COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

DEAN D. EFSTATHIOU, Acting Director

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
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ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

July 15, 2008

IN REPLY PLEASE
REFER TO FILE: PD-3

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

Dear Supervisors:

SIERRA HIGHWAY FROM STATE ROUTE 14 TO PEARBLOSSOM HIGHWAY
APPROVAL AND CERTIFICATION OF FINAL ENVIRONMENTAL IMPACT REPORT
UNINCORPORATED PALMDALE AREA
(SUPERVISORIAL DISTRICT 5)
(3 VOTES)

SUBJECT

This action is to adopt the Environmental Impact Report and authorize the Department of Public Works to proceed with construction of specific improvements to Sierra Highway from State Route 14 to Pearblossom Highway in the unincorporated Palmdale area.

IT IS RECOMMENDED THAT YOUR BOARD:

1. Certify that the Final Environmental Impact Report has been completed in compliance with the California Environmental Quality Act and reflects the independent judgment and analysis of the County; find that your Board has reviewed and considered the information contained in the Final Environmental Impact Report prior to approving the project; adopt the Mitigation Monitoring and Reporting Program, finding that the Mitigation Monitoring and Reporting Program is adequately designed to ensure compliance with the mitigation measures during project implementation; and determine that the significant adverse effects of the project have been reduced to an acceptable level as outlined in the Environmental Findings of Fact, which findings are adopted and incorporated by reference.

2. Approve the project and authorize the Department of Public Works to carry out the project.

PURPOSE/JUSTIFICATION OF RECOMMENDED ACTION

The purpose of the recommended actions is to fulfill the requirements of the California Environmental Quality Act (CEQA) for the proposed project and authorize the Department of Public Works (Public Works) to proceed with the project, which will widen and realign a portion of Sierra Highway between State Route 14 to Pearblossom Highway to meet design criteria for 65 miles per hour design speed and enhance the navigability of the road.

Implementation of Strategic Plan Goals

The Countywide Strategic Plan directs that we provide the goals of Service Excellence (Goal 1) and Community Services (Goal 6). This project will improve the alignment of Sierra Highway between State Route 14 and Pearblossom Highway, making this stretch of the highway more navigable for motorists, which will benefit and improve the quality of life of the residents of the County of Los Angeles (County).

FISCAL IMPACT/FINANCING

There will be no impact to the County General Fund.

The total cost of the project is estimated to be $3,000,000. A construction contract will be advertised for bids at a later date, contingent upon your approval of this action. Funding for preliminary engineering and construction of the project will be made available from the Fifth Supervisorial District's Road Construction Program included in the Proposed Fiscal Years 2008-09 and 2009-10 Road Fund Budgets, respectively.

FACTS AND PROVISIONS/LEGAL REQUIREMENTS

The recommended finding is in accordance with CEQA and is required prior to filing a Notice of Determination with the Registrar-Recorder/County Clerk.

The proposed project includes widening and realigning approximately 0.80 miles of Sierra Highway between State Route 14 and Pearblossom Highway. The project involves constructing a roadway section to provide a 12-foot inside lane, a 14-foot outside lane, a 10-foot paved shoulder on each side of the road, and a 12-foot painted median.

ENVIRONMENTAL DOCUMENTATION

In accordance with CEQA, a Notice of Preparation was distributed on November 5, 2007, to the State of California Office of Planning and Research and responsible Federal and State agencies in addition to public agencies. The purpose of the Notice of Preparation was to provide notification that the County planned to prepare an Environmental Impact Report (EIR) and to solicit input on the scope and content of the EIR. Two written comment letters were received.

An Initial Study was prepared for the project in compliance with CEQA. The Initial Study concluded that there was substantial evidence that the project may have a significant effect on the environment and determined that an EIR would be required.

A public Notice of Availability of the Draft EIR was published in the *Antelope Valley Press* on February 27, 2008, pursuant to Public Resources Code Section 21092. Notices were mailed to property owners along the project alignment and individuals and organizations of interest. Hard copies of the Draft EIR were made available for viewing at the Lancaster Regional, Quartz Hill, and Little Rock Libraries and at the Department of Public Works on Fremont Street in Alhambra. A 45-day public comment period started February 27, 2008, and concluded April 11, 2008. Two written comments were received.

Final Environmental Impact Report and Mitigation and Monitoring Program

The Final EIR prepared for this project concluded that the project may have significant impacts on the environment in the areas of biological resources and cultural resources. All identified significant environmental effects of the project can be avoided or reduced to a level of insignificance through the implementation of the mitigation measures identified in the Final EIR.

The letters of comment received on the Draft EIR and the County's responses are included in the Final EIR (copies attached).

Mitigation measures have been identified in the Final EIR to mitigate, or avoid potentially significant effects on the environment in the areas of biological resources and cultural resources. A Mitigation Monitoring and Reporting Program (attached) consistent with the conclusions and recommendations of the Final EIR has been prepared. The Mitigation Monitoring and Reporting Program identifies in detail the

manner in which compliance with the measures adopted to mitigate or avoid potential adverse impacts of the project to the environment is ensured, and its requirements have been incorporated into the project.

The location of the documents and other materials constituting the record of the proceedings upon which the Board of Supervisors' decision is based in this matter is Public Works, Programs Development Division, 900 South Fremont Avenue, 11th Floor, Alhambra, CA 91803. The custodian of such documents and materials is the Environmental Planning and Assessments Section of Programs Development Division, Public Works.

The project is not exempt from payment of a fee to the California Department of Fish and Game pursuant to Section 711.4, of the Fish and Game Code to defray the costs of fish and wildlife protection and management incurred by the California Department of Fish and Game. Upon approval of the Final EIR by your Board, Public Works will file a Notice of Determination in accordance with Section 21152(a) of the California Public Resources Code and pay the required filing and processing fees with the Registrar-Recorder/County Clerk in the amount of $2,656.76.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

The proposed project will improve traffic flow and navigability for motorists in the project area.

CONCLUSION

Please return one adopted copy of this letter to Public Works, Programs Development Division.

Respectfully submitted,

Patrick V. DeChellis

DEAN D. EFSTATHIOU
Acting Director of Public Works

DDE:SA:re

Attachments (2)

c: County Counsel
Department of Public Works (Public Relations)

FINAL
Environmental Impact Report
Sierra Highway – State Route 14 to Pearblossom Highway Widening Project
Palmdale, Los Angeles County, California
State Clearinghouse # 2007111050

Prepared For:

County of Los Angeles
Department of Public Works
Programs Development Division
900 South Fremont Avenue
Alhambra, California

Prepared By:

Chambers Group, Inc.
302 Brookside Avenue
Redlands, California

JULY 2008

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SECTION 1.0 INTRODUCTION

1.1 PURPOSE

This Final Environmental Impact Report (FEIR) is prepared for the consideration of the proposed Sierra Highway – SR 14 to Pearblossom Highway Widening Project. The FEIR consists of the Draft EIR, comments received on the Draft EIR, responses to those comments, and revisions to the Draft EIR.

The Proposed Project would improve road conditions by widening and realigning a portion of the Sierra Highway between State Route 14 (SR-14) and Pearblossom Highway in order to meet 65 miles per hour (mph) design guidelines per CalTrans Highway Design Manual. The Proposed Project consists of a section of the Sierra Highway, located four (4) miles south of the City of Palmdale in unincorporated Los Angeles County. The Proposed Project is approximately a 0.80-mile section of the Sierra Highway, between the Antelope Valley Freeway Interchange and Sierra Highway and Pearblossom Highway intersection. This section of the highway runs parallel with the Union Pacific Railroad line.

This Final EIR has bee prepared by the County of Los Angeles Department of Public Works (Public Works) pursuant to the California Environmental Quality Act (CEQA) (Section 21000 et seq., California Public Resources Code), in accordance with the *Guidelines for the Implementation of the California Environmental Quality Act (Section 15000 et seq., California Code of Regulations, Title 14).* An EIR must be prepared for any project or major action that may have a significant impact on the environment. The Sierra Highway project is a "project" as defined by the State CEQA Guidelines. Upon preliminary review, the Public Works, as the Lead Agency under CEQA, determined that the proposed project may have a significant adverse impact on the environment and, therefore, an EIR is required. The Public Works selected an environmental contractor to prepare the EIR to ensure that the document reflects an independent, objective analysis of the Proposed Project.

This Final EIR amends and incorporates by reference the Draft EIR, which is available as a separately bound document from the Public Works. The primary purpose of this Final EIR is to clarify and refine comments and recommendations received during the public review period. The review period of the Draft EIR (State Clearinghouse No. 2007111050) was from February 22, 2008 through April 7, 2008. A list of the individuals, agencies, and organizations that commented on the Draft EIR and copies of the written comments are included in Section 3 of this document.

1.2 ORGANIZATION OF THE FEIR

The Final EIR consists of the following elements:

- The Draft EIR SCH # 2007111050 (bound separately)
- Section 1.3 – Summary of Draft EIR Public Review Process
- Section 2 – Summary of revisions and corrections made to the Draft EIR
- Section 3 – Comments and Responses on the Draft EIR
- Section 4 – Revisions to the Draft EIR
- Section 5 – Mitigation Monitoring and Reporting Plan

- Section 6 – References and Report Preparation

1.2.1 Document Availability

Copies of the Final EIR have been mailed to agencies that commented on the Draft EIR and other parties that requested the Final EIR. The Final EIR is also available at:

Los Angeles County
Department of Public Works
900 South Freemont Avenue, 11th Floor
Alhambra, CA 91803

Los Angeles County
Department of Regional Planning
Hall of Records (13th Floor)
320 West Temple Street
Los Angeles, CA 90012

1.3 SUMMARY OF DRAFT EIR PUBLIC REVIEW PROCESS

The Draft EIR review process was one in which members of the public were provided with considerable opportunity to review the document and make comments. The Draft EIR was released on February 22, 2008. Altogether, Public Works distributed 20 copies of the document, the majority being digital versions on CD, to cities, public agencies, elected officials.

Copies of the Draft EIR were also made available to the public for review at five locations: Los Angeles County Department of Public Works, Los Angeles County Department of Regional Planning, Lancaster Regional Library, Littlerock Library and the Quartz Hill Library.

The public review period lasted 45 days calendar days, beginning with the issuance of the Notice of Completion (NOC) on February 22, 2008 and closed on April 7, 2008. Public Works accepted comments in writing sent in standard mail.

1.4 DECISION-MAKING PROCESS

The County of Los Angeles (County) is the CEQA lead agency for this Final EIR. A public hearing will be held when the County would certify the Final EIR. Public comments on the Final EIR will be accepted during the hearing and addressed accordingly.

Certification of the Final EIR

Prior to taking action on the Proposed Project, Public Works must certify the Final EIR. Public Works must certify that:

- The Final EIR has been completed in compliance with the CEQA;
- The Los Angeles County Board of Supervisors reviewed and considered the information contained in the Final EIR prior to considering the Proposed Project; and
- The Final EIR reflects the independent judgment and analysis of the Los Angeles County Board of Supervisors (State CEQA Guidelines Section 15090).

In conjunction with certification of the Final EIR, Public Works must prepare one or more written findings of fact for each significant environmental impact identified in the document (per CEQA Guidelines Section 15091). These findings must either state that:

- The Project has been changed (including adoption of mitigation measures) to avoid or substantially reduce the magnitude of the impact to a level that is less than significant;
- Changes to the Project are within another agency's jurisdiction and have been or should be adopted; or
- Specific considerations make mitigation measures or alternatives infeasible.

If any of the impacts identified in the EIR cannot be reduced to a level that is less than significant, Public Works may issue a Statement of Overriding Considerations (per CEQA Guidelines Section 15093) that describes the benefits of the project outweigh the impacts for approval of the project if specific social, economic, or other factors justify the project's unavoidable adverse environmental effects. If Public Works decides to approve the project for which the Final EIR has been prepared, Public Works will issue a Notice of Determination (NOD).

Other Agency Actions

CDFG – 1602 Streambed Alteration Agreement
USACE – No Jurisdiction Concurrence

Information in the Final EIR and supporting technical studies will aid trustee agencies in their permitting processes for the Proposed Project.

SECTION 2.0 SUMMARY OF THE DRAFT EIR CLARIFICATIONS AND REVISIONS

This section summarizes the substantive review that took place between publication of the Draft EIR and the preparation of the Final EIR. Details about particular issues raised in the comments on the Draft EIR are provided in the Master Responses and individual responses to comments in Section 3.

2.1 OVERALL EVALUATION OF DRAFT EIR IMPACT FINDINGS

Based on the comments received on the DEIR, the EIR preparers reviewed the impacts and mitigation measures to determine whether identification of any new impacts or mitigation measures was warranted and whether the significance of any indentified impact should be changed. As noted above, the overall findings of the Draft EIR remain the same. No new impacts were identified but revised mitigation measures to conduct additional research were identified. Several impacts and mitigation measures were clarified (see below), but these clarifications did not alter the impact significance identified in the DEIR. The review and evaluation of the Draft EIR in light of comments received included the following:

2.2 PROJECT DESCRIPTION

- Incorporated several additional measures into the environmental compliance section to clarify Public Works' commitment to mitigation and avoidance of impacts.
- Added complete design plans (Appendix A)
- Added description of culvert improvements

Water Resources

- Reviewed and revised the Proposed Project design to incorporate the "Low Impact Development" (LID) principles.
- Reviewed and clarified Stormwater Pollution Prevention Plan raised in the comments.
- Clarified the Federal Clean Water Act Section 401 Water Quality Certification comment.
- Clarified the Waste Discharge Permit from RWQCB comment.
- Clarified the how impacts to surface Waters of the State and/or Waters of the U.S would be mitigated.

Biological Resources

- Revised description of jurisdictional waters to include more detail regarding culvert improvements

- Revised mitigation measure BR-13 for Mohave Ground Squirrel and provided additional details requested by California Department of Fish and Game (CDFG).
- Revised mitigation measure BR-9 and BR-10 for burrowing owl and provided additional details requested by CDFG.
- Reviewed concerns for sagebrush loeflingia (*Loeflingia squarrosa* var*. artemisiarum*) and short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) requested CDFG.

SECTION 3.0 COMMENTS AND RESPONSES ON THE DRAFT EIR

3.1 INTRODUCTION AND ORGANIZATION

This section addresses all comments received on the Draft EIR. A total of 2 comment letters were received during the public comment period from February 22, 2008 through April 7, 2008.

Responses are provided for each comment in the following sections. In some cases, the responses are supported by changes to the DEIR text. These text revisions are included in Section 3 of this document. Please note that numerous comments requested minor corrections. Since the DEIR is not being reissued in its entirety, these minor edits and corrections have not been incorporated into the text revisions. However, all comments are noted and are part of the public record.

The EIR preparers have made every effort to fully address each comment. Master Responses are provided first, followed by individual responses to each comment in every comment letter. Hearing comments and responses are at the end of the chapter.

All documents incorporated herein by reference are available for review at the Los Angeles County Department of Public Works, located at 900 South Freemont Avenue, 11th Floor, Alhambra, CA 91803.

CEQA REQUIREMENTS REGARDING COMMENTS AND RESPONSES

CEQA Guidelines Section 15204 (b) outlines parameters for submitting comments, and reminds persons and public agencies that the focus of review and comment of a Draft EIR should be, "on the proposed finding that the project will not have a significant effect on the environment. If persons and public agencies believe that the project may have a significant effect, they should: (1) Identify the specific effect; (2) explain why they believe the effect would occur, and; (3) Explain why they believe the effect would be significant."

CEQA Guidelines Section 15204 (c) further advises, "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Section 15204 (d) also states, "Each responsible agency and trustee agency shall focus its comments on environmental information germane to that agency's statutory responsibility." Section 15204 (e) states, "This section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section."

In accordance with Public Resources Code 21092.5 (b) of the CEQA Guidelines, the lead agency shall notify any public agency which comments on a Draft EIR, of the public hearing or hearings, if any, on the project for which the Draft EIR was prepared. If notice to the commenting public agency is provided pursuant to Section 21092, the notice shall satisfy the requirement of this subdivision.

3.2 COMMENTS RECEIVED ON THE DRAFT EIR

All comments on the Draft EIR, and their responses, are presented and organized as follows:

- A table summarizing the written comments received on the Draft EIR;
- Responses to comments received; and
- Complete copies of written comments received.

CEQA §21091(f) and State CEQA Guidelines §15074 state that the Lead Agency (Public Works) must consider the EIR together with any comments received before approving the project. This document serves this purpose and is considered part of the record for the Proposed Project.

This section provides a summary of written comments received during the public review period on the Draft EIR, as well as a complete copy of the written comments received. Table 1 indicates the number assigned to each comment letter received on the Draft EIR, commentor name, date of correspondence, comment number assigned to each comment, and the topic for each written comment. The letters are numbered sequentially by commentor. The letter number is then used as the prefix for individual comments, which are also numbered sequentially after the prefix. Each letter has been scanned and the numbered comments have been indicated on each letter.

Table 1
Written Comments Received on the Draft EIR

Letter	Commentor/Agency	Date	Comment Number	Comment Topics
1	California Department of Fish and Game		1-1 1-2 1-3	
2	Regional Water Quality Control Board		2-1 2-2 2-3 2-4 2-5 2-6 2-7 2-8 2-9 2-10	

LETTER 1 – Edmund J. Pert, Regional Manager, California Department of Fish and Game, South Coast Region - 3 pages

State of California – The Resources Agency
ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

April 4, 2008

Ms. Sarah Scott
Los Angeles County Department of Public Works
900 South Freemont Avenue, 11th Floor
Los Angeles, CA 91803

Draft Environmental Impact Report for
Sierra Highway- Highway 14 to Pearblossom Highway Widening Project
SCH # 2007111050

Dear Ms. Scott:

The Department of Fish and Game (Department) reviewed the Draft Environmental Impact Report (DEIR) for the proposed widening of an approximately 0.80 mile section of Sierra Highway between the Antelope Valley freeway Interchange and the Sierra Highway and Pearblossom Highway intersection located four miles south of the City of Palmdale.

We prepared the following statements and comments pursuant to our authority as Trustee Agency with jurisdiction over natural resources affected by the project under the California Environmental Quality Act (CEQA Section 15386) and Responsible Agency (Section 15381) over those aspects of the proposed project that come under the purview of the California Endangered Species Act (Fish and Game Code Section 2050 et seq) and Fish and Game Code Section 1600 et seq. regarding impacts to streams and lakes.

Impacts to Biological Resources

1. Mohave Ground Squirrel (*Spermopilus mohavensis*) – The DEIR explains that the project will result in the loss of 1.6 acres of potential habitat for Mohave ground squirrel (MGS), a state threatened species, and that trapping shall occur to determine presence or absence. If MGS is captured on site the DEIR further explains that habitat mitigation land will be acquired to mitigate for loss of MGS habitat.

a. The Department concurs with the MGS discussion in the DEIR and recommends that the project proponent conduct a focused MGS survey following the Department's trapping survey protocol. If MGS is captured on the site and avoidance of occupied habitat is not feasible, the project proponent must secure a California Incidental Take Permit (ITP) for MGS before ground/vegetation disturbance activities commence. Within the ITP, the Department shall propose a mitigation condition for temporary and/or permanent impacts to MGS habitat in the form of MGS habitat acquisition based upon 1:1 mitigation ratio. Mitigation acquisition must take place at a Department approved location as conditioned in the ITP for the project. If focused MGS trapping surveys do not result in the capture of MGS on the proposed site, the Operator shall not be obligated to secure ITP and perform mitigation for MGS. Results of MGS-focused surveys are valid for one year. **1-1**

Conserving California's Wildlife Since 1870

Ms. Sarah Scott
April 4, 2008
Page 2 of 3

2. Burrowing Owl – The DEIR explains that a burrowing owl survey should be done prior to project activities.

a. The DEIR did not include a discussion on the methodologies used to perform a survey for burrowing owl on the project site. If a complete burrowing owl survey was not conducted on the project site, the Department recommends a complete survey following the Department's *1995 Staff Report on Burrowing Owl Mitigation* and the Burrowing Owl Consortium's *1992 Burrowing Owl Protocol and Mitigation Guidelines* including the passive relocation guidelines. The guidelines specify that if a Phase II survey results in the discovery of burrowing owl, sign, or potential burrow sites for burrowing, a Phase III survey must be performed during the breeding season to determine use of the site by burrowing owl and total number of owls on the site. Spring surveys assist in assessing the extent and type of site use and the area of mitigation needed to offset the loss of habitat. Phase III breeding season surveys should consist of four site visits to be conducted on four separate days and should be performed between April 15 and July 15 to maximize detection. Preconstruction surveys of suitable habitat at the project site(s) and buffer zone(s) should be conducted within the 30 days prior to construction to ensure no additional, burrowing owls have established territories since the initial surveys. If ground disturbing activities are delayed or suspended for more than 30 days after the preconstruction survey, the site should be resurveyed. Preconstruction surveys should also consist of four site visits to be conducted on four separate days regardless of the time of year. If burrowing owls are found to be occupying the site, the Department recommends avoidance and mitigation measures as recommended in the above referenced guidelines to assist in avoiding take and to mitigate for unavoidable loss of burrowing owl habitat. Additional information regarding the Department's burrowing owl conservation measures may be viewed by entering "Burrowing Owl Consortium" as a search topic. or provided by the Department upon request. **1-2**

3. Special Status Plant Species – The DEIR explains that sagebrush loeflingla (*Loefilingia squarrosa var. artemisiarum*) – California Native Plant Society (CNPS) List 2.2; and short-joint beavertail (*Opuntia basilaris var. brachyclada*) – CNPS List 1B.2 have a moderate potential to occur on site however no focused surveys are warranted because they are not state or federally listed as threatened or endangered.

a. CEQA provides protection not only for state listed species, but for any species which can be shown to meet the criteria for State listing (CEQA Section 15380). The Department recognizes that Lists 1A, 1B and 2 of the CNP Inventory of Rare and Endangered Vascular Plants of California consist of plants that, in a majority of cases, would qualify for listing. Focused surveys for all special status plants listed as 1A, 1B and 2 should be conducted on the project site. Focused surveys should be conducted during the time of year to maximize detection, which is normally during the flowering season for that species as determined by known reference populations nearest the project site. If special status plant species are in the project footprint area, mitigation measures must be considered in the EIR to reduce unavoidable impacts to the species and their habitat. Impacts to State listed species would require further consultation with the Department under the California Endangered Species Act (CESA) prior to project approval. **1-3**

b. The Department considers salvage and relocation of special status botanical species a last resort only when all avoidance measures have been evaluated for feasibility. The Department should be consulted on any salvage and relocation plans for special status plant or wildlife species. Lost habitat for special status species should be mitigated in kind and preserved in perpetuity from further development under a conservation easement.

Ms. Sarah Scott
April 4, 2008
Page 3 of 3

Please address the Department's concerns in the Final EIR for the project.

Thank you for this opportunity to provide comment. Please contact Mr. Scott Harris, Environmental Scientist, at (626) 797-3170, if you should have any questions and for further coordination on the proposed project.

Sincerely,

Edmund J. Pert
Regional Manager
South Coast Region

cc: Ms. Helen Birss, Los Alamitos
Ms. Terri Dickerson, Laguna Niguel
Ms. Kelly Schmoker, Glendora
Mr. Scott Harris, Pasadena
HabCon-Chron, Department of Fish and Game
State Clearinghouse, Sacramento

SPH:sph
spharris/LACDPW Sierra Highway Widening Projec /DEIR 2008

LETTER 2 – Mack Hakakian, PG, Engineering Geologist, California Regional Water Quality Control Board, Lahontan Region - 3 pages

Pobl605

California Regional Water Quality Control Board
Lahontan Region

Linda S. Adams
Secretary for
Environmental Protection

Victorville Office
14440 Civic Drive, Suite 200, Victorville, California 92392
(760) 241-6583 • Fax (760) 241-7308
http://www.waterboards.ca.gov/lahontan

Arnold Schwarzenegger
Governor

March 17, 2008

File: Environmental Doc Review
Los Angeles County

Ms. Sarah Scott
Los Angeles County Department of Public Works
900 S. Freemont Avenue, 11th Floor
Alhambra, CA 91803

COMMENTS ON THE NOTICE OF COMPLETION FOR THE PROPOSED WIDENING AND REALIGNMENT OF A PORTION OF STATE ROUTE 14 AND PEARBLOSSOM HIGHWAY IN ORDER TO MEET 65 MILE PER HOUR GUIDELINE, AS RECOMMENDED BY THE DEPARTMENT OF PUBLIC WORKS, LOCATED IN PALMDALE, LOS ANGELES COUNTY (SCH # 2007111050)

Please refer to the items checked for staff comments on the above-referenced project:

[X] The site plan for this project does not specifically identify features for the post-construction period that will control stormwater on-site or prevent pollutants from non-point sources from entering and degrading surface or ground waters. The foremost method of reducing impacts to watersheds from urban development is "Low Impact Development" (LID), the goals of which are maintaining a landscape functionally equivalent to predevelopment hydrologic conditions and minimal generation of nonpoint source pollutants. LID results in less surface runoff and potentially less impacts to receiving waters. Principles of LID include:

- Maintaining natural drainage paths and landscape features to slow and filter runoff and maximize groundwater recharge,
- Reducing the impervious cover created by development and the associated transportation network, and
- Managing runoff as close to the source as possible.

We understand that LID development practices that would maintain aquatic values could also reduce local infrastructure requirements and maintenance costs, and could benefit air quality, open space, and habitat. Planning tools to implement the above principles and manuals are available to provide specific guidance regarding LID. **2-1**

We request you require these principles to be incorporated into the proposed project design. We request natural drainage patterns be maintained to the extent feasible. Future development plans should consider the following items:

[X] The project requires development of a Stormwater Pollution Prevention Plan and
[X] a NPDES General Construction Stormwater Permit and/or
[X] a NPDES General Industrial Stormwater Permit

These permits are accessible on the State Board's Homepage (www.waterboards.ca.gov). Best Management Practices must be used to mitigate **2-2**

California Environmental Protection Agency

Recycled Paper

Ms. Sarah Scott - 2 - March 17, 2008

project impacts. The environmental document must describe the mitigation measures or Best Management Practices.

