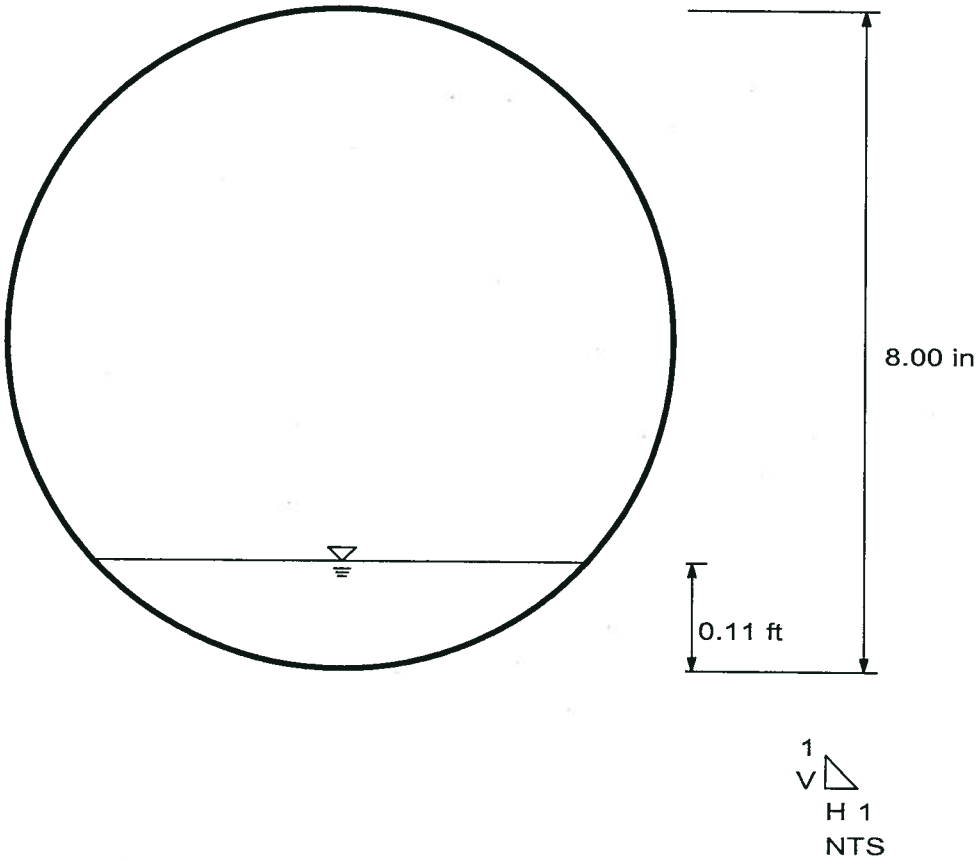
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.040000	ft/ft
Depth	0.11	ft
Diameter	8.00	in
Discharge	0.11	cfs



116 ST. NORTH SIDE M.H. A ~ M.H. B
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

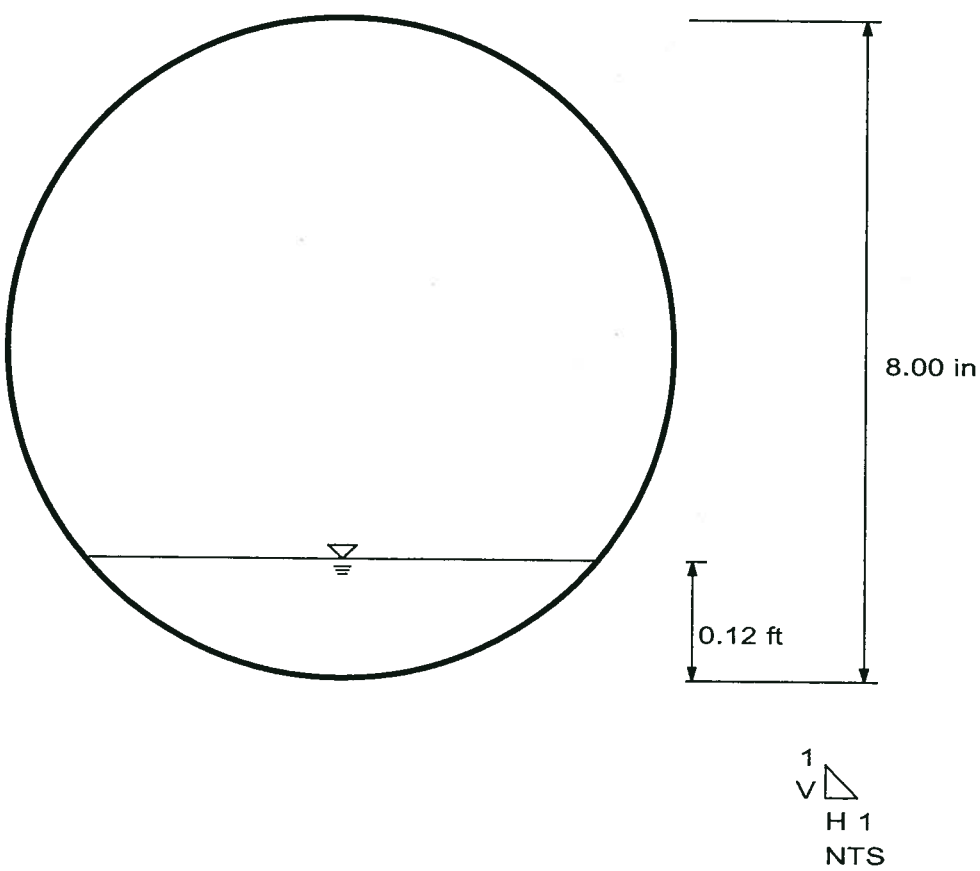
Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.040000	ft/ft
Depth	0.11	ft
Diameter	8.00	in
Discharge	0.11	cfs

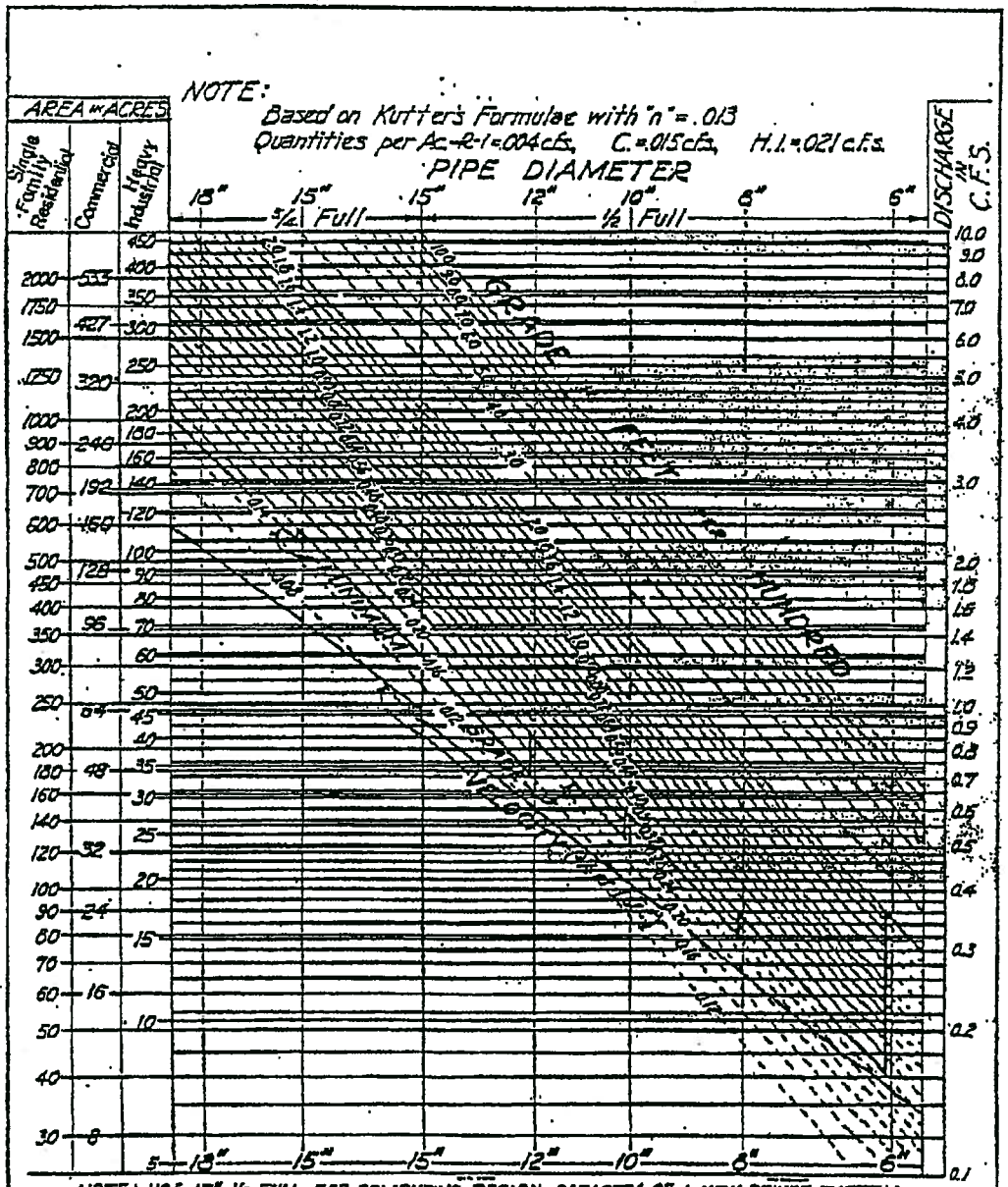


116 ST. NORTH SIDE M.H. C ~ TRUNK
Cross Section for Circular Channel

Project Description	
Project File	j:\programs\flowmaster\fmw\08005-00.fm2
Worksheet	SEWER PIPE CAPACITY CALCULATIONS
Flow Element	Circular Channel
Method	Kutter's Formula
Solve For	Channel Depth

Section Data		
Kutter's n Coefficient	0.013	
Channel Slope	0.040000	ft/ft
Depth	0.12	ft
Diameter	8.00	in
Discharge	0.14	cfs





NOTE: USE 15" 1/2 FULL FOR COMPUTING DESIGN CAPACITY OF A NEW SEWER SYSTEM.
USE 15" 3/4 FULL FOR CHECKING CAPACITY OF EXIST. SEWER SYSTEM.

FLOW DIAGRAM FOR THE DESIGN
OF CIRCULAR SANITARY SEWERS

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

ASSISTANT DEPUTY

COUNTY ENGINEER

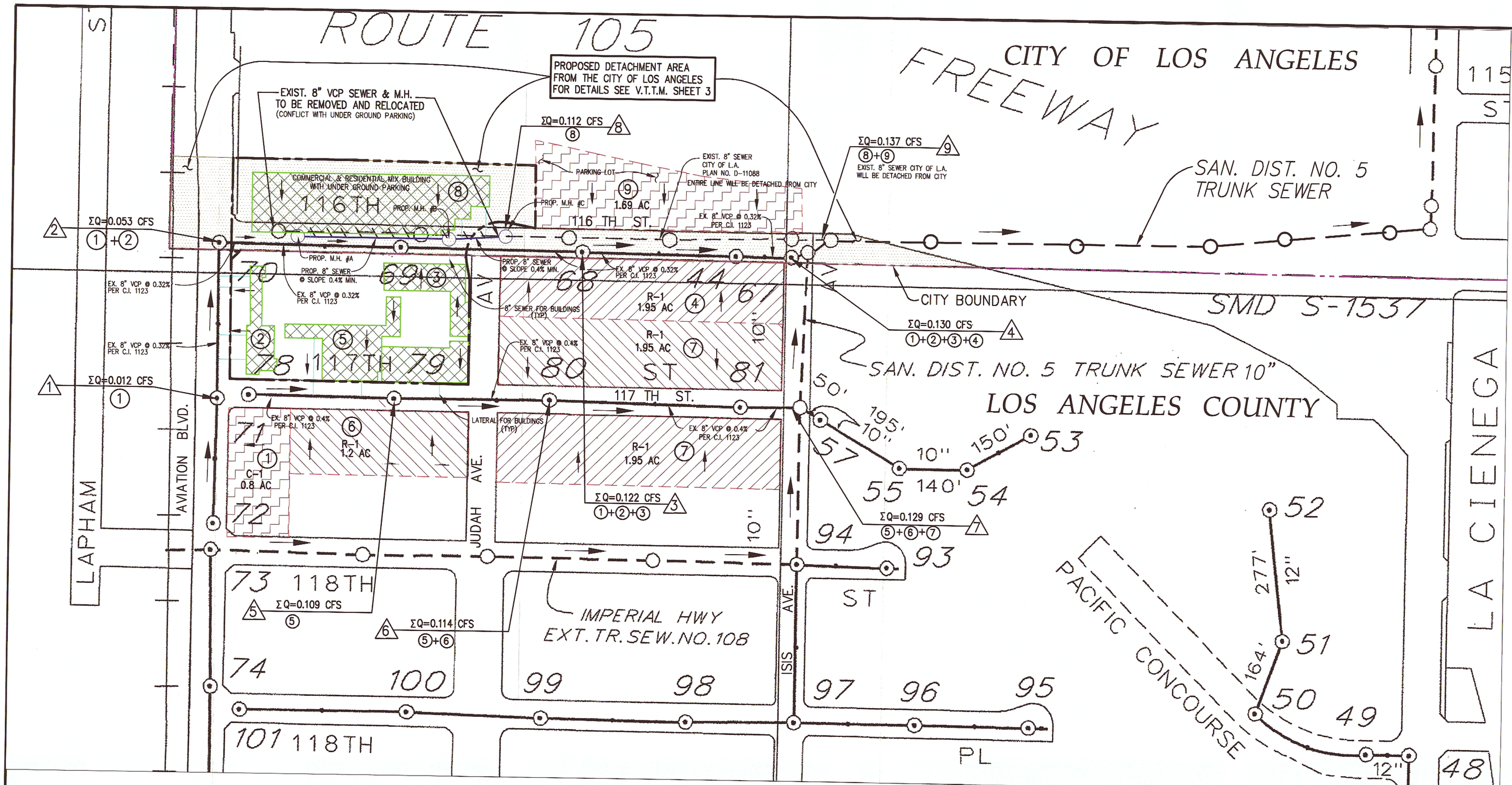
COUNTY ENGINEER STANDARD S-C4

DATE: 3/80

DESIGN RCE 10103

POCKET-1

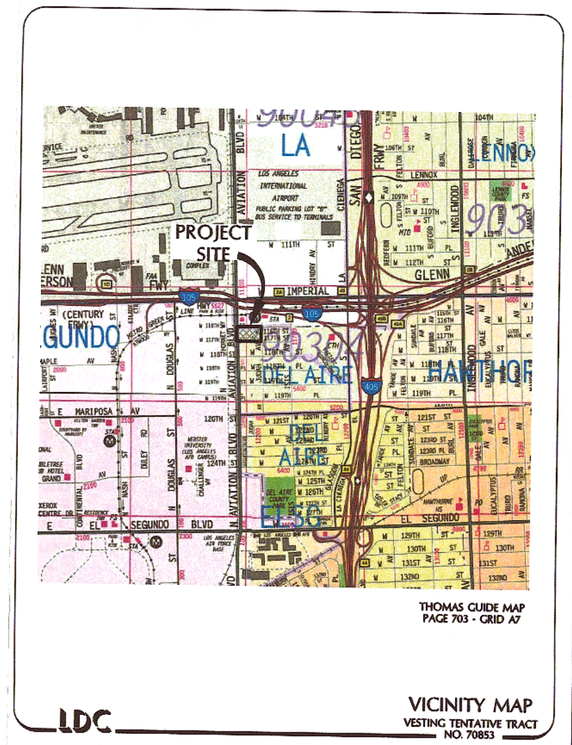
Sewer Area Study Maps



SEWER AREA STUDY MAP

NOTE: SEE PROPOSED DEVELOPMENT EXHIBITS ON SHEET NO. 2

GRAPHIC SCALE (IN FEET)
1 inch = 100 ft.



LDC VICINITY MAP
VESTING TENTATIVE TRACT NO. 70853

LEGEND

- CLAY SEWERS MAINTAINED BY SMD. 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- SUB-AREA NUMBER
- SUB-AREA BOUNDARY
- PROP. 8" SEWER PIPE
- PROP. SEWER LATERAL TO BUILDING
- SEWER FLOW REACH NUMBER
- ΣQ CULMULATIVE CALCULATED FLOW RATE AT REACH
- SEWER FLOW DIRECTION
- EXIST. R-1, SUB-AREA
- EXIST. C-1, SUB-AREA
- PROPOSE MXD BUILDING
- PROPOSE DETACHMENT AREA FROM THE CITY L.A.