[X] The project may require a Federal Clean Water Act Section 401 Water Quality Certification from the Regional Board. Application forms can be found at our web site (http://www.waterboards.ca.gov/lahontan/). **2-3**

[X] The EIR submitted indicates that the project will impact 0.046 acres of ephemeral non-wetland waters of the State and approximately 29 cubic yards of fill would be introduced into these non-wetlands waters. A Waste Discharge Permit from RWQCB will be required prior to commencement of the project. **2-4**

[X] The proposal does not provide specific information on how impacts to surface Waters of the State and/or Waters of the U.S. will be mitigated. These surface waters include, but are not limited to, drainages, streams, washes, ponds, pools or wetlands. Waters of the State or Waters of the U.S. may be permanent or intermittent. Waters of the State may include waters determined to be isolated or otherwise non-jurisdictional by the Army Corps of Engineers. The Environmental Document needs to quantify these impacts. Discuss purpose of project, need for surface water disturbance, and alternatives (avoidance, minimize disturbances and mitigation). Mitigation must be identified in the environmental document including timing of construction. **2-5**

Mitigation must replace functions and values of wetlands lost. For more information see the Lahontan Region Basin Plan http://www.waterboards.ca.gov/lahontan/BPlan/BPlan_Index.htm.

[X] Other

- Please include both pre-construction and post construction stormwater management and best management practices (BMP) as part of planning process. **2-6**
- Please consider designs that minimize impervious surface, such as permeable surface parking areas, directing runoff onto vegetated areas using curb cuts and rock swales, etc., and infiltrating runoff as close to the source as possible to avoid forming erosion channels. Design features should be incorporated to ensure that runoff is not concentrated by the proposed project. The project must incorporate measures to ensure that stormwater generated by the project is managed on-site both pre-and post construction. Please show on plan drawings the on-site stormwater control measures. **2-7**
- If the proposed project is located in an area that contains drainages, wetlands, Waters of the State, Waters of the U.S. or blue-line stream, we request that measures be incorporated into the project to avoid these areas and provide buffer zones where possible. Please inform project proponent to consult with Army Corps of Engineers, Department of Fish and Game, and the Water Board prior to issuing a grading permit. **2-8**
- Please consider development features that span the drainage channels or allow for broad crossings. Design features of future development should be incorporated to ensure that runoff is not concentrated by the proposed project, thereby causing downstream erosion. **2-9**

California Environmental Protection Agency

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Ms. Sarah Scott - 3 - March 17, 2008

- If the proposed project impacts and alters drainages, then we request that the project to be designed such that it would maintain existing drainage features and patterns to the extend feasible. Please inform project proponent to consult with Army Corps of Engineers, Department of Fish and Game, and the Water Board prior to issuing a grading permit. **2-10**

Please note that obtaining a permit and conducting monitoring does not constitute adequate mitigation. Development and implementation of acceptable mitigation is required.

If you have any questions, please contact me at (760) 241-7376, or e-mail me at mhakakian@waterboards.ca.gov

Sincerely,

Mack Hakakian

Mack Hakakian, PG
Engineering Geologist

cc: State Clearinghouse (SCH # 2007111050)

MH/rc/CEQA comments/Palmdale State Route 14 Realignment

California Environmental Protection Agency

Recycled Paper

3.3 RESPONSES TO COMMENTS

This section includes a written response to all comments received on the Draft EIR. The responses are provided in the order in which they are presented in Table 1. For referral purposes, this section also provides a complete copy of the written comments received on the Draft EIR. Each comment letter is produced in its entirety, including attachments.

Comment letters and specific comments are given letters and numbers for reference purposes. Where sections of the Draft EIR are excerpted in this document, the sections are shown indented.

Comment Letter #1 – California Department of Fish and Game

1-1 Mitigation Measures BR-13 addresses mitigation of impacts on Mojave ground squirrel (MGS) of 1:1 ratio at a Department of Fish and Games (CDFG) an approved MGS mitigate site. Public Works concurs with the CDFG and shall conduct a focused MGS survey following the CDFG's trapping survey protocol. If MGS is captured on the site and avoidance of occupied habitat is not feasible, the Public Works must secure a California Incidental Take Permit (ITP) for MGS before ground/vegetation disturbance activities commence.

1-2 Mitigation Measures BR-9 and BR-10 addresses mitigation of impacts on Burrowing owl. Public Works concurs with CDFG and shall include a discussion on the methodologies used to perform survey for burrowing owl on the project site. Complete burrowing owl survey would be conducted on the project site following the Department's 1995 Staff Report on Burrowing Owl Mitigation and the Burrowing Owl Consortium's 1992 Burrowing Owl Protocol and Mitigation Guidelines including the passive relocation guidelines.

1-3 Public Works concurs with CDFG. Focused surveys for sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*) and short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) are not necessary since the species are not state or federally listed as threatened or endangered.

Comment Letter #2 – California Regional Water Quality Control Board

2-1 The culvert improvements, which are described in detail in Section 4.2 and in conjunction with the BMPs that Public Works would implement from the *Construction Site Best Management Practices (BMPs) Manual* (Los Angeles County, 2007), would control stormwater on-site or prevent pollutants from nonpoint sources from entering and degrading surface or ground waters as requested by California Regional Water Quality Control Board (RWQCB). "Low Impact Development" (LID) method was applied to reduce impacts to watersheds from urban development. LID principles were incorporated to the Proposed Project design to:

- Maintain natural drainage paths and landscape features to slow and filter runoff and maximize groundwater recharge,
- Reduce the impervious cover created by development and the associated transportation network, and
- Mange runoff as close to the source as possible.

2-2 The comment regarding development of a Stormwater Pollution Prevention Plan (SWPPP), prior to the start of the construction, SWPPP will be submitted by the

Contractor for review and approval by the County. The County will seek coverage under NPDES General Construction Stormwater Permit No. CAS000002 prior to the commencement of any ground disturbing activities.

2-3 As noted on page 3-24 of the Draft EIR, the Proposed Project would impact 0.046 acres of ephemeral non-wetland waters of the State. The limits of RWQCB jurisdiction are shown in blue on the Delineation Map included in the *Jurisdictional Delineation Report* (Chambers Group, Inc., 2007) in the Draft EIR. As proposed, no permitting pursuant to Section 404 of the "Clean Water Act" would be required. Section 401 permitting is only needed if the activity requires a 404 permit. The USACE was consulted regarding a determination of No Jurisdiction. A Waste Discharge Permit from the RWQCB would be required however. Approximately 29 cubic yards of fill would be introduced into the waters of the State.

2-4 The comment regarding RWQCB requirements for the Waste Discharge Permit from RWQCB prior to commencement of the project is noted.

2-5 As noted on page 3-39 of the Draft EIR, no significant change in the amount of surface runoff volumes from the proposed project is anticipated due to the existing state of the project site. No surface water bodies are found within the project site that would be affected by the project. The nature and extent of storm water runoff ultimately discharged into the existing storm drain system would not substantially change from existing levels. No impact would occur, therefore, Mitigation Measures is not needed.

2-6 The comment regarding to include both pre-construction and post construction stormwater management and best management practices (BMP) as part of planning process is noted. Public Works would implement BMPs from the *Construction Site Best Management Practices (BMPs) Manual* (Los Angeles County, 2007).

2-7 The Proposed Project includes culvert improvements, which are described in detail in Section 4.2. The culvert improvements would direct runoff into rock swales before it enters the drainages. This would reduce erosion and siltation once construction is completed. Public Works would incorporate BMPs from the *Construction Site Best Management Practices (BMPs) Manual* (Los Angeles County, 2007).

2-8 The Proposed Project would result in temporary impacts to drainages surrounding the Sierra Highway. The USACE and CDFG have been consulted regarding these impacts. The USACE does not have jurisdiction over these drainages and no Section 404 permit is required. Since a Section 404 permit is not required, a Section 401 permit is not required. A Streambed Alteration Agreement 1602 permit has been submitted to the CDFG and is in the process of being approved. Construction would not begin until the 1602 permit has been granted.

2-9 The Proposed Project includes culvert improvements, which are described in detail in Section 4.2. The culvert improvements would reduce erosion and siltation into the drainages

2-10 The Proposed Project would relocated a drainage along the east side of the Sierra Highway

SECTION 4.0 REVISIONS AND CORRECTIONS TO THE DRAFT EIR

4.1 INTRODUCTION

This section includes the revisions to the Draft EIR. These revisions and corrections have been made in response to comments or based on Public Works staff, agency, and public comments. These revisions appear here in the order they appear in the Draft EIR. Changes to the Draft EIR text are shown in double underline for additions and ~~strikeout~~ for deletions.

4.2 REVISIONS AND CORRECTIONS TO THE DRAFT EIR

Revisions and Corrections to the Draft EIR Executive Summary

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
AIR QUALITY *Construction* The Proposed Project would generate emissions during the construction phase. The emissions during the construction phase are expected to be less than significant. *Operational* The Proposed Project would not alter the current traffic volumes; no operational impacts are anticipated.	No mitigation measures required. No mitigation measures required.	Impacts would be less than significant.
BIOLOGICAL RESOURCES *Sensitive Species* Mohave Ground Squirrel. The Proposed Project contains suitable habitat for the Mohave ground squirrel along the southeastern edge of the site; is adjacent to other large areas of suitable habitat; and occurrences of the ground squirrel within five miles of the site have been reported. The Proposed Project site provides moderate quality habitat for the species. Burrowing Owl. The Proposed Project site contains suitable habitat in the southeastern portion of the site and occurrences of burrowing owl in the area have been reported within five miles of site. Wetlands. No wetlands were found within the Proposed Project site.	The following mitigation measures have been identified to reduce the impacts to sensitive species: BR-1: Public works shall minimize to the greatest extent feasible the area required for project construction, implementation, and operation. BR-2: Public Works shall retain qualified/permitted biologists as on-call service providers to recover and relocate any ground-dwelling special-status wildlife species encountered during construction. BR-3: Public Works shall hire a qualified biological firm to provide environmental training to all personnel working onsite. The training shall include details on special-status species known to occur onsite or that could potentially occur onsite (i.e. burrowing owl and Mohave ground squirrel), a review of the state and federal laws that protect these species, avoidance measures, and implementation measures if a special-status species is encountered or killed. If a special-status species is encountered during any phase of construction, MM B-2 shall be implemented. BR-4: If an injured or dead special-status species is found during construction, Public Works shall cease all work within the immediate vicinity of the	Impacts would be less than significant with mitigation.

	individual (i.e. within 100 feet). The Los Angeles County Planning Department, the appropriate on-call biologist, and the appropriate agency (i.e. USFWS and/or CDFG) shall also be contacted in this event before any further construction may continue in this area. BR-5: Prior to any ground-disturbing activities, (i.e. mechanized clearing or rough grading), a qualified biologist(s) shall conduct a pre-construction sweep of the Proposed Project site to ensure that: • All special-status ground dwelling species are safely recovered and relocated to adjacent suitable habitat at least 200 feet from the limits of grading (depending on the species (i.e. Mohave ground squirrel), this may require the services of a permitted biologist). • All potential burrows are inspected for presence/absence of wildlife species. If presence is found, all species within the burrow(s) shall be safely recovered and relocated to adjacent suitable habitat at least 200 feet from the limits of grading (depending on the species (i.e. Mohave ground squirrel), this may require the services of a permitted biologist). If absence is found, the burrow(s) shall be collapsed to prevent potential inhabitance during construction. BR-6: Exclusionary fencing shall be installed and maintained around the limits of grading to prevent the inhabitance of wildlife during construction. Fencing shall be installed to a depth of at least six inches underground and extend at least eighteen inches aboveground. All fencing shall be properly maintained (i.e. daily perimeter checks to ensure integrity and the absence of burrows, openings, and other damage). BR-7: If initial grading and/or grubbing activities must occur during the bird breeding season (i.e. between February 1 and August 15), a qualified biologist(s) shall conduct a preconstruction nesting bird survey for the presence/absence of nests within and adjacent to the Proposed Project site. The search area shall include a buffer area of up to 500 feet from the limits of grading. All nests of birds protected by the MBTA, FESA, CESA, and other regulations resulting from this survey shall be identified and located. (The start date of February 1 reflects the point when loggerhead shrikes, which have been identified onsite, begin to breed, and the end date of August 15 reflects the point when burrowing owls, which have a high potential to occur onsite, are generally considered to be done breeding for the year.) BR-8: If protected nesting bird(s) are discovered within the preconstruction survey area, a buffer area appropriate to the species shall be established to avoid potential impacts to any protected species found during this survey. This buffer area may range from 200 feet for some passerines to 500 feet for some raptors and some other, more sensitive species (i.e. loggerhead	

	shrike and Le Conte's thrasher). The USFWS and/or CDFG shall be consulted to identify the appropriate actions necessary to prevent impacts on the species. These actions may involve establishing an avoidance perimeter, the erection of sound walls, delays in construction, bio-monitoring of the nest, and/or bio-monitoring of the family group until it is determined that the nest has either failed or succeeded, at which time, all such preventative measures may be removed and construction shall be allowed to continue. BR-9: If a burrowing owl(s) and its occupied burrow(s) are identified within the Proposed Project site and/or the surrounding 500-foot survey area during the preconstruction survey between February 1 and August 15, the individual(s) must be avoided. A perimeter of at least 300 feet shall be established to prevent impacts to any identified burrowing owl(s) and corresponding burrow(s) within the Proposed Project site and the 500-foot area surrounding the limits of grading. All construction activities proposed within this buffer area must cease as long as the owl(s) remain in that area. BR-10: If a burrowing owl(s) and its occupied burrow(s) are identified within the Proposed Project site and/or the surrounding 500-foot survey area between August 16 and January 31 and initial grubbing and/or grading activities must occur during this time, the individual(s) must be passively relocated by a qualified biologist(s). The identified burrow(s) shall be closed once it is determined that the owl(s) have safely left the site by their own means. Once it has been determined that the burrow(s) are no longer active, the burrow(s) shall be permanently closed and monitored to ensure that re-occupancy does not occur. Passive relocation shall be performed as prescribed in the CDFG burrowing owl mitigation guidelines. BR-11: The lone Joshua tree identified on the Proposed Project site and its recruits shall be safely removed and transplanted at the edge of the right-of way for the new segment of roadway. This mitigation measure shall enhance the aesthetics of the new roadway, increase the localized population, and serve to protect this sensitive plant species. The chosen replanting sites shall incorporate the following components: • The mature individual shall be planted in its current orientation in similar soils at a similar distance from the new roadway as which it currently exists. All necessary precautions shall be implemented to ensure the safe removal and transplantation of this individual, including transplanting intact soils around the root mass. • The recruits identified at the base of this mature individual shall be safely separated from the parent plant and/or soils and transplanted elsewhere along the edge of the	
Woodland Habitats California Juniper Series. The Proposed Project site comprises approximately 0.1 acre of onsite California Juniper Series which is composed of sparse California Juniper trees with an understory of non-native brome (Bromus spp.) grasses. Although more California Juniper trees were observed within the surrounding areas, only several California Juniper were observed within the Proposed Project site. Joshua Tree Woodland Series. The Proposed Project site contains less than 0.1 acre of this vegetation community, represented by one tree with several resprouting natural recruits and common Mediterranean grass (Schismus barbatus). This sensitive vegetation series is ranked S3.2 by the CDFG, meaning that 10,000 to 50,000 acres remain and populations are threatened. *Scrub Habitats* Mojave Mixed Woody Scrub. The Proposed Project site contains complex scrub habitat which		

comprises approximately 1.6 acres. This sensitive vegetation series is ranked S3.2 by the CDFG, meaning that 10,000 to 50,000 acres remain and populations are threatened. *CDFG Jurisdiction* As proposed the project would impact **0.175** ac of ephemeral CDFG jurisdictional ditches. The limits of CDFG jurisdiction, which would require Section 1600 permitting as proposed, are shown in green on the Delineation Map (**Error! Reference source not found.**). The limits of CDFG jurisdiction are larger because CDFG jurisdiction extends laterally to the tops of banks, not just the ordinary high water mark. Approximately 110 cubic yards of fill would be introduced into CDFG jurisdictional ditches. Public Works is preparing a 1602 Streambed Alteration Agreement and submitting it to CDFG along with this Draft EIR. A less than significant impact would occur with the incorporation of Mitigation Measure BR-15.	new right-of-way. The planting area shall mimic natural conditions where the recruits are removed from, and these transplanted recruits shall receive follow-up care (i.e. supplemental watering on an as-need basis) to ensure survival and growth. • A qualified biological firm shall conduct the replanting and monitoring efforts under an approved Joshua Tree Impact Plan by the CDFG and/or USFWS. BR-12: If it is determined that the transplanted Joshua tree and/or its recruits die as a result of transplanting efforts or a lack of follow-up care, the number of dead individuals shall be mitigated at a 2:1 ratio within the right-of way for the new road segment. BR-13: A Mojave Ground Squirrel trapping study shall be conducted prior to ground disturbance activities to determine if the species is present on the project site. If the species is found on the project site, the species shall be mitigated at a ratio of 1:1 ratio at a CDFG approved Mojave Ground Squirrel mitigation bank. If the species is not found on the project site, the loss of vegetation shall be mitigated according to MM BR-14. BR-14: All impacted acreage of Mojave Mixed Woody Scrub shall be mitigated through the purchase of off-site mitigation at a 1:1 ratio. Since 1.6 acres of this sensitive vegetation community occurs within the Proposed Project site, it is anticipated that no more than 1.6 acres of off-site mitigation will be necessary to satisfy this mitigation measure. The chosen site shall be located as close to the Proposed Project site as possible, and its various components (i.e. slope, species composition, elevation, etc.) shall be similar to the Mojave Mixed Woody Scrub that occurs on the Proposed Project site. The mitigation site shall be approved by the CDFG and the USFWS, and with the purchase of this mitigation site, all impacts to this sensitive vegetation community shall be considered less than significant. BR-15: All acreages of ephemeral watercourses impacted within the Proposed Project site shall be mitigated through the ~~purchase of off-site mitigation~~ direct replacement of the watercourses on-site at a 1:1 ratio. Since ~~0.046 acres of RWQCB jurisdictional ephemeral washes and~~ 0.175 acres of CDFG jurisdictional ephemeral ~~channels~~ drainages and 0.095 acres of other waters occur within the Proposed Project site, it is anticipated that no more than ~~0.35~~ 0.270 acres of ~~off-site~~ on-site mitigation will be necessary to satisfy this mitigation measure. ~~The chosen site(s) shall be located as close to the Proposed Project site as possible, and selection of an appropriate mitigation site shall be coordinated with the Desert and Mountain Conservation Authority. The mitigation site shall be approved by the CDFG, USFWS, and the RWQCB, and with~~ With the ~~purchase of this mitigation site~~ direct replacement	

	of the watercourses being impacted, all impacts to the on-site ephemeral ~~washes~~ drainages shall be considered less than significant.	
CULTURAL RESOURCES Results of the review of the survey reports and site records obtained from the South Central Coastal Information Center indicate that 11 previous cultural resources investigations have occurred within a one-half mile radius of the Proposed Project site. This includes one (Becker and Evans 1991) that covered the northwest side of Sierra Highway, opposite the current Proposed Project site, and another (Anonymous 1996) that followed the railroad tracks parallel to the southeast edge of the Proposed Project site. The record search also revealed that several isolated prehistoric artifact have been found on the northwest side of the Highway.	CR-1: In the event that any historical resources are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist. CR-2: In the event that any subsurface archaeological deposits are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist.	Impacts would be less than significant with mitigation.
The search of the Sacred Lands File by the NAHC did not indicate the presence of Native American cultural resources in the immediate Proposed Project site. A list of tribes, organizations, and/or individuals with traditional ties to the area was included in the NAHC response. All NAHC correspondence is provided in Appendix A No archaeological sites or isolates were found within or adjacent to the Proposed Project site. This is perhaps due to the level of disturbance along the road.	CR-4: If human remains of any kind are found, all activities must cease immediately and a qualified archaeologist and the Los Angeles County Coroner must be notified. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the most likely descendants to be consulted regarding treatment and/or repatriation of the remains.	Impacts would be less than significant with mitigation.
Results of the search of the paleontological files/database conducted with the San Bernardino County Museum on August 20, 2007 (Scott 2007) indicate that the Proposed Project site is located on surface exposures of volcanic andesite dating to the Oligocene Epoch. This rock has no potential to contain paleontologic resources. "However, along some portions of the proposed project alignment, these Oligocene volcanics are overlain by a thin sedimentary of Pleistocene non-marine alluvium. These Pleistocene sediments have undetermined potential to contain significant nonrenewable paleontological resources and so are assigned undetermined paleontologic sensitivity" (Scott 2007). A copy of the paleontological literature and records review is provided in Appendix B.	CR-3: If paleontologic specimens are encountered during ground disturbance, a paleontological monitor must be empowered to identify, remove, document, and evaluate those specimens. Recovered specimens must be curated in a museum repository with permanent retrievable storage (e.g., San Bernardino County Museum). A report must be prepared with an appended itemized inventory of specimens, if any are recovered. Implementation of this mitigation measure would reduce the potential impact to a level that is less than significant.	
WATER QUALITY The Proposed Project site is not expected to result in a substantial increase in water use, impacts to ground, water quality, create additional water runoff, be located within a 100-year flood hazard, expose people or structures to a potential for flooding, result in a violation of the wastewater discharge permit.	No significant impacts to water quality have been identified. No mitigation measures are required.	Impacts would be less than significant.
TRANSPORTATION AND TRAFFIC The Proposed Project is not expected to result in an improvement to the existing LOS, change to air traffic patterns, emergency access, parking requirements, provide additional highway capacity;	No significant impacts related to traffic/transportation have been identified. No mitigation measures are required.	Impacts would be less than significant with mitigation.

however, it is expected to improve on the flow rate, density, and average speed.		
NOISE **Short-Term Construction-Related Impacts** Short-term generation of increased noise associated with the proposed project would occur during excavation, grading and paving activities, but will subside when construction of the proposed project is completed. Therefore, short-term noise impacts are considered less than significant.	No significant impacts related to noise have been identified. No mitigation measures are required.	Impacts would be less than significant.
Long-Term Project-Related Impacts Long-term noise impacts are primarily associated with roadway noise. The proposed project is a roadway improvement project. This project is not expected to increase the amount of future traffic utilizing the roadway. However, the roadway improvements will increase safe operating speeds of travel, which will result in a modest increase in roadway noise. The anticipated increase in roadway noise as a result of the project will be less than 1 dBA. This level of increase is not generally perceptible to people. Therefore, long-term roadway noise impacts are less than significant.	No significant impacts related to noise have been identified. No mitigation measures are required.	Impacts would be less than significant.

Revisions and Corrections to the Draft EIR Section 1: Introduction

None.

Revisions and Corrections to the Draft EIR Section 2: Project Description

Culvert Improvements

Five culverts would be improved in order to control erosion along the west side of the highway. The following locations along the creek on the west side of the highway would require a reconstructed embankment at a 1:1 slope, that would provide two ft minimum pass the proposed roadway hinge point. The new embankment would consist of a 24 inch top layer that is 6% soil-cement by mass that will key-in four ft below the existing invert and unclassified 90% compacted fill behind the top layer.

Table 1 - Embankment Reconstruction

Culvert No.	Station	Station	Length (ft)
-	45+34	46+26	92
4	51+09	51+37	28
	51+57	51+89	32

In addition, to reduce the erosion in the creek at the outlet of the culverts, "1/2-ton" class concreted stone would be used three feet beyond the head wall in each direction and down to the invert, as well as embedded (as shown on Sheet 15 of preliminary plan sheets) across the full

width of the creek invert to the opposite embankment toe. The following chart indicates the stations and lengths:

Table 2 - Culvert Improvements

"1/2- ton" Class concreted stone

Culvert No.	Station	Station	Length (ft)	Description	Comment
1	29+80	29+80		24" Reinforced Concrete Pipe	
3	37+54	37+79	25	3'x9' Reinforced concrete box	CL of Culvert 37+39
4	51+37	51+57	20	3'x8' Reinforced concrete box	CL of Culvert 50+96
5	60+70	60+84	14	18" Reinforced concrete pipe	CL of Culvert 60+77
6	65+70	65+84	14	18" lined CMP	CL of Culvert 65+77

The culverts are also large enough that they provide the potential for wildlife to use them as road crossing passages. The diagrams depicting these improvements are included in the design plans included in Appendix H.

Revisions and Corrections to the Draft EIR Section 3: Environmental Impact Analysis

Section 3.3.4

USACE Jurisdiction

There are no areas of USACE jurisdiction within the Proposed Project site. As proposed, no permitting pursuant to Section 404 of the "Clean Water Act" would be required.

RWQCB Jurisdiction

As proposed the project would impact **0.046** acres of ephemeral non-wetland waters of the State. The limits of RWQCB jurisdiction are shown in blue on the Delineation Map. As proposed, no permitting pursuant to Section 404 of the "Clean Water Act" would be required. Section 401 permitting is only needed if the activity requires a 404 permit. A Waste Discharge Permit from the RWQCB would be required however. Approximately 29 cubic yards of fill would be introduced into waters of the State.

CDFG Jurisdiction

As proposed the project would impact **0.175** acres of ephemeral CDFG jurisdictional ditches. The culvert improvements would result in temporary impacts to approximately **0.095** acres of ephemeral drainages. The limits of CDFG jurisdiction, which would require Section 1600 permitting as proposed, are shown in green on the Delineation Map. The limits of CDFG jurisdiction are larger because CDFG jurisdiction extends laterally to the tops of banks, not just the ordinary high water mark. Approximately 110 cubic yards of fill would be introduced into CDFG jurisdictional ditches. Public Works ~~is preparing~~ prepared a 1602 Streambed Alteration Agreement and ~~submitting~~ submitted it to CDFG along with ~~this~~ the Draft EIR. A less than significant impact would occur with the incorporation of Mitigation Measure BR-15.

Culvert Improvements

The culvert improvements would result in temporary impacts to the drainage along the north side of the highway during construction (Figure 1). The culvert improvements would reduce erosion and siltation into the drainage through the use of rip-rap placed at the culvert outlets. The culvert impacts are shown in Table 3. The of the culverts along with the impacts to the ephemeral drainage are shown in Table 4.

Table 3 - Culvert Improvement Impacts

Culvert	Acres
1	0.004
3	0.022
-	0.035
4	0.007
-	0.016
5	0.006
6	0.005
Total	**0.095**

Legend

- Project Extent
- Culvert Enhancement Areas
- Bank Stabilization Areas

N
W
E
S

0 75 150 300 450 600
Feet

Sierra Highway Widening
Culvert Enhancement Map

Chambers Group Inc.