TABLE-1: PEAK FLOW CALCULATION

LOT NO.	SUB-AREA No.	ZONE or occupancy	FLOOR AREA (sft)	PEAK FLOW COEFFICIENT (gal/1000 sft per day)	UNIT	PEAK COEFFICIENT (gal/D.U. per day)	PEAK FLOW (cfs)	SUB-AREA TOTAL PEAK Q (cfs)	CALCULATED PEAK Q AT REACH (cfs)	REACH No. Δ
	SOUTH SIDE 116 th STREET									
	AREA-1	C-1	0.8 ac	0.015			0.012	0.012	0.012	1
	AREA-2	CS	8995	250			0.003			
	BUILDING-UNIT B	APT-1BR			28	500	0.022			
	BUILDING-UNIT E	APT-2BR			16	625	0.016			
								0.041	0.053	2
	AREA-3									
	BUILDING-UNIT B	APT-1BR			40	500	0.031			
	BUILDING-UNIT C	APT-2BR			15	625	0.015			
	BUILDING-UNIT D	APT-2BR			10	625	0.010			
	BUILDING-UNIT E	APT-2BR			15	625	0.015	0.070	0.122	3
LOT 1	AREA-4	R-1	1.95 ac	0.004			0.008	0.008	0.130	4 *
	117th STREET									
	AREA-5									
	BUILDING-UNIT A	STUDIO			44	375	0.026			
	BUILDING-UNIT B	APT-1BR			50	500	0.039			
	BUILDING-UNIT C	APT-2BR			11	625	0.011			
	BUILDING-UNIT D	APT-2BR			25	625	0.024			
	BUILDING-UNIT E	APT-2BR			10	625	0.010	0.109	0.109	5
	AREA-6	R-1	1.2 ac	0.004			0.005	0.005	0.114	6
	AREA-7	R-1	2 x 1.95 ac	0.004			0.016	0.016	0.129	7 *
	NORTH SIDE 116 th STREET									
	AREA-8	CS	20791	250			0.008			
		OFFCE	4572	500			0.004			
	BUILDING-UNIT B	APT-1BR			60	500	0.047			
	BUILDING-UNIT E	APT-2BR			38	625	0.035			
	BUILDING-UNIT F	APT-3BR			16	750	0.019	0.112	0.112	8
LOT 2	AREA-9	PRKING LOT/W BUILDINGS	1.69 ac	0.015			0.025	0.025	0.137	9 *

NOTE: 1.> PROPOSED DEVELOPMENT IS IN ZONE MIXED, COMMERCIAL AND RESIDENTIAL MIXED
THE FLOW RATE CALCULATED BY USING UNIT METHOD IN THIS STUDY
2.> EXISTING AREAS WHICH CONTRIBUTED TO THE SEWER SYSTEM BY USING ZONING METHOD FOR THIS STUDY
3.> CS - COMMERCIAL SHOPS & STORES
APT - APARTMENT
4.> UNIT: 1 cfs = 646316.9 gallon/day; 1 gallon/day = 0.00000155 cfs
5.> * REACH TO TRUNK

TABLE-2: SEWER AREA STUDY

Street Name	Segment M.H. #	Segment M.H. #	Pipe Size (in.)	Pipe Slope (%)	Capacity 1/2 Full(<15") (cfs)	Capacity 3/4 Full(>15") (cfs)	Area (Acres)	Zoning	Zoning Coeff (cfs/acre) or cfs	Calculated Peak Flow (cfs)	Cumulated Peak Flow (cfs)	Flow Depth (ft)	PC or CI Construction Plan #	Comment SP=Specific Plan	% Full Flow Depth/ (0.5 X Pipe Dia.)	% Full Calculated Flow/ Capacity
AVIATION BLVD	72	71	8	0.4	0.35		0.80	C-1	0.015	0.012	0.012	0.07	C.I. 1123	EX. SEWER	21%	3%
AVIATION BLVD	71	70	8	0.4	0.35		-	CS & APT	SEE TABLE 1	0.041	0.053	0.13	C.I. 1123	EX. SEWER	39%	15%
116th St. SOUTH SIDE	70	68	8	0.32	0.31		-	APT	SEE TABLE 1	0.070	0.122	0.21	C.I. 1123	EX. SEWER	63%	39%
116th St. SOUTH SIDE	68	67	8	0.32	0.31		1.95	R-1	0.004	0.008	0.130	0.21	C.I. 1123	EX. SEWER	63%	42%
TO TRUNK																
117th Street	78	79	8	0.4	0.35		-	APT	SEE TABLE 1	0.109	0.109	0.18	C.I. 1123	EX. SEWER	54%	31%
117th Street	79	80	8	0.4	0.35		1.20	R-1	0.004	0.005	0.114	0.19	C.I. 1123	EX. SEWER	57%	33%
117th Street	80	TRUNK	8	0.4	0.35		1.90	R-1	0.004	0.016	0.129	0.20	C.I. 1123	EX. SEWER	60%	37%
TO TRUNK																
116th St. NORTH SIDE	A	B	8	0.04	0.35		-	CS, OFFICE & APT	SEE TABLE 1	0.112	0.112	0.11		NEW SEWER	33%	32%
116th St. NORTH SIDE	B	TRUNK	8	0.04	0.35		1.69	PARKING LOT W/ BUILDINGS	0.015	0.025	0.137	0.12	TO CITY OF LA SEWER PLAN NO. D-11088	EX. SEWER	36%	39%

Note:
1> Calculated using Kutter's Formula with n=0.013 (as in S-C4 graph in PC Procedural Manual)
2> Based on current land use and coefficients per LA County..
3> For pipes > 15% Full should be calculated by taking flow depth divided by 0.75 times the pipe diameter

APPROVED BY: SEWER AREA STUDY APPROVED RCE NO. 65101 DATE 2-8-11
CHECKED BY: _____ DATE _____
COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

REGISTERED PROFESSIONAL ENGINEER CHARLES A. [illegible] No. 65101 EXP. 12-31-11 CIVIL STATE OF CALIFORNIA

DEVELOPER:
KROEZE FAMILY, LLC
11604 AVIATION BLVD., INGLEWOOD, CA, 90304
PH: (310) 643-9769

REVISED SEWER AREA STUDY

P.C. 12111 AS

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.
70853
COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
199 South Los Robles Ave., Suite 250, Pasadena, California 91101
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

ROBERT S. SIMS R.C.E. No. 21649 DATE

LDC
Proj. No. 08005-001
SHEET 1 OF 2

DRAWN BY	09/2011	LDC	REVISED TO REFLECT REVISED DEVELOPMENT PROPOSAL
HZ			
CHECKED BY SH			
DESIGNED BY HZ			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER ROBERT R. SIMS No. 21649 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

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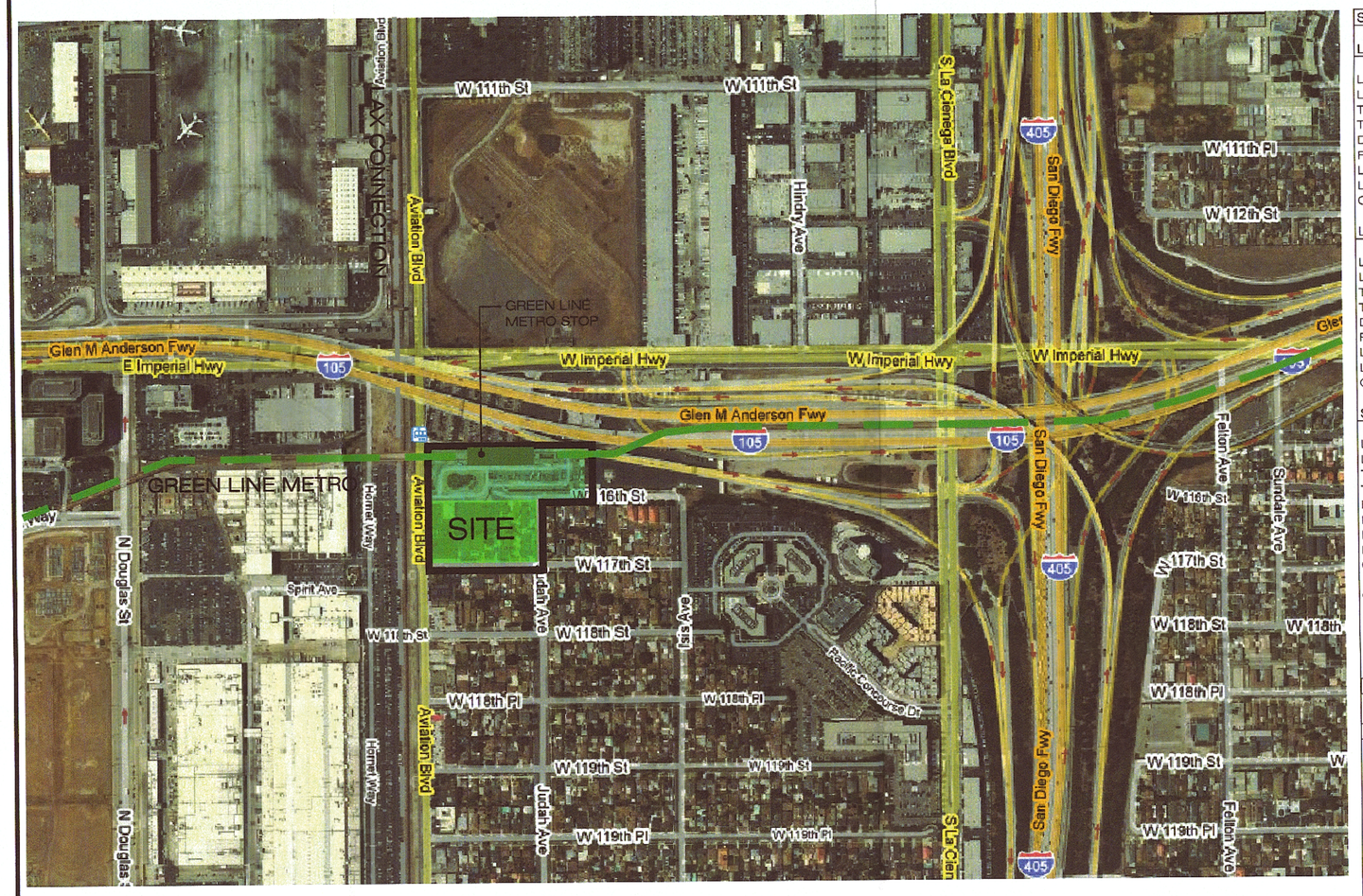
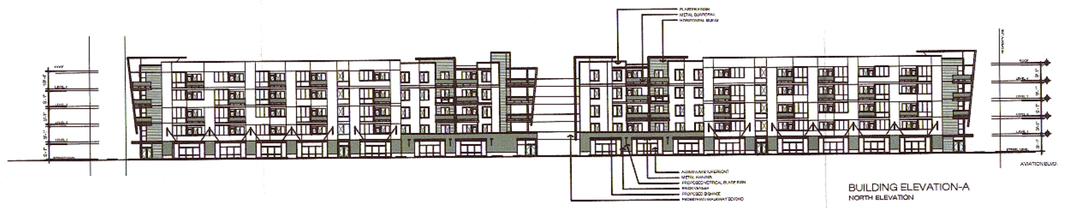
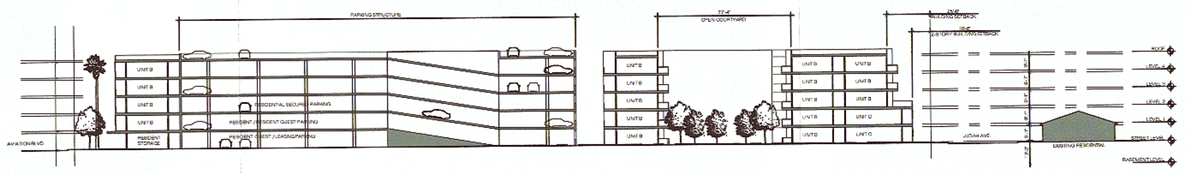




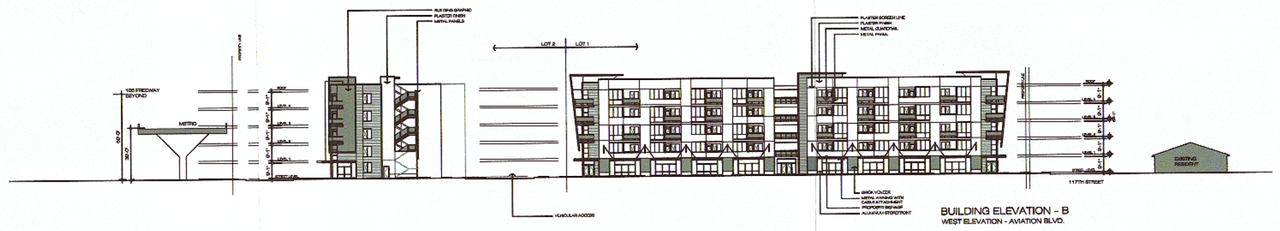
BUILDING ELEVATION-A
NORTH ELEVATION



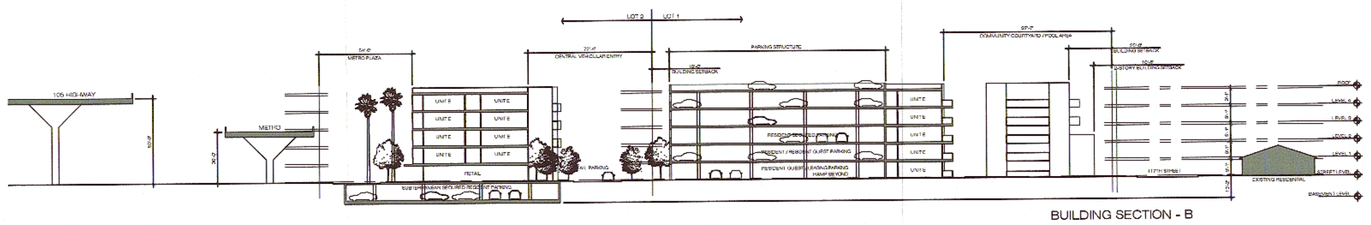
BUILDING SECTION - A

BUILDING SECTION A

NTS



BUILDING ELEVATION - B
WEST ELEVATION - AVIATION BLVD.



BUILDING SECTION - B

BUILDING SECTION B

NTS

SITE SUMMARY

LOT 1

LOT AREA - NET	3.15 acres	137,214 sf
LOT AREA - GROSS	3.20 acres	139,392 sf
TOTAL RESIDENTIAL UNITS	264	
TOTAL LEASING / COMMUNITY SPACE / STORAGE	8,720 sf	
DENSITY (# of units / General Plan Ammendment)	67.69 Du/acre	3.90 acres
FAR	2.08	
LOT COVERAGE	60,845 sf	
LANDSCAPE (Softscape) ±	18,496 sf	
OPEN SPACE (COMMON + PRIVATE)	65,674 sf	

LOT 2

LOT AREA - NET	2.63 acres	114,563 sf
LOT AREA - GROSS	2.70 acres	117,612 sf
TOTAL RESIDENTIAL UNITS	112	
TOTAL COMMUNITY / RETAIL	25,363 sf	
DENSITY (# of units / General Plan Ammendment)	38.36 Du/acre	2.92 acres
FAR	1.31	
LOT COVERAGE	30,875 sf	
LANDSCAPE (Softscape) ±	17,578 sf	
OPEN SPACE (COMMON + PRIVATE)	52,057 sf	

SITE TOTALS (LOT 1 + LOT 2)

LOT AREA - NET	5.78 acres	251,777 sf
LOT AREA - GROSS	5.90 acres	257,004 sf
TOTAL RESIDENTIAL UNITS	376	
TOTAL COMMUNITY / RETAIL	34,083 sf	
DENSITY (# of units / General Plan Ammendment)	55.13 Du/acre	6.82 acres
FAR	1.74	
LOT COVERAGE	91,720 sf	
LANDSCAPE (Softscape) ±	36,074 sf	
OPEN SPACE (COMMON + PRIVATE)	117,731 sf	

CONSTRUCTION TYPE

RETAIL + PARKING	TYPE I
RESIDENTIAL	TYPE III-A

PROGRAM SUMMARY

LOT 1

PLAN	DESCRIPTION		QNTY	GROSS AREA	PARKING RATIO (inc. 0.25 Guest)	PARKING PROVIDED (inc. 0.25 Guest)
	COMMUNITY SPACE			4,440 sf		
	LEASING			1,580 sf	1 / 250	6
	RESIDENTIAL STORAGE			2,700 sf		
A	STUDIO	FLAT	24 (9%)	580 sf	1.25	30
B	1 BR 1 BA	FLAT	136 (52%)	633 sf	1.25	170
C	1 BR 1 BA + DEN	FLAT	28 (11%)	864 sf	1.25	35
D	2 BR 2 BA	FLAT	35 (13%)	945 sf	2.25	78.75
E	2 BR 2 BA	FLAT	41 (16%)	1,035 sf	2.25	92.25

SUBTOTAL UNITS: 264 residential units provided — 412 spaces provided

TOTAL LOT 1
COMMUNITY + LEASING 8,720 sf
UNITS 264 residential units provided — 412 spaces provided

LOT 2

PLAN	DESCRIPTION		QNTY	GROSS AREA	PARKING RATIO (inc. 0.25 Guest)	PARKING PROVIDED (inc. 0.25 Guest)
	POLICE SUBSTATION			632 sf	1 / 250	2.5
	COMMUNITY SPACE			3,940 sf		
	BIKE STORAGE			3,611 sf		
	RETAIL			17,180 sf	1 / 250	68.7
B	1 BR 1 BA	FLAT	60 (54%)	633 sf	1	60
E	2 BR 2 BA	FLAT	36 (32%)	1,035 sf	2	72
F	3 BR 2 BA	FLAT	16 (14%)	1,161 sf	2	32

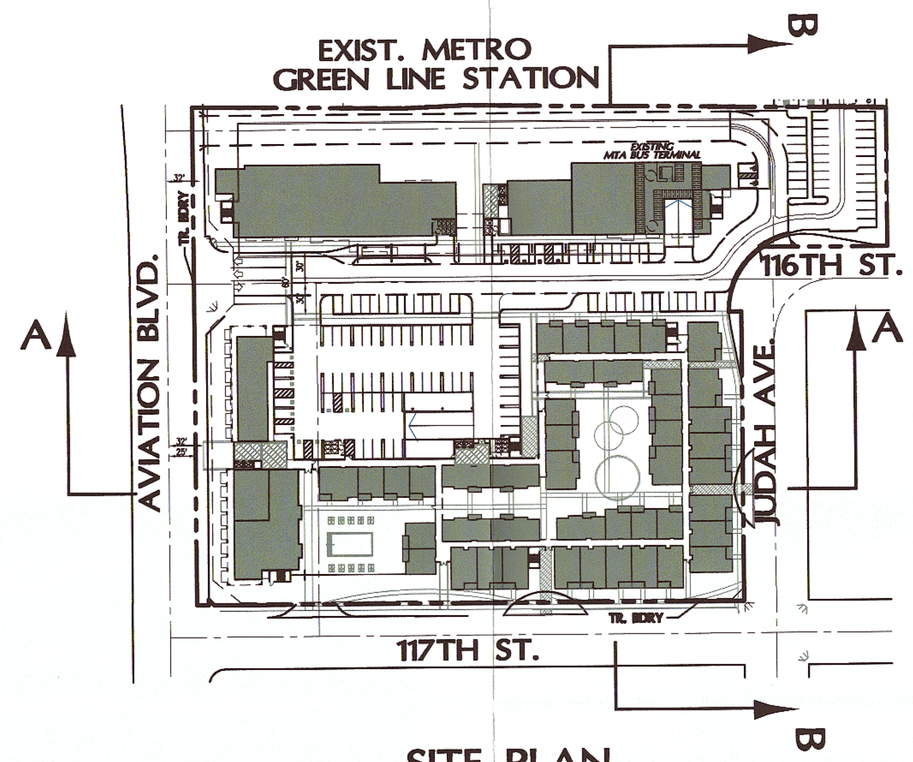
SUBTOTAL UNITS: 112 residential units provided — 235 spaces provided

TOTAL LOT 2
COMMUNITY SPACES 8,183 sf
RETAIL 17,180 sf
UNITS 112 residential units provided — 235 spaces provided

TOTAL LOT 1 + 2
COMMUNITY / RETAIL 34,083 sf
UNITS 376 residential units provided — 647 spaces provided

BUILDING CONCEPTUAL PERSPECTIVE

N.T.S.