Table 4 - Jurisdictional Impacts Matrix

Authority	Wetland Permanent	Riparian Permanent	Streambed Permanent	Other Waters Permanent	Total Permanent
USACE					
RWQCB				~~0.046~~	~~0.046~~
CDFG			~~0.175~~		~~0.175~~
Authority	**Wetland Temporary**	**Riparian Temporary**	**Streambed Temporary**	**Other Waters Temporary**	**Total Temporary**
USACE					
RWQCB				0.046	0.046
CDFG			0.175	0.095	0.270

Section 3.3.5

BR-15: All acreages of ephemeral watercourses impacted within the Proposed Project site shall be mitigated through the ~~purchase of off-site mitigation~~ direct replacement of the watercourses on-site at a 1:1 ratio. Since ~~0.046 acres of RWQCB jurisdictional ephemeral washes and~~ 0.175 acres of CDFG jurisdictional ephemeral ~~channels~~ drainages and 0.095 acres of other waters occur within the Proposed Project site, it is anticipated that no more than ~~0.35~~ 0.270 acres of ~~off-site~~ on-site mitigation will be necessary to satisfy this mitigation measure. ~~The chosen site(s) shall be located as close to the Proposed Project site as possible, and selection of an appropriate mitigation site shall be coordinated with the Desert and Mountain Conservation Authority. The mitigation site shall be approved by the CDFG, USFWS, and the RWQCB, and with~~ With the ~~purchase of this mitigation site~~ direct replacement of the watercourses being impacted, all impacts to the on-site ephemeral ~~washes~~ drainages shall be considered less than significant.

Section 3.5.4

Each applicable threshold of significance is listed below followed by analysis of the significance of potential impacts and the identification of mitigation measures that would lessen or avoid potential impacts. Finally, the significance of potential impacts after implementation of all identified mitigation measures is presented.

Threshold: **Violate any water quality standards or waste discharge requirements. Otherwise substantially degrade water quality.**

During construction of the Proposed Project, the contractor would be required to follow ~~County of Los Angeles Department of~~ Public Works Best Management Practices designed to prevent spillage and/or runoff of construction-related materials, sediment, or contaminants associated with construction activity (Los Angeles County, 2007). Water would be redirected away from the work area during construction to eliminate adverse impacts to water quality from contact with construction material. Additionally, equipment would be well maintained to prevent pollutants from entering the stream. As a result, the Proposed Project is not expected to degrade water quality. No impact would occur.

The Proposed Project would construct culvert improvements along the west side of Sierra Highway. These culvert improvements would result in a decrease in soil erosion and siltation caused by runoff water.

The Proposed Project would not generate any excessive runoff to the storm water system other than from the runoff from the improved roadway. In addition, the project would not contribute any additional increases in the quantity of pesticides, fertilizers, and detergents into the storm drain system. The project would be required to implement preventative measures as a means to control storm water runoff and any pollutants that may enter the storm drain system. A less than significant impact would occur.

Threshold: **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.**

Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.

The Proposed Project involves minor excavation and grading needed to widen an existing highway and would slightly change existing drainage patterns at the project site. However, such changes would not significantly alter the hydrological characteristics at the project site. The Proposed Project would construct culvert improvements and bank reconstruction and stabilization that would reduce the chance for erosion and siltation from the project site into the surrounding drainages. The drainage pattern of the site would be improved to convey runoff water into the culverts rather than allowing it to flow across the highway. During construction, water would be redirected away from the work area to eliminate adverse impacts to water quality from contact with construction material. With the implementation of the ~~County of Los Angeles Department of~~ Public Works ~~Best Management Practices~~ BMPs for runoff control during construction, no significant erosion or siltation problems would occur on- or off-site. ~~A less than significant impact would occur.~~

The Proposed Project would not substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or offsite. The amount of surface water runoff from the project site would not change relative to current conditions. ~~A less than significant impact would occur.~~

The project would incorporate the following BMPs from the Public Works *Construction Site Best Management Practices Manual* (Los Angeles County, 2007). The BMPs shown below were taken from the manual to illustrate some of the measures Public Works would take to reduce or avoid impacts during construction. The manual contains more BMPs that would be incorporated into the construction of the project but were too numerous to list here.

Temporary Soil Stabilization

Temporary soil stabilization is erosion control that consists of protecting or covering exposed areas of soil or stockpiles to minimize erosion by implementing at least one, or any combination or the BMPs shown in Table 5.

Table 5 - Temporary Soil Stabilization BMPs

ID	BMP Name

SS-1	Scheduling
SS-2	Preservation of Existing Vegetation
SS-3	Hydraulic Mulch
SS-4	Hydroseeding
SS-5	Soil Binders
SS-6	Straw Mulch
SS-7	Geotextiles, Plastic Covers & Erosion Control Blankets/Mats
SS-8	Wood Mulching
Temporary Concentrated Flow Conveyance	
SS-9	Earth Dikes/Drainage Swales & Ditches
SS-10	Outlet Protection/Velocity Dissipation Devices
SS-11	Slope Drains
SS-12	Streambank Stabilization

Temporary Concentrated Flow Conveyance Controls

Temporary concentrated flow conveyance controls are erosion controls that consist of BMPs used to intercept, divert, convey and discharge concentrated flows to minimize erosion from within the construction site and downstream of the construction site. Temporary concentrated flow conveyance controls may be required to direct stormwater run-on around or through the construction site.

Temporary Sediment Control

Temporary sediment control BMPs include practices that intercept, slow, or detain the flow of stormwater to allow sediment to settle and be contained on the construction site. Temporary sediment control BMPs consist of installing temporary barriers or basins placed below the toe of slopes, down stream of areas of exposed soil, around stockpiles, and other appropriate locations along the construction site perimeter. Temporary sediment control practices include the BMPs in Table 6.

Table 6 - Temporary Sediment Control BMPs

ID	BMP Name
SC-1	Silt Fence
SC-2	Sediment/Desilting Basin
SC-3	Sediment Trap
SC-4	Check Dam
SC-5	Fiber Rolls
SC-6	Gravel Bag Berm
SC-7	Street Sweeping and Vacuuming
SC-8	Sandbag Barrier
SC-9	Straw Bale Barrier
SC-10	Storm Drain Inlet Protection

With the incorporation of these BMPs, a less than significant impact would occur.

Threshold: **Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.**

No significant change in the amount of surface runoff volumes from the proposed development is anticipated due to the existing state of the project site. No surface water bodies are found within the project site that would be affected by the project. The nature and extent of storm water runoff ultimately discharged into the existing storm drain system would not substantially change from existing levels. The project would incorporate the above BMPs to reduce or avoid impacts related to runoff water during construction. ~~No impact would occur.~~ A less than significant impact would occur.

Revisions and Corrections to the Draft EIR Section 4: Project Alternatives

None.

Revisions and Corrections to the Draft EIR Section 5: Cumulative Impacts

None.

SECTION 5.0 REFERENCES AND REPORT PREPARATION

5.1 REFERENCES

County of Los Angeles Department of Public Works
2007 *Construction Site Best Management Practices (BMPs) Manual*

5.2 REPORT PREPARATION

5.2.1 Agencies and Persons Consulted

CA Department of Fish and Game

Naeem Siddiqui
Jamie Jackson
Scott Harris

Los Angeles Regional Water Quality Control Board

Dana Cole

US Army Corp of Engineers

Ken Wong
Valisa

5.2.2 List of Preparers

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(EIR Preparation)

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Lisa Sander, Ph.D.	Environmental Planning
Jeannie Yu	Assistant Environmental Planner
Michael Hendrix	Air Quality/Noise
Heather Dubois	Air Quality/Noise
Kris Alberts	Biological Resources
Lisa Louie	Agency Permitting
Jay Sander	Cultural Resources

KOA CORPORATION
(Traffic)

Mujib Ahmed, P.E.	QA/QC

Ming Guan, EIT	Project Manager
Stephen Bise, EIT	Traffic

Los Angeles County Department of Public Works
(Lead Agency)

Sarah Scott	Environmental Planning Project Manager
Ed Dingman	Environmental Planning Section Head
Kira Alonzo	Project Manager
Daniel Quintan	Traffic Design Section Head

APPENDIX H

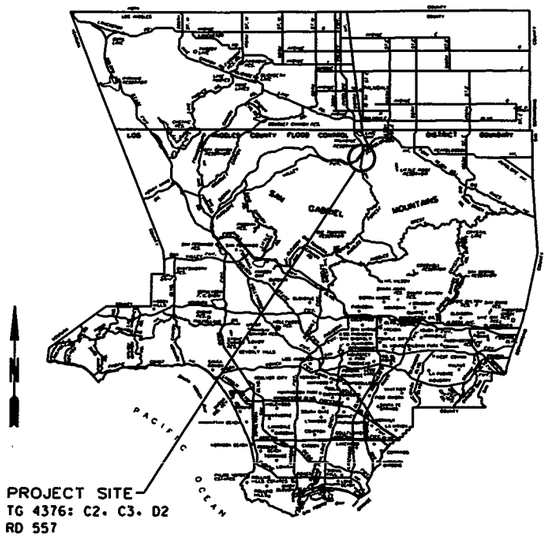
Sierra Highway Design Plans

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

SIERRA HIGHWAY

STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

TOTAL LENGTH 0.81 MILE

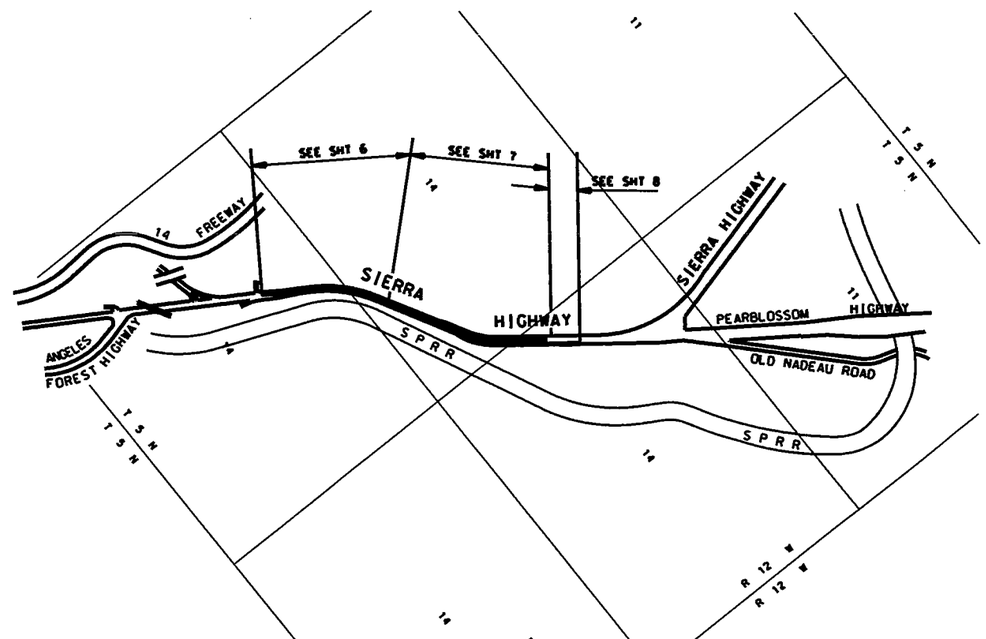


LOCATION MAP

NO SCALE

INDEX

SHEET NO. 1	TITLE SHEET
SHEET NO. 2	NOTES AND REFERENCES
SHEET NO. 3	GRADING DETAILS
SHEET NO. 4 & 5	TYPICAL SECTIONS
SHEET NO. 6 - 8	PLAN
SHEET NO. 9 - 12	PROFILE
SHEET NO. 13 - 16	CULVERT DETAILS
PLAN S	STRIPING PLAN
PLAN TC	TRAFFIC CONTROL PLAN



KEY MAP

NO SCALE

FINAL PLANS FOR UTILITY NOTICE

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TWO DAYS BEFORE YOU DIG CALL USA TOLL FREE 1·800·227·2600

SUBMITTED BY _____ HIGHWAY DESIGN SECTION II DATE

DATE	MK	DESCRIPTION

REVISIONS

REGISTERED PROFESSIONAL ENGINEER JOSE MELGAR NO. C 58111 EXP. 6-30-08 CIVIL STATE OF CALIFORNIA

PROJECT ENGINEER DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

SIERRA HIGHWAY

STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

PROJECT ID NO. RDC0014409

PCA X2500224 | DWG PHO | SHEET 1 OF 16

CONSTRUCTION LEGEND

ITEMS UNDERLINED TO BE CONSTRUCTED

1. PORTLAND CEMENT CONCRETE CURB AND GUTTER
2. PORTLAND CEMENT CONCRETE CURB
3. ASPHALT CONCRETE CURB
4. PORTLAND CEMENT CONCRETE LONGITUDINAL GUTTER
5. PORTLAND CEMENT CONCRETE SIDEWALK. 4" THICK
6. PORTLAND CEMENT CONCRETE SIDEWALK. 6" THICK
7. PORTLAND CEMENT CONCRETE PAVEMENT ON BASE MATERIAL
8. ASPHALT CONCRETE PAVEMENT
9. ASPHALT CONCRETE PAVEMENT ON BASE MATERIAL
10. ASPHALT CONCRETE PAVEMENT. VARIABLE THICKNESS
11. STABILIZATION GEOTEXTILE
12. SLURRY SEAL
13. COLD MILL ASPHALT CONCRETE PAVEMENT
14. DRIVEWAY. TYPE ___. Y= VAR UNLESS OTHERWISE SHOWN
15. ALLEY INTERSECTION (ON 6" CMB)
16. CROSS GUTTER (ON 6" CMB)
17. RETAINING STRUCTURE
18. DRAINAGE SYSTEM AS SHOWN ON SHEET INDICATED
19. REINFORCED CONCRETE STAIRWAY
20. CURB RAMP. CASE ____. TYPE ____. SECTION ____. DETAIL ___ UNLESS OTHERWISE SHOWN
21. CONCRETE BUS PAD
22. ASPHALT RUBBER HOT MIX (ARHM)
23. RUBBERIZED ASPHALT CONCRETE (RBAC). VARIABLE THICKNESS OR ASPHALT RUBBER HOT MIX (ARHM). VARIABLE THICKNESS
24. FURNISH AND PLANT TREE (PER CONSTRUCTION NOTE 6)
25. DROP CROTCH TRIM AND ROOT PRUNE TREE. FURNISH AND INSTALL ROOT CONTROL BARRIER
26. ADJUST MANHOLE
27. DOUBLE ADJUST MANHOLE
28. RECONSTRUCT MANHOLE
29. TREE WELL COVERS. TYPE _____. CASE _____
30. CURB DRAIN. CASE _____. N = _____
31. PARKWAY DRAIN. INLET TYPE _____. S = _____
32. RUBBERIZED EMULSION AGGREGATE SLURRY
33. CHAIN LINK FENCE AND GATES. H=____ UNLESS OTHERWISE SHOWN
34. METAL BEAM GUARD RAIL
35. TERMINAL SYSTEM END TREATMENT (TYPE AS SHOWN)
36. METAL RAILING AND ANCHOR ASSEMBLY (TYPE AS SHOWN)
37. AIR PLACED CONCRETE

PLANS NOT FOR CONSTRUCTION

CONSTRUCTION NOTES

CHECKED BOXES ARE FOR ITEMS APPLICABLE TO THIS PROJECT

- ☑ 1. PRIME CONTRACTOR LICENSE REQUIRED: CLASS A OR C12.
- ☑ 2. STANDARD PLANS REFERENCED ARE PER THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION (SPPWC) UNLESS OTHERWISE NOTED.
- ☐ 3. PRIOR TO RESURFACING WITH RBAC OR ARHM. FILL ALL HOLES AND CRACKS WIDER THAN ¼" WITH SS-1h EMULSIFIED ASPHALT AND SAND. PAYMENT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR RUBBERIZED ASPHALT CONCRETE OR ASPHALT RUBBER HOT MIX).
- ☐ 4. PRIOR TO RESURFACING WITH AC. FILL ALL HOLES AND CRACKS WITH SS-1h EMULSIFIED ASPHALT AND SAND. PAYMENT SHALL BE CONSIDERED AS INCLUDED IN THE CONTRACT UNIT PRICE FOR AC PAVEMENT.
- ☐ 5. REPLACE AND RELOCATE TRAFFIC SIGNAL AND STREET LIGHTING PULL BOXES AFFECTED BY CURB RAMP AND SIDEWALK CONSTRUCTION. PAYMENT WILL BE MADE AT THE CONTRACT UNIT PRICE FOR NO. 6 PULL BOX.
- ☐ 6. FURNISH AND PLANT 15 GALLON TREE. PER STD PLAN 520-2 CASE ____. • DOUBLE STAKING PER STD PLAN 518-2.
- ☐ 7. ELEVATIONS SHOWN ARE IN FEET BASED ON _____ ADJUSTMENT. NAVD 1988 DATUM.
- ☑ 8. ELEVATIONS SHOWN ARE IN FEET ABOVE MEAN SEA LEVEL BASED ON PALMDALE 98 ADJUSTMENT. NGVD 1988 DATUM.
- ☑ 9. ADJUST SLOPE OF INVERTED SHOULDER AS NECESSARY TO MAINTAIN EXISTING DRAINAGE PATTERN AT OUTLET TRENCHES AND TO PROVIDE ACCESS TO PROPERTIES.

CONSTRUCTION SYMBOLS

- (NO) INDICATES WORK PER CONSTRUCTION LEGEND
- (Lr) CURVE DATA SHOWN IN TABLE ON PLAN
- 2" P4 — ABOVE LINE: INDICATES THE TYPE OF STANDARD OR THICKNESS OF SURFACE MATERIAL IN INCHES: STD PLAN VARIABLES: CURB RAMP CASE.TYPE.SECTION AND DETAIL: OR TREE PLANTING CASE
- 5" CMB — BELOW LINE: REFERENCE TO DETAIL OR THICKNESS OF BASE BASE MATERIAL IN INCHES OR TREE WELL CASE
- (5) a x b / 4" CMB — ABOVE LINE: a = LENGTH PARALLEL TO CURB; b = LENGTH PERPENDICULAR TO CURB
- R — REMOVE TREE
- (14) a, b / 2" P4 — ABOVE LINE: a = WIDTH OF DRIVEWAY BEHIND APRON; b = DISTANCE BACK OF APRON
  - BELOW LINE: THICKNESS AND TYPE OF SURFACE MATERIALS BEHIND APRON
  - LEFT OF LINE: STA OF THE DRIVEWAY APRON
  - RIGHT OF LINE: DRIVEWAY WIDTH "W" OF APRON
  - STA / W. TYPE — RES OR COM
- (19) C.L.S.R.T — ABOVE LINE: STD PLAN VARIABLES
  - LEFT OF LINE: STA OF THE STAIRWAY
  - RIGHT OF LINE: STAIRWAY WIDTH AND TYPE
  - STA / W. TYPE
- (MT) W/L — MEDIAN TAPER PER STD PLAN 140-2
- (MF) W/L — MEDIAN FLARE PER STD PLAN 141-1
- UU — UTILITY TO BE RELOCATED BY OTHERS

STANDARD PLANS

SPPWC. 2006 EDITION

120-1 CURB AND GUTTER - BARRIER

STATE OF CALIFORNIA. MAY 2006 EDITION

- A77A1 METAL BEAM GUARD RAILING-STANDARD RAILING SECTION (WOOD POST WITH WOOD BLOCK)
- A77B1 METAL BEAM GUARD RAILING-STANDARD HARDWARE
- A77C1 METAL BEAM GUARD RAILING-WOOD POST AND WOOD BLOCK DETAILS
- A77C3 METAL BEAM GUARD RAILING-TYPICAL LINE POST EMBEDMENT AND HINGE POINT OFFSET DETAILS
- A77C4 METAL BEAM GUARD RAILING-TYPICAL RAILING DELINATION AND DIKE POSITIONING DETAILS
- A77E1 METAL BEAM GUARD RAILING-TYPICAL LAYOUTS FOR EMBANKMENTS
- A77G3 METAL BEAM GUARD RAILING-TYPICAL LAYOUTS FOR ROADSIDE FIXED OBJECTS
- A77H1 METAL BEAM GUARD RAILING-END TREATMENT ASSEMBLY (TYPE SFT)
- A77I2 METAL BEAM GUARD RAILING-BURIED POST END ANCHOR
- A77L3 METAL BEAM GUARD RAILING-TERMINAL SYSTEM (TYPE ET)
- A87B ASPHALT CONCRETE DIKES

NON-STANDARD ABBREVIATIONS

AVEK	ANTELOPE VALLEY - EAST KERN WATER AGENCY
DEP	DEPRESS
LACDPW	LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS
O/S	OFFSET
PWFB	PUBLIC WORKS FIELD BOOK
PWLB	PUBLIC WORKS LEVEL BOOK

REFERENCES

1. MATERIALS TEST REPORT. LAB No. 37080. DATED FEBRUAR 27. 2006
2. PWFB 2925 PAGES 169-175
   PWFB 3025 PAGES 192-196
3. PWLB 2925 PAGES 112. 113
   PWLB 3025 PAGES 96-98

GUARDRAIL NOTES

1. ALL GUARDRAIL LENGTHS AND LOCATIONS ARE TO BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
2. WOOD POSTS ARE TO BE USED FOR ALL INSTALLATIONS UNLESS OTHERWISE NOTED ON PLANS.
3. INSTALL RAILING APPROACH TRANSITIONS FOR FIXED OBJECTS PER CALTRANS STD. PLAN A77G3 AT ALL APPLICABLE LOCATIONS OR AS DIRECTED BY THE ENGINEER.

CONVENTIONAL SYMBOLS

EXISTING TOPOGRAPHY / PROPOSED IMPROVEMENTS

CURB
CURB AND GUTTER
GUTTER
PAVEMENT — CONCRETE
AC
CURB RAMP
BUILDING
BARRICADE
FENCE
GUY POLE
DRIVEWAY
FIRE HYDRANT
GUARDRAIL
GUY WIRE
MANHOLE
PIPE — CONNECTOR PIPE
MAIN LINE
POLE
PROPERTY LINE
R/W LINE
PULL BOX
RAILROAD
RR XING PROTECTION
SHRUB
SIDEWALK — SHADED IF NOT CONTINUOUS
SIGNAL CONTROL BOX
SIGNAL — FLASHING
TRAFFIC
LOOP
STREET LIGHT
PALM TREE
OAK TREE
OTHER TREE
VALVE
VAULT
BRICK (BLOCK) WALL
CONCRETE WALL
STONE WALL
TOP OF SLOPE
TOE OF SLOPE
STAND PIPE

AC PAVEMENT CLASS AND GRADE LEGEND

P1 C2 - PG 70-10	P3 B - PG 70-10
B - PG 70-10	
P2 C2 - PG 70-10	P4 D2 - PG _____

DATE	BY	DESCRIPTION

REVISIONS

PROFESSIONAL ENGINEER — JOSE MELGAR — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER ____ DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

SIERRA HIGHWAY

STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

PROJECT ID NO. RDC0014409

PCA X2500224 | DWG | SHEET 2 OF 16

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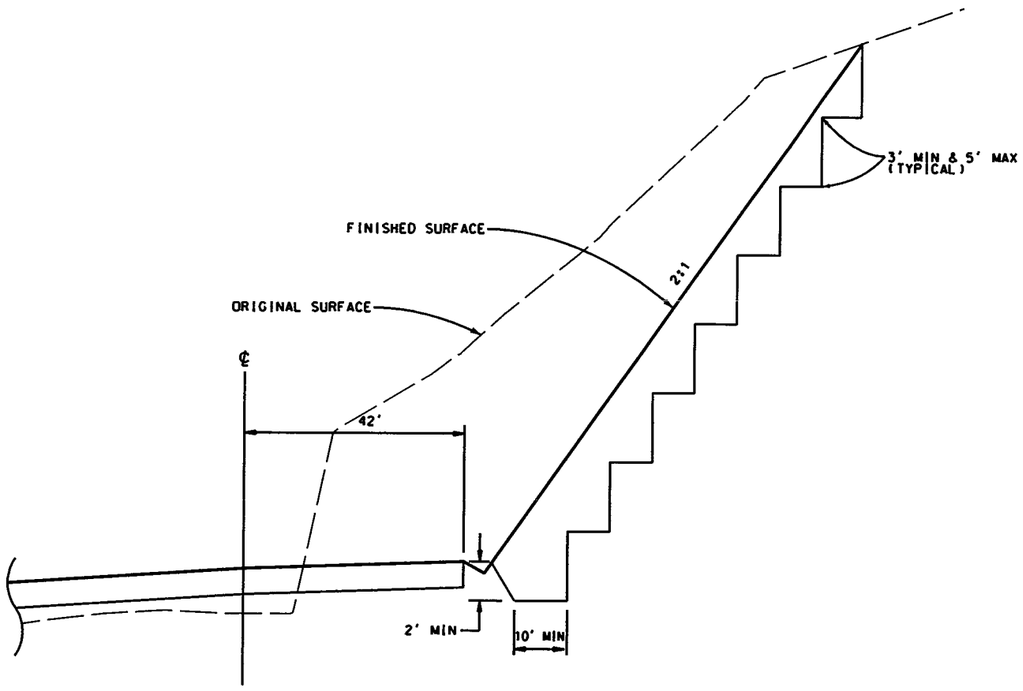

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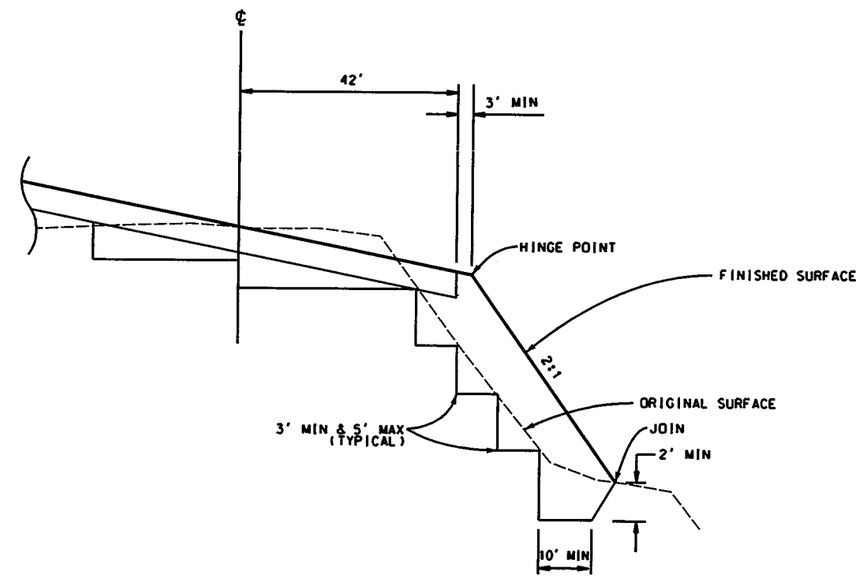

GRADING-TYPICAL FILL SECTION
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PLANS NOT FOR CONSTRUCTION

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C. CASTLE	C. CASTLE	J. MELGAR	RDC0014409-ROAD.dgn		

DATE	MK	DESCRIPTION

REVISIONS

JOSE MELGAR
C58111
EXP. 06/30/08
CIVIL
STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER

PROJECT ENGINEER ____ DATE

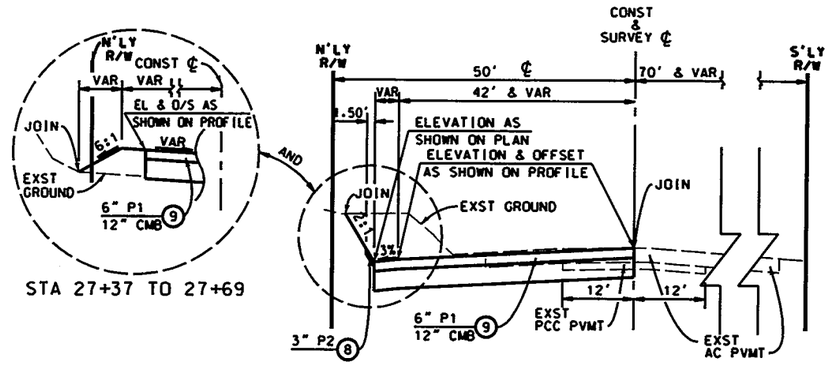
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

SIERRA HIGHWAY

STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

PROJECT ID NO. RDC0014409

PCA X2500224 | DWG | SHEET 3 OF 16



STA 27+37 TO 27+69

TYPICAL SECTION
STA 25+44 TO 27+69
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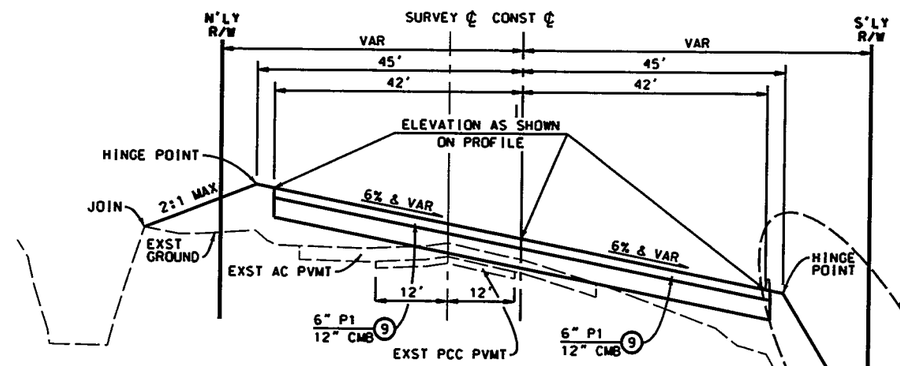
PLANS NOT FOR CONSTRUCTION



TYPICAL SECTION
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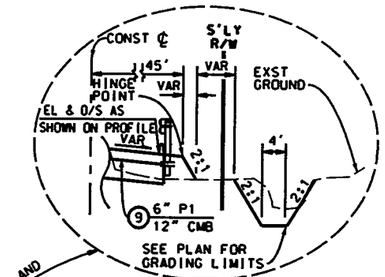

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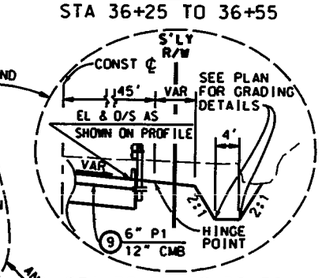

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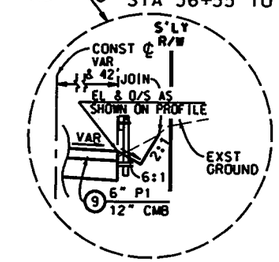

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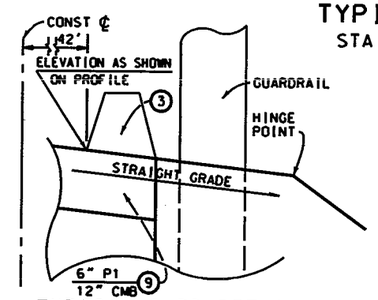

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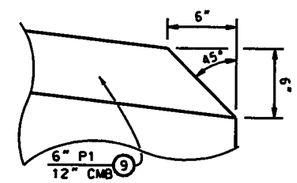

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(NO ADJACENT CONCRETE DITCH)
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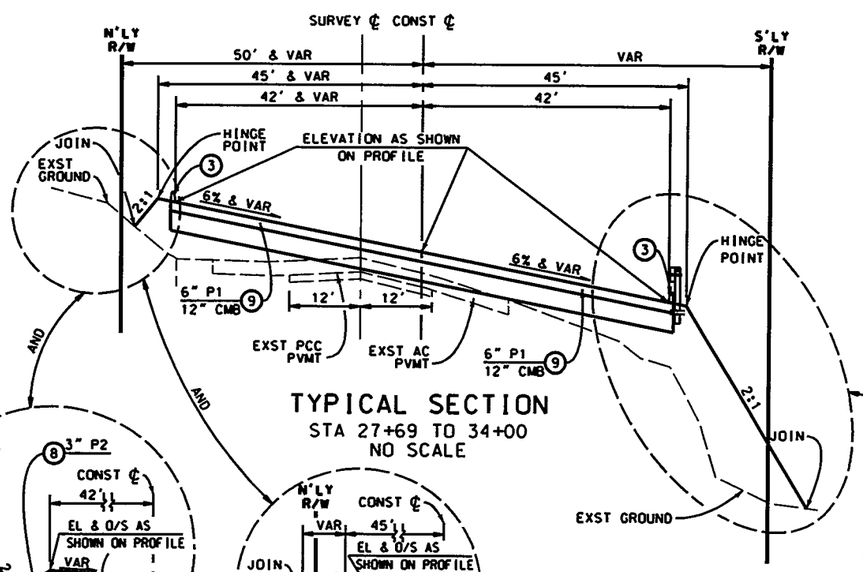

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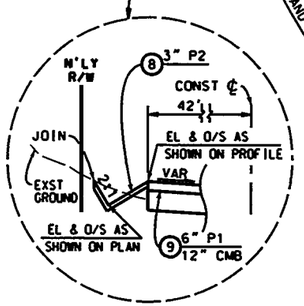

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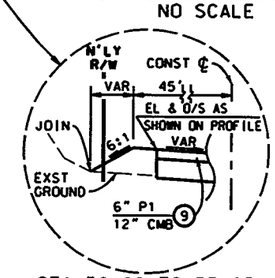

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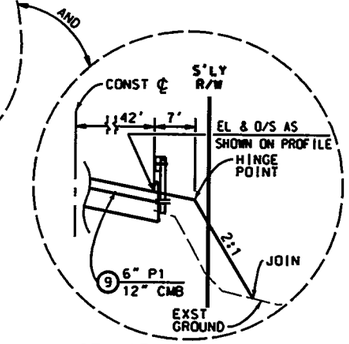
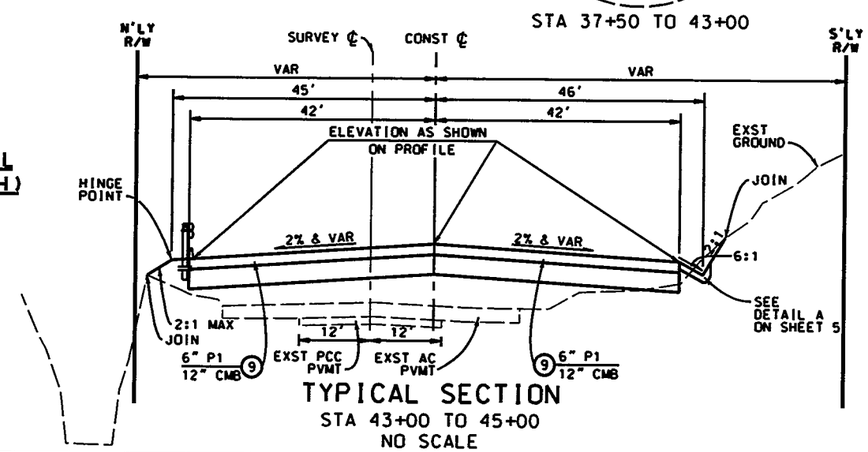


STA 27+69 TO 31+25



TYPICAL SECTION
STA 43+00 TO 45+00
NO SCALE

DATE	MK	DESCRIPTION

REVISIONS

PROFESSIONAL ENGINEER — JOSE MELGAR — NO. C58111 — EXP. 06/30/08 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER — DATE

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

SIERRA HIGHWAY

STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

PROJECT ID NO. RDC0014409

PCA X2500224 | DWG | SHEET 4 OF 16

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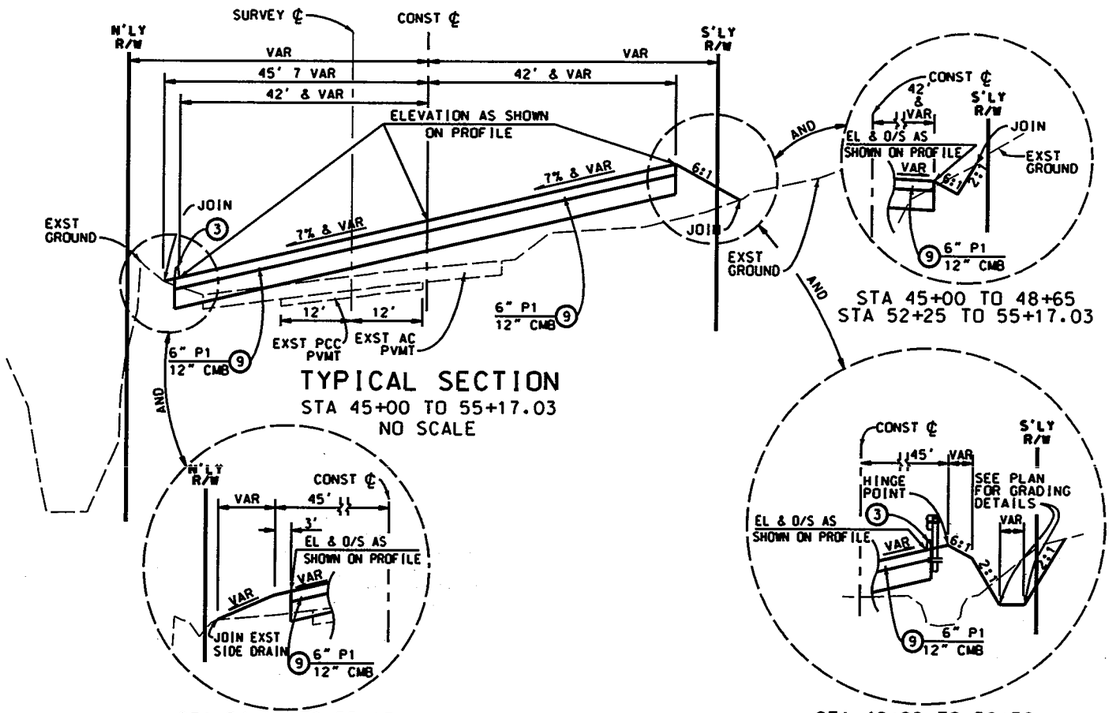

TYPICAL SECTION
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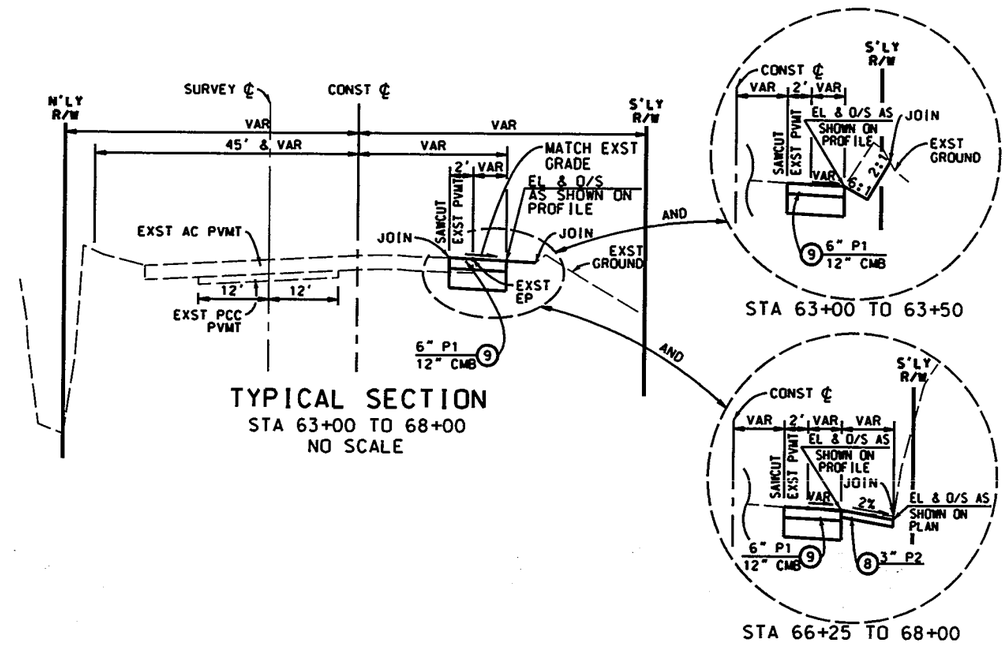
STA 45+00 TO 48+65
STA 52+25 TO 55+17.03

STA 54+17 TO 55+15

STA 49+98 TO 50+70



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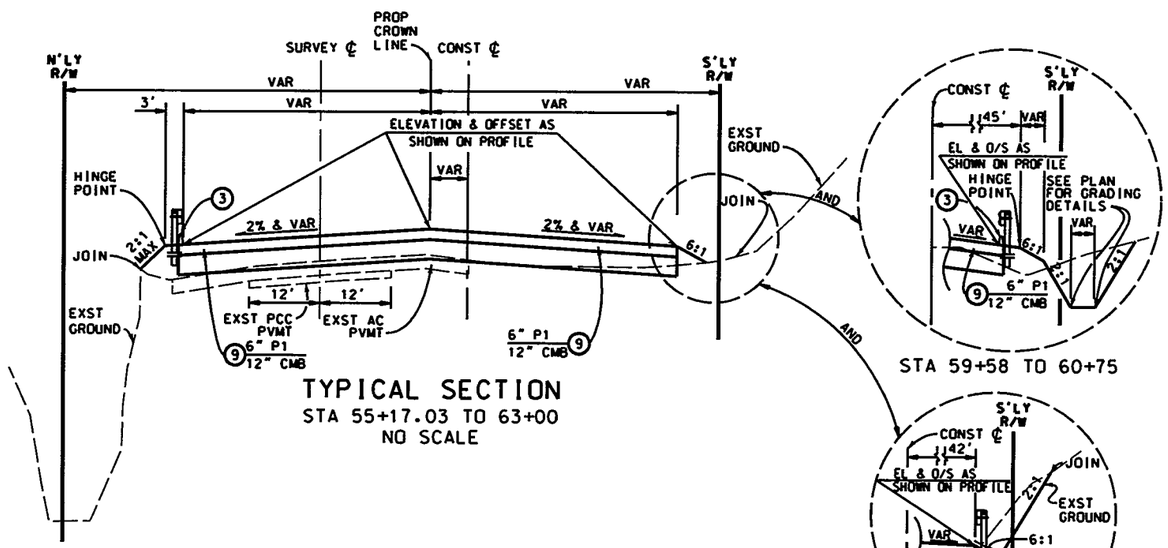
STA 63+00 TO 63+50

STA 66+25 TO 68+00



TYPICAL SECTION
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NO SCALE

STA 59+58 TO 60+75

STA 55+17.03 TO 55+75
STA 60+75 TO 63+00

PLANS NOT FOR CONSTRUCTION

DATE	MK	DESCRIPTION

REVISIONS

PROFESSIONAL ENGINEER — JOSE MELGAR — C58111 — EXP. 06/30/08 — CIVIL — STATE OF CALIFORNIA

PROJECT ENGINEER DATE

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SIERRA HIGHWAY

STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

PROJECT ID NO. RDC0014409

PCA X2500224 | DWG | SHEET 5 OF 16

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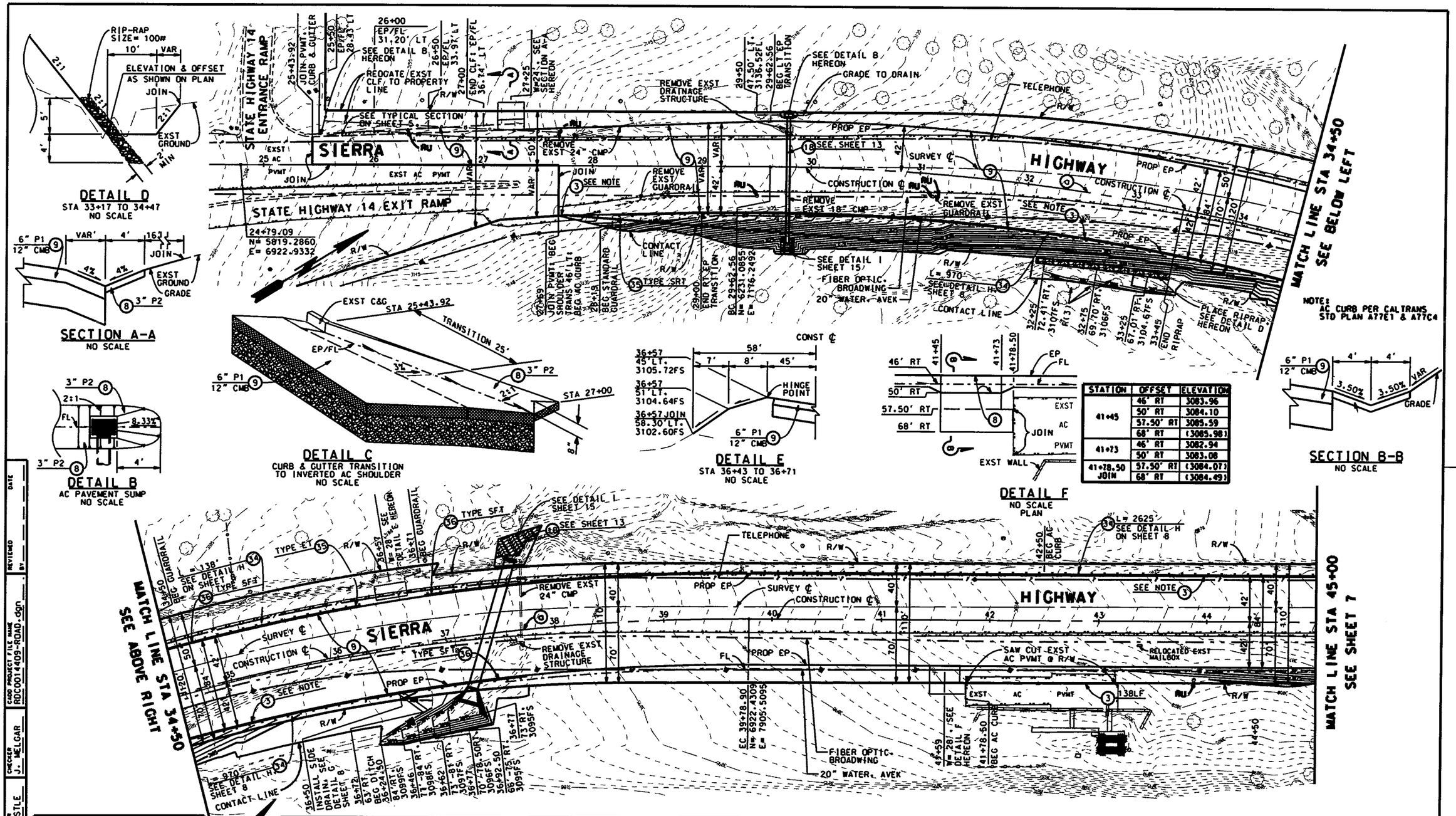

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	57.50' RT	3085.59
	68' RT	(3085.98)
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	50' RT	3083.08
41+78.50 JOIN	57.50' RT	(3084.07)
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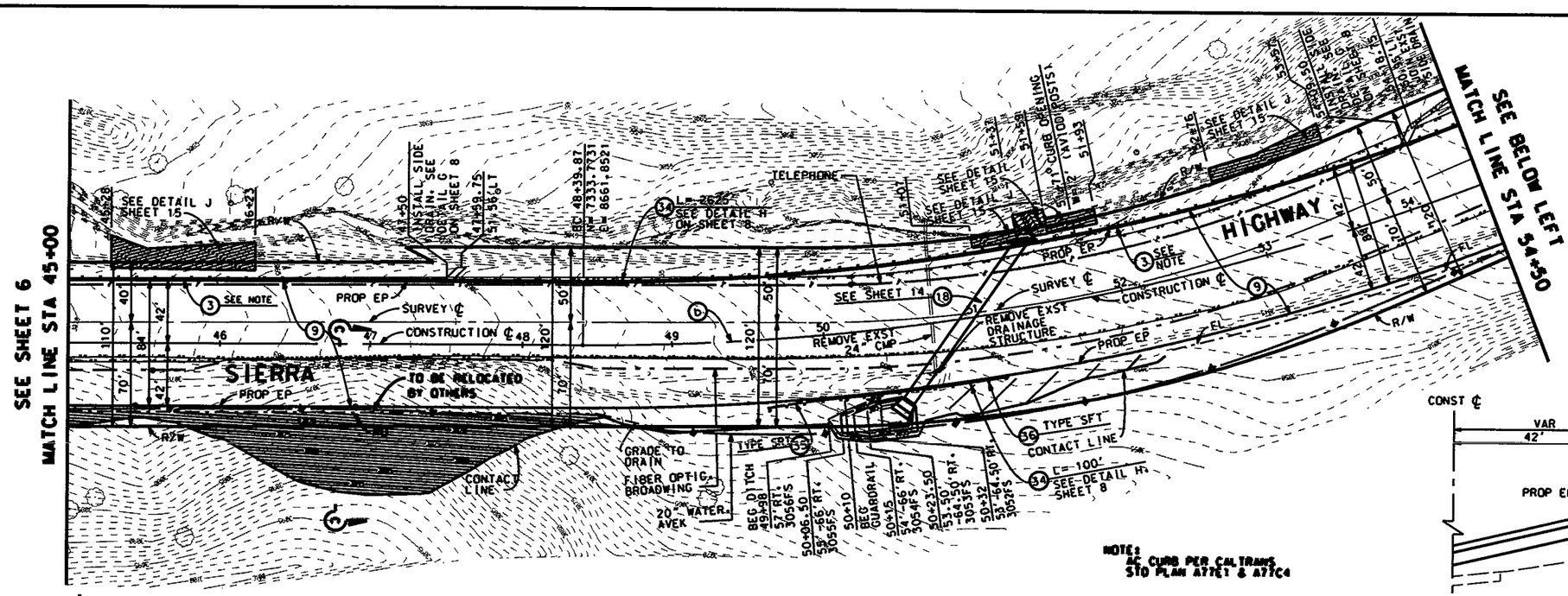

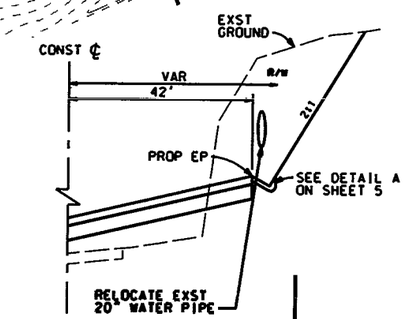

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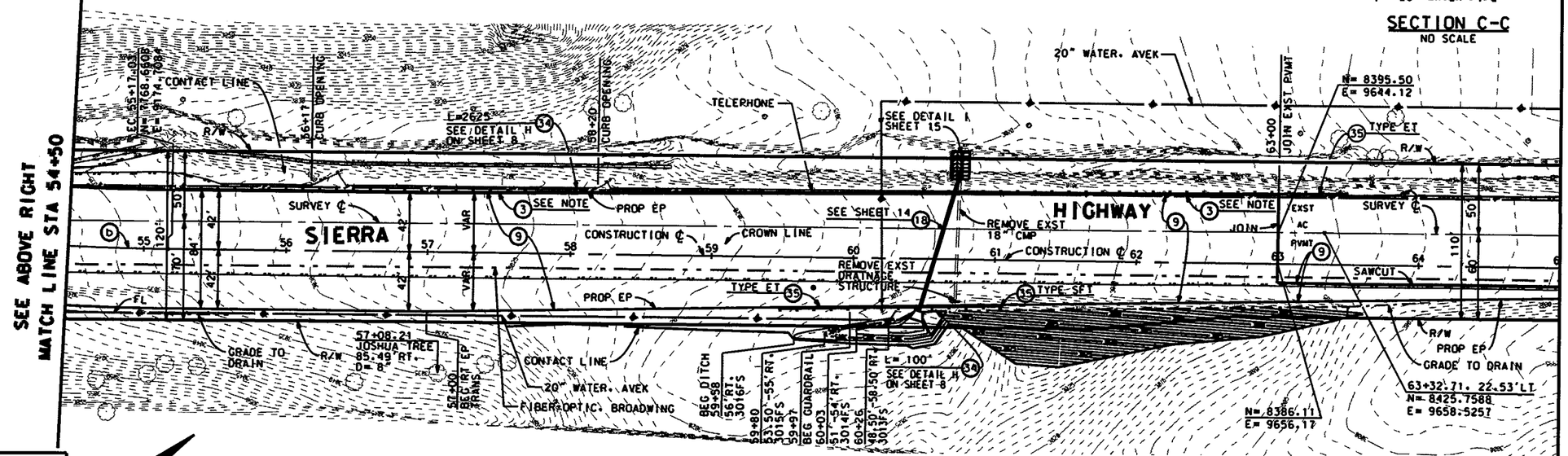

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BENCH MARK

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BM L-4193 Elev 2980.056
PALMDALE 1998 NAVD 88
USC & GS MON FK 112' S/E ℄ INT SIERRA HWY & PEARBLOSSOM HWY MKD "RESET 1969 LOFT 2" MKR POST 3 /O MON