SITE PLAN

N.T.S.

DEVELOPER:
KROEZE FAMILY, LLC
11604 AVIATION BLVD, INGLEWOOD, CA, 90304
PH: (310) 643-9769

REVISED SEWER AREA STUDY

P.C. 12111 AS

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.

70853

COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA

DRAWN BY HZ	09/2011	LDC	REVISED TO REFLECT REVISED DEVELOPMENT PROPOSAL
CHECKED BY SH			
DESIGNED BY HZ			
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER ROBERT R. SIMS No. 21649 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER CHARLES A. [illegible] No. C041135 EXP. [illegible] CIVIL STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
199 South Los Robles Ave., Suite 250, Pasadena, California 91101
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

ROBERT S. SIMS R.C.E. No. 21649 — DATE

LDC

Proj. No. 08005-001

SHEET 2 OF 2

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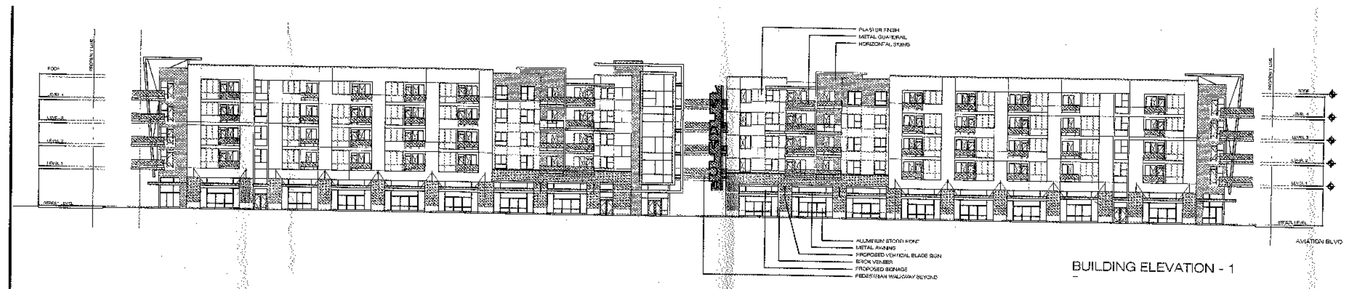
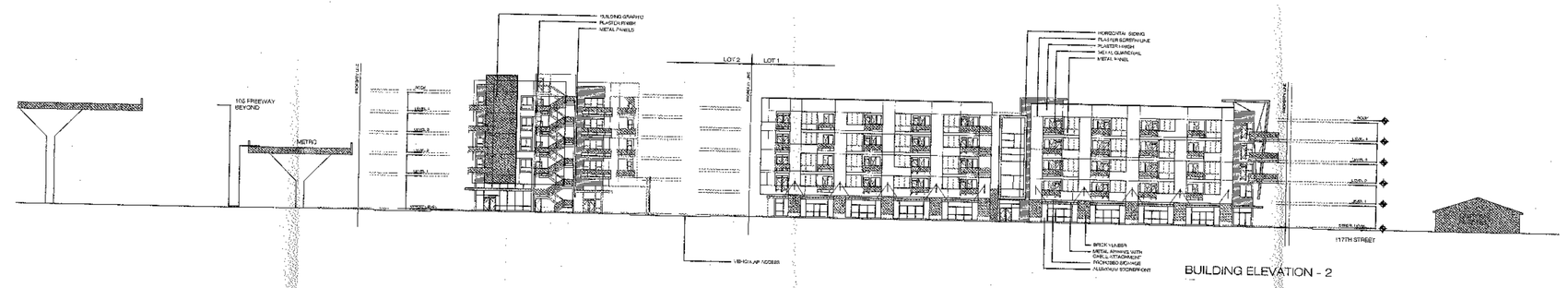
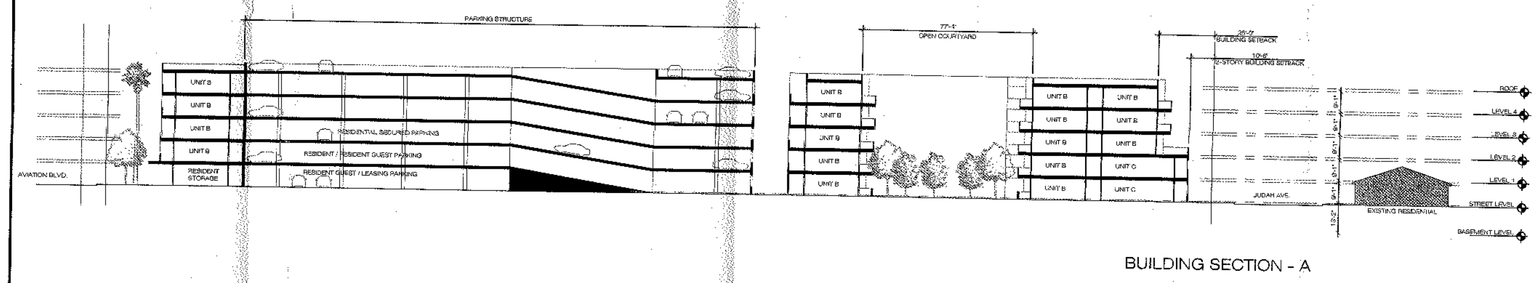
POCKET-2

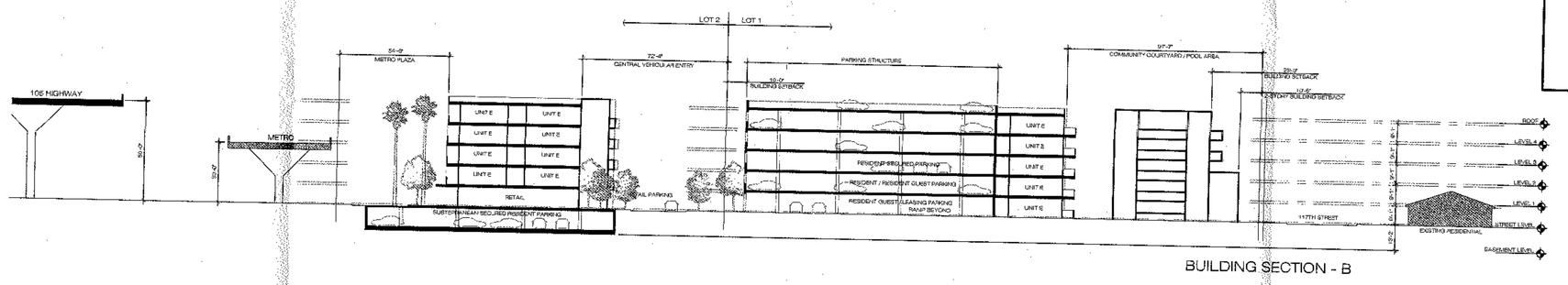
Tentative Maps



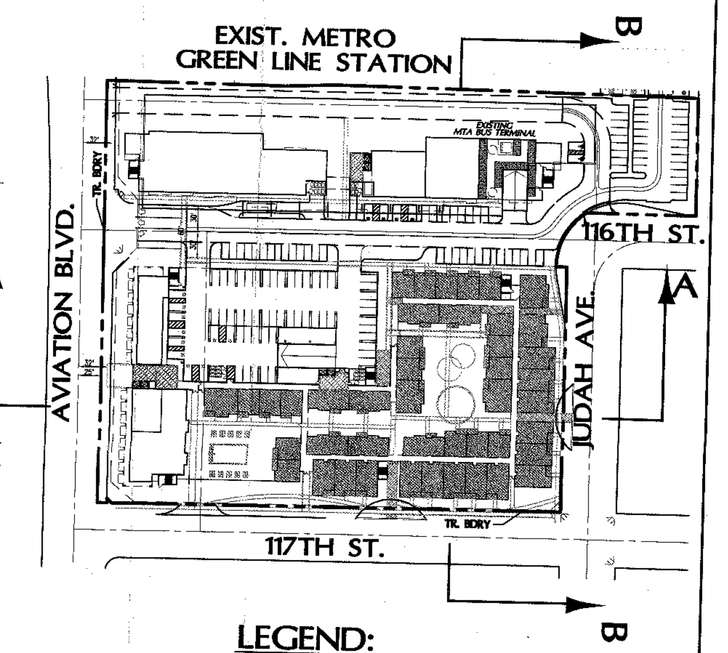




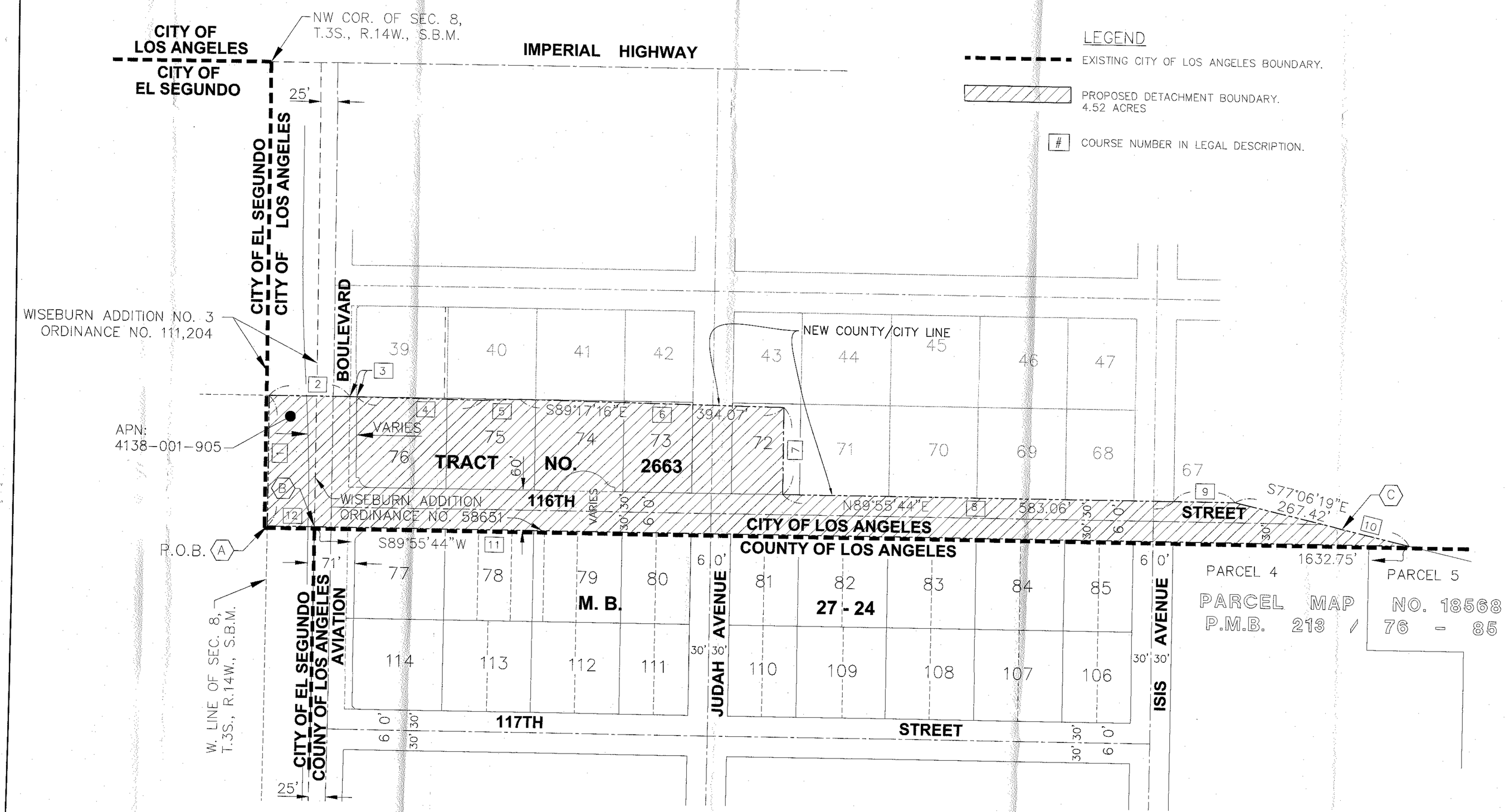
BUILDING SECTION A
NTS



BUILDING SECTION B
NTS



LEGEND:
SCALE: 1"=80'



PROPOSED DETACHMENT EXHIBIT
SCALE: 1"=60'

LEGEND
- EXISTING CITY OF LOS ANGELES BOUNDARY.
- PROPOSED DETACHMENT BOUNDARY. 4.52 ACRES
- # COURSE NUMBER IN LEGAL DESCRIPTION.

LEGEND
- (A) SW'LY COR. OF WISEBURN ADDITION NO. 3 TO THE CITY OF LOS ANGELES, ORDINANCE NO. 111,204, FILED WITH THE SECRETARY OF STATE ON MAY 19, 1958.
- (B) SW'LY COR. OF WISEBURN ADDITION TO THE CITY OF LOS ANGELES, ORDINANCE NO. 58651, FILED WITH THE SECRETARY OF STATE ON FEBRUARY 10, 1928.
- (C) S'LY RIGHT-OF-WAY LINE OF CENTURY FREEWAY (105) PER CALTRANS DIRECTOR'S DEED RECORDED ON FEBRUARY 17, 1988 AS INSTRUMENT NO. 88-212220, O.R.

COURSE TABLE

COURSE	BEARING	LENGTH
1	N00°02'30"W	195.00'
2	N89°55'44"E	120.50'
3	N89°55'44"E	10.05'
4	S89°22'56"E	187.38'
5	N87°37'32"E	56.06'
7	S00°04'12"E	129.61'
9	N89°55'44"E	91.52'
12	N89°55'44"E	70.50'

DATE CHANGED	CHANGED BY	REVISION
8/17/11	SH	REVISED SECTIONS AND ELEVATIONS
6/28/10	SH	REVISED LEGEND PER REVISED SITE PLAN
02/26/10	SH	ADD PODIUM HEIGHT ON SECTION "A"

DRAWN BY: SF
CHECKED BY: SH
DESIGNED BY: MS

REGISTERED PROFESSIONAL ENGINEER ROBERT E. SIMS No. 21649 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

KOBERT S SIMS R.C.E. No. 21649 — 8-31-2011 DATE

DEVELOPER:
KROEZE FAMILY, LLC
13604 AVIATION BLVD, INGLEWOOD, CA, 90304
PH: (310) 643-9769

DETACHMENT EXHIBIT & BUILDING SECTIONS

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.
70853
COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
199 South Los Robles Ave., Suite 550, Pasadena, California 91101
Ph: (626) 578-7000, Fax: (626) 578-7229
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LDC

Proj. No. 08005-001
SHEET 3 OF 4

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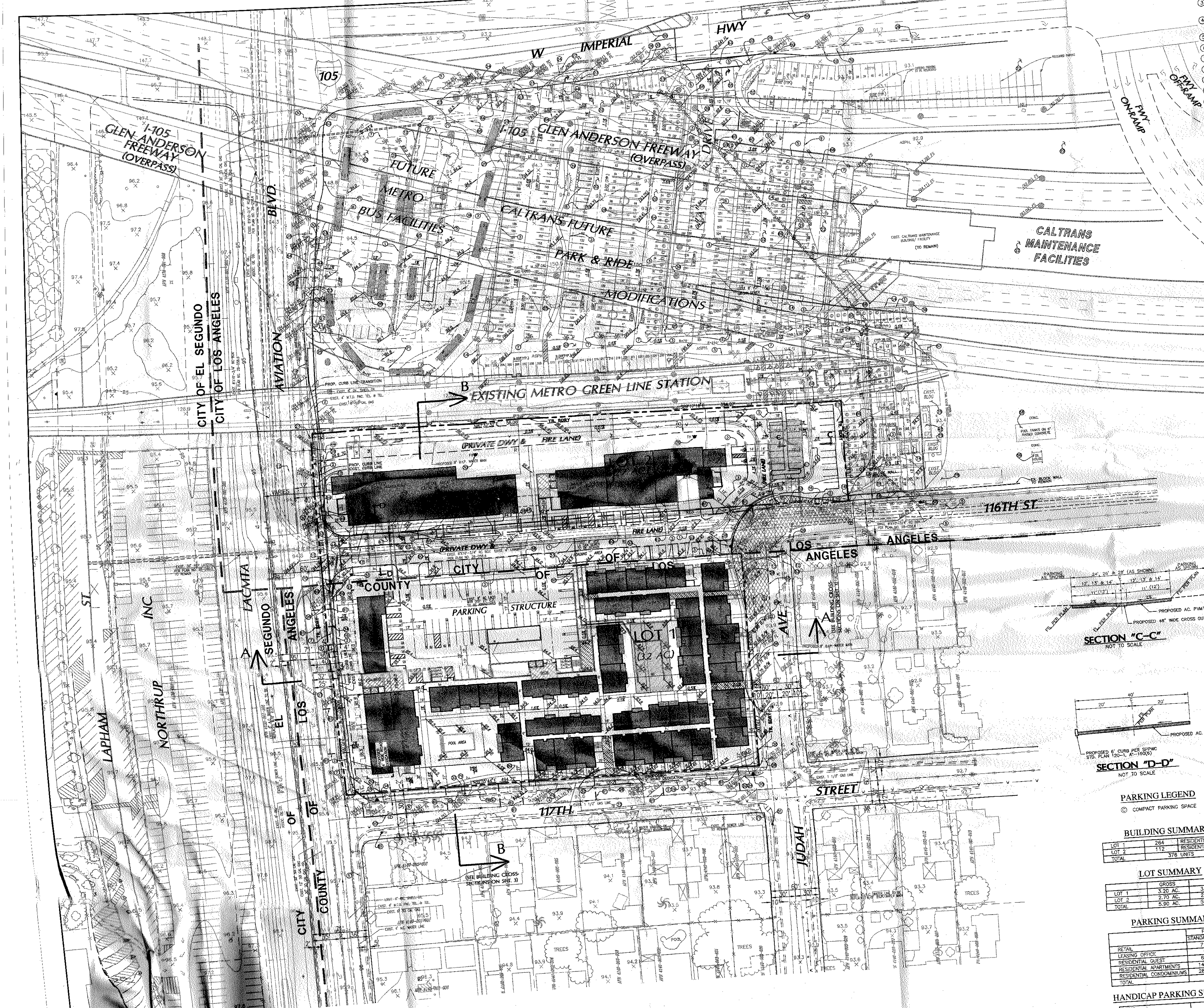