CURVE DATA

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DATE	INIT	DESCRIPTION

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SIERRA HIGHWAY

STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

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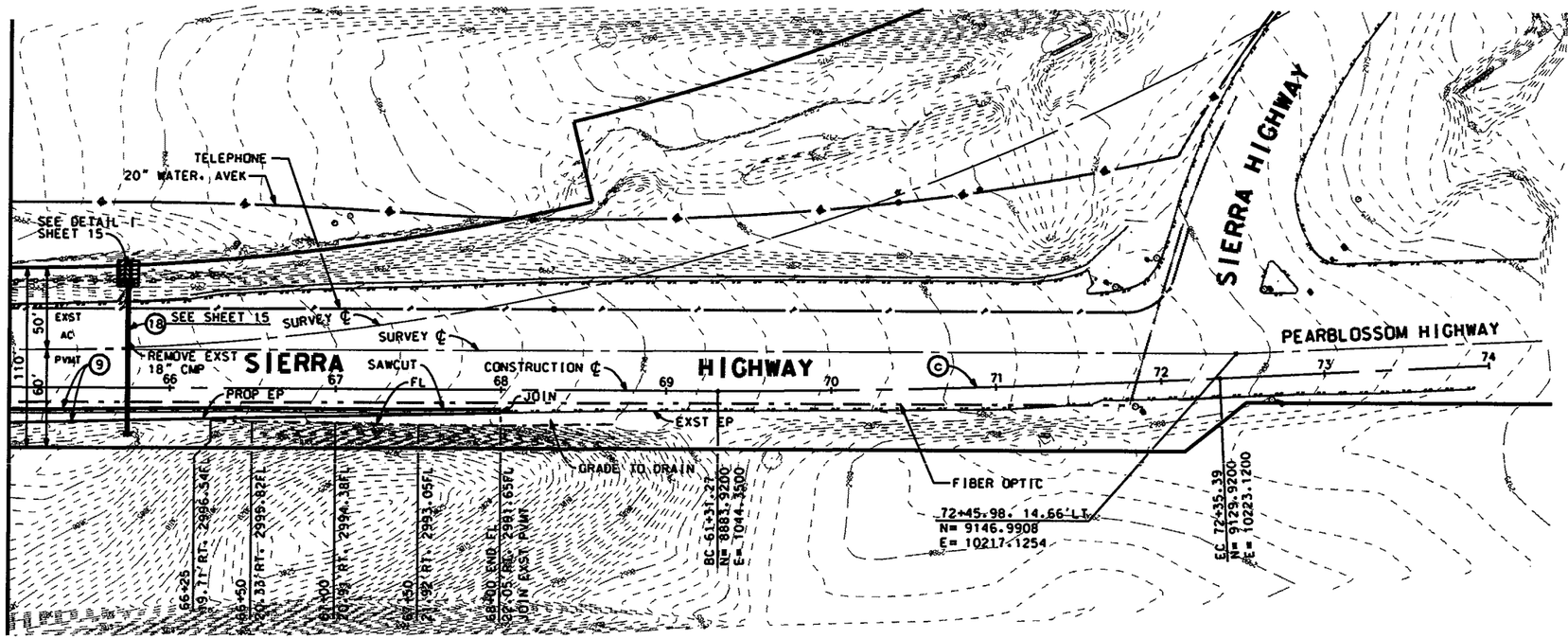

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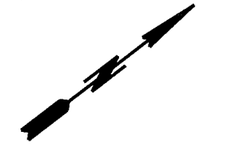

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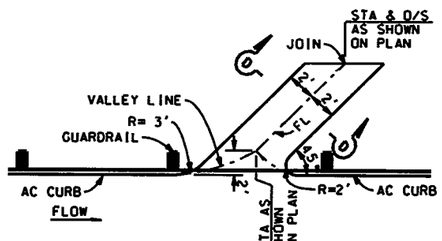

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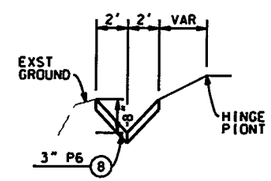

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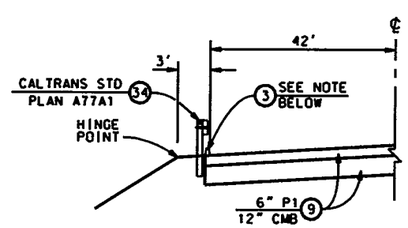

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DETAIL H
(APPLICABLE TO BOTH SIDES)
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STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

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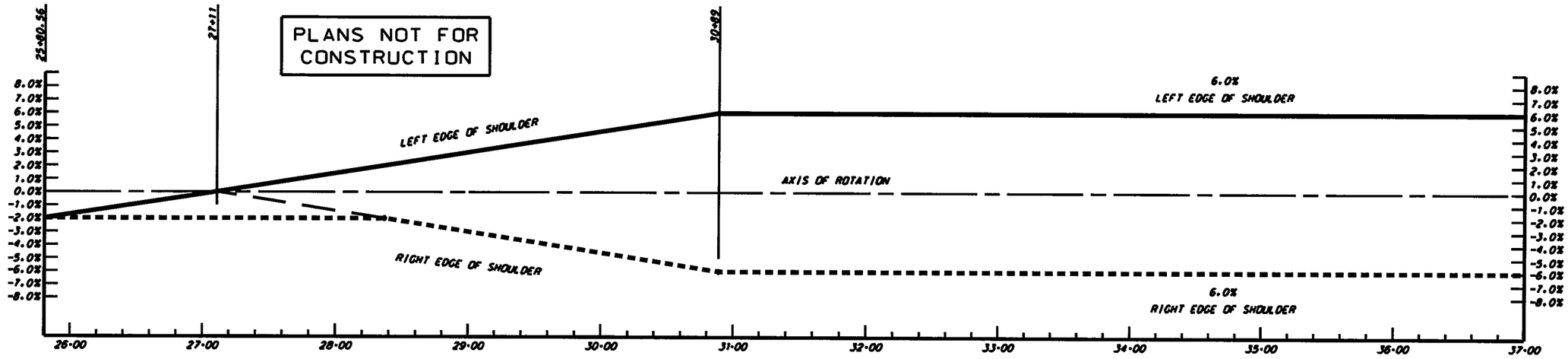

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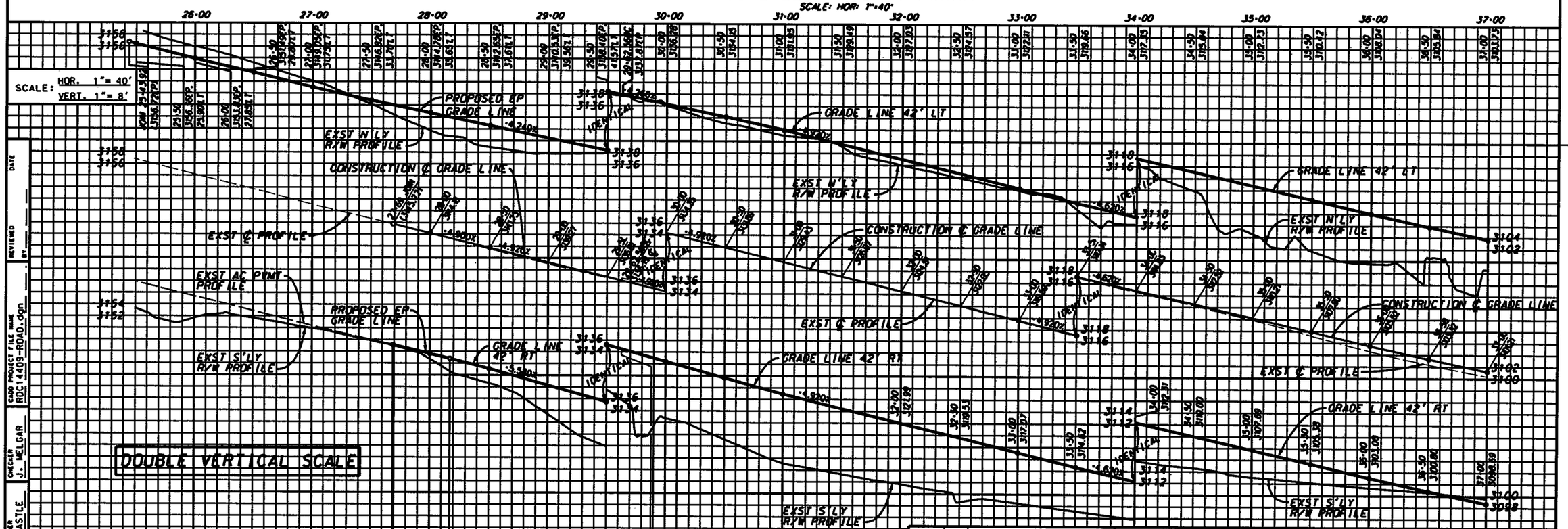

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STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

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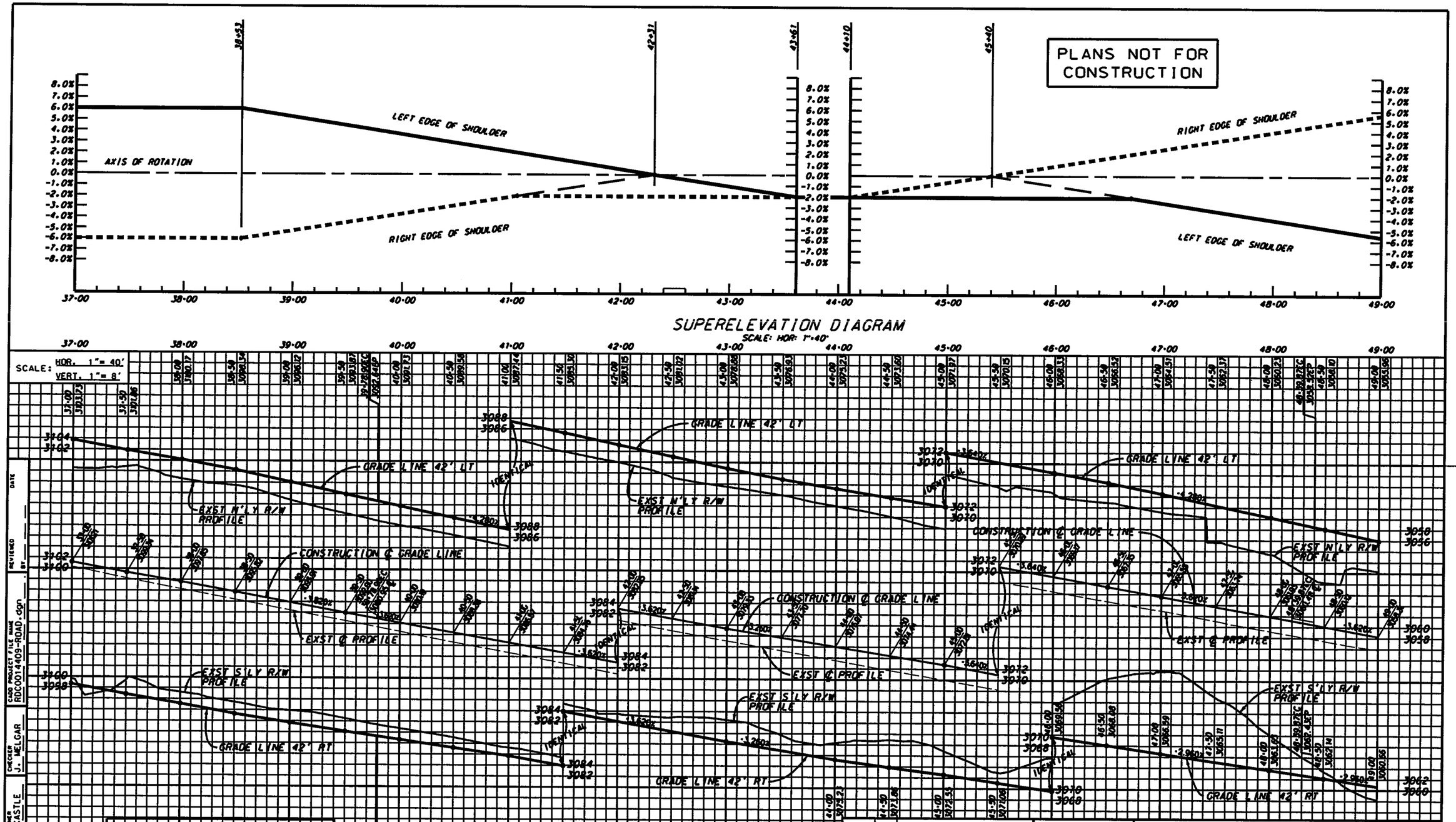

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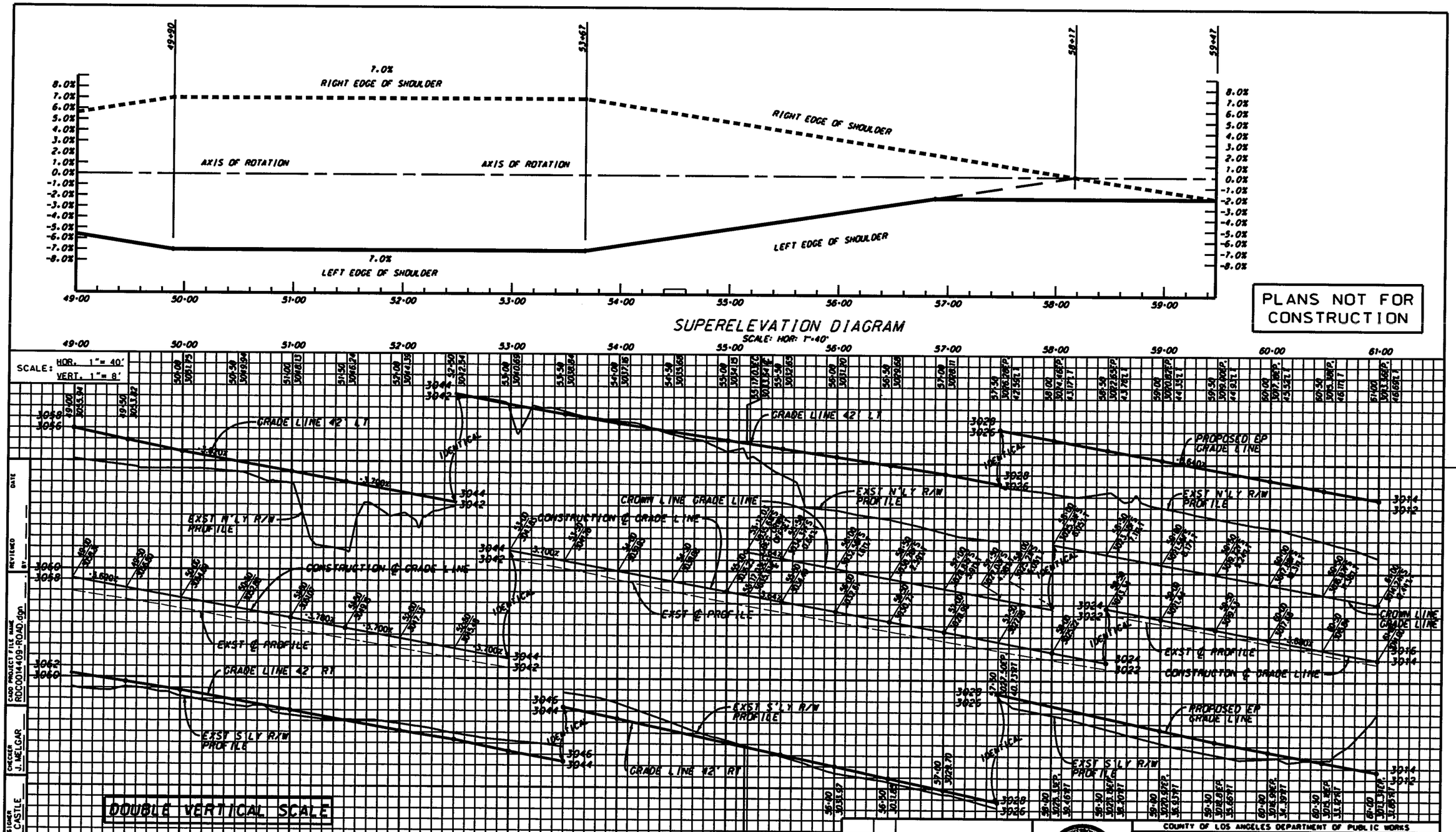
49+90
53+67
58+12
59+42
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RIGHT EDGE OF SHOULDER
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AXIS OF ROTATION
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SUPERELEVATION DIAGRAM
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DESIGNER C. CASTLE
DRAWN C. CASTLE
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C58111
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STATE OF CALIFORNIA
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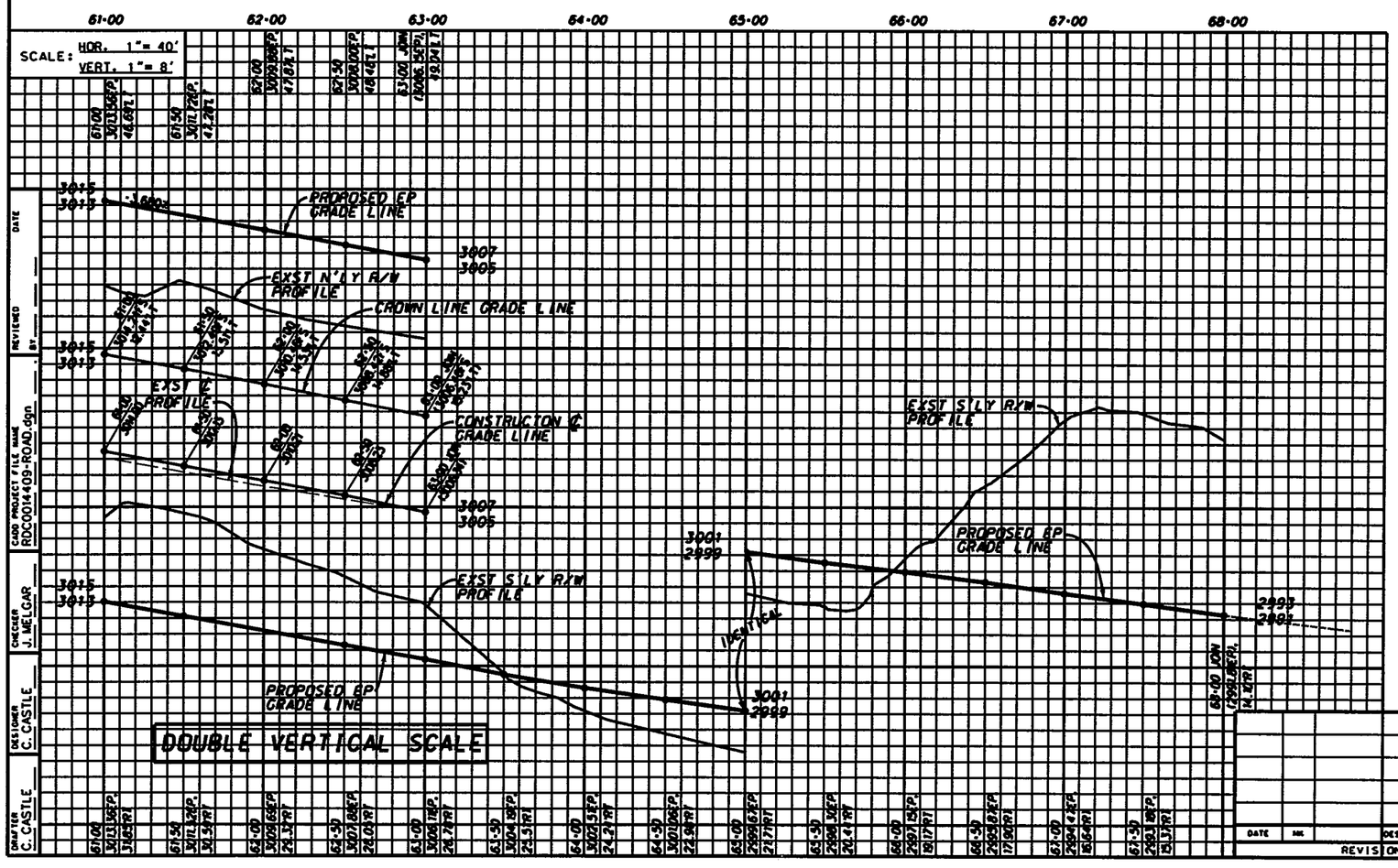

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DESIGNER	C. CASTILE
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DATE	NO.	DESCRIPTION
REVISIONS		

JOSE MELGAR
No. C58111
Exp. 06/30/08
CIVIL
STATE OF CALIFORNIA

PROJECT ENGINEER DATE

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STATE HIGHWAY 14 TO PEARBLOSSOM HIGHWAY

PROJECT ID NO. RDC0014409

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DRAFT
Environmental Impact Report

Sierra Highway – State Route 14 to Pearblossom Highway Widening Project
Palmdale, Los Angeles County, California

State Clearinghouse # 2007111050

Prepared For:

County of Los Angeles
Department of Public Works
Programs Development Division
900 South Fremont Avenue
Alhambra, California

Prepared By:

Chambers Group, Inc.
302 Brookside Avenue
Redlands, California

FEBRUARY 2008

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List of Acronyms

AAQS	Ambient Air Quality Standards
AVAQMD	Antelope Valley Air Quality Management District
CalTrans	California Department of Transportation
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CO	Carbon Monoxide
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EIR	Environmental Impact Report
IS	Initial Study
Ldn	Day Night Noise Level
Leq	Equivalent Noise Level
LOS	Level of Service
MDAB	Mojave Desert Air Basin
MMRP	Mitigation Monitoring and Reporting Plan
NAAQS	National Ambient Air Quality Standards
NOC	Notice of Completion
NOD	Notice of Determination
NOP	Notice of Preparation
Public Works	County of Los Angeles Department of Public Works
ROG	Reactive Organic Gasses
RWQCB	Regional Water Quality Control Board
USACE	United States Army Corp of Engineers

EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This Executive Summary has been prepared in accordance with the California Environmental Quality Act (CEQA) Guidelines §15123(b), which state that an Environmental Impact Report (EIR) should contain a brief summary of the proposed actions and its consequences, and should identify:

- Each significant impact with proposed mitigation measures and alternatives that would reduce or avoid that effect;
- Areas of controversy known to the Lead Agency including issues raised by the agencies and the public; and
- Issues to be resolved including the choice among alternatives and how to mitigate the significant effects.

This Draft EIR identifies and evaluates the potential environmental impacts associated with the proposed widening and realignment of a portion of the Sierra Highway between State Route 14 (SR-14) and Pearblossom Highway. The County of Los Angeles Department of Public Works (Public Works) is the project proponent for the Proposed Project.

This Draft EIR was prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code §§ 21000-21177) and the Guidelines for the Implementation of CEQA published by the Resources Agency of the State of California (California Administrative Code §§ 15000 *et seq*.). Public Works is the Lead Agency for the Proposed Project defined by Section 21067 of CEQA as "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment."

CEQA requires that the potential environmental impacts of a project be identified and that mitigation measures be recommended that may reduce significant impacts. CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action. Public Works is the Lead Agency for this action. This EIR may be used by other public agencies that must make discretionary actions related to the Proposed Project.

This Draft EIR is intended to provide information to Public Works, other public agencies, and the general public regarding the potential significant short- and long-term environmental impacts associated with the Proposed Project. The EIR process also requires investigation and development of feasible mitigation measures to reduce significant adverse environmental effects of the Proposed Project to levels below significance. CEQA requires that a Lead Agency neither approve nor implement a project as proposed unless significant environmental impacts have been reduced to an acceptable level (§15091), or if the Public Agency approves the project even though significant impacts identified in the EIR cannot be fully mitigated, Public Works must state in writing the reasons for its action by adopting Findings and a Statement of Overriding Considerations.

ES.2 PROJECT LOCATION AND SETTING

The Proposed Project consists of a section of the Sierra Highway, located four (4) miles south of the City of Palmdale in unincorporated Los Angeles County (Figure 1). The Proposed Project is approximately a 0.80-mile section of the Sierra Highway, between the Antelope Valley Freeway Interchange and Sierra Highway and Pearblossom Highway intersection (Figure 2). This section of the highway runs parallel with the Union Pacific Railroad line.

The Proposed Project lies in the area commonly referred to as Antelope Valley. The Antelope Valley consists of 1,200 square miles of elevated desert terrain bounded by the San Gabriel Mountains on the south, Kern County to the North, and extending from Gorman on the west to the San Bernardino County on the east. The Antelope Valley contains a large portion of the Los Angeles National Forrest.

ES.3 DESCRIPTION OF PROPOSED PROJECT

Sierra Highway is classified as a rural major highway in the Los Angeles County Roadway System. It is an important cross-mountain commuter route, acting as an alternative to the Antelope Valley Freeway (SR-14) between Antelope Valley and the Santa Clarita Valley. The Proposed Project would improve the road features to current design guidelines.

ES.4 PROJECT OBJECTIVES

The objectives of the Proposed Project include the following:

- Widen Sierra Highway
- Increase safety of the highway
- Construct and realign road to meet 65 mph design guidelines
- Construct a road section to provide a 12-foot inside lane, a 14-foot outside lane, a 10-foot paved shoulder on each side of the road, and a 12-foot painted median;
- Reconstruct the pavement with 6 inches of Asphalt Concrete on 12 inches of Crushed Miscellaneous Base;
- Upgrade/construct guardrails as necessary;
- Upgrade or replace the existing culverts as necessary; and
- Restore traffic loops and provide pavement striping, markings, and signage.

ES.5 SIGNIFICANT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

ES.5.1 Impacts Considered Less than Significant

No significant impacts were identified as a result of the implementation of the Proposed Project for the following resources areas:

- Aesthetics
- Agriculture
- Geology and Soils
- Hazards/Hazardous Materials
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems

ES.5.2 Potentially Significant Impacts that Can Be Mitigated, Avoided, or Substantially Lessened

Potentially significant impacts were identified for the following environmental resource areas if the Proposed Project were implemented:

- Air Quality

- Biological Resources
- Cultural Resources
- Hydrology and Water Quality
- Transportation/Traffic
- Noise

However, in all these areas potential significant impacts could be reduced to levels below significance with the implementation of the Proposed-Project-specific mitigation measures.

ES.5.3 Unavoidable Significant Impacts

Implementation of the Proposed Project would not result in any unavoidable significant impacts.

ES.6 AREAS OF CONTROVERSY

Written comments were received from various public agencies during Notice of Preparation public scoping process. No comments were received from members of the public. Appendix A of this EIR provides a copy of the NOP and copies of the comments that were received. Issues raised during the public scoping period generally fell into these categories:

- Habitat assessment;
- Potential for cultural resources;
- Potential to increase traffic on the highway crossings, streets, and at intersections.

These and other environmental issues are addressed in Section 3.0 of the EIR.

ES.7 PROJECT ALTERNATIVES

CEQA §15126.6(a) requires an evaluation of the comparative effects of a reasonable range of alternatives to the Proposed Project that would feasibly attain most of the project's basic objectives and would avoid or substantially lessen any of the significant impacts of the Proposed Project. Under CEQA Guidelines Section 15126.6(e), evaluation of the "No Project" alternative is required. The No Project Alternative addresses the effect of not implementing the Proposed Project. The No Project analysis must discuss the existing conditions as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (CEQA Guidelines Section 15126.6(e)(2). The alternatives are summarized below:

Alternative 1: The No Project Alternative consists of the existing highway remaining as it is at the date of the NOP for this Draft EIR (November 5, 2007).

Alternative 2: This alternative would result in the Proposed Project site being widened to have three travel lanes in each direction along with paved shoulders and a striped median.

Section 4.0 of the EIR analyzes the No Project Alternative and provides a discussion of the alternative considered but rejected.

ES.8 ISSUES TO BE RESOLVED

There are no major issues to be resolved with regard to the environmental analysis contained in this EIR.

ES.9 SUMMARY

Table ES-1 presents a summary of the environmental impacts analyzed and identified in the document, the mitigation measures proposed for those impacts and the level of significance of impacts after mitigation.

Table ES-1 - Impact and Mitigation Summary Table

Environmental Impacts	Mitigation Measures	Level of Significance After Mitigation
AIR QUALITY *Construction* The Proposed Project would generate emissions during the construction phase. The emissions during the construction phase are expected to be less than significant. *Operational* The Proposed Project would not alter the current traffic volumes; no operational impacts are anticipated.	No mitigation measures required. No mitigation measures required.	Impacts would be less than significant.
BIOLOGICAL RESOURCES *Sensitive Species* Mohave Ground Squirrel. The Proposed Project contains suitable habitat for the Mohave ground squirrel along the southeastern edge of the site; is adjacent to other large areas of suitable habitat; and occurrences of the ground squirrel within five miles of the site have been reported. The Proposed Project site provides moderate quality habitat for the species. Burrowing Owl. The Proposed Project site contains suitable habitat in the southeastern portion of the site and occurrences of burrowing owl in the area have been reported within five miles of site. Wetlands. No wetlands were found within the Proposed Project site.	The following mitigation measures have been identified to reduce the impacts to sensitive species: BR-1: Public works shall minimize to the greatest extent feasible the area required for project construction, implementation, and operation. BR-2: Public Works shall retain qualified/permitted biologists as on-call service providers to recover and relocate any ground-dwelling special-status wildlife species encountered during construction. BR-3: Public Works shall hire a qualified biological firm to provide environmental training to all personnel working onsite. The training shall include details on special-status species known to occur onsite or that could potentially occur onsite (i.e. burrowing owl and Mohave ground squirrel), a review of the state and federal laws that protect these species, avoidance measures, and implementation measures if a special-status species is encountered or killed. If a special-status species is encountered during any phase of construction, MM B-2 shall be implemented. BR-4: If an injured or dead special-status species is found during construction, Public Works shall cease all work within the immediate vicinity of the individual (i.e. within 100 feet). The Los Angeles County Planning Department, the appropriate on-call biologist, and the appropriate agency (i.e. USFWS and/or CDFG) shall also be contacted in this event before any further construction may continue in this area.	Impacts would be less than significant with mitigation.

	BR-5: Prior to any ground-disturbing activities, (i.e. mechanized clearing or rough grading), a qualified biologist(s) shall conduct a pre-construction sweep of the Proposed Project site to ensure that: • All special-status ground dwelling species are safely recovered and relocated to adjacent suitable habitat at least 200 feet from the limits of grading (depending on the species (i.e. Mohave ground squirrel), this may require the services of a permitted biologist). • All potential burrows are inspected for presence/absence of wildlife species. If presence is found, all species within the burrow(s) shall be safely recovered and relocated to adjacent suitable habitat at least 200 feet from the limits of grading (depending on the species (i.e. Mohave ground squirrel), this may require the services of a permitted biologist). If absence is found, the burrow(s) shall be collapsed to prevent potential inhabitance during construction. BR-6: Exclusionary fencing shall be installed and maintained around the limits of grading to prevent the inhabitance of wildlife during construction. Fencing shall be installed to a depth of at least six inches underground and extend at least eighteen inches aboveground. All fencing shall be properly maintained (i.e. daily perimeter checks to ensure integrity and the absence of burrows, openings, and other damage). BR-7: If initial grading and/or grubbing activities must occur during the bird breeding season (i.e. between February 1 and August 15), a qualified biologist(s) shall conduct a preconstruction nesting bird survey for the presence/absence of nests within and adjacent to the Proposed Project site. The search area shall include a buffer area of up to 500 feet from the limits of grading. All nests of birds protected by the MBTA, FESA, CESA, and other regulations resulting from this survey shall be identified and located. (The start date of February 1 reflects the point when loggerhead shrikes, which have been identified onsite, begin to breed, and the end date of August 15 reflects the point when burrowing owls, which have a high potential to occur onsite, are generally considered to be done breeding for the year.)	

	BR-8: If protected nesting bird(s) are discovered within the preconstruction survey area, a buffer area appropriate to the species shall be established to avoid potential impacts to any protected species found during this survey. This buffer area may range from 200 feet for some passerines to 500 feet for some raptors and some other, more sensitive species (i.e. loggerhead shrike and Le Conte's thrasher). The USFWS and/or CDFG shall be consulted to identify the appropriate actions necessary to prevent impacts on the species. These actions may involve establishing an avoidance perimeter, the erection of sound walls, delays in construction, bio-monitoring of the nest, and/or bio-monitoring of the family group until it is determined that the nest has either failed or succeeded, at which time, all such preventative measures may be removed and construction shall be allowed to continue. BR-9: If a burrowing owl(s) and its occupied burrow(s) are identified within the Proposed Project site and/or the surrounding 500-foot survey area during the preconstruction survey between February 1 and August 15, the individual(s) must be avoided. A perimeter of at least 300 feet shall be established to prevent impacts to any identified burrowing owl(s) and corresponding burrow(s) within the Proposed Project site and the 500-foot area surrounding the limits of grading. All construction activities proposed within this buffer area must cease as long as the owl(s) remain in that area. BR-10: If a burrowing owl(s) and its occupied burrow(s) are identified within the Proposed Project site and/or the surrounding 500-foot survey area between August 16 and January 31 and initial grubbing and/or grading activities must occur during this time, the individual(s) must be passively relocated by a qualified biologist(s). The identified burrow(s) shall be closed once it is determined that the owl(s) have safely left the site by their own means. Once it has been determined that the burrow(s) are no longer active, the burrow(s) shall be permanently closed and monitored to ensure that re-occupancy does not occur. Passive relocation shall be performed as prescribed in the CDFG burrowing owl mitigation guidelines.	
Woodland Habitats	BR-11: The lone Joshua tree identified on the Proposed	

California Juniper Series. The Proposed Project site comprises approximately 0.1 acre of onsite California Juniper Series which is composed of sparse California Juniper trees with an understory of non-native brome (Bromus spp.) grasses. Although more California Juniper trees were observed within the surrounding areas, only several California Juniper were observed within the Proposed Project site. Joshua Tree Woodland Series. The Proposed Project site contains less than 0.1 acre of this vegetation community, represented by one tree with several resprouting natural recruits and common Mediterranean grass (Schismus barbatus). This sensitive vegetation series is ranked S3.2 by the CDFG, meaning that 10,000 to 50,000 acres remain and populations are threatened. *Scrub Habitats* Mojave Mixed Woody Scrub. The Proposed Project site contains complex scrub habitat which comprises approximately 1.6 acres. This sensitive vegetation series is ranked S3.2 by the CDFG, meaning that 10,000 to 50,000 acres remain and populations are threatened.	Project site and its recruits shall be safely removed and transplanted at the edge of the right-of way for the new segment of roadway. This mitigation measure shall enhance the aesthetics of the new roadway, increase the localized population, and serve to protect this sensitive plant species. The chosen replanting sites shall incorporate the following components: • The mature individual shall be planted in its current orientation in similar soils at a similar distance from the new roadway as which it currently exists. All necessary precautions shall be implemented to ensure the safe removal and transplantation of this individual, including transplanting intact soils around the root mass. • The recruits identified at the base of this mature individual shall be safely separated from the parent plant and/or soils and transplanted elsewhere along the edge of the new right-of-way. The planting area shall mimic natural conditions where the recruits are removed from, and these transplanted recruits shall receive follow-up care (i.e. supplemental watering on an as-need basis) to ensure survival and growth. • A qualified biological firm shall conduct the replanting and monitoring efforts under an approved Joshua Tree Impact Plan by the CDFG and/or USFWS. BR-12: If it is determined that the transplanted Joshua tree and/or its recruits die as a result of transplanting efforts or a lack of follow-up care, the number of dead individuals shall be mitigated at a 2:1 ratio within the right-of way for the new road segment. BR-13: A Mojave Ground Squirrel trapping study shall be conducted prior to ground disturbance activities to determine if the species is present on the project site. If the species if found on the project site, the species shall be mitigated at a ratio of 1:1 ratio at a CDFG approved Mojave Ground Squirrel mitigation bank. If the species is not found on the project site, the loss of vegetation shall be mitigated according to MM BR-14. BR-14: All impacted acreage of Mojave Mixed Woody Scrub shall be mitigated through the purchase of off-site mitigation at a 1:1 ratio. Since 1.6 acres of this sensitive	

RWQCB Jurisdiction As proposed the project would impact **0.046** ac of ephemeral non-wetland waters of the State. The limits of RWQCB jurisdiction are shown in blue on the Delineation Map (Figure 4). As proposed, no permitting pursuant to Section 404 of the "Clean Water Act" would be required. Section 401 permitting is only needed if the activity requires a 404 permit. A Waste Discharge Permit from the RWQCB would be required however. Approximately 29 cubic yards of fill would be introduced into waters of the State. *CDFG Jurisdiction* As proposed the project would impact **0.175** ac of ephemeral CDFG jurisdictional ditches. The limits of CDFG jurisdiction, which would require Section 1600 permitting as proposed, are shown in green on the Delineation Map (Figure 4). The limits of CDFG jurisdiction are larger because CDFG jurisdiction extends laterally to the tops of banks, not just the ordinary high water mark. Approximately 110 cubic yards of fill would be introduced into CDFG jurisdictional ditches. Public Works is preparing a 1602 Streambed Alteration Agreement and submitting it to CDFG along with this Draft EIR. A less than significant impact would occur with the incorporation of Mitigation Measure BR-15.	vegetation community occurs within the Proposed Project site, it is anticipated that no more than 1.6 acres of off-site mitigation will be necessary to satisfy this mitigation measure. The chosen site shall be located as close to the Proposed Project site as possible, and its various components (i.e. slope, species composition, elevation, etc.) shall be similar to the Mojave Mixed Woody Scrub that occurs on the Proposed Project site. The mitigation site shall be approved by the CDFG and the USFWS, and with the purchase of this mitigation site, all impacts to this sensitive vegetation community shall be considered less than significant. BR-15: All acreages of ephemeral watercourses impacted within the Proposed Project site shall be mitigated through the purchase of off-site mitigation at a 1:1 ratio. Since 0.046 acres of RWQCB jurisdictional ephemeral washes and 0.175 acres of CDFG jurisdictional ephemeral channels occur within the Proposed Project site, it is anticipated that no more than 0.35 acres of off-site mitigation will be necessary to satisfy this mitigation measure. The chosen site(s) shall be located as close to the Proposed Project site as possible, and selection of an appropriate mitigation site shall be coordinated with the Desert and Mountain Conservation Authority. The mitigation site shall be approved by the CDFG, USFWS, and the RWQCB, and with the purchase of this mitigation site, all impacts to the onsite ephemeral washes shall be considered less than significant.	

CULTURAL RESOURCES Results of the review of the survey reports and site records obtained from the South Central Coastal Information Center indicate that 11 previous cultural resources investigations have occurred within a one-half mile radius of the Proposed Project site. This includes one (Becker and Evans 1991) that covered the northwest side of Sierra Highway, opposite the current Proposed Project site, and another (Anonymous 1996) that followed the railroad tracks parallel to the southeast edge of the Proposed Project site. The record search also revealed that several isolated prehistoric artifact have been found on the northwest side of the Highway. The search of the Sacred Lands File by the NAHC did not indicate the presence of Native American cultural resources in the immediate Proposed Project site. A list of tribes, organizations, and/or individuals with traditional ties to the area was included in the NAHC response. All NAHC correspondence is provided in Appendix A No archaeological sites or isolates were found within or adjacent to the Proposed Project site. This is perhaps due to the level of disturbance along the road.	CR-1: In the event that any historical resources are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist. CR-2: In the event that any subsurface archaeological deposits are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist. CR-4: If human remains of any kind are found, all activities must cease immediately and a qualified archaeologist and the Los Angeles County Coroner must be notified. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the most likely descendants to be consulted regarding treatment and/or repatriation of the remains.	Impacts would be less than significant with mitigation.
Results of the search of the paleontological files/database conducted with the San Bernardino County Museum on August 20, 2007 (Scott 2007) indicate that the Proposed Project site is located on surface exposures of volcanic andesite dating to the Oligocene Epoch. This rock has no potential to contain paleontologic resources. “However, along some portions of the proposed project alignment, these Oligocene volcanics are overlain by a thin sedimentary of Pleistocene non-marine alluvium. These Pleistocene sediments have undetermined potential to contain significant nonrenewable paleontological resources and so are assigned undetermined paleontologic sensitivity” (Scott 2007). A copy of the paleontological literature and records review is provided in Appendix B.	CR-3: If paleontologic specimens are encountered during ground disturbance, a paleontological monitor must be empowered to identify, remove, document, and evaluate those specimens. Recovered specimens must be curated in a museum repository with permanent retrievable storage (e.g., San Bernardino County Museum). A report must be prepared with an appended itemized inventory of specimens, if any are recovered. Implementation of this mitigation measure would reduce the potential impact to a level that is less than significant.	Impacts would be less than significant with mitigation.
WATER QUALITY The Proposed Project site is not expected to result in a substantial increase in water use, impacts to ground, water quality, create additional water runoff, be located within a	No significant impacts to water quality have been identified. No mitigation measures are required.	Impacts would be less than significant.

100-year flood hazard, expose people or structures to a potential for flooding, result in a violation of the wastewater discharge permit.		
TRANSPORTATION AND TRAFFIC The Proposed Project is not expected to result in an improvement to the existing LOS, change to air traffic patterns, emergency access, parking requirements, provide additional highway capacity; however, it is expected to improve on the flow rate, density, and average speed.	No significant impacts related to traffic/transportation have been identified. No mitigation measures are required.	Impacts would be less than significant with mitigation.
NOISE **Short-Term Construction-Related Impacts** Short-term generation of increased noise associated with the proposed project would occur during excavation, grading and paving activities, but will subside when construction of the proposed project is completed. Therefore, short-term noise impacts are considered less than significant.	No significant impacts related to noise have been identified. No mitigation measures are required.	Impacts would be less than significant.
Long-Term Project-Related Impacts Long-term noise impacts are primarily associated with roadway noise. The proposed project is a roadway improvement project. This project is not expected to increase the amount of future traffic utilizing the roadway. However, the roadway improvements will increase safe operating speeds of travel, which will result in a modest increase in roadway noise. The anticipated increase in roadway noise as a result of the project will be less than 1 dBA. This level of increase is not generally perceptible to people. Therefore, long-term roadway noise impacts are less than significant.	No significant impacts related to noise have been identified. No mitigation measures are required.	Impacts would be less than significant.

SECTION 1.0 INTRODUCTION

1.1 PROJECT BACKGROUND

The County of Los Angeles Department of Public Works (Public Works) is proposing to widen and realign a portion of the Sierra Highway between State Route 14 (SR-14) and Pearblossom Highway in order to meet 65 miles per hour (mph) design guidelines per CalTrans Highway Design Manual.

1.2 PURPOSE OF THE EIR

The purpose of this Draft EIR is to evaluate the environmental effects associated with the implementation of the Sierra Highway widening and realignment between SR-14 and Pearblossom Highway near Palmdale in unincorporated Los Angeles County. Section 15121 of the CEQA Guidelines states that the purpose of an EIR "is to provide public agencies and the public in general with detailed information about the effects which a Proposed Project is likely to have on the environment; to list ways in which the significant effect of such a project might be minimized; and to indicate alternatives to such a project." This Draft EIR provides decision makers, public agencies, and the general public information on the short-term and long-term environmental effects associated with the construction and operation of the Proposed Project and project alternatives.

1.3 CEQA REQUIREMENTS

This Draft EIR has been prepared in accordance with CEQA and CEQA Guidelines. Public Works is the Lead Agency for the Proposed Project defined by Section 21067 of CEQA as "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment."

This Draft EIR was prepared in accordance with CEQA (Public Resources Code §§ 21000-21177) and the Guidelines for the Implementation of CEQA published by the Resources Agency of the State of California (California Administrative Code §§ 15000 *et seq*.).

CEQA requires that the potential environmental impacts of a project be identified and that mitigation measures be recommended that may reduce significant impacts. CEQA requires the Lead Agency to consider the information contained in the EIR prior to taking any discretionary action. The Public Works is the Lead Agency for this action. This EIR may be used by other public agencies that must make discretionary actions related to the Proposed Project.

This Draft EIR is intended to provide information to Public Works, other public agencies, and the general public regarding the potential significant short- and long-term environmental impacts associated with the Proposed Project. The EIR process also requires investigation and development of feasible mitigation measures to reduce significant adverse environmental effects of the Proposed Project to levels below significance. CEQA requires that a Lead Agency neither approve nor implement a project as proposed unless significant environmental impacts have been reduced to an acceptable level (§15091), or if the Public Agency approves the project even though significant impacts identified in the EIR cannot be fully mitigated, Public Works must state in writing the reasons for its action by adopting Findings and a Statement of Overriding Considerations.

1.3.1 Public Scoping

In accordance with Section 15082 of the CEQA Guidelines, a Notice of Preparation (NOP) was issued by the Public Works on November 5, 2007. The NOP indicated that Public Works was preparing an EIR for the Proposed Project and invited comments on the environmental issues associated with the project from the general public and public agencies. The NOP established a 30-day comment period for the interested parties to provide their comments on the scope of the EIR. The NOP and a summary of the comments received are included in Appendix A.

A public scoping meeting was not held for the Proposed Project.

1.3.2 Technical Studies

The following technical studies have been prepared in support of the Draft EIR and the Proposed Project:

- Air Quality 2007 – Chambers Group Inc.
- Biological Resources 2007 – Chambers Group Inc.
- Cultural Resources 2007 – Chambers Group Inc.
- Jurisdictional Delineation 2007 – Chambers Group Inc.
- Traffic Study 2007 – KOA Corporation
- Noise Assessment 2007 – Chambers Group Inc.

1.4 ORGANIZATION OF THE DEIR

This Draft EIR was prepared in conformance with CEQA Guidelines Sections 15120 to 15132 and includes the following sections:

- **Section 1: Introduction** describes the purpose of the Draft EIR and provides an overview of the environmental review process.

- **Section 2: Project Description** describes the project purpose and need, objectives and the details of the Proposed Project.

- **Section 3: Environmental Impacts Analysis** evaluates the adverse and beneficial impacts associated with the implementation and operation of the Proposed Project. The analysis provides an overview of the existing conditions for each issue area being evaluated, a discussion of significance thresholds used to determine the level of potential impacts, an assessment of the potential short-term and long-term impacts of the Proposed Project, and a description of the mitigation measures that would reduce or eliminate those impacts.

- **Section 4: Project Alternatives** describes and analyzes the various alternatives to the Proposed Project, which include the No-Project and Alternative Design alternatives.

- **Section 5: Cumulative Impacts** describes and analyzes the impacts of the Proposed Project and its Alternatives in conjunction with past, present and future projects within the vicinity of the Proposed Project.

- **Section 6: Growth Inducing Impacts** describes those impacts which are considered significant and unavoidable in addition to those effects found to not be significant. The section also includes a discussion of growth inducing impacts associated with the Proposed Project.

- **Section 7: References** lists the documents consulted in the preparation of this Draft EIR.
- **Section 8: List of Preparers** lists those involved with the preparation of the EIR and those agencies and persons consulted in the preparation of this Draft EIR.

1.5 DEIR REVIEW AND PUBLIC COMMENT

Copies of the Draft EIR and related documents are available for public review at:

Los Angeles County
Department of Public Works
900 South Freemont Avenue, 11th Floor
Alhambra, CA 91803

Los Angeles County
Department of Regional Planning
Hall of Records (13th Floor)
320 West Temple Street
Los Angeles, CA 90012

Lancaster Regional Library
601 W. Lancaster Blvd.
Lancaster, CA 93534-3398

Littlerock Library
35119 80th Street East
Littlerock, CA 93543-9702

Quartz Hill Library
42018 N. 50th St. W.
Quartz Hill, CA 93536-3509

The public review period for this Draft EIR is 45 days, beginning with the issuance of the Notice of Completion (NOC). Public hearings will occur during this period and oral comments may be made at these hearings. Hearings will be held on the following dates:

Agencies and the public are invited to provide comments on the Draft EIR in person at the public hearings, or standard mail. Comments should be focused on the adequacy and content of the Draft EIR.

Please submit written comments on the Draft EIR to the following address by no later than April 7, 2008:

Ms. Sarah D. Scott
County of Los Angeles
Department of Public Works
Programs Development Division, 11th Floor
P.O. Box 1460
Alhambra, CA 91802-1460

Once the public review period has closed, a Final EIR will be prepared. The Final EIR will incorporate the Draft EIR by reference, and will contain all comments received on this Draft EIR, responses to those comments, and any revisions to the text of the Draft EIR. Following completion of the Final EIR, Public Works, acting as the Lead Agency, will certify the document. Subsequent to certification of the Final EIR, the Los Angeles County Board of Supervisors may approve the project for implementation. After the Board of Supervisors has certified the Final EIR and if it approves the project, a Notice of Determination (NOD) will be filed with the State Office of Planning and Research and the Clerk of the Board of Supervisors for Los Angeles County.

Before the project is approved, Public Works would be required to find (per CEQA Guidelines Section 15091) for each significant impact of the project that changes in the project would reduce the impact to a level that is less than significant; that such changes are within the jurisdiction of a public agency other than Public Works; or that mitigation measures and project alternatives are

feasible. For impacts that Public Works determines cannot be mitigated to a less than significant level, it would be necessary for Public Works to adopt a Statement of Overriding Considerations (per CEQA Guidelines Section 15093) that describes how benefits of the project outweigh those impacts before approving the project.

SECTION 2.0 PROJECT DESCRIPTION

2.1 PROJECT OBJECTIVES, PURPOSE, AND NEED

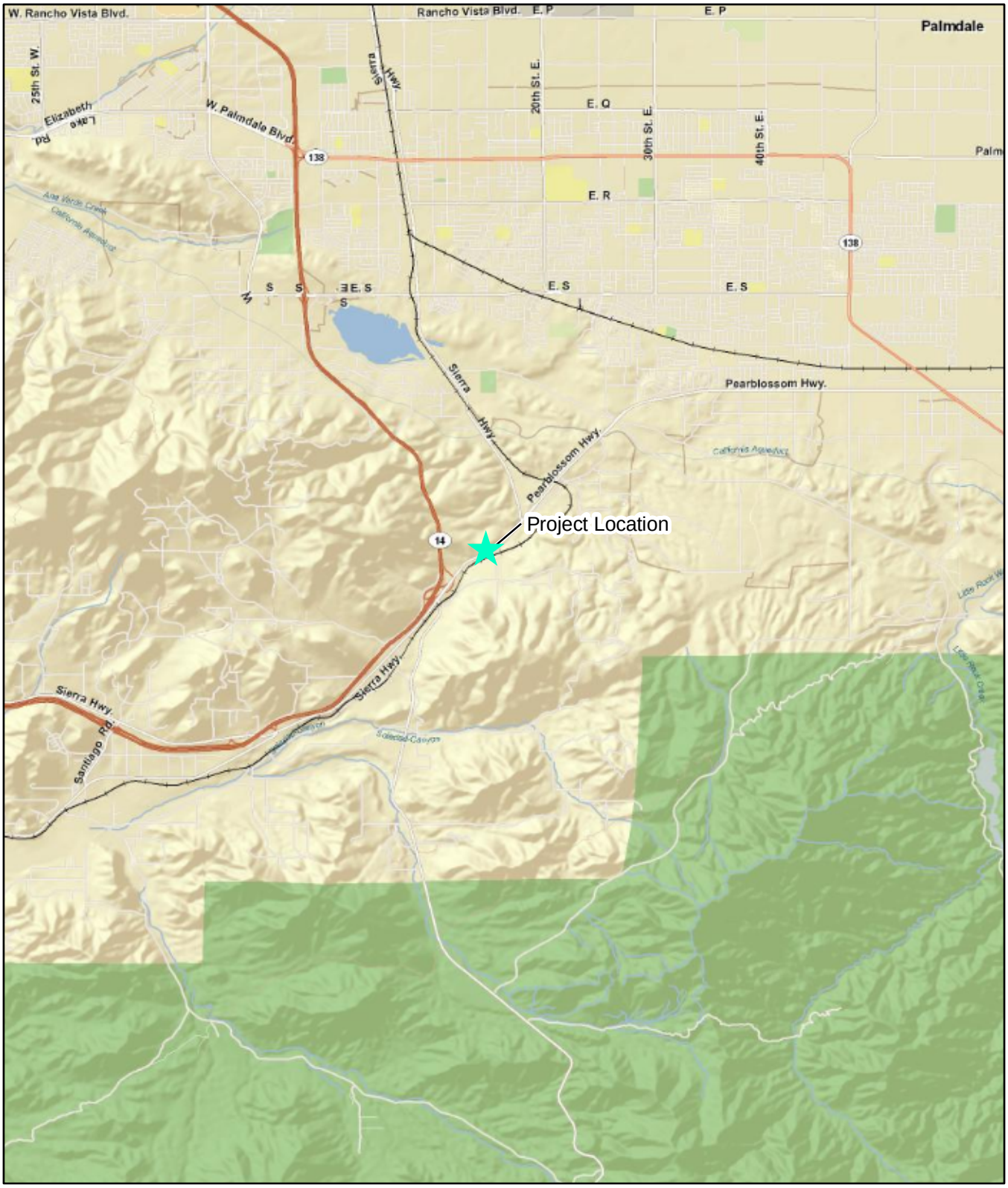
The objectives of the Proposed Project include the following:

- Widen Sierra Highway
- Construct and realign road to meet 65 mph design guidelines
- Construct a road section to provide a 12-foot inside lane, a 14-foot outside lane, a 10-foot paved shoulder on each side of the road, and a 12-foot painted median;
- Reconstruct the pavement with 6 inches of Asphalt Concrete on 12 inches of Crushed Miscellaneous Base;
- Upgrade/construct guardrails as necessary;
- Upgrade or replace the existing culverts as necessary; and
- Restore traffic loops and provide pavement striping, markings, and signage.