(3) PROPOSED 6" CURB ... A1-150(6).
(4) PROPOSED 4" A.C. PAVEMENT OVER 6" AGGREGATE BASE (OR PER SOILS ENGINEER'S RECOMMENDATION).
(5) EXISTING CURB AND GUTTER TO REMAIN.
(6) EXISTING PARK AND RIDE SPACES.
(7) REMOVE EXISTING CURB.
(8) REMOVE EXISTING 6' WROUGHT IRON FENCE.
(9) EXISTING CALTRANS GATE TO REMAIN.
(10) PROPOSED CALTRANS SECURITY GATE.
(12) PROPOSED 24" STORM DRAIN LINE
(13) PROPOSED ST. IMPROVEMENTS TO THE DEPT. OF PUBLIC WORKS SATISFACTION.
(14) PROPOSED 8' WROUGHT IRON FENCE
(15) EXISTING WROUGHT IRON FENCE TO BE RELOCATED
(16) EXISTING BLOCK WALL TO BE REMOVED
(17) EXISTING 8'x10' RC. BOX TO BE ABANDONED
(18) EXISTING UTILITIES TO BE RELOCATED
(19) EXISTING DRIVEWAY TO BE REMOVED & CONSTRUCT STANDARD CURB, GUTTER AND SIDEWALK PER SPPWC STD. A2-150
(20) EXISTING CALTRANS GATE TO BE REMOVED AND RELOCATED
(21) EXISTING AREA DRAIN TO REMAIN
(22) EXISTING PAVEMENT TO REMAIN
(23) PROPOSED HANDICAP RAMP PER CALTRANS STD. PLAN A88A, CASE A
(24) EXISTING STRUCTURES TO BE REMOVED
(25) PROPOSED PEDESTRIAN SIDEWALK
(26) EXISTING STREET LIGHT TO REMAIN
(27) EXISTING STREET LIGHT TO BE REMOVED
(28) EXISTING STREET LIGHT TO BE RELOCATED
(29) PROPOSED 24"x24" BROOKS BASIN PER STD.# 2424
(30) EXISTING TRAFFIC SIGNALS TO REMAIN AND MODIFIED TO THE SATISFACTION OF COUNTY OF LOS ANGELES
(31) EXISTING SIGNS TO BE REMOVED
(32) EXISTING UTILITIES TO REMAIN
(33) EXISTING UTILITIES TO BE REMOVED
(34) EXISTING UTILITY POST TO REMAIN
(35) EXISTING UTILITY POST TO BE RELOCATED
(36) EXISTING POWER POLE TO BE RELOCATED
(37) EXISTING BILLBOARD AND POST TO BE REMOVED
(38) EXISTING CATCH BASIN TO BE REMOVED AND OR RELOCATED
(39) EXISTING OVERPASS COLUMNS TO BE REMAIN
(40) SAWCUT AND JOIN TO EXISTING PAVEMENTS
(41) EXCESS RIGHT OF WAY FOR 116TH REQUESTED TO BE VACATED ON FINAL MAP
(42) EXISTING ELECTRICAL FACILITIES TO REMAIN
(43) EXISTING TURN AROUND TO BE REMOVED
(44) PROPOSED DRIVEWAY PER CALTRANS STD. PLAN A87A
(45) PROPOSED 15' STORM DRAIN EASEMENT TO LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
(47) EXISTING 8" VCP SEWER TO BE REMOVED
(48) PROPOSED EMERGENCY ACCESS GATE TO THE SATISFACTION OF L.A.CO. FIRE DEPARTMENT
(49) EXISTING UTILITY BOX TO BE RELOCATED
(50) EXISTING FIRE HYDRANT TO REMAIN
(51) REMOVE AND RELOCATE EXISTING FIRE HYDRANT
(52) EXISTING CALTRANS FENCE TO REMAIN
(53) EXISTING CATCH BASIN TO BE REMOVED
(54) PROPOSED CROSS GUTTER PER APWA STD. 122-1
(55) PROPOSED STRIPING PER CALTRANS STD. A20A, A20B
(56) EXISTING FUEL TANKS AND OIL HOUSE TO REMAIN
(57) EXISTING CALTRANS WASH RACK BUILDING TO BE REMAIN
(58) MTA EMERGENCY AND FIRE ACCESS GATE
(59) PROPOSED CURB OPENING CATCH BASIN PER SPPWC STD. PLAN 300-2. V=3.5'
(60) PROPOSED 8" SEWER PIPE TO THE SATISFACTION OF DPW
(61) PROPOSED SEWER LATERAL TO BUILDING
(62) PROPOSED SEWER MANHOLE
(63) EXISTING DRIVEWAY TO REMAIN
(64) EXISTING CONCRETE SWALE TO REMAIN
(65) EXISTING CONCRETE SWALE TO BE REMOVED
(66) EXISTING 18" RCP TO REMAIN
(67) PROPOSED INFILTRATION BASIN PER APPROVED DRAINAGE CONCEPT/HYDROLOGY STUDY/SUSMP/LID PLAN DATED 02/23/10
(68) EXISTING CALTRANS FENCE TO BE REMOVED
(69) EXISTING TRAFFIC SIGNAL TO BE RELOCATED
(70) INSTALL FIRE HYDRANT TO THE SATISFACTION OF L.A.C.F.D.
(71) EXISTING PAVEMENT TO BE REMOVED
(72) FIRE DEPARTMENT FIRE TRUCK CONCRETE FIRE LANE
(73) PROPOSED ROLLED CONCRETE CURB (TO BE PAINTED RED) AND FIRE DEPT. TURNOUT TO THE SATISFACTION OF DPW AND L.A. COUNTY FIRE DEPT.
(74) EXISTING ELECTRICAL FACILITIES TO BE RELOCATED
(75) EXISTING STRUCTURES TO BE REMAIN
(76) PROPOSED TRAFFIC SIGN PER CALTRANS STD. R3-1
(77) PROPOSED TRAFFIC SIGN PER CALTRANS STD. R3-2
(78) PROPOSED TRAFFIC SIGN PER CALTRANS STD. W1-7, TYPE N(CA)
(79) EXISTING POWER POLE TO REMAIN
(80) PROPOSED AREA DRAIN OUTLET

TOTAL RESIDENTIAL UNITS 264 — 139,392 sf
TOTAL LEASING / COMMUNITY SPACE / STORAGE 8,720 sf
DENSITY (# of units / General Plan Ammendment) 67.69 Du/acre
FAR 2.08
LOT COVERAGE 60,845 sf — 3.90 acres
LANDSCAPE (Softscape) ± 18,496 sf
OPEN SPACE (COMMON + PRIVATE) 65,674 sf

LOT 2

LOT AREA - NET 2.63 acres — 114,563 sf
LOT AREA - GROSS 2.70 acres — 117,612 sf
TOTAL RESIDENTIAL UNITS 112
TOTAL COMMUNITY / RETAIL 25,363 sf
DENSITY (# of units / General Plan Ammendment) 38.36 Du/acre
FAR 1.31
LOT COVERAGE 30,875 sf — 2.92 acres
LANDSCAPE (Softscape) ± 17,578 sf
OPEN SPACE (COMMON + PRIVATE) [illegible] sf

SITE TOTALS (LOT 1 + LOT 2)

LOT AREA - NET 5.78 acres — 251,777 sf
LOT AREA - GROSS 5.90 acres
TOTAL RESIDENTIAL UNITS
TOTAL COMMUNITY / RETAIL 34,083 sf
DENSITY (# of units / General Plan Ammendment) 55.13 Du/acre
FAR 1.74
LOT COVERAGE 91,720 sf
LANDSCAPE (Softscape) ± 36,074 sf
OPEN SPACE (COMMON + PRIVATE) 117,731 sf

CONSTRUCTION TYPE
RETAIL + PARKING — TYPE I
RESIDENTIAL — TYPE III-A

PROGRAM SUMMARY

LOT 1

PLAN	DESCRIPTION		QNTY	GROSS AREA	PARKING RATIO (inc. 0.25 Guest)	PARKING PROVIDED (inc. 0.25 Guest)
	COMMUNITY SPACE			4,440 sf		
	LEASING			1,580 sf	1 / 250	6
	RESIDENTIAL STORAGE			2,700 sf		
A	STUDIO	FLAT	24 (9%)	580 sf	1.25	30
B	1 BR 1 BA	FLAT	136 (52%)	633 sf	1.25	170
C	1 BR 1 BA + DEN	FLAT	28 (11%)	864 sf	1.25	35
D	2 BR 2 BA	FLAT	35 (13%)	945 sf	2.25	78.75
E	2 BR 2 BA	FLAT	41 (16%)	1,035 sf	2.25	92.25
SUBTOTAL UNITS:			264 residential units provided			412 spaces provided

TOTAL LOT 1			
COMMUNITY + LEASING	8,720 sf		
UNITS	264	residential units provided	412 spaces provided

LOT 2

PLAN	DESCRIPTION		QNTY	GROSS AREA	PARKING RATIO (inc. 0.25 Guest)	PARKING PROVIDED (inc. 0.25 Guest)
	POLICE SUBSTATION			632		
	COMMUNITY SPACE			3,940 sf	1 / 250	2.5
	BIKE STORAGE			3,611 sf		
	RETAIL			17,180 sf	[illegible]	68.7
B	1 BR 1 BA	FLAT	60 (54%)	633 sf	2	
E	2 BR 2 BA	FLAT	36 (32%)	1,035 sf	2	
F	3 BR 2 BA	FLAT	16 (14%)	1,161 sf		235 spaces provided
SUBTOTAL UNITS:			112 residential units provided			

TOTAL LOT 2			
COMMUNITY SPACES	8,183 sf		235 spaces provided
RETAIL	17,180 sf		
UNITS	112	residential units provided	

TOTAL LOT 1 + 2			
COMMUNITY / RETAIL	34,083 sf		647 spaces provided
UNITS	376	residential units provided	

PARKING LEGEND

Ⓒ COMPACT PARKING SPACE

BUILDING SUMMARY

LOT 1	264	RESIDENTIAL UNITS
LOT 2	112	RESIDENTIAL UNITS
TOTAL	376 UNITS	

LOT SUMMARY

	GROSS	NET
LOT 1	3.20 AC.	3.15 AC.
LOT 2	2.70 AC.	2.63 AC.
TOTAL	5.90 AC.	5.78 AC.

PARKING SUMMARY

	PARKING SPACES STANDARD	TANDEM	TOTAL
RETAIL	71	0	71
LEASING OFFICE	6	0	6
RESIDENTIAL GUEST	66	0	66
RESIDENTIAL APARTMENTS	146	18	164
RESIDENTIAL CONDOMINIUMS	280	60	340
TOTAL			647

HANDICAP PARKING SUMMARY

RETAIL	3
LEASING OFFICE	1
RESIDENTIAL GUEST	3
RESIDENTIAL APARTMENTS & RESIDENTIAL CONDOMINIUMS	9
TOTAL	16

BENCH MARK:
LOS ANGELES CITY BM "17-00319"
3" BRASS DISK STMPD "L.A.T.C. LS 3258"; E CURB AVIATION BLVD; 23' S/O IMPERIAL HWY.
ELEV. = 94.777FT (NAVD88/2000ADJ)

BASIS OF BEARINGS:
THE BASIS OF BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N 89°55'48" E, BEING THE CENTERLINE OF 116TH STREET PER CITY OF LOS ANGELES FB 087-157/144.

DRAWN BY SF / CHECKED BY SH / DESIGNED BY MS	DATE CHANGED	CHANGED BY	REVISION
	8/17/11	SH	REVISE ARCH. PLANS AND LAYOUT (REMOVE PODIUM DECK) REVISE SITE GRADING AND DRAINAGE, LOWER SITE DENSITY.
	10/11/10	SH	REVISE PARK & RIDE AND CALTRANS PARKING LAYOUT.
	06/28/10	SH	REVISE PROJECT SUMMARY, PARKING & UNITS. REVISE SITE PER UPDATED ARCHITECTS PLAN.
	02/26/10	SH	REVISE MAP PER 1/14/10 SCM COMMENTS, CLARIFY AVIATION R/W DEDICATIONS, UPDATE GENERAL NOTES, DETAILS & BUILDING FOOTPRINTS.

REGISTERED PROFESSIONAL ENGINEER ROBERT R. SIMS No. 21649 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

40 20 0 40 80 120
GRAPHIC SCALE (IN FEET)
1 inch = 40 ft.

DEVELOPER:
KROEZE FAMILY, LLC
11604 AVIATION BLVD., INGLEWOOD, CA, 90304
PH: (310) 643-9769

SITE PLAN - EXHIBIT "A"

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.
70853

COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA

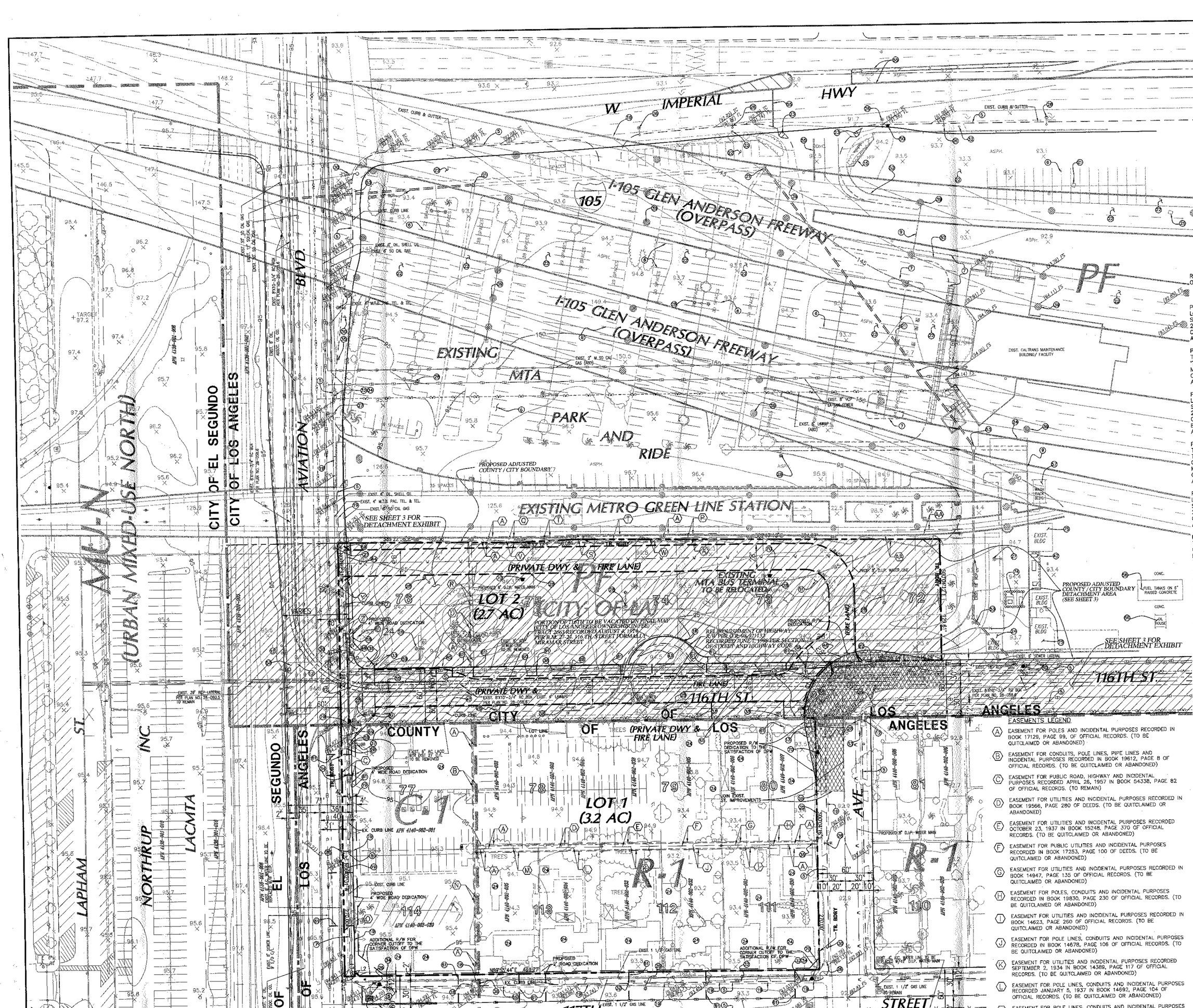
PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
199 South Los Robles Ave., Suite 250, Pasadena, California 91101
Ph.: (626) 578-7000, Fax: (626) 578-7373
http://www.ldcla.com

ROBERT S. SIMS R.C.E. No. 21649 — 8-17-2011 DATE

LDC
Proj. No. 08005-001
SHEET 2 OF 4

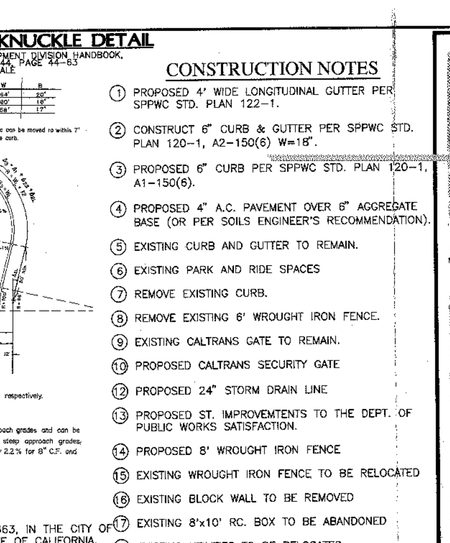
SEP 0 6 2011

09/01/11 17:01:31 mkemp



TYPICAL RESIDENTIAL KNUCKLE DETAIL

PER L.A.C.D.P.W. AND GUIDELINES, JOHNSON HANDBOOK, VOLUME 1, PAGE 44-53



CONSTRUCTION NOTES

1. PROPOSED 4" WIDE LONGITUDINAL GUTTER PER SPPWC STD. PLAN 122-1.
2. CONSTRUCT 6" CURB & GUTTER PER SPPWC STD. PLAN 120-1, A2-150(6) W=18".
3. PROPOSED 6" CURB PER SPPWC STD. PLAN 120-1, A1-150(6).
4. PROPOSED 4" A.C. PAVEMENT OVER 8" AGGREGATE BASE (OR PER SOILS ENGINEER'S RECOMMENDATION).
5. EXISTING CURB AND GUTTER TO REMAIN.
6. EXISTING PARK AND RIDE SPACES
7. REMOVE EXISTING CURB.
8. REMOVE EXISTING 6' WROUGHT IRON FENCE.
9. EXISTING CALTRANS GATE TO REMAIN.
10. PROPOSED CALTRANS SECURITY GATE
11. PROPOSED 24" STORM DRAIN LINE
12. PROPOSED ST. IMPROVEMENTS TO THE DEPT. OF PUBLIC WORKS SATISFACTION.
13. PROPOSED 8' WROUGHT IRON FENCE
14. EXISTING WROUGHT IRON FENCE TO BE RELOCATED
15. EXISTING BLOCK WALL TO BE REMOVED
16. EXISTING 8'x10' RC. BOX TO BE ABANDONED
17. EXISTING UTILITIES TO BE RELOCATED
18. EXISTING DRIVEWAY TO BE REMOVED & CONSTRUCT STANDARD CURB, GUTTER AND SIDEWALK PER SPPWC STD. A2-150
19. EXISTING CALTRANS GATE TO BE REMOVED AND RELOCATED
20. EXISTING AREA DRAIN TO REMAIN
21. EXISTING PAVEMENT TO REMAIN
22. PROPOSED HANDICAP RAMP PER CALTRANS STD. PLAN A88A, CASE A
23. EXISTING STRUCTURES TO BE REMOVED
24. PROPOSED PEDESTRIAN SIDEWALK
25. EXISTING STREET LIGHT TO REMAIN
26. EXISTING STREET LIGHT TO BE REMOVED
27. EXISTING STREET LIGHT TO BE RELOCATED
28. PROPOSED 24"x24" BROOKS BASIN PER STD. # 2424
29. EXISTING TRAFFIC SIGNALS TO REMAIN AND MODIFIED TO THE SATISFACTION OF COUNTY OF LOS ANGELES
30. EXISTING SIGNS TO BE REMOVED
31. EXISTING UTILITIES TO REMAIN
32. EXISTING UTILITIES TO BE REMOVED
33. EXISTING UTILITY POST TO REMAIN
34. EXISTING UTILITY POST TO BE RELOCATED
35. EXISTING POWER POLE TO BE RELOCATED
36. EXISTING BILLBOARD AND POST TO BE REMOVED
37. EXISTING CATCH BASIN TO BE REMOVED AND OR RELOCATED
38. EXISTING OVERPASS COLUMNS TO BE REMAIN
39. SAWCUT AND JOIN TO EXISTING PAVEMENTS
40. EXCESS RIGHT OF WAY FOR 116TH REQUESTED TO BE VACATED ON FINAL MAP
41. EXISTING ELECTRICAL FACILITIES TO REMAIN
42. EXISTING TURN AROUND TO BE REMOVED
43. PROPOSED DRIVEWAY PER CALTRANS STD. PLAN A87A
44. PROPOSED 15' STORM DRAIN EASEMENT TO LOS ANGELES COUNTY FLOOD CONTROL DISTRICT
45. EXISTING 8" VCP SEWER TO BE REMOVED
46. PROPOSED EMERGENCY ACCESS GATE TO THE SATISFACTION OF L.A.CO. FIRE DEPARTMENT
47. EXISTING UTILITY BOX TO BE RELOCATED
48. EXISTING FIRE HYDRANT TO REMAIN
49. REMOVE AND RELOCATE EXISTING FIRE HYDRANT
50. EXISTING CALTRANS FENCE TO REMAIN
51. EXISTING CATCH BASIN TO BE REMOVED
52. PROPOSED CROSS GUTTER PER APWA STD. 122-1
53. PROPOSED STRIPING PER CALTRANS STD. A20A, A20B
54. EXISTING FUEL TANKS AND OIL HOUSE TO REMAIN
55. EXISTING CALTRANS WASH RACK BUILDING TO BE REMAIN
56. MTA EMERGENCY AND FIRE ACCESS GATE
57. PROPOSED CURB OPENING CATCH BASIN PER SPPWC STD. PLAN 300-2, W=3.5'
58. PROPOSED 8" SEWER PIPE TO THE SATISFACTION OF DPW
59. PROPOSED SEWER LATERAL TO BUILDING
60. PROPOSED SEWER MANHOLE
61. EXISTING DRIVEWAY TO REMAIN
62. EXISTING CONCRETE SWALE TO REMAIN
63. EXISTING CONCRETE SWALE TO BE REMOVED
64. EXISTING 18" RCP TO REMAIN
65. PROPOSED INFILTRATION BASIN PER APPROVED DRAINAGE CONCEPT/HYDROLOGY STUDY/SUSMP/LID PLAN DATED 02/23/10
66. EXISTING CALTRANS FENCE TO BE REMOVED
67. EXISTING TRAFFIC SIGNAL TO BE RELOCATED
68. INSTALL FIRE HYDRANT TO THE SATISFACTION OF L.A.C.F.D.
69. EXISTING PAVEMENT TO BE REMOVED
70. FIRE DEPARTMENT FIRE TRUCK CONCRETE FIRE LANE
71. PROPOSED ROLLED CONCRETE CURB (TO BE PAINTED RED) AND FIRE DEPT. TURNOUT TO THE SATISFACTION OF DPW AND L.A.
72. EXISTING ELECTRICAL FACILITIES TO BE RELOCATED
73. EXISTING STRUCTURES TO BE REMAIN
74. PROPOSED TRAFFIC SIGN PER CALTRANS STD. R3-1
75. PROPOSED TRAFFIC SIGN PER CALTRANS STD. R3-2
76. PROPOSED TRAFFIC SIGN PER CALTRANS STD. W1-7, TYPE N(CA)
77. EXISTING POWER POLE TO REMAIN
78. PROPOSED AREA DRAIN OUTLET

LEGAL DESCRIPTION

REAL PROPERTY IN THE UNINCORPORATED AREA OF THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

FOR LOT 1:

PARCEL 1:
LOT 77 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
APN: 4140-002-001

PARCEL 2:
THE WESTERLY 49.50 FEET OF LOT 78 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
APN: 4140-002-002

PARCEL 3:
LOT 78 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPT THE WESTERLY 49.50 FEET THEREOF ALSO EXCEPT THE EASTERLY 33 FEET THEREOF.
APN: 4140-002-003

PARCEL 4:
THE EAST FEET OF LOT 78 OF THE WEST 16.5 FEET OF LOT 79, TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
APN: 4140-002-004

PARCEL 5:
LOT 79 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPT THE WEST 66 FEET THEREOF.
APN: 4140-002-005

PARCEL 6:
THE WEST 51 FEET OF LOT 80 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
APN: 4140-002-006

PARCEL 7:
LOT 80 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPT THE WEST 51 FEET THEREOF.
APN: 4140-002-007

PARCEL 9:
THE WEST 51 FEET OF LOT 111 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
APN: 4140-002-031

PARCEL 10:
THE EAST ONE-HALF OF LOT 112 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
APN: 4140-002-032

PARCEL 11:
LOT 112 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPT THE EAST 66 FEET THEREOF.
APN: 4140-002-033

PARCEL 12:
THE EAST ONE-HALF OF LOT 113 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
APN: 4140-002-034

PARCEL 13:
LOT 113 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPT THEREFROM THE EAST ONE-HALF THEREOF.
APN: 4140-002-035

PARCEL 14:
LOT 114 OF TRACT 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPT THEREFROM THAT PORTION OF SAID LOT 114 INCLUDED WITHIN THE LINES OF THE LAND DESCRIBED IN THE DEED TO THE COUNTY OF LOS ANGELES, RECORDED MAY 28, 1963 AS INSTRUMENT NO. 4403 IN BOOK D-2045, PAGE 182, OFFICIAL RECORDS, BEING MORE PARTICULARLY DESCRIBED THEREIN AS FOLLOWS:
BEGINNING AS THE INTERSECTION OF THE SOUTHERLY LINE OF SAID LOT WITH THE EASTERLY LINE OF THE WESTERLY 11 FEET OF SAID LOT; THENCE NORTHERLY ALONG SAID EASTERLY LINE 5.00 FEET; THENCE SOUTHEASTERLY IN A DIRECT LINE 7.07 FEET TO A POINT IN SAID SOUTHERLY LINE DISTANT EASTERLY THEREON 5.00 FEET FROM THE POINT OF BEGINNING; THENCE WESTERLY ALONG SAID SOUTHERLY LINE 5.00 FEET TO SAID POINT OF BEGINNING.
APN: 4140-002-039

PARCEL 17:
THE EAST 49.50 FEET OF THE WEST 66 FEET OF LOT 79 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
APN: 4140-002-038

PARCEL 18:
LOT 111 OF TRACT NO. 2663, IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPT THE WEST 51.00 FEET THEREOF.
APN: 4140-002-030

FOR LOT 2:

PARCEL 1B:
THE WEST 66 FEET OF LOT 75, TRACT NO. 2663, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24, OF MAPS IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 9:
LOT 72 OF TRACT NO. 2663 AS SHOWN ON MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPTING THEREFROM THE WEST 51.00 FEET OF SAID LOT 72. ALSO EXCEPTING THEREFROM ALL OIL, OIL RIGHTS, MINERALS, MINERAL RIGHTS, NATURAL GAS, NATURAL GAS RIGHTS, AND OTHER HYDROCARBONS BY WHATSOEVER NAME KNOWN THAT MAY BE WITHIN OR UNDER THE PARCEL OF LAND HEREINABOVE DESCRIBED, TOGETHER WITH THE PERPETUAL RIGHT OF DRILLING, MINING, EXPLORING AND OPERATING THEREFOR AND REMOVING THE SAME FROM SAID LAND OR ANY OTHER LAND, INCLUDING THE RIGHT TO WHIPSTOCK OR DIRECTIONALLY DRILL AND MINE FROM LANDS OTHER THAN THOSE HEREINABOVE DESCRIBED, OIL OR GAS WELLS, TUNNELS AND SHAFTS INTO, THROUGH OR ACROSS THE SUBSURFACE OF THE LAND HEREINABOVE DESCRIBED OR OTHERWISE IN SUCH MANNER AS TO ENDANGER THE SAFETY OF ANY HIGHWAY THAT MAY BE CONSTRUCTED ON SAID LANDS.

PARCEL 10:
THE WEST 51 FEET OF LOT 72 OF TRACT NO. 2663, IN THE CITY OF LOS ANGELES, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 11:
THE EASTERLY 52 FEET OF LOT 73 OF TRACT NO. 2663, IN THE CITY OF LOS ANGELES, AS SHOWN ON MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPTING THEREFROM ALL OIL, OIL RIGHTS, MINERALS, MINERAL RIGHTS, NATURAL GAS, NATURAL GAS RIGHTS, AND OTHER HYDROCARBONS BY WHATSOEVER NAME KNOWN THAT MAY BE WITHIN OR UNDER THE PARCEL OF LAND HEREINABOVE DESCRIBED, TOGETHER WITH THE PERPETUAL RIGHT OF DRILLING, MINING, EXPLORING AND OPERATING THEREFOR AND REMOVING THE SAME FROM SAID LAND OR ANY OTHER LAND, INCLUDING THE RIGHT TO WHIPSTOCK OR DIRECTIONALLY DRILL AND MINE FROM LANDS OTHER THAN THOSE HEREINABOVE DESCRIBED, OIL OR GAS WELLS, TUNNELS AND SHAFTS INTO, THROUGH OR ACROSS THE SUBSURFACE OF THE LAND HEREINABOVE DESCRIBED OR OTHERWISE IN SUCH MANNER AS TO ENDANGER THE SAFETY OF ANY HIGHWAY THAT MAY BE CONSTRUCTED ON SAID LANDS.

PARCEL 12:
LOT 73 OF TRACT NO. 2663, IN THE CITY OF LOS ANGELES, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPTING THE EASTERLY 52 FEET THEREOF. ALSO EXCEPTING THEREFROM ALL OIL, OIL RIGHTS, MINERALS, MINERAL RIGHTS, NATURAL GAS, NATURAL GAS RIGHTS, AND OTHER HYDROCARBONS BY WHATSOEVER NAME KNOWN THAT MAY BE WITHIN OR UNDER THE PARCEL OF LAND HEREINABOVE DESCRIBED, TOGETHER WITH THE PERPETUAL RIGHT OF DRILLING, MINING, EXPLORING AND OPERATING THEREFOR AND REMOVING THE SAME FROM SAID LAND OR ANY OTHER LAND, INCLUDING THE RIGHT TO WHIPSTOCK OR DIRECTIONALLY DRILL AND MINE FROM LANDS OTHER THAN THOSE HEREINABOVE DESCRIBED, OIL OR GAS WELLS, TUNNELS AND SHAFTS INTO, THROUGH OR ACROSS THE SUBSURFACE OF THE LAND HEREINABOVE DESCRIBED OR OTHERWISE IN SUCH MANNER AS TO ENDANGER THE SAFETY OF ANY HIGHWAY THAT MAY BE CONSTRUCTED ON SAID LANDS.

PARCEL 13:
THE EAST 44 FEET OF LOT 74, TRACT NO. 2663, IN THE CITY OF LOS ANGELES, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPTING ANY INTEREST AS DESCRIBED IN THE DOCUMENT ENTITLED, "RELINQUISHMENT OF HIGHWAY RIGHT OF WAY IN THE CITY OF LOS ANGELES, ROAD 7-LA-105-1.6/1.9 REQUEST NO. 11158" RECORDED JUNE 1, 1998 AS INSTRUMENT NO. 98-921132 OF OFFICIAL RECORDS.

PARCEL 14:
THE WEST 44 FEET OF LOT 74, TRACT NO. 2663, IN THE CITY OF LOS ANGELES, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPTING ANY INTEREST AS DESCRIBED IN THE DOCUMENT ENTITLED, "RELINQUISHMENT OF HIGHWAY RIGHT OF WAY IN THE CITY OF LOS ANGELES, ROAD 7-LA-105-1.6/1.9 REQUEST NO. 11158" RECORDED JUNE 1, 1998 AS INSTRUMENT NO. 98-921132 OF OFFICIAL RECORDS.

PARCEL 15:
THE EAST 44 FEET OF LOT 74, TRACT NO. 2663, IN THE CITY OF LOS ANGELES, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPTING ANY INTEREST AS DESCRIBED IN THE DOCUMENT ENTITLED, "RELINQUISHMENT OF HIGHWAY RIGHT OF WAY IN THE CITY OF LOS ANGELES, ROAD 7-LA-105-1.6/1.9 REQUEST NO. 11158" RECORDED JUNE 1, 1998 AS INSTRUMENT NO. 98-921132 OF OFFICIAL RECORDS.

PARCEL 16:
LOT 75 OF TRACT NO. 2663, IN THE CITY OF LOS ANGELES, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPT THE WEST 66.00 FEET THEREFROM. ALSO EXCEPTING THEREFROM ALL OIL, OIL RIGHTS, MINERALS, MINERAL RIGHTS, NATURAL GAS, NATURAL GAS RIGHTS, AND OTHER HYDROCARBONS BY WHATSOEVER NAME KNOWN THAT MAY BE WITHIN OR UNDER THE PARCEL OF LAND HEREINABOVE DESCRIBED, TOGETHER WITH THE PERPETUAL RIGHT OF DRILLING, MINING, EXPLORING AND OPERATING THEREFOR AND REMOVING THE SAME FROM SAID LAND OR ANY OTHER LAND, INCLUDING THE RIGHT TO WHIPSTOCK OR DIRECTIONALLY DRILL AND MINE FROM LANDS OTHER THAN THOSE HEREINABOVE DESCRIBED, OIL OR GAS WELLS, TUNNELS AND SHAFTS INTO, THROUGH OR ACROSS THE SUBSURFACE OF THE LAND HEREINABOVE DESCRIBED OR OTHERWISE IN SUCH MANNER AS TO ENDANGER THE SAFETY OF ANY HIGHWAY THAT MAY BE CONSTRUCTED ON SAID LANDS.

PARCEL 17:
THE NORTH 67.5 FEET OF LOT 76, TRACT NO. 2663, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 18:
LOT 76 OF TRACT NO. 2663, IN THE CITY OF LOS ANGELES, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 27, PAGE 24 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY. EXCEPT THE NORTH 67.5 FEET HEREOF.