2.2 PROJECT LOCATION

The Proposed Project consists of a section of the Sierra Highway, located four (4) miles south of the City of Palmdale in unincorporated Los Angeles County (Figure 1). The Proposed Project is approximately a 0.80-mile section of the Sierra Highway, between the Antelope Valley Freeway Interchange and Sierra Highway and Pearblossom Highway intersection (Figure 2). This section of the highway runs parallel with the Union Pacific Railroad line.

The Proposed Project lies in the area commonly referred to as Antelope Valley. The Antelope Valley consists of 1,200 square miles of elevated desert terrain bounded by the San Gabriel Mountains on the south, Kern County to the North, and extending from Gorman on the west to the San Bernardino County on the east. The Antelope Valley contains a large portion of the Los Angeles National Forrest.



Chambers Group Inc.

N
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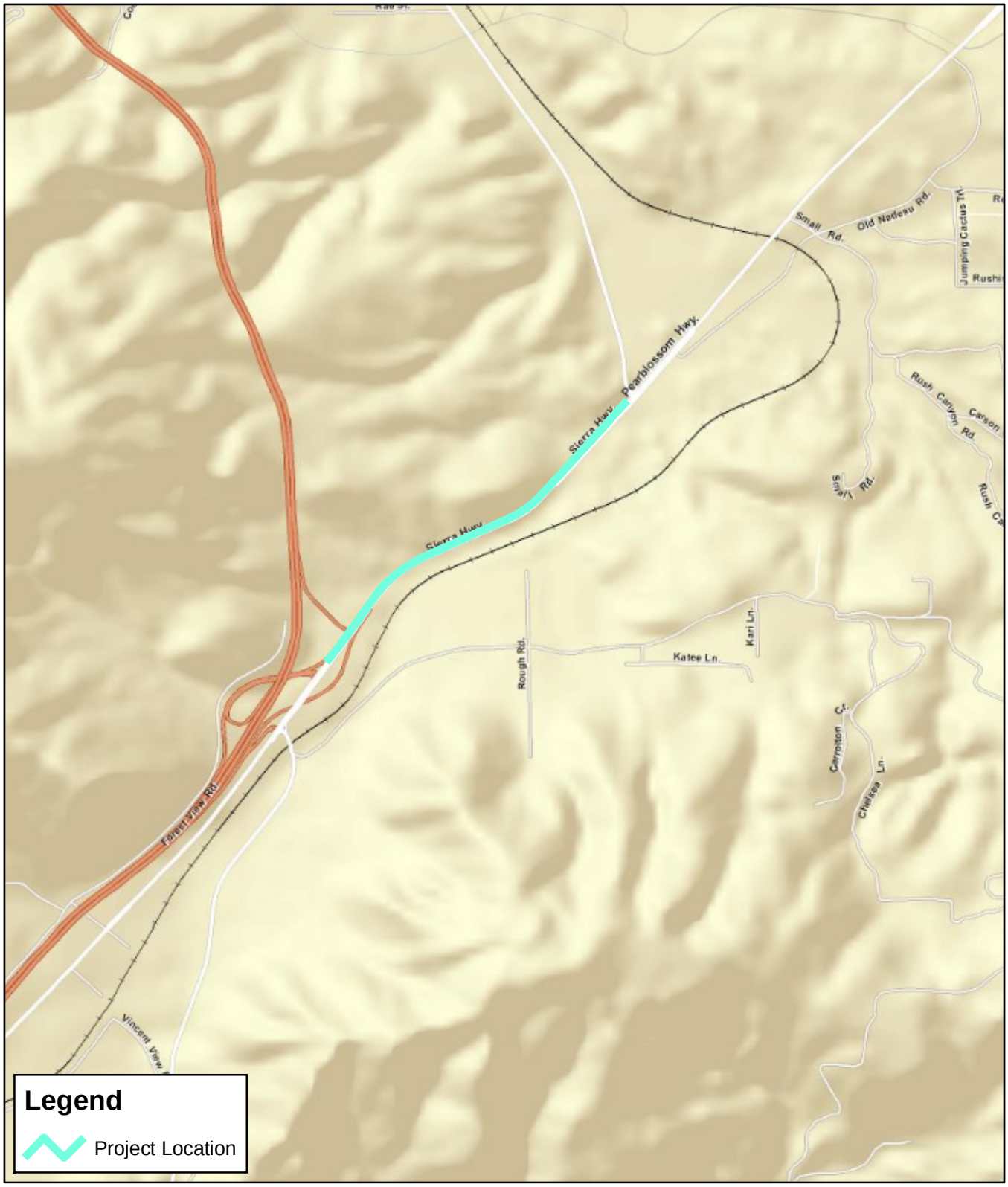
Figure 1
Project Vicinity Map

Source: ESRI Street Map.



Chambers Group Inc.

N
W E
S

0 600 1,200 2,400 3,600
Feet

Figure 2
Project Location Map

Source: ESRI Street Map.

2.3 TRANSPORTATION CHARACTERISTICS

Sierra Highway is classified as a rural major highway in the Los Angeles County Roadway System. It is an important cross-mountain commuter route, acting as an alternative to the Antelope Valley Freeway (SR-14) between Antelope Valley and the Santa Clarita Valley.

Operational Level-Of-Service

Street system operating conditions are typically described in terms of "level of service". Level of service (LOS) ranges from Level of Service A (free flow, little congestion) to Level of Service F (forced flow, extreme congestion). Table 2.3-1 gives brief definitions of the levels of service.

Table 2.3-1 - Level of Service Definitions

Level of Service	Traffic Description
A	Excellent, Light Traffic
B	Good, Light to Moderate Traffic
C	Moderate Traffic with Insignificant Delay
D	Heavy Traffic with Significant Delay
E	Severe Congestion and Delay
F	Failed, Indicated Levels cannot be Handled

Table 2.3-2 shows the relationship between level of service and the performance measures as mentioned above.

Table 2.3-2 - Level of Service for Multilane Highways

Free-Flow Speed	Criteria	LOS				
		A	B	C	D	E
60 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	40
	Average speed (mi/h)	60.0	60.0	59.4	56.7	55.0
	Maximum volume to capacity ration (v/c)	0.30	0.49	0.70	0.90	1.00
	Maximum service flow rate (pc/h/ln)	660	1080	1550	1980	2200
55 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	41
	Average speed (mi/h)	55.0	55.0	54.9	52.9	51.9
	Maximum volume to capacity ration (v/c)	0.29	0.47	0.68	0.88	1.00
	Maximum service flow rate (pc/h/ln)	600	990	1430	1850	2100
50 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	43
	Average speed (mi/h)	50.0	50.0	50.0	48.9	47.5
	Maximum volume to capacity ration (v/c)	0.28	0.45	0.65	0.86	1.00
	Maximum service flow rate (pc/h/ln)	550	900	1300	1710	2000
45 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	45
	Average speed (mi/h)	45.0	45.0	45.0	44.4	42.2
	Maximum volume to capacity ration (v/c)	0.26	0.43	0.62	0.82	1.00
	Maximum service flow rate (pc/h/ln)	490	810	1170	1550	1900

pc/mi/ln = passenger car/mile/lane, mi/h = miles/hour, v/c = volume/capacity, pc/h/ln = passenger car/hour/lane

2.4 HISTORY AND DEVELOPMENT OF THE PROPOSED PROJECT

The Proposed Project was developed to improve road conditions.

Key Issue

The key issue associated with this project is designing and constructing a highway facility that meets current standard and operational needs.

Speed Limit vs. Free-Flow Speed

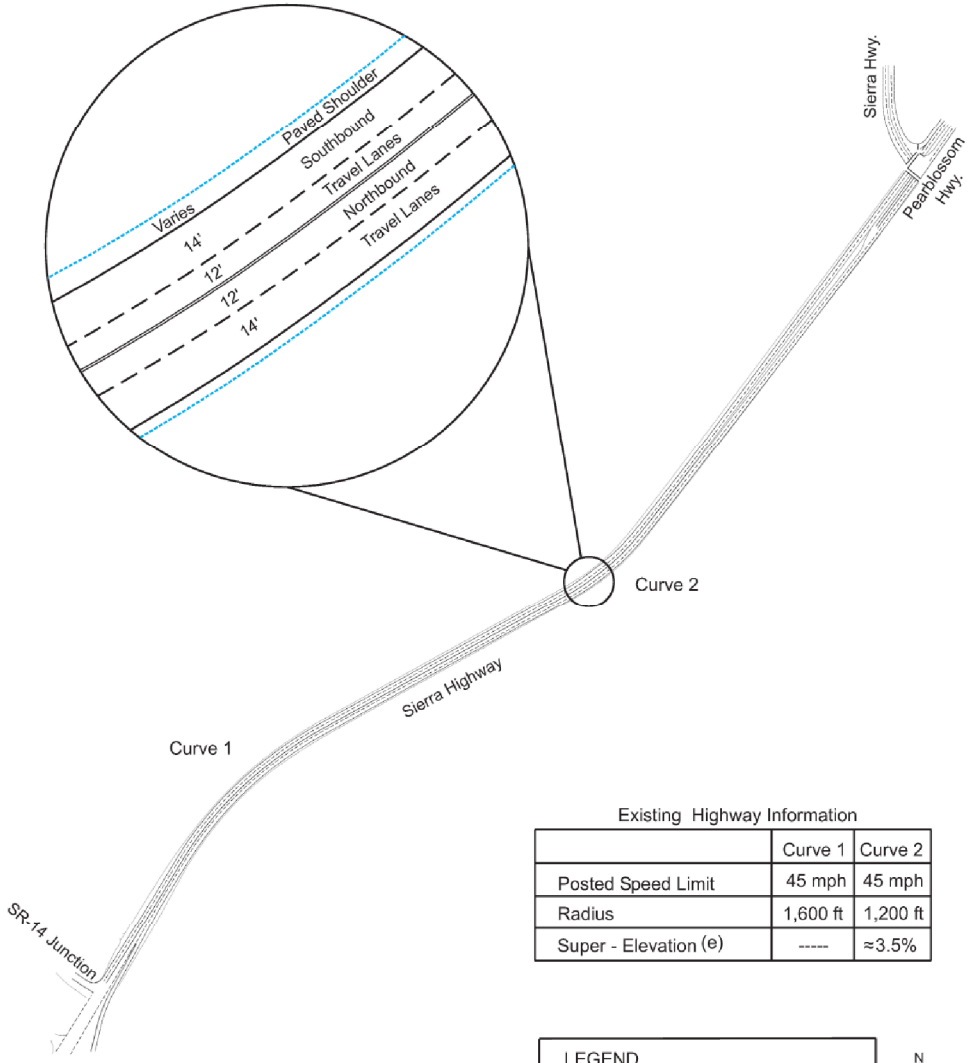
The posted speed limit along the Proposed Project route is 50 mph with a curb advisory speed of 45 mph around the northernmost horizontal curve. The highest average speed measured was 60-65 mph, which is significantly greater than the posted speed limit. Existing conditions along the highway are not designed for a speed of 60-65 mph. The project intends to improve this road segment to current operational conditions.

Curve Radius and Superelevation

The existing curve radius and superelevation do not meet current highway design standards to facilitate vehicles traveling at current operational speeds. To meet current operational conditions along the curves, a larger curve radius and superelevation is needed.

Lane Configuration and Separation

The existing striping of this portion of the highway is a solid double yellow line between the northbound and southbound lanes (Figure 3).



Existing Highway Information

	Curve 1	Curve 2
Posted Speed Limit	45 mph	45 mph
Radius	1,600 ft	1,200 ft
Super - Elevation (e)	-----	≈3.5%

LEGEND
- Edge of Pavement
- Double Yellow Line
- Lane Lines

N

Chambers Group Inc.

Figure 3
Existing Roadway Configuration

Source: KOA Corporation.

SECTION 3.0 ENVIRONMENTAL IMPACTS ANALYSIS

3.1 INTRODUCTION

This section of the Draft EIR presents information of the existing environmental conditions of the project site and the surrounding area and examines the potential environmental impacts of the Proposed Project for the following environmental topic areas checked:

☐ Aesthetics	☐ Hazards/Hazardous Materials	☐ Public Services
☐ Agriculture Resources	☑ Hydrology/Water Quality	☐ Recreation
☑ Air Quality	☐ Land Use and Planning	☑ Transportation/Traffic
☑ Biological Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☑ Cultural Resources	☑ Noise	
☐ Geology	☐ Population and Housing	

This section is organized by issue area; each issue area in this section presents the study area (area of potential effect), regulatory setting that pertains to the topical area, the environmental setting (existing conditions and affected environment), significance criteria used to assess the impacts, methodology for assessing impacts within that issue area, summary of impact findings, identification of specific construction-related and long-term impacts of the Proposed Project on that environment, mitigation measures to avoid or reduce impacts and a discussion of cumulative impacts. In addition, the impact analysis in each section classifies the impacts based on the significance criteria. Section 3 focuses on the impacts of the Proposed Project. Section 4 focuses on the alternatives to the Proposed Project.

3.1.1 Assessment Methodology

Environmental Setting

The analysis of each issue area begins with an examination of the existing physical setting (baseline conditions) as determined pursuant to Section 15125(a) of the CEQA Guidelines that may be affected by the Proposed Project. The effects of the Proposed Project are defined as changes to the environmental setting that are attributable to the project components and operation.

Significance Criteria

Appendix G of the CEQA Guidelines provides guidance for determining the significance of a project's environmental impacts. These guidelines require that physical changes in the environment be evaluated based on factual evidence, reasonable assumptions supported by facts and expert opinion based on facts. Significance criteria or environmental thresholds are identified for each environmental issue area. The significance criteria serve as a benchmark for determining if a project action would result in a significant adverse environmental impact when evaluated against the baseline conditions. According to CEQA Guidelines, a significant effect on the environment means "…a substantial, or potentially substantial, adverse change in any of the

physical conditions within the area affected by the project…" (14 CCR Section 15382). The significance criteria are based on CEQA Guidelines, professional experience, and review of other similar projects.

Impact Analysis

Impacts associated with the Proposed Project have been identified in accordance with CEQA (Public Resources Code Section 2100-21177). Short and long-term and direct and indirect impacts are identified. The impacts are classified as:

- Significant Unavoidable: Substantial adverse impact that exceeds established or defined significance thresholds and remains significant after mitigation is incorporated. Mitigation may be identified, but the mitigation measure would not reduce the impact to a less than significant level;
- Less than Significant with Mitigation Incorporated: Substantial adverse impacts that exceeds an established or defined threshold, but can be eliminated or reduced below a significance threshold with implementation of one or more mitigation measures;
- Less than Significant: Adverse impact that does not meet or exceed an established or defined significance thresholds; or
- Beneficial: Effect of the Proposed Project that is an improvement to an environmental issue area in comparison to the baseline conditions.

The focus of the analysis in on potentially significant impacts. Issue areas that were determined during the Initial Study to have a less than significant impact have been left out of the analysis of this Draft EIR.

Mitigation Measures

When significant impacts are identified, feasible mitigation measures are formulated to eliminate or reduce the impacts to a level below the significance threshold. The effectiveness of a mitigation measure is subsequently determined by evaluating the impact remaining after its application. Those impacts exceeding the significance threshold after mitigation are considered residual impacts that remain significant. Implementation of more than one mitigation measure may be necessary to reduce an impact to a level that is below the significance threshold. The mitigation measures recommended in this document are identified and numbered in the impact assessment sections and will be included in a Mitigation Monitoring and Reporting Plan (MMRP).

If any mitigation measures become incorporated as part of the project's design, they are no longer considered mitigation measures under CEQA. If they eliminate or reduce a potentially significant impact to a level below the significance threshold, they eliminate the potential for that significant impact since the mitigation measure is now a part of the component of the Proposed Project.

Cumulative Projects

CEQA requires a project to analyze cumulative impacts in addition to direct and indirect impacts of a Proposed Project. According to CEQA Guidelines Section 15355, cumulative impacts refers to "two or more individual effect which, when considered together, are considerable or which compound or increase other environmental impacts." Section 15130 of the CEQA Guidelines requires that an EIR discuss cumulative impacts a project when the project's incremental effect is cumulatively considerable, as defined in 14 CCR Section 15065(c).

In order to analyze a Proposed Project's contribution to cumulative impacts, CEQA requires that the Lead Agency identify reasonable foreseeable project within the vicinity of the Proposed

Project, summarize their effects, identify the contribution of the Proposed Project to cumulative impacts in the project region, and recommend feasible options for mitigating or avoiding the Proposed Project's contribution to any significant cumulative effects (CEQA Guidelines Section 15130[b][3]).

There were no projects identified at this time within the vicinity of the Proposed Project site that would contribute to a cumulative impact.

3.2 AIR QUALITY

This section describes the existing air quality found within the Proposed Project area and evaluates the effects the Project would have on air quality. The impact analysis is based on Antelope Valley Air Quality Management District plans, rules and regulations, and guidelines; U.S. Environmental Protections Agency documents; and the Road Construction Emission Model, Version 5.2. Detailed information can be found in the *Air Quality Study Data* (Chambers Group Inc., 2007) prepared for this project (Appendix B).

3.2.4 Regulatory Setting

Air quality within the Mojave Desert Air Basin (MDAB) is addressed through the efforts of various federal, state, regional, and local government agencies. The agencies primarily responsible for improving the air quality with the MDAB include the U.S. Environmental Protection Agency, California Air Resources Board, AVAQMD, and Southern California Association of Governments (SCAG).

Table 3.2-1 - Ambient Air Quality Monitoring Summary (2002-2006) [a]

Pollutant	Standard	2002	2003	2004	2005	2006
Ozone (O_3)						
Maximum 1–hr. concentration (ppm)	0.09 ppm	0.160	0.160	0.120	0.130	0.130
Maximum 8-hr concentration (ppm)	0.08 ppm	0.107	0.120	0.101	0.103	0.110
No. days exceeding State 1-hr. standard		46	50	37	42	22
No. days exceeding Federal 8-hr. standard		41	35	24	31	16
Carbon Monoxide (CO)						
Maximum 1–hr. concentration (ppm)	9.0 ppm	3.4	3.2	2.9	2.9	3.2
Maximum 8-hr concentration (ppm)	9.0 ppm	2.2	1.9	1.7	1.5	1.6
No. days exceeding State 8-hr. standard		0	0	0	0	0
No. days exceeding Federal 8-hr. standard		0	0	0	0	0
Nitrogen Dioxide (NO_2)						
Maximum 1-hr concentration (ppm)	0.053 ppm	0.101	0.067	0.103	0.074	0.064
Annual mean concentration (ppm)	0.25 ppm	0.016	0.015	0.015	0.015	0.014
No. days exceeding State 1-hr. standard		0	0	0	0	0
Sulfur Dioxide (SO_2)						
Max 24-hr concentration (ppm)	0.14 ppm	0.006	0.006	0.006	0.003	0.005
No. days exceeding Federal 24-hr. standard		0	0	0	0	0
No. days exceeding State 24-hr. standard	0.04 ppm	0	0	0	0	0
Annual mean concentration (ppm)	0.030 ppm	0.002	0.001	0.001	0.001	0.002
Particulate Matter (PM_{10})						
Maximum 24-hr concentration ($\mu g/m^3$)	150 $\mu g/m^3$	74	57	56	54	64

No. samples exceeding Federal 24-hr. standard		0	0	0	0	0
No. samples exceeding State 24-hr. standard	50 µg/m^3	1	2	1	1	4
Particulate Matter ($PM_{2.5}$)						
Maximum 24-hr concentration ((µg/m^3)	65 µg/m^3	24	25	18	28	18
No. samples exceeding Federal 24-hr. standard[c]		0	0	0	0	0

Sources: AVAQMD Air Quality Data—Yearly Summaries 1994-2006; U.S. EPA Air Quality Database
[a] Data are from the AVAQMD air quality monitoring station located at 43301 Division Street in the City of Lancaster.
[b] Data are from monitoring station in Victorville at 14306 Park Avenue, the closest station that monitors SO_2
[c] Federal PM 2.5 standard was revised from 65 to 35 µg/m^3 in September 2006. Statistics are based on the 65 µg/m^3 standard.
ppm = parts per million; µg/m^3 = micrograms per cubic meter

Air Quality Management Planning

The basis for air quality management planning in the United States is the Clean Air Act (CAA). The Act was amended in major ways in 1970 and 1990. The Act establishes a process by which the Federal government acting through the U.S. Environmental Protection Agency (USEPA) establishes national ambient air quality standards (AAQS). The various State agencies are responsible for attaining and maintaining those standards by regulating emission sources in accordance with a State Implementation Plan (SIP). In California, the California Clean Air Act grants the responsibility for regulating stationary sources to the local districts. Responsibility for regulating mobile sources is granted to the CARB. However, CARB also has oversight responsibility for stationary sources.

Both the State of California and the Federal government have established health based AAQS for six air pollutants. These pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter (PM_{10}, $PM_{2.5}$), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Air Quality Management Districts have the primary responsibility for controlling air pollution from all sources other than those directly emitted by motor vehicles, which falls under the jurisdiction of the CARB and the EPA. Air districts adopt and enforce rules and regulations to achieve State and federal ambient air quality standards. Air districts are further responsible for enforcing applicable State and Federal laws.

In 2004, the AVAQMD adopted the *2004 Ozone Attainment plan* to demonstrate that the AVAQMD will meet the primary required federal ozone planning milestones, attainment of the on-hour NAAQS by the end of 2007; discusses the progress the AVAQMD will make towards meeting the 1-hour ozone CAAQS; and discuss the 8-hour ozone NAAQS.

Federal regulations for $PM_{2.5}$ and 8-hour ozone require attainment/implementation plans to be published by each district by the end of 2008. As of yet, the AVAQMD has not published planes for either $PM_{2.5}$ or 8-hour ozone attainment.

Standard Conditions and Uniform Codes

All projects constructed in the AVAQMD are subject to Standard Conditions and Uniform Codes. Compliance with these provisions is mandatory and as such, does not constitute mitigation under CEQA. Those conditions specific to air quality are included below:

- Adherence to AVAQMD Rule 403, which sets requirements for dust control associated with grading and construction activities.
- Adherence to AVAQMD Rules 431.1 and 431.2, which require the use of low sulfur fuel for stationary construction equipment.
- Adherence to AVAQMD Rule 1108, which sets limitations on Reactive Organic Gasses (ROG) content in asphalt.
- Adherence to AVAQMD Rule 1113, which sets limitations on ROG content in architectural coatings.
- Adherence to Title 24 energy-efficient design requirements as well as the provision of window glazing, wall insulation, and efficient ventilation methods in accordance with the requirements of the Uniform Building Code.

3.2.5 Environmental Setting

Regional Geography and Climate

The Proposed Project lies in the Antelope Valley, which is the westernmost portion of the Mojave Desert Air Basin (MDAB). The MDAB includes the desert portions of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The Valley consists of approximately 1,300 square miles at an average elevation of 2,500 feet above sea level. Key topographical features in the area are the Tehachapi Mountains to the west, the San Gabriel Mountains to the south, and the southern end of the Sierra Nevada to the north. These features surrounding the Valley, with peak elevations from 7,000 to 10,000 feet effectively remove most of the precipitable water from the atmosphere before it reaches the Antelope Valley, reducing the average annual precipitation to approximately five inches occurring mostly between November and April. The resulting desert climate is characterized by extreme fluctuations of daily temperatures, strong seasonal winds, and clear skies. Summer high temperatures in Palmdale approach 100° Fahrenheit, while winter high temperatures range from the high 50s to low 60s.

The MDAB experiences high prevailing winds primarily from the southwest and west. As a result, smog is transported from the SCAB through mountain passes to the MDAB. The exchange of lower and upper air tends to accelerate surface winds during the warm part of the day when convection is at a minimum. During the winter, the rapid cooling of the surface layers at night retards this exchange of momentum, which often results in calm conditions.

Regional Air Quality

Air quality in the MDAB is primarily affected by motor vehicle emissions generated inside the Valley, dust raised by construction, travel on unpaved roads, and pollutants transported from other air basins. Frequent dust storms are a particular problem due to the combination of undeveloped land, high winds, and the flat geography. Dust particles from the Mojave Desert are also transported into the Valley by wind currents generated by the warm inland air mixing with the cool ocean air. Due to the Valley's position (northeast) with respect to the Los Angeles metropolitan area, transport is a more substantial problem in the winter when Pacific High Pressure Cell retreats south and winds approach from the southwest.

Air pollutants are primarily generated by two categories of sources: stationary and mobile. Stationary sources, also referred to as "point sources", have one or more emission sources at a

single facility, whereas "area sources" are widely distributed and produce many small emissions. Point sources are associated with manufacturing and industrial processing plants. Examples of area sources include residential water heaters, painting operations, and consumer producers.

Mobile sources refer to operation and evaporative emissions from motor vehicles. Mobile sources account for nearly 90% of the carbon monoxide (CO) emissions, approximately 45% of the sulfur dioxides (SO_x) emissions, approximately 80% of the nitrogen oxides (NO_x) emissions, and over 68% of the volatile organic compounds (VOCs) found within the Antelope Valley Air Quality Management District's (AVAQMD) jurisdiction.[1]

Regional Ambient Air Quality

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to Federal and State ambient air quality standards (AAQS). California and the Federal government have established health-based air quality standards for the following criteria air pollutants: carbon monoxide, ozone (O_3), nitrogen dioxide; sulfur dioxide; particulate matter (PM_{10} and $PM_{2.5}$); and lead (Pb). These standards were established to protect sensitive receptors with a margin of safety from adverse health impacts due to exposure to air pollution. California has also established ambient air quality standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. The State and Federal ambient air quality standards for each of the monitored pollution and their major sources are summarized in Table 3.2-2.