EASEMENTS LEGEND

(A) EASEMENT FOR POLES AND INCIDENTAL PURPOSES RECORDED IN BOOK 17129, PAGE 99, OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(B) EASEMENT FOR CONDUITS, POLE LINES, PIPE LINES AND INCIDENTAL PURPOSES RECORDED IN BOOK 19612, PAGE 8 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(C) EASEMENT FOR PUBLIC ROAD, HIGHWAY AND INCIDENTAL PURPOSES RECORDED APRIL 26, 1957 IN BOOK 54338, PAGE 82 OF OFFICIAL RECORDS. (TO REMAIN)
(D) EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 19566, PAGE 280 OF DEEDS. (TO BE QUITCLAIMED OR ABANDONED)
(E) EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES RECORDED OCTOBER 23, 1937 IN BOOK 15248, PAGE 370 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(F) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 17253, PAGE 100 OF DEEDS. (TO BE QUITCLAIMED OR ABANDONED)
(G) EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 14947, PAGE 133 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(H) EASEMENT FOR POLES, CONDUITS AND INCIDENTAL PURPOSES RECORDED IN BOOK 19850, PAGE 230 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(I) EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 14623, PAGE 200 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(J) EASEMENT FOR POLE LINES, CONDUITS AND INCIDENTAL PURPOSES RECORDED IN BOOK 14678, PAGE 106 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(K) EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES RECORDED SEPTEMBER 3, 1934 IN BOOK 14388, PAGE 117 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(L) EASEMENT FOR POLE LINES, CONDUITS AND INCIDENTAL PURPOSES RECORDED JANUARY 5, 1937 IN BOOK 14892, PAGE 104 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(M) EASEMENT FOR POLE LINES, CONDUITS AND INCIDENTAL PURPOSES RECORDED JUNE 27, 1939 IN BOOK 15898, PAGE 218 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(N) EASEMENT FOR CONDUITS, POLES AND PIPES AND INCIDENTAL PURPOSES RECORDED IN BOOK 18210, PAGE 323 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(O) EASEMENT FOR PUBLIC ROAD, HIGHWAY PURPOSES AND INCIDENTAL PURPOSES RECORDED IN BOOK 22190, PAGE 198 OF OFFICIAL RECORDS. (TO REMAIN)
(P) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 14462, PAGE 365 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(Q) EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES RECORDED MARCH 12, 1937 AS BOOK 14852, PAGE 52 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(R) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 15255, PAGE 231 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(S) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 16020, PAGE 347 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(T) EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 17108, PAGE 32 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(U) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 17157, PAGE 288 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(V) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES RECORDED AUGUST 28, 1940 IN BOOK 17816, PAGE 21 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(W) EASEMENT FOR UTILITIES AND INCIDENTAL PURPOSES RECORDED IN BOOK 18245, PAGE 273 OF OFFICIAL RECORDS. (TO BE QUITCLAIMED OR ABANDONED)
(Y) EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES RECORDED NOVEMBER 4, 1986 AS INSTRUMENT NO. 2931 OF OFFICIAL RECORDS. (TO REMAIN)
(Z) EASEMENT FOR PUBLIC STREET AND INCIDENTAL PURPOSES RECORDED DECEMBER 30, 1966 AS INSTRUMENT NO. 576 OF OFFICIAL RECORDS. (TO REMAIN)
(AA) EASEMENT FOR PIPE LINES AND INCIDENTAL PURPOSES IN DEED REGISTERED MAY 6, 1941 AS DOCUMENT NO. 10969-A (A PORTION OF EASEMENT TO BE QUITCLAIMED OR ABANDONED WITHIN V.T.M. 70853)

LIST OF REQUESTED ENTITLEMENT

1. VESTING TENTATIVE MAP
2. CONDITIONAL USE PERMIT FOR MIX ZONE FOR MIXED USE: RESIDENTIAL/RETAIL DEVELOPMENT/TRANSIT
3. ZONE CHANGE TO MXD-DP
4. GENERAL PLAN AMENDMENT TO U4-HIGH DENSITY RESIDENTIAL

A.P.N. TABLE

4140-002-001, 4140-002-002, 4140-002-003, 4140-002-004, 4140-002-005, 4140-002-006, 4140-002-007, 4140-002-030, 4140-002-031, 4140-002-032, 4140-002-033, 4140-002-034, 4140-002-035, 4140-002-038, 4140-002-039

LINE TABLE

LINE	LENGTH	BEARING
L1	10.05'	S89°55'44"W
L2	7.07'	N45°03'33"W
L3	5.00'	N00°55'31"W
L4	11.00'	N89°55'44"E
L5	11.88'	N89°55'44"E

CURVE TABLE

CURVE	DELTA	LENGTH	RADIUS	TANGENT
C1	54°27'00"	70.94'	74.00'	38.65'

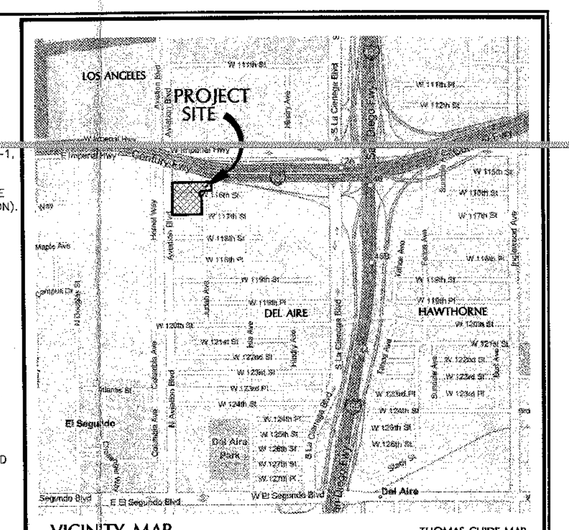
LOT SUMMARY

	GROSS	NET
LOT 1	3.20 AC.	3.15 AC.
LOT 2	2.70 AC.	2.63 AC.
TOTAL	5.90 AC.	5.78 AC.

GRAPHIC SCALE (IN FEET) 1 inch = 40 ft.

BENCH MARK:
LOS ANGELES CITY BM "17-00319"
3" BRASS DISK STMPD "L.A.T.C. LS 3258"; E CURB AVIATION BLVD; 23' S/O IMPERIAL HWY.
ELEV. = 94.777'ft (NAVD88/2000ADJ)

BASIS OF BEARINGS:
THE BASIS OF BEARINGS SHOWN HEREON ARE BASED ON THE BEARING N 89°55'44" E, BEING THE CENTERLINE OF 116TH STREET PER CITY OF LOS ANGELES FB 087-157/144.

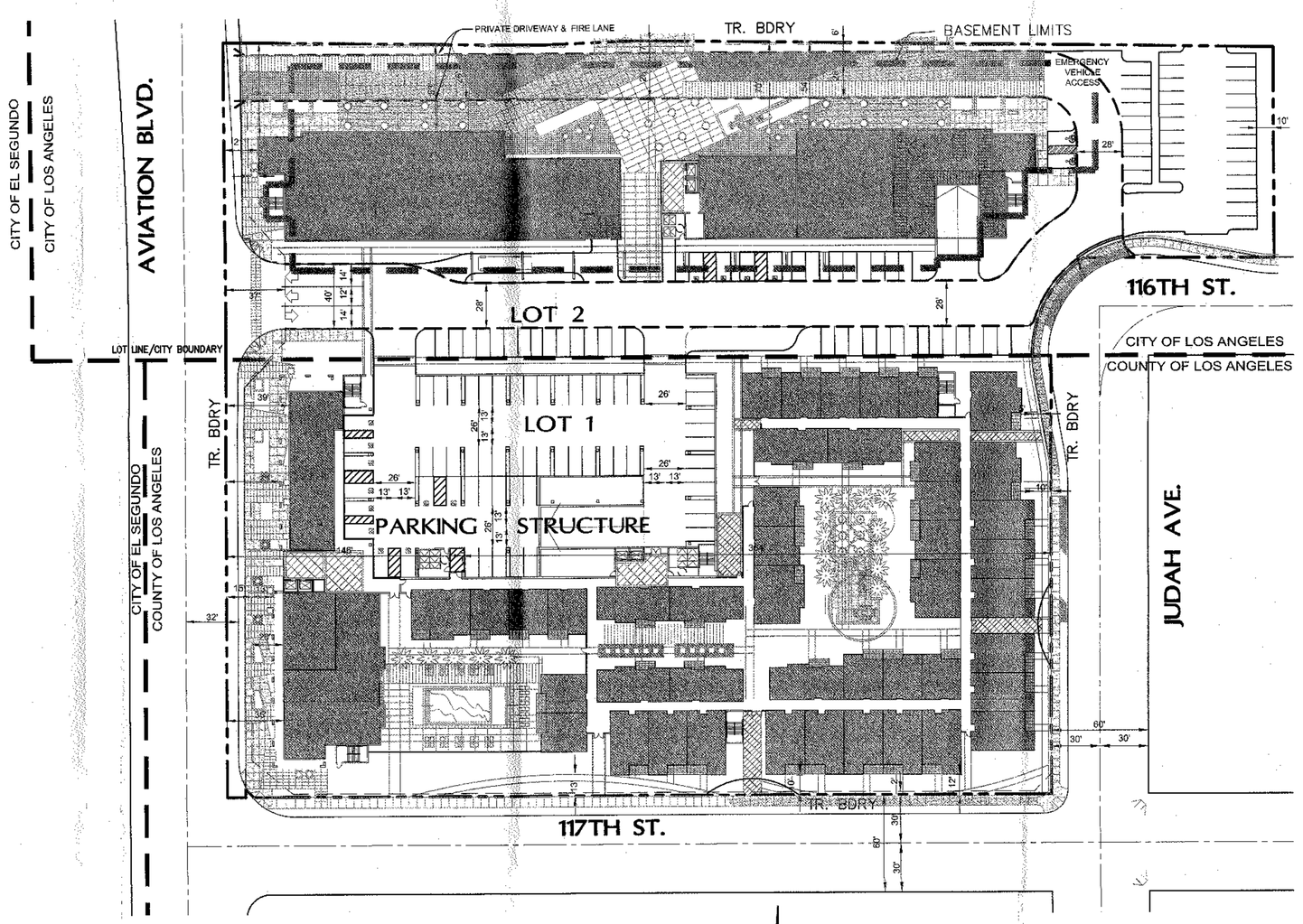


VICINITY MAP
VESTING TENTATIVE TRACT NO. 70853

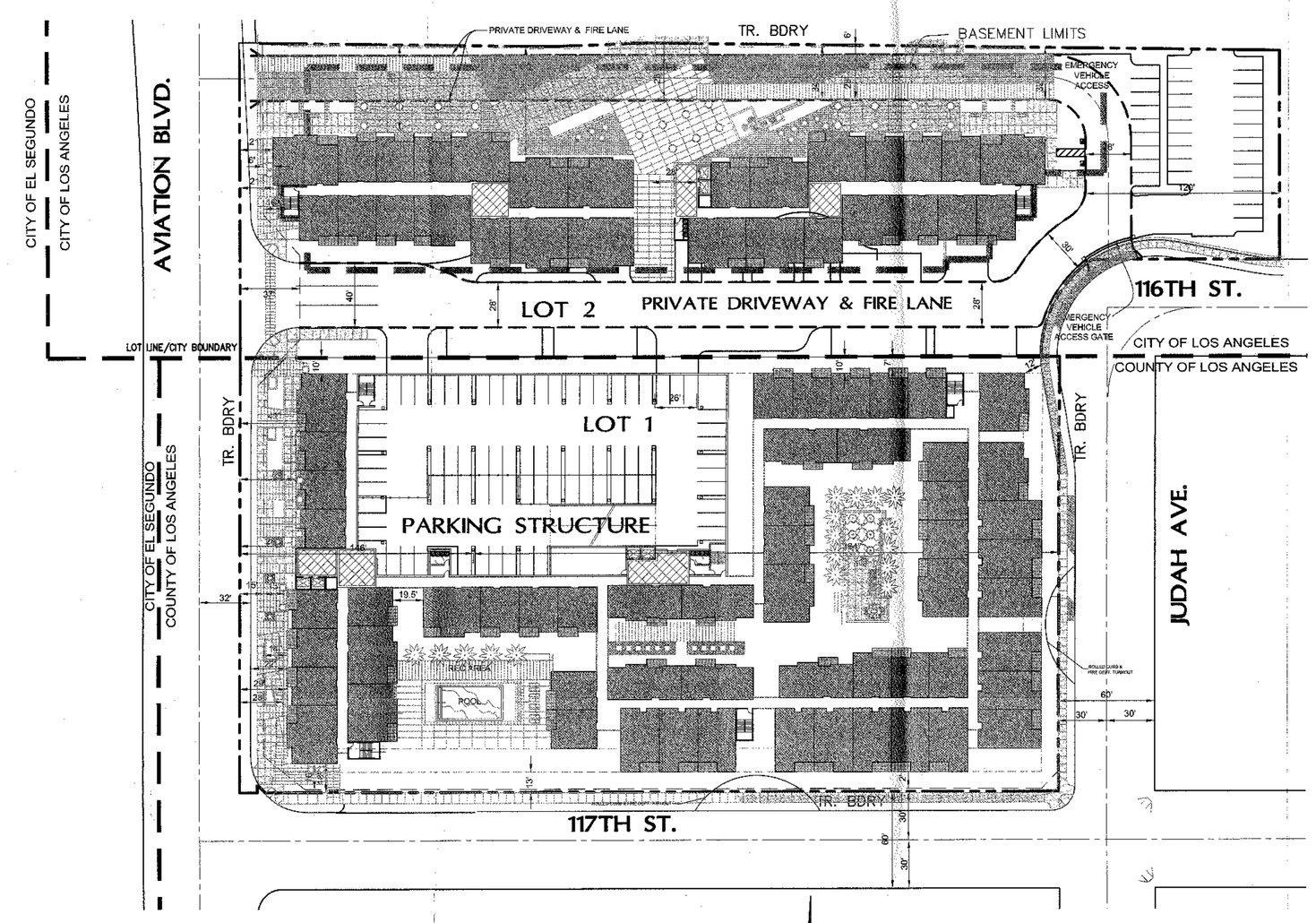
THOMAS GUIDE MAP PAGE 703 - GRID A7

GENERAL NOTES

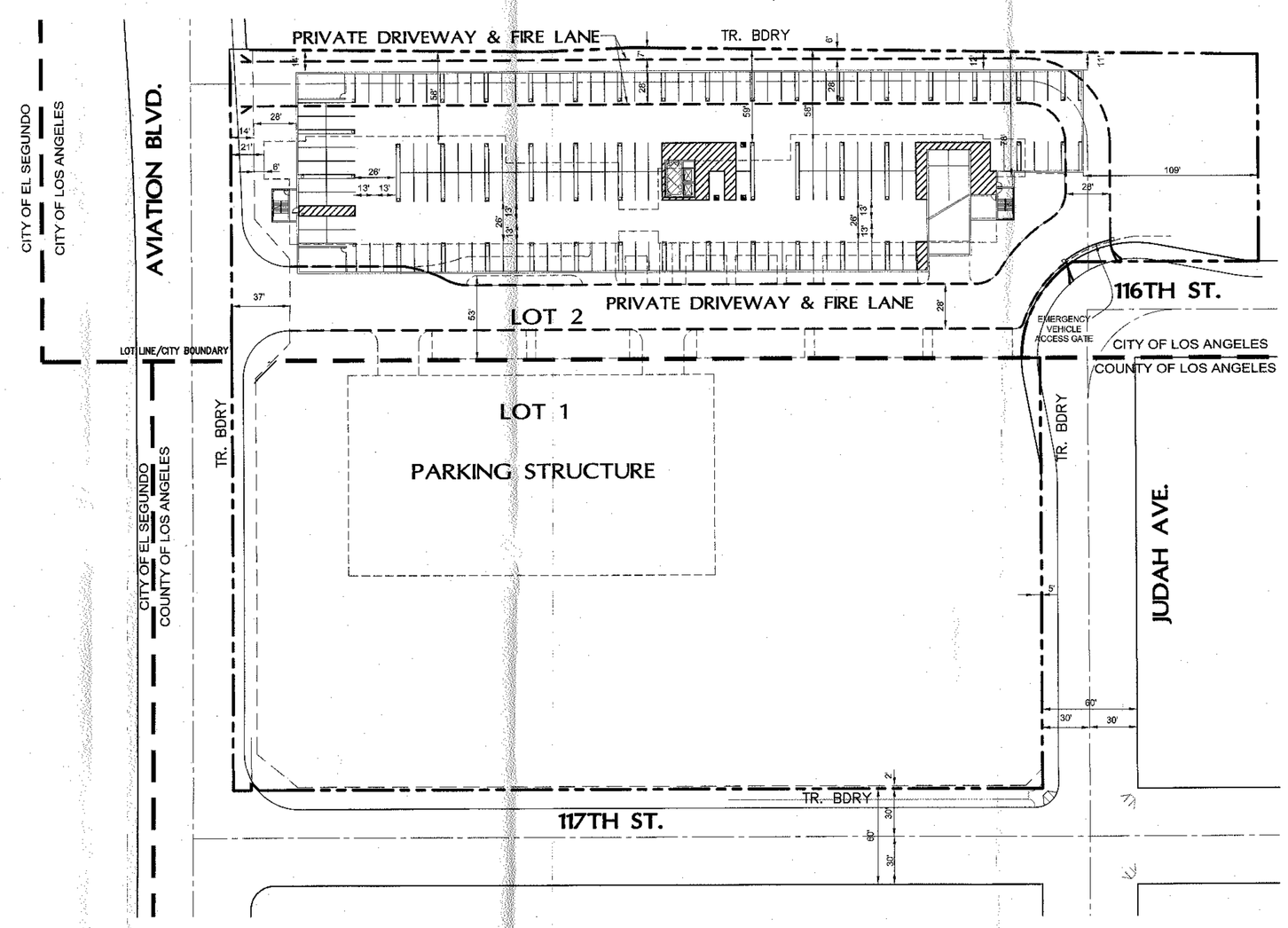
1. AREA ..... 5.90 AC. GROSS
2. EXISTING ZONING ..... C1, R1, PF
3. PROPOSED ZONING ..... MXD — DP
4. EXISTING SITE USE ..... COMMERCIAL/S.F. RESIDENTIAL/MOTEL
5. DEVELOPMENT TYPE ..... MIX USE RESIDENTIAL/RETAIL/TRANSIT
6. TOTAL NUMBER OF LOTS 2
7. TOTAL NUMBER OF RESIDENTIAL UNITS 376
8. TOPOGRAPHY IS BASED ON CONTROLLED TOPO W/ CONTOUR INTERVALS 1 AND 10 FEET.
9. BOUNDARY LINES ESTABLISHED FROM RECORD MAPS.
10. EXISTING COUNTY-WIDE GENERAL PLAN 1
11. EXISTING CITY OF LOS ANGELES GENERAL PLAN ..... PUBLIC FACILITY
12. EXISTING COUNTY OF LOS ANGELES ZONING C1, R1
13. EXISTING CITY OF LOS ANGELES ZONING ..... PF (PUBLIC FACILITY)
14. DENSITY/ GROSS ..... 55.1 DU/AC GROSS
15. TOP AND TOE OF SLOPES ARE SUBJECT TO CHANGE IN FINAL ENGINEERING.
16. TOTAL CUT: 31,000 C.Y.; TOTAL EXPORT: 31,000 C.Y.
17. SEE A.P.N. TABLE BELOW
18. RETAIL SPACE ..... 17,180 S.F.
    RESIDENTIAL STORAGE ..... 891 S.F.
    RESIDENTIAL ..... 330 S.F.
    COMMUNITY ROOM ..... 6,500 S.F.
    RESIDENTIAL STORAGE ..... 3,700 S.F.
    LOADING SPACE ..... 1,560 S.F.
19. ALL SLOPES OVER 5 FEET IN HEIGHT TO BE LANDSCAPED AND IRRIGATED PER COUNTY ORDINANCE.
20. THERE ARE NO OAK TREES WITHIN PROJECT BOUNDARY.
21. UNIT PHASING IS REQUESTED TO THE SATISFACTION OF DEPARTMENT OF REGIONAL PLANNING (DRP).
22. PERMISSION IS REQUESTED TO ABANDON A PORTION OF THE COUNTY EASEMENTS FOR ROADS AND STORM DRAIN PURPOSES INCLUDING OF VACATION OF PORTION OF 116 TH BY THE FINAL MAP PERSUANT TO SEC. 66499.20 1/2 OF THE STATE GOVERNMENT CODE (IF ANY)
23. THE RIGHT IS REQUESTED TO ADJUST LOT LINES, ADD OPEN SPACE LOTS AND MERGE LOTS ON THE FINAL MAP TO THE SATISFACTION OF DEPARTMENT OF REGIONAL PLANNING.
24. PROVIDE PROPERTY LINE RETURN AND OF 15 FEET AT ALL LOCAL STREET INTERSECTIONS, AND 22 FEET AT THE INTERSECTION OF LOCAL STREETS WITH PLANNED HIGHWAYS (THOSE ON THE COUNTY HIGHWAY PLAN) AND WHERE ALL PLANNED INTERSECT OR WHERE ONE OF THE ROADS SERVES A COMMERCIAL OR INDUSTRIAL DEVELOPMENT PLUS ADDITIONAL RIGHT OF WAY FOR CORNER CUT OFF TO MEET CURRENT GUIDELINES OF THE AMERICAN WITH DISABILITIES ACT (ADA) TO THE SATISFACTION OF THE DEPARTMENT OF PUBLIC WORKS.
25. RECONSTRUCT / CONSTRUCT PARKWAY IMPROVEMENTS, (SIDEWALKS, DRIVEWAYS, CURBS RAMPS, LANDING, ETC.) THAT SERVE OR FORM OF A PEDESTRIAN ACCESS ROUTE TO MEET CURRENT ADA REQUIREMENTS TO THE SATISFACTION OF PUBLIC WORKS.
26. DEDICATE EASEMENTS FOR TRAFFIC SIGNAL LOOP DETECTION EQUIPMENT WITHIN THE DRIVEWAY ALONG AVIATION BLVD. TO THE SATISFACTION OF THE COUNTY OF LOS ANGELES DEPT. OF PUBLIC WORKS.
27. CLOSE ANY UNUSED DRIVEWAY W/STD. CURB, GUTTER & SIDEWALK ALONG THE PROPERTY FRONTAGE ON AVIATION BLVD., 117 TH STREET & JUDAH AVENUE TO THE SATISFACTION OF THE COUNTY OF LOS ANGELES DEPT. OF PUBLIC WORKS.
28. APPROVED SE



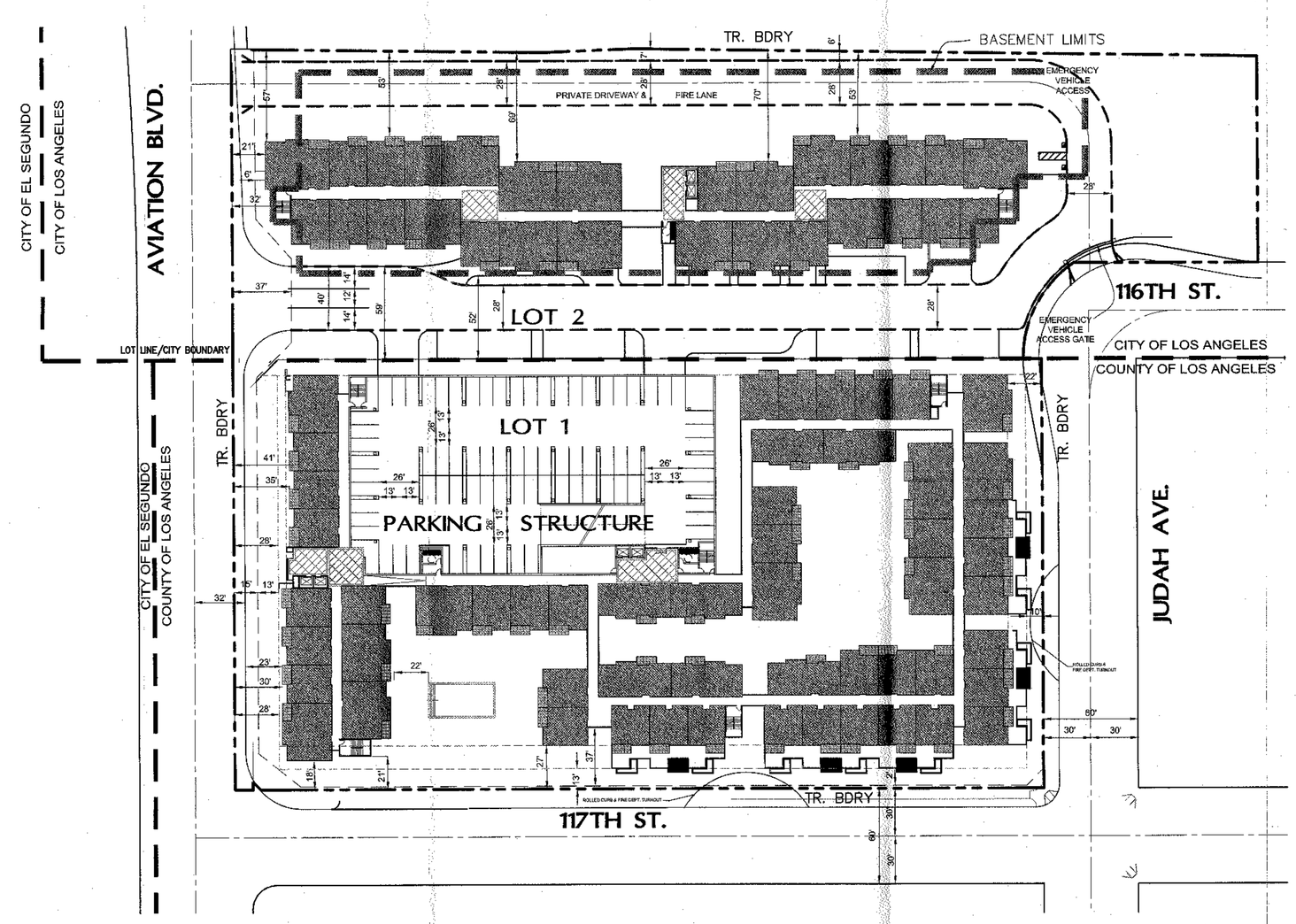
STREET LEVEL
SCALE: 1"=40'



LEVEL 2
SCALE: 1"=40'



BASEMENT LEVEL
SCALE: 1"=40'



LEVEL 3, 4 & 5
SCALE: 1"=40'

DRAWN BY SF			
CHECKED BY SH			
DESIGNED BY MS	8/17/11	SH	REVISE ARCHITECTURAL SITE PLANS/PARKING
	6/28/10	SH	REVISE ARCHITECTURAL SITE PLANS, STREET LEVEL PARKING AND PODIUM DECK... REVISE BASEMENT LEVEL PARKING
	02/26/10	SH	UPDATE BUILDING FOOTPRINTS
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER ROBERT S. SIMS No. 21649 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

ROBERT S. SIMS R.C.E. No. 21649 — 8-17-2011 DATE

DEVELOPER:
KROEZE FAMILY, LLC
11604 AVIATION BLVD., INGLEWOOD, CA, 90304
PH: (310) 643-9769

ARCHITECTURE SITE PLAN

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.

70853

COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
199 South Los Robles Ave., Suite 250, Pasadena, California 91101
Ph.: (626) 578-7003, Fax: (626) 578-7373
http://www.ldca.com

LDC

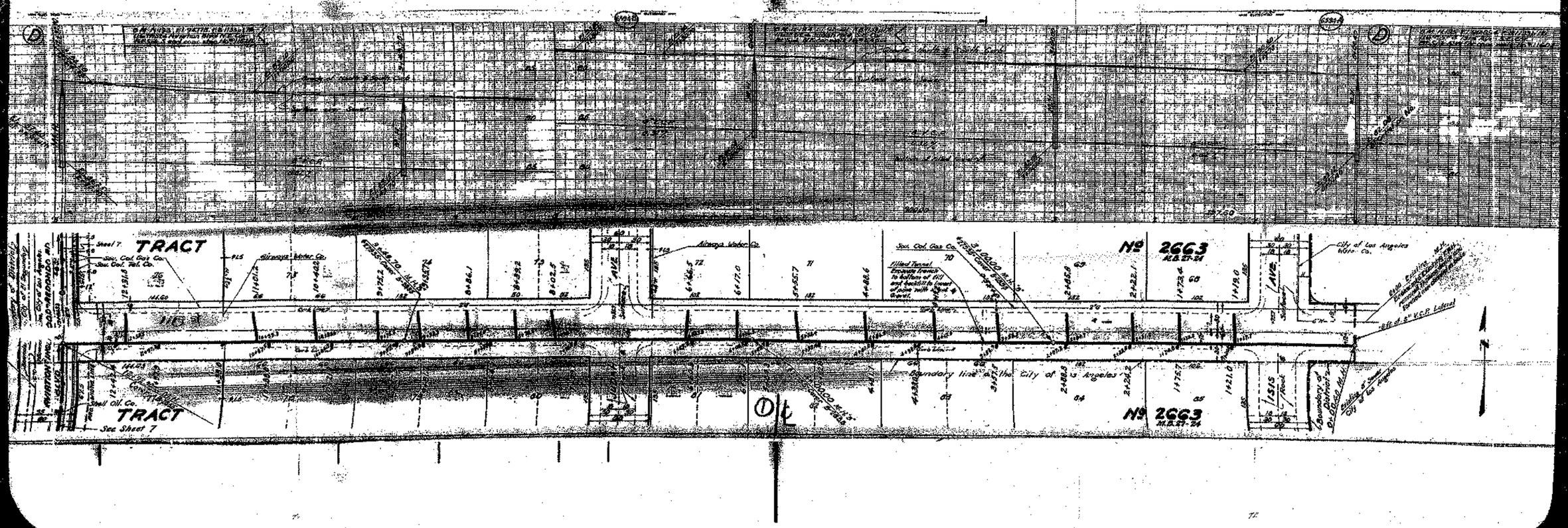
Proj. No. 08005-001

SHEET 4 OF 4

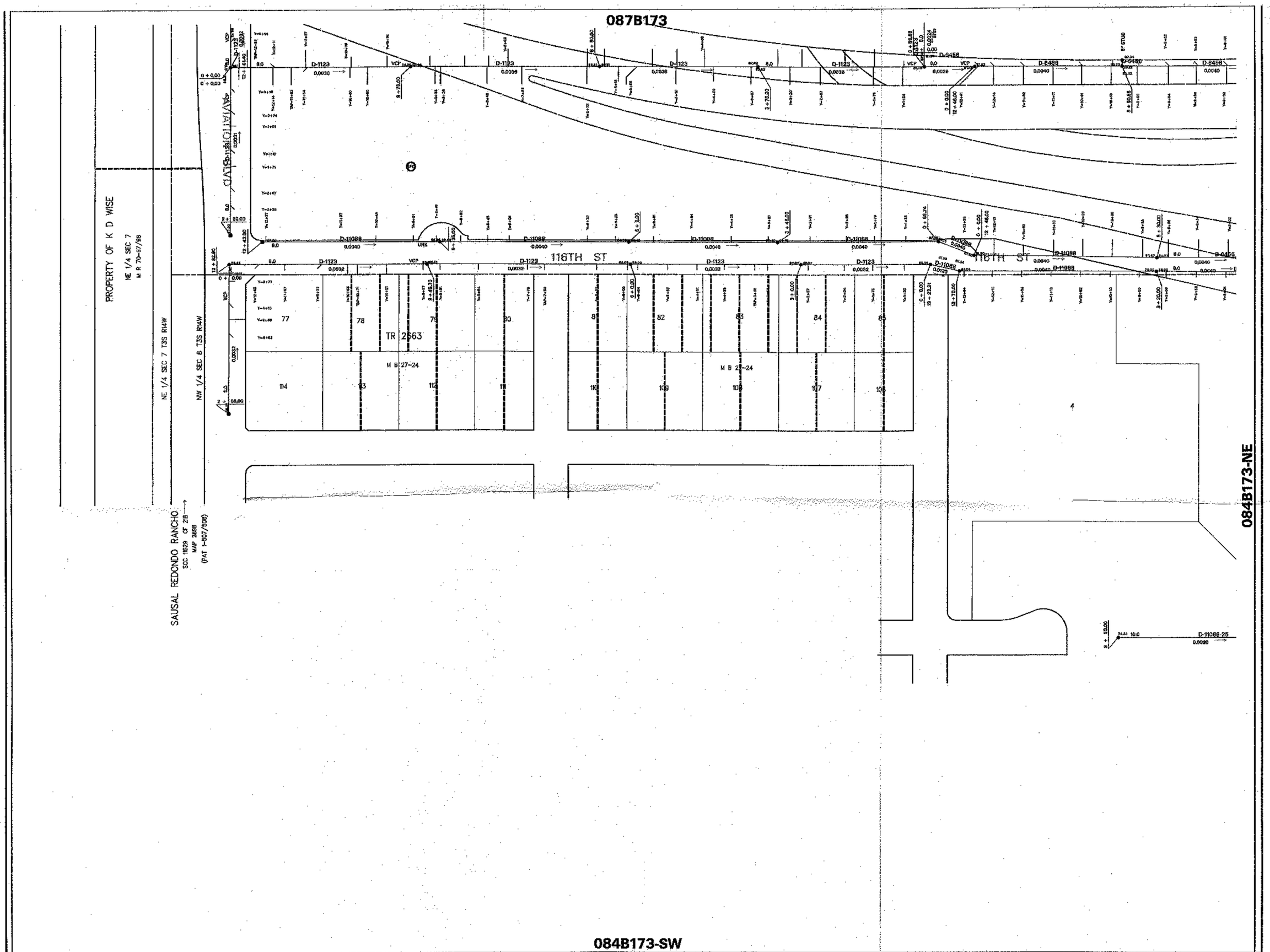
SEP 06 2011

POCKET-3

As-Built Sewer Plans


TRACT
Sheet 7
Sou. Cal. Gas Co.
Sou. Cal. Tel. Co.
Airways Water Co.
Airways Water Co.
Sou. Cal. Gas Co.
Filled Tunnel
Excavate trench to bottom of fill and backfill to invert of pipe with Sand & Gravel.
Nº 2663
M.B. 27-24
City of Los Angeles Water Co.
Boundary line of the City of Los Angeles
Shell Oil Co.
TRACT
See Sheet 7
Nº 2663
M.B. 27-24
Boundary of District
City of Los Angeles

087B173



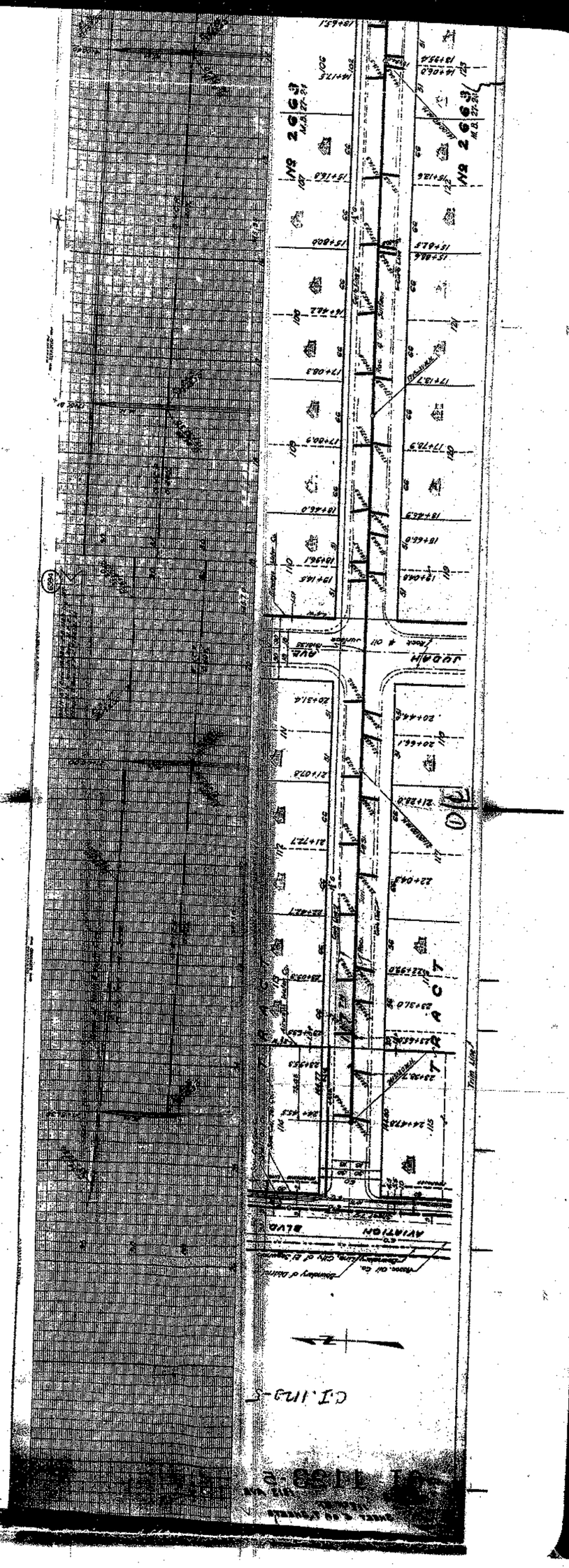
Feet

0 25 50 100 150 200

Notes:

WESTLA DISTRICT SEWER WYE MAP

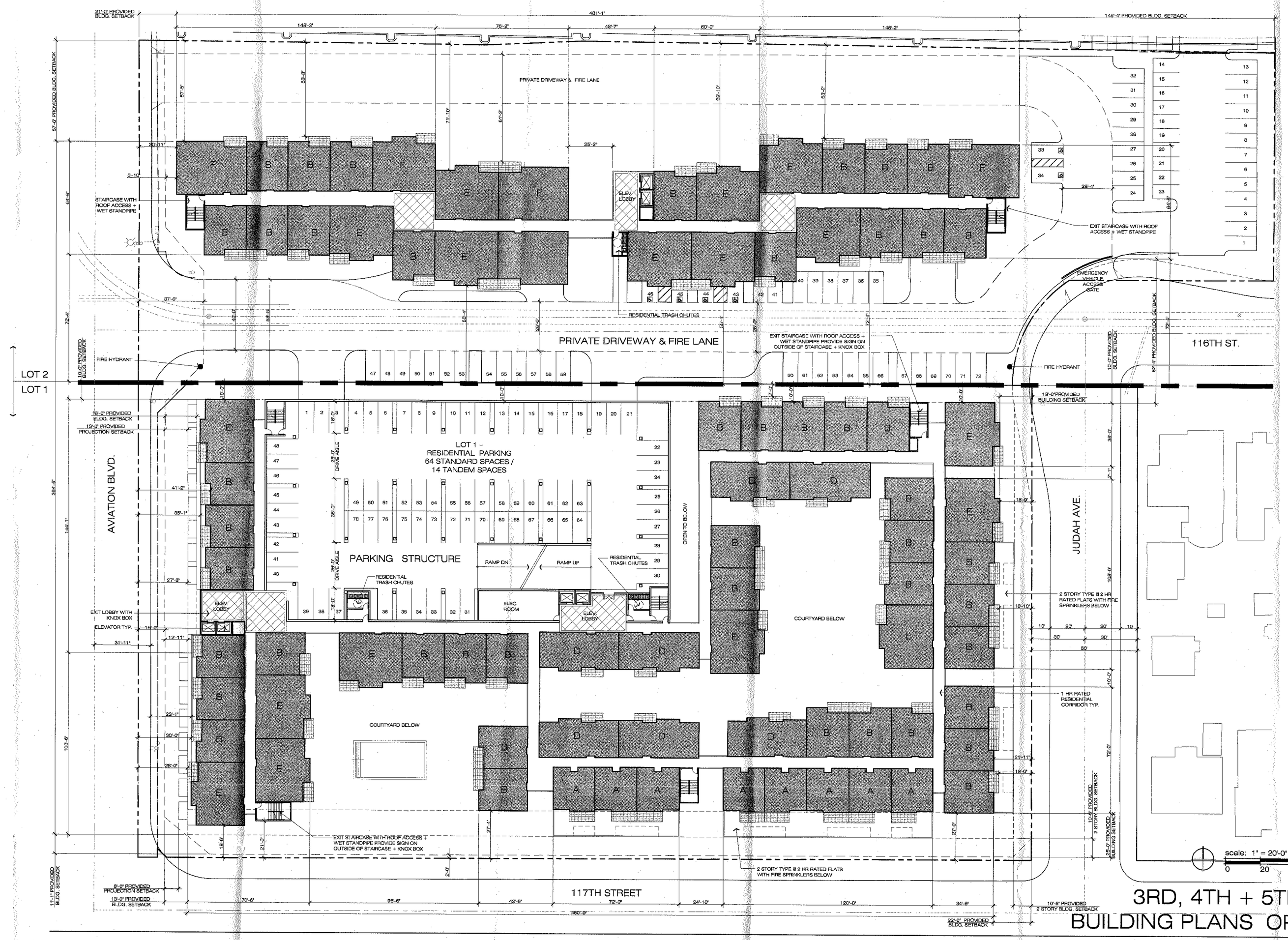
Plotted by: 45388
Date: February 28, 2007
Check by: _____
Revised: _____



Nº 2663
Nº 2663
JUDAH AVE.
AVIATION BLVD.
TRACT
TRACT

POCKET-4

Sheet No. 6, 9 and 10 of CUP



3RD, 4TH + 5TH LEVEL BUILDING PLANS OPTION -2

AVIATION STATION

LOS ANGELES, CALIFORNIA
TRACT MAP NO. 070853
August 9, 2011

Withee Malcolm Architects, LLP
2251 W. 190th Street
Torrance, Ca 90504
Tel. (310) 217-8885
Fax (310) 217-0425
JOB NO. A8055

DEVELOPER:
KROEZE FAMILY, LLC
19604 AVIATION BLVD., INGLEWOOD, CA, 90304
PH: (310) 643-9769

C.U.P. EXHIBIT "A"

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.
70853

COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
199 South Los Robles Ave., Suite 250, Pasadena, California 91101
Ph.: (626) 578-7500, Fax: (626) 578-7373
http://www.ldcla.com

LDC

Proj. No. 08005-001

SHEET 9 OF 14

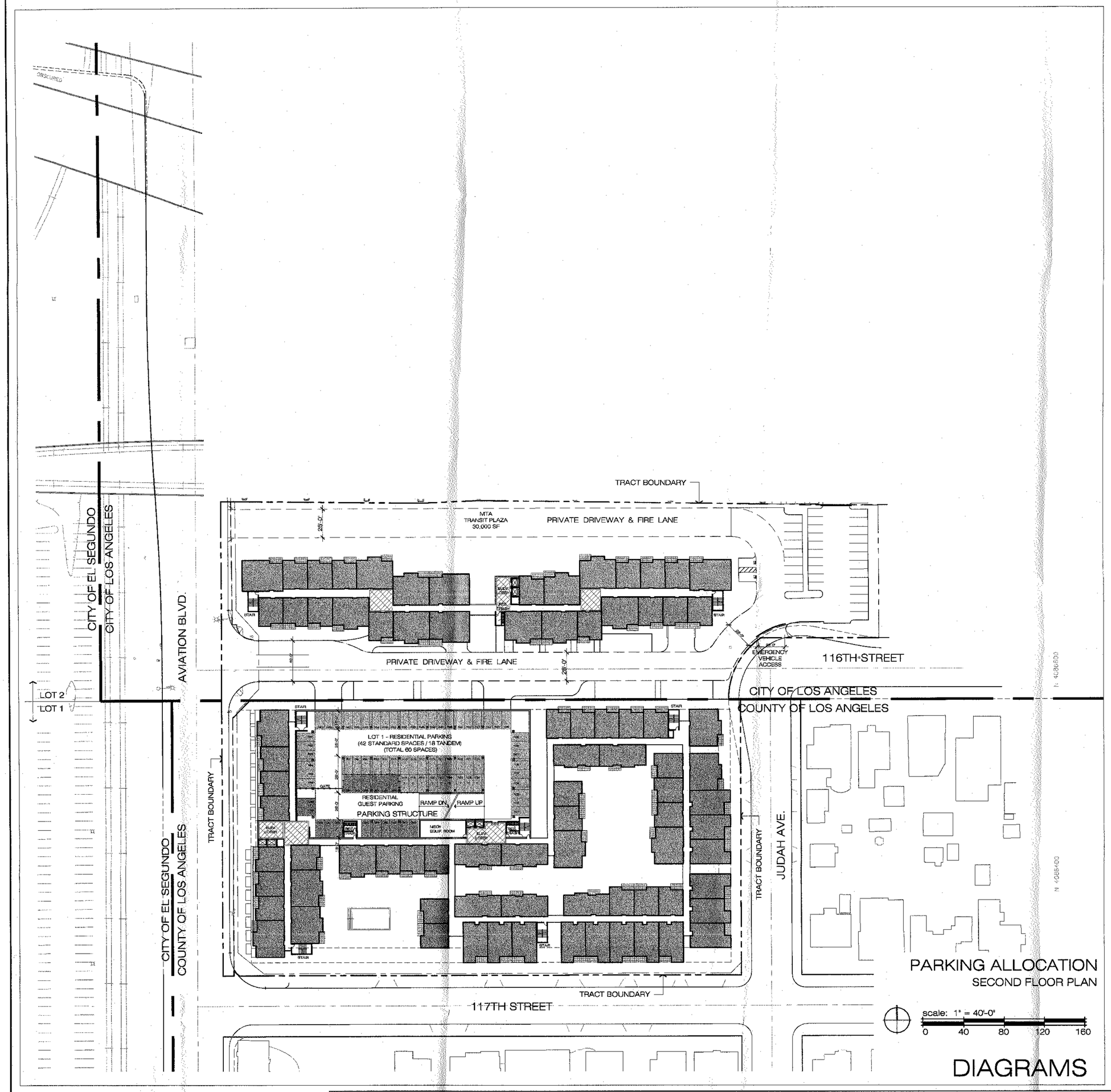
DATE CHANGED	CHANGED BY	REVISION
08/11/11	SH	REVISED BUILDING PLANS
07/07/10	SH	ADD FIRE LANES

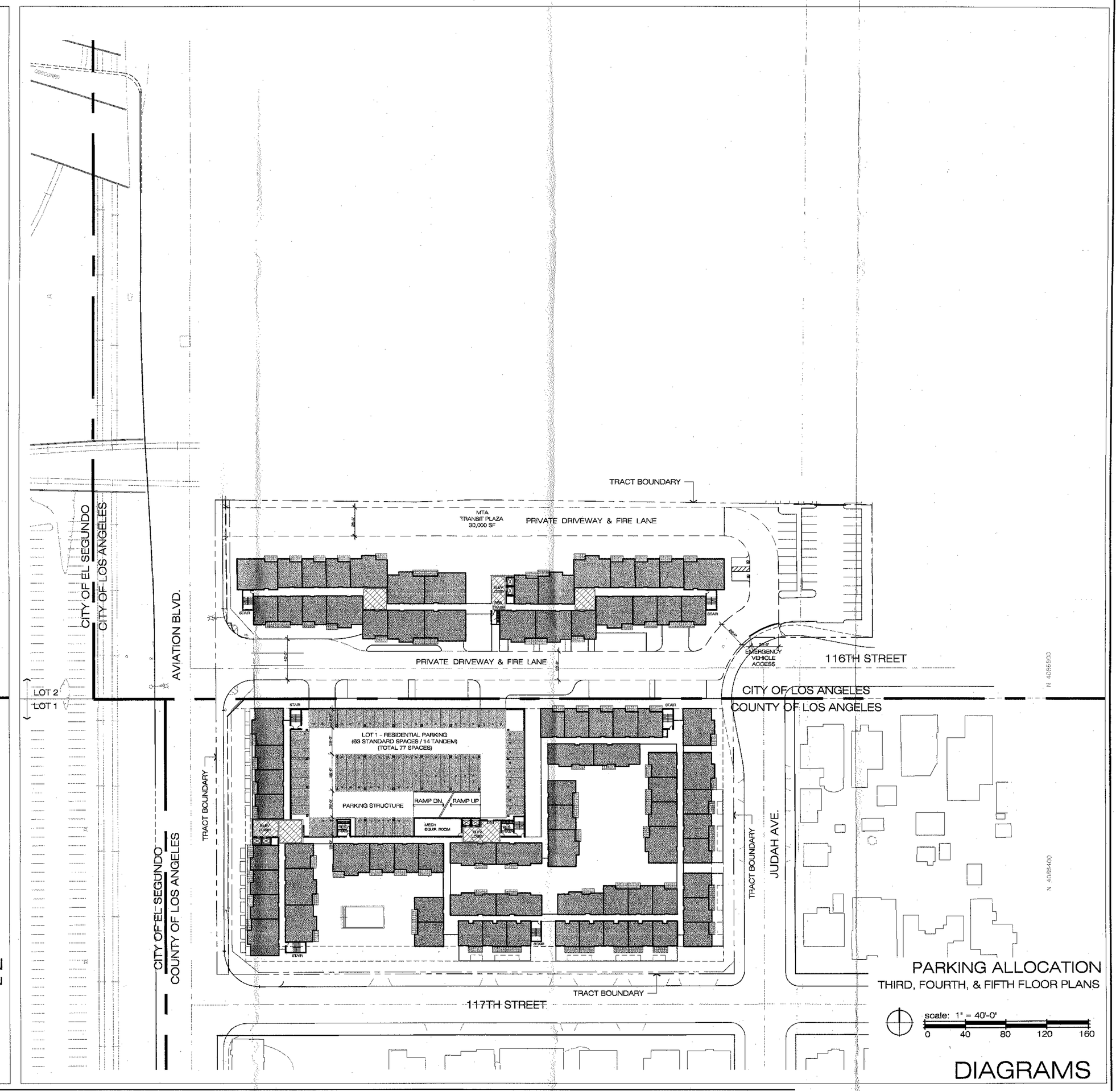
DRAWN BY: SF
CHECKED BY: SH
DESIGNED BY: MS

REGISTERED PROFESSIONAL ENGINEER ROBERT S. SIMS No. 29649 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

ROBERT S. SIMS R.C.E. No. 29649 — 8-17-2011 DATE

SEP 06 2011





LEGEND

- RESIDENTIAL GUEST CONDOMINIUMS 17 spaces
- RESIDENTIAL PARKING CONDOMINIUMS 60 spaces

AVIATION STATION

LOS ANGELES, CALIFORNIA
TRACT MAP NO. 070853
August 9, 2011

LEGEND

- RESIDENTIAL PARKING CONDOMINIUMS 78 spaces

Withee Malcolm Architects, LLP
2251 W. 190th Street
Torrance, Ca 90504
Tel. (310) 217-8665
Fax (310) 217-0425
JOB NO. A8055

PARKING SUMMARY

	PARKING SPACES		
	STANDARD	TANDEM	TOTAL
RETAIL	71	0	71
LEASING OFFICE	6	0	6
RESIDENTIAL GUEST	66	0	66
RESIDENTIAL APARTMENTS	146	18	164
RESIDENTIAL CONDOMINIUMS	280	60	340
TOTAL			647

HANDICAP PARKING SUMMARY

RETAIL	3
LEASING OFFICE	1
RESIDENTIAL GUEST	3
RESIDENTIAL APARTMENTS & RESIDENTIAL CONDOMINIUMS	9
TOTAL	16

DRAWN BY	DATE CHANGED	CHANGED BY	REVISION
SF	08/17/11	SH	REVISED PARKING ALLOCATION
CHECKED BY SH	06/28/10	SH	ADD PARKING SUMMARY TABLE
DESIGNED BY MS			

REGISTERED PROFESSIONAL ENGINEER ROBERT S. SIMS No. 21649 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

DEVELOPER:
KROEZE FAMILY, LLC
13604 AVIATION BLVD, INGLEWOOD, CA, 90304
PH: (310) 643-8949

C.U.P. EXHIBIT "A"

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.
70853
COUNTY OF LOS ANGELES, STATE OF CALIFORNIA

PREPARED BY:
LAND DESIGN CONSULTANTS, INC.
Land Planning, Civil Engineering, Surveying & Environmental Services
509 South Los Robles Ave, Suite 250, Pasadena, California 91101
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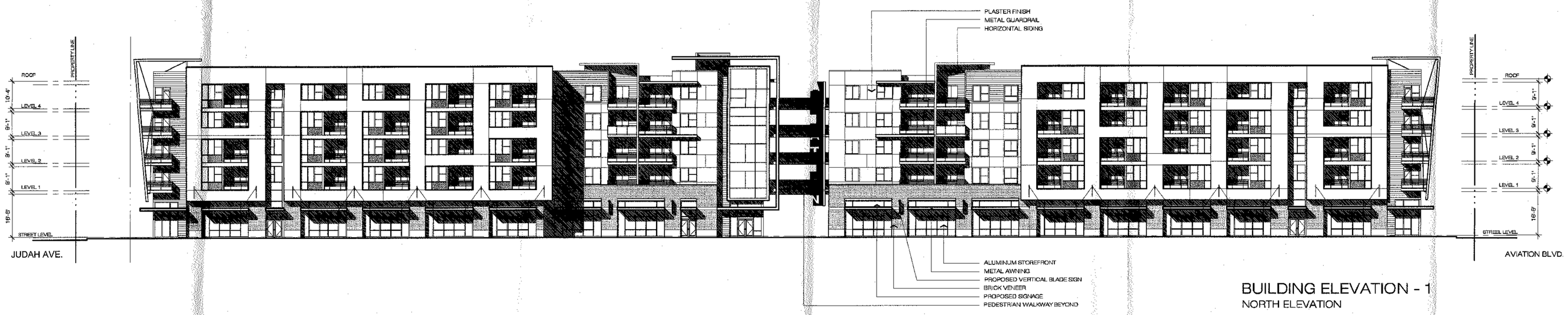
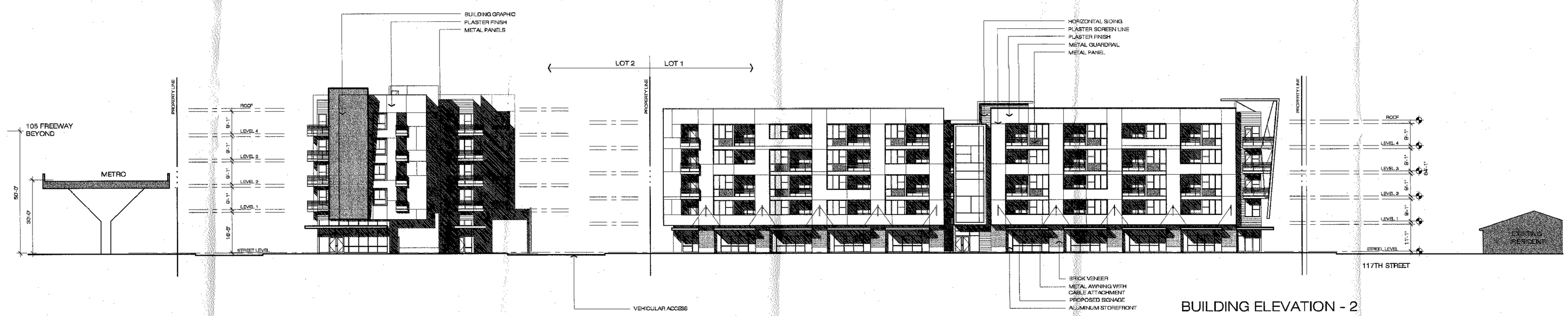
ROBERT S. SIMS R.C.E. No. 21649 — 8-17-2011 DATE

LDC
Proj. No. 08005-001
SHEET 6 OF 14

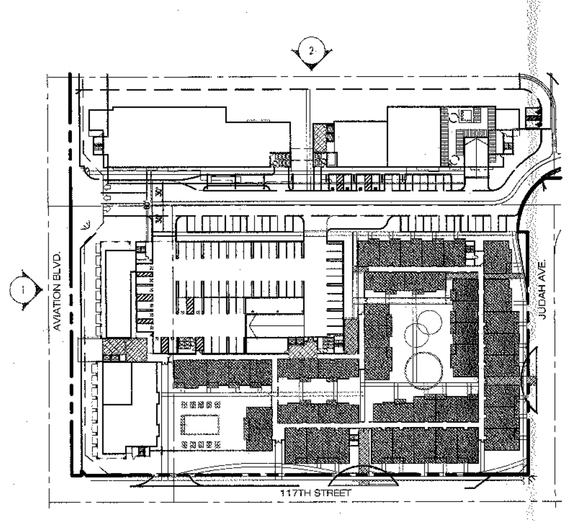
SEP 06 2011



BUILDING ELEVATION - 1
NORTH ELEVATION



BUILDING ELEVATION - 2
WEST ELEVATION - AVIATION BLVD.



scale: 1/16" = 1'-0"
0 16 32 48 64

BUILDING ELEVATIONS OPTION

AVIATION STATION

LOS ANGELES, CALIFORNIA
TRACT MAP NO. 070853
August 9, 2011

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C.U.P. EXHIBIT "A"

MAJOR LAND DIVISION
VESTING TENTATIVE TRACT MAP NO.
70853
COUNTY OF LOS ANGELES,
STATE OF CALIFORNIA

DRAWN BY SF			
CHECKED BY SH			
DESIGNED BY MS	08/12/11	SH	REVISED BUILDING ELEVATIONS
	06/28/10	SH	REVISED LEGEND PER REVISED SITE PLAN
	02/26/10	SH	ADD PODIUM HEIGHT ON SECTION "A"
	DATE CHANGED	CHANGED BY	REVISION

REGISTERED PROFESSIONAL ENGINEER ROBERT S. SIMS No. 21649 EXP. 9-30-11 CIVIL STATE OF CALIFORNIA

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SHEET 10 OF 14

SEP 06 2011