Table 3.2-2 - Ambient Air Quality Standards

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Source
Ozone (O_3)	1 hour	0.09 ppm	0.12 ppm	Motor vehicles, paints, coatings, solvents.
	8 hours	*		
Carbon Monoxide (CO)	1 hour	20.0 ppm	35.0 ppm	Internal combustion engines, primarily gasoline powered motor vehicles
	8 hours	9.0 ppm	9.0 ppm	
Nitrogen Dioxide (NO_2)	Annual average	*	0.05 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.25 ppm	*	
Sulfur Dioxide (SO_2)	Annual average	*	0.03 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	*	
	24 hours	0.04 ppm	0.14 ppm	
Suspended Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 $\mu g/m^3$	50 $\mu g/m^3$	Dust and fume producing construction, industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust)
	24 hours	50 $\mu g/m^3$	150 $\mu g/m^3$	

[1] California Air Resources Board. "2006 Estimated Basin Data—Antelope Valley AQMD." December 31, 2007. http://www.arb.ca.gov/app/emsinv/emseic1_query.php.

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Source
Suspended Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	15 µg/m^3	Dust and fume producing construction, industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust)
	24 hours	*	35 µg/m^3	
Lead (Pb)	*	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing and recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 µg/m^3	
Sulfates (SO_4)	24 hours	25 µg/m^3	*	Industrial processes

Source: California Air Resources Board (CARB). December 6, 2007. (www.arb.ca.gov/aqs/aaqs2.pdf)
ppm = parts per million; µg/m^3 = micro per cubic meter

Criteria Pollutants

Presented below is a description of each of these criteria air pollutants and their known health effects.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances (e.g., gasoline or diesel fuel). The primary adverse health effect associated with CO is the interference of normal oxygen transfer to the blood, which may result in tissue oxygen deprivation.

Ozone (O_3) is one of a number of substances called photochemical oxidants that are formed when reactive organic compounds (ROC) and NO_x (both byproducts of the internal combustion engine) react with sunlight. Ozone is present in relatively high concentrations in the South Coast Air Basin (SCAB), and the damaging effects of photochemical smog are generally related to the concentrations of Ozone. Ozone may pose a health threat to those who already suffer from respiratory diseases as well as healthy people. Additionally, Ozone has been tied to crop damage, typically in the form of stunted growth and pre-mature death. Ozone can also act as a corrosive resulting in property damage such as the embitterment of rubber products.

Nitrogen Dioxide (NO_2) is a byproduct of fuel combustion. The principal form of NO_2 produced by combustion is NO, but NO reacts to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10} (particulates having an aerodynamic diameter of 10 microns or 0.0004 inch or less in diameter).

Sulfur Dioxide (SO_2) is a colorless, pungent gas. At levels greater than 0.5 ppm, the gas has a strong odor, similar to rotten eggs. Sulfuric acid is formed from sulfur dioxide, which is an aerosol particle component that may lead to acid deposition. Acid deposition into water, vegetation, soil, or other materials can harm natural resources and materials. Sulfur oxides (SO_X) include sulfur dioxide and sulfur trioxide (SO_3). Although sulfur dioxide concentrations have been reduced to levels well below state and national standards, further reductions are desirable because SO_2 is a precursor to sulfates. Sulfates are a particulate formed through the photochemical oxidation of SO_2. Long-term exposure to high levels of SO_2 can cause irritation of existing cardiovascular disease, respiratory illness, and changes in the defenses in the lungs. When people with asthma

are exposed to high levels of SO_2 for short periods of time during moderate activity, effects may include wheezing, chest tightness, or shortness of breath.

Particulate Matter consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of particulate matter are now recognized. Course particles, or PM_{10}, include that portion of the particulate matter with an aerodynamic diameter of 10 microns (i.e., ten one-millionths of a meter or 0.0004 inch) or less. Fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns that is 2.5 one-millionths of a meter or 0.0001 inch or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities; however, wind action on the arid landscape also contributes substantially to the local particulate loading. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems. The SCAQMD recently promulgated both regional and localized emissions thresholds for $PM_{2.5}$. These are based on the proposed United States Environmental Protection Agency (EPA) standard of 10 tons per year as included in the Federal Register, September 8, 2005. Other sources of PM_{10} include *fugitive dust* sources. Fugitive dust poses primarily two public health and safety concerns. The first concern is that of respiratory problems attributable to the suspended particulates in the air. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive material agent (much like sandblasting activities). Finally, fugitive dust can result in a nuisance factor due to the soiling of proximate structures and vehicles.

Lead in the atmosphere occurs as particulate matter. In the past, the combustion of leaded gasoline was the primary source of lead emissions in the SCAB. Other sources of lead include the manufacturing of batteries, paint, ink, ceramics, and ammunition, and secondary lead smelters. With the phase-out of leaded gasoline, secondary lead smelters and battery recycling and manufacturing facilities have become lead emission sources of greater concern. Prolonged exposure to atmospheric lead poses a serious threat to human health.

Reactive Organic Gases (ROGs, VOCs) are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of ROG include the evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by ROG, but rather by reactions of ROG to form secondary pollutants.

Nitrogen Oxides (NO_x) serve as integral participants in the process of photochemical smog production. The two major forms of NO_x are nitric oxide (NO) and NO_2. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_x acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens.

Local Ambient Air Quality

The Proposed Project is located approximately four miles south of the City of Palmdale, which is located in the MDAB. The Southern California region has been divided into a number of geographical air bases based on areas with similar topographical and meteorological conditions. Air quality within the basins in managed by air quality management districts (AQMDs) that are responsible for maintaining healthful air within their jurisdictions. The Proposed Project is located in the Antelope Valley, which is governed by the Antelope Valley Air Quality Management District (AVAQMD). The AVAQMD is responsible for maintaining healthful air quality in the western portion of the MDAB within Los Angeles County.

The AVAQMD maintains an air quality monitoring station in the City of Lancaster at 43301 Division Street. The Division Street station monitors O_3, CO, NO_2, and PM_{10}. Table 3.2-2 presents air quality data for the Division Street station from 2002-2006. Additional ambient air quality data were obtained from the monitoring station located at 14306 Park Avenue in Victorville. As shown in the table, air quality in the Project area has exceeded State standards for O_3 and PM_{10} and Federal standards for O_3 over the last five years. Ambient air quality standards for CO, NO_2, and SO_2 have not been exceeded within the past five years.

3.2.6 Thresholds of Significance

The State CEQA Guidelines define a significant effect on the environment as a "substantial adverse change in the physical condition that exists in the area affected by the proposed project". In order to determine whether the Proposed Project would cause a significant effect on the environment, the impact of the project must be determined by examining the types and levels of emissions generated and their impacts on factors that affect air quality. To accomplish this determination of significance, the Antelope Valley Air Quality Management District has established air pollution thresholds against which a proposed project can be evaluated and assist lead agencies in determining whether a project is potentially significant. If the thresholds are exceeded by a proposed project, then it should be considered significant.

The final determination of significance of a project is within the purview of the lead agency pursuant to § 15064(b) of the State CEQA Guidelines, the AVAQMD recommends that he following air pollution thresholds be used by lead agencies in determining whether the proposed project could result in a significant impact. If the lead agency finds that the Proposed Project has the potential to exceed these air pollution thresholds, the project should be considered significant. Each of these factors is discussed below:

Table 3.2-3 identifies the significant emissions thresholds established in the AVAQMD for criteria pollutants that will be used to determine significant impact.

Table 3.2-3 - AVAQMD Significant Emissions Thresholds

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Carbon Monoxide (CO)	100	548
Nitrogen Oxides (NO_x)	25	137
Volatile organic compounds (VOC)	25	137
Sulfur oxides (SO_x)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	10	55

3.2.7 Environmental Impacts

During construction, the project would be subject to AVAQMD Rule 403 (fugitive dust). AVAQMD Rule 403 does not require a permit for construction activities, per se, but rather, sets forth general and specific requirements for all construction sites (as well as other fugitive dust sources) in the Mojave Desert Air Basin. The general requirement prohibits a person from causing or allowing emissions of fugitive dust from construction (or other fugitive dust source) such that the presence of such dust remains visible in the atmosphere beyond the property line of the emissions source.

AVAQMD Rule 403 also prohibits a construction site from causing an incremental PM_{10} concentration impact at the property line of more than 50 micrograms per cubic meter as determined through PM_{10} high-volume sampling, but the concentration standard and associated PM_{10} sampling do not apply if specific measures identified in the rule are implemented and appropriately documented. In accordance with Rule 403, the AVAQMD requires that contractors implement Best Available Control Measures for construction activities. Note that these measures are regulatory requirements and as such, do not constitute mitigation under CEQA.

Construction Emissions

To evaluate emissions during the road widening and alignment, the Road Construction Emissions Model Version 5.2 was used to estimate maximum daily emissions during various phases of construction of the Proposed Project: Grading, Drainage/Sub-Grading, and Paving. The following assumptions were made:

- A total of 3 acres will be graded.
- At any given time, the maximum acreage disturbed per day would be 2 acres.
- Project is not anticipated to require extensive hauling of excavated soil due to the size of the project; however, soil exported per day is estimated at 44 cubic yards.
- Two soil hauling trips per day at a distance of 30 miles (roundtrip).
- Grading will take four months; Sub-Grading will take one month; and Paving would take five months (total of 10 months).

A copy of the Road Construction Emissions Model run is included in Appendix B. Emissions are summarized in Table 3.2-4.

Table 3.2-4 - Exhaust Emissions due to Project Construction (pounds/day)

Activity	ROG	CO	NO_x	$PM_{10\ (Total)}$	$PM_{2.5}$*
Grading	18	78	83	14	3.56
Drainage/Sub-Grading	8	42	42	12	1.78
Paving	3	15	19	1	0.89
AVAQMD Threshold	137	548	137	82	55
Significant Impact	**No**	**No**	**No**	**No**	**No**

* $PM_{2.5}$ emissions calculated according to *Final-Methodology to Calculate Particulate Matter (PM) 2.5 and $PM_{2.5}$ Significance Thresholds.* SCAQMD (2006).

As shown in Table 3.2-4 exhaust emissions for construction activities associated with the Sierra Highway Widening Project would fall below the AVAQMD thresholds for all criteria pollutants; therefore, the exhaust emission for all phases of the Proposed Project would be less than significant.

CO Hotspots

The offsite generation of CO resulting from the Project was evaluated. Because CO is the criteria pollutant that is produced in greatest quantities from vehicle combustion at congested intersections and does not readily disperse into the atmosphere, long-term adherence to AAQSs at specific locations is typically demonstrated through an analysis of localized CO concentrations. Areas of vehicle congestion have the potential to create “pockets” of CO called “hot spots.” These hot spots typically occur at intersections where vehicle speeds are reduced and idle time is increased. These pockets of CO have the potential to exceed the State ambient air quality 1-hour standard of 20 ppm or the 8-hour standard of 9.0 ppm.

Typically a CO hotspot analysis should be conducted when a significant impact for CO is shown for the Proposed Project. In addition, a CO hotspot analysis should be conducted for any intersection where the level of service (LOS) worsens from C to D, or if there is a proposed increase in volume capacity of 2% or more for any intersection with a level D rating or worse. The LOS for all project intersections are level C or better, and are not anticipated to increase congestion in the vicinity due to Project implementation. Therefore, based on the AVAQMD analysis criteria, a CO hotspot evaluation is not warranted for the Proposed Project.

Sensitive Receptors

Emissions from the Proposed Project are below AVAQMD thresholds for criteria pollutants. Additionally, no sensitive receptors are located within the vicinity of the project site. The only structure adjacent to the project is a business. Businesses are not considered sensitive receptors. As a result, no impact to sensitive receptors would occur.

Odor Impact

Project construction would involve the use of heavy equipment creating exhaust pollutants from on-site earth movement and from equipment bringing concrete and other building materials to the site. With regards to nuisance odors, any air quality impacts will be confined to the immediate vicinity of the equipment itself. By the time such emissions reach any sensitive receptor sites away from the project site, they will be diluted to well below any level of air quality concern. An occasional “whiff” of diesel exhaust from trucks accessing the site from public roadways may result. Such brief exhaust odors may be adverse, but not a significant air quality impact. Additionally, some odor would be produced from the application of asphalt. Again, any exposure of the general public to these common odors would be of short duration. A less than significant impact would occur.

Operational Impacts

The Proposed Project would widen and realign a portion of the Sierra Highway between SR-14 and the Pearblossom Highway. The Proposed Project would result in a larger curve radius and super-elevation to accommodate 65mph traffic and improve vehicle safety along the highway. According to KOA (2007), the Proposed Project would not alter the current traffic volumes, or level of service (LOS) in the project area; thus, no operational impacts are anticipated.

Consistency Analysis

CEQA requires that projects be consistent with the Air Quality Management Plan (AQMP). A consistency determination plays an essential role in local agency project review by linking local planning and individual projects to the AQMP in the following ways. The consistency analysis fulfills the CEQA goal of fully informing local agency decision-makers of the environmental costs of the project under consideration at a stage early enough to ensure that the air quality concerns are fully addressed. It also provides the local agency with ongoing information assuring local decision-makers that they are making real contributions to clean air goals contained in the AQMP. Only new or amended General Plan elements, Specific Plans, and significant projects need to undergo a consistency review. This is because the AQMP strategy is based on projects from the local General Plans. Therefore, projects such as the Proposed Project, that do not produce significant air quality impacts and are consistent with the local General Plan are considered consistent with the air quality-related regional Plan.

3.2.8 Mitigation Measures

No significant impacts related to air quality have been identified. No mitigation measures are required.

3.3 BIOLOGICAL RESOURCES

This section evaluates the potential impacts on the existing biological resources, including wetlands, vegetation, and wildlife found within the Proposed Project site. It provides a summary of study methods and discussion of federal and state regulations governing the protection of biological resources. Further details are contained in the *Biological Report* (Chambers Group Inc., 2007) and the *Jurisdictional Delineation Report* (Chambers Group Inc., 2007).

Biological resources include Habitats and Vegetation Communities, Migratory Corridors, Plants, Wildlife, Fisheries, Special Status Species (i.e. those that are regulated by a law, regulation, or policy, such as threatened and endangered species), and Waters of the United States. CEQA establishes State policy to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures.

3.3.1 Regulatory Setting

Numerous federal, state, and local agencies and regulations serve to protect biological resources. Listed below are those agencies and regulations that protect wetlands, watercourses, vegetation, and wildlife resources.

Federal Endangered Species Act (ESA) The USFWS in the Department of the Interior, and the National Oceanic and Atmospheric Administration (NOAA) in the Department of Commerce share responsibility for administration of the Endangered Species Act. The ESA provides broad protection for species of fish, wildlife and plants that are listed as threatened or endangered in the United States or elsewhere. The ESA has four major components: provisions for listing species, requirements for consultation with USFWS, prohibitions against “taking” of listed species, and provisions for permits that allow incidental “take”. The ESA also discusses recovery plans and the designation of critical habitat for listed species.

California Endangered Species Act (CESA) (Fish and Game Code 2050 et seq.). This act establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that affect both a state and federal listed species, compliance with the Federal Endangered Species Act (FESA) will satisfy CESA if the Department of Fish and Game (CDFG) determines that the federal incidental take authorization is "consistent" with CESA under F&G Code Section 2080.1. For projects that will result in a take of a state only listed species, Caltrans must apply for a take permit under CESA section 2081(b).

Migratory Bird Treaty Act (MBTA) The Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-711) makes it unlawful to possess, buy, sell, purchase, barter, or “take” any migratory bird listed in Title 50 of the Code of Federal Regulations Part 10. “Take” is defined as possession or destruction of migratory birds as well as their nests or eggs. Disturbances that cause nest abandonment and/or loss of reproductive effort or the loss of habitats upon which these birds depend would be in violation of the MBTA.

Native Plant Protection Act (NPPA) (Fish and Game Code 1900-1913). California's Native Plant Protection Act (NPPA) requires all State agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. Provisions of NPPA prohibit the taking of listed plants from the wild and require notification of the CDFG at least 10 days in advance of any change in land use. This allows CDFG to salvage listed plant species that would otherwise be

destroyed. Caltrans is required to conduct botanical inventories and consult with CDFG during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Sections 1601-1603 of the Fish and Game Code. Under these sections of the Fish and Game Code, Caltrans and other agencies are required to notify CDFG prior to any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFG is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications, and bid documents for the project.

Clean Water Act (33 U.S.C. 1251-1376). The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

- **Section 401** requires that an applicant for a Federal license or permit that allows activities resulting in a discharge to waters of the United States, must obtain a state certification that the discharge complies with other provisions of the CWA. The Regional Water Quality Control Boards (RWQCB) administer the certification program in California.

- **Section 402** establishes a permitting system for the discharge of any pollutant (except dredge or fill material) into waters of the United States.

- **Section 404** establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) regulating the discharge of dredged or fill material into waters of the United States (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-330. Guidelines for implementation are referred to as the Section 404 (b)(1) Guidelines and were developed by the Environmental Protection Agency (EPA) in conjunction with USACE (40 CFR Parts 230). The Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

3.3.2 Environmental Setting

WOODLAND HABITATS

California Juniper Series

California juniper (*Juniperus californica*) is a large evergreen shrub or tree that can reach up to 15 feet in height. The canopy of the California Juniper Series is typically open, and this series can occur on uplands, ridges, slopes, or in valleys typically associated with soils derived from bedrock or alluvium (Sawyer and Keeler-Wolf 1995). The onsite California Juniper Series was composed of sparse California juniper trees with an understory of non-native brome (*Bromus* spp.) grasses. Although more trees were observed within the surrounding areas, only several California juniper trees were observed within the Proposed Project site. This vegetation community comprised approximately 0.1 acre within the Proposed Project site.

Joshua Tree Woodland Series

Joshua Tree Woodland Series (Sawyer and Keeler-wolf 1995) is dominated by Joshua trees (*Yucca brevifolia*) and usually occurs at elevations from 2,460 to 7,550 feet on well-drained

alluvial or rock slopes in the Mojave Desert. It is characterized as an open canopy woodland of widely scattered Joshua trees growing above a lower canopy of deciduous shrubs. Plant species of this vegetation community that were observed onsite included Joshua tree and common Mediterranean grass (*Schismus barbatus*). Less than 0.1 acre of this vegetation community, represented by one tree with several resprouting natural recruits, was present within the Proposed Project site.

This sensitive vegetation series is ranked S3.2 by the CDFG, meaning that 10,000 to 50,000 acres remain and populations are threatened.

SCRUB HABITATS

Mojave Mixed Woody Scrub

This vegetation community is a complex scrub habitat with uniformly scattered low-growing shrubs (Holland 1986). Soils of this type of habitat are often very shallow, overly-drained, have a low water holding capacity, and are derived from granitic parent materials (Holland 1986). Soils also tend to be alkaline but are not very saline. Many of the native shrubs characteristic of this community were observed within the Proposed Project site, such as four-wing saltbush (*Atriplex canescens*), rubber-rabbitbrush (*Chrysothamnus nauseosus*), Nevada ephedra (*Ephedra nevadensis*), interior goldenbush (*Ericameria linearifolia*), California buckwheat (*Eriogonum fasciculatum* var. *poliofolium*), bladder pod (*Isomeris arborea*), and bladder sage (*Salazaria mexicana*). The understory onsite consisted of non-native grasses, including cheat grass (*Bromus tectorum*) and Mediterranean schismus. Other species occurring with much less abundance within this community onsite included big sagebrush (*Artemisia tridentata*), four-wing saltbush (*Atriplex canescens*), Acton daisy (*Encelia actonii*), slender woolly buckwheat (*Eriogonum gracile*), cudweed aster (*Lessingia filaginifolia*), box-thorn (*Lycium* sp.), and Malpais bluegrass (*Poa secunda*). This community comprised approximately 1.6 acres within the Proposed Project site.

This sensitive vegetation series is ranked S3.2 by the CDFG, meaning that 10,000 to 50,000 acres remain and populations are threatened.

Disturbed Mojave Mixed Woody Scrub

A less dense variety of the above vegetation community, in which a greater percent cover of non-native species and more bare ground characterizes the habitat, is referred to as Disturbed Mojave Mixed Woody Scrub. In addition to occasional four-wing saltbush, rubber-rabbitbrush, California buckwheat, and bladder pod shrubs, this disturbed community was also characterized by bur-sage (*Ambrosia acanthicarpa*), jimson weed (*Datura wrightii*), dove weed (*Eremocarpus setigerus*), short-podded mustard (*Hirschfeldia incana*), prickly lettuce (*Lactuca serriola*), and Russian thistle (*Salsola tragus*). Disturbed Mojave Mixed Woody Scrub comprised approximately 0.3 acre within the Proposed Project site.

Four-Wing Saltbush Series

Fourwing saltbush series, described by Sawyer and Keeler-Wolf (1995), is dominated by fourwing saltbush. Cheesebush (*Hymenoclea salsola*), creosote bush (*Larrea tridentata*), green ephedra (*Ephedra viridis*), and honey mesquite (*Prosopis glandulosa*) may also be present. Four-Wing Saltbush Series occurs in habitats with carbonate-rich soils on bluffs, dunes, and lower, rocky slopes. Plant species found on the project site typical of this series included four-wing saltbush and common Mediterranean grass. This community comprised approximately 0.1 acre within the Proposed Project site.

Rubber Rabbitbrush-Big Sagebrush Series

The Rubber Rabbitbrush-Big Sagebrush Series described by Sawyer and Keeler-Wolf (1995), is dominated by rubber rabbitbrush and big sagebrush. This community type generally occurs on uplands, bajadas, pediments, and valleys in well drained gravelly soils. Plant species found on the project site typical of this series included rubber rabbitbrush, big sagebrush, cheat grass, dove weed, small wreathplant (*Stephanomeria exigua*), long-stemmed buckwheat (*Eriogonum elongatum*), and slender woolly buckwheat. This community comprised approximately 1.1 acres within the Proposed Project site.

Other Areas

Russian Thistle Series

Russian Thistle Series is dominated by Russian thistle, brome grasses, and other non-native weedy species. This community type typically occurs in areas with highly disturbed soils. This community comprised approximately 0.4 acres within the Proposed Project site.

Disturbed

Disturbed areas are those regions that are mostly devoid of vegetation due to human activities. Generally, most vegetation present in disturbed areas is composed of non-native weedy species. Native vegetation present in this area included wreathplant. Non-native vegetation included cheat grass, Russian thistle, jimson weed, and common Mediterranean grass. Approximately 4.4 acres of the Proposed Project site is disturbed.

Developed

Developed areas are areas that have been altered by humans and now display man-made structures such as houses, roads, buildings, parks, and other maintained areas (Gray and Bramlet 1992). Developed areas are found throughout the site, primarily as heavily compacted dirt roads. Approximately 5.2 acres of the project site is developed.

SPECIAL STATUS PLANTS

The CNDDB and CNPSEI literature reviews resulted in a list of nine sensitive plant species that have records of occurrence within or near the same quad as the Proposed Project site. One of the nine sensitive plant species are federal- and/or state-listed as endangered, threatened, rare or candidate species.

Status Codes

Federal

FE = Federally listed; Endangered
FT = Federally listed; Threatened
FC = Federal Candidate for listing
FSC = Federal Species of Special Concern

State

ST = State listed; Threatened
SE = State listed; Endangered
RARE = State-listed; Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
CSC = State Species of Special Concern

CNPS

List 1A = Plants presumed extinct in California.
List 1B = Plants rare and endangered in California and throughout their range.
List 2 = Plants rare, threatened or endangered in California but more common elsewhere in their range.
List 3 = Plants about which we need more information; a review list.
List 4 = Plants of limited distribution; a watch list.

List Extension 0.1: = Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
List Extension 0.2: = Fairly endangered in California (20-80% occurrences threatened)
List Extension 0.3: = Not very endangered in California (<20% of occurrences threatened)

Five of the nine sensitive plant species were determined to be absent from the Proposed Project site based on lack of required habitat and/or elevation requirements. Two of these sensitive species are federal-endangered species.

- San Gabriel manzanita (*Arctostaphylos gabrielensis*) – FE, CNPS List 1B.2 and
- Mt. Gleason Indian paintbrush (*Castilleja* gleasonii) – FE, SR, CNPS List 1B.2.
- Greata's aster (*Symphyotrichum greatae*) – CNPS List 1B.3.
- lemon lily (*Lilium parryi*) – CNPS List 1B.2;
- San Gabriel linanthus (*Linanthus concinnus*) – CNPS List 1B.2;

Two of the nine sensitive plant species can occur in Mojave Desert Scrub or Chenopod Scrub habitats and were determined to have a **low** potential for occurrence within the Proposed Project site due to the disturbed nature of the site. These species have no historical records of occurrence within five miles of the Proposed Project site.

- Abrams' sandmat (*Chamaesyce abramsiana*) –CNPS List 2.2;
- Mason's neststraw (*Stylocline masonii*) – CNPS List 1B.1; and

Two species can occur in Mojave Desert Scrub and have historical records of occurrence within five miles of the Proposed Project site; these species were therefore determined to have a **moderate** potential to occur onsite.

- sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*) – CNPS List 2.2;
- short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)– CNPS List 1B.2;

None of the four plant species with a potential to occur on the Proposed Project site are federal- and/or state-listed as endangered or threatened, and focused plant surveys are not required for these CNPS-listed species under CEQA guidelines.

Wildlife

During the reconnaissance-level survey, 16 species of wildlife were observed or otherwise

detected on or in the vicinity of the Proposed Project site (Appendix B). Wildlife detections included butterflies, reptiles, birds, and mammals. The wildlife species detected on the site are characteristic of the vegetation communities observed onsite. One sensitive species, loggerhead shrike (*Lanius ludovicianus*), was observed during the survey.

SENSITIVE WILDLIFE SPECIES

The CNDDB literature review resulted in a list of 15 sensitive wildlife species that have records of occurrence within or near the vicinity of the project site. In addition, one sensitive wildlife species was observed but does not have a previous record of occurrence within or near the vicinity of the project site. Five of the 16 sensitive wildlife species are federal- and/or state-listed as endangered or threatened species.

Status Codes

Federal

FE	=	Federally listed; Endangered
FT	=	Federally listed; Threatened
FC	=	Federal Candidate for listing
(FSC)	=	Federal Species of Concern; not an active term, and is provided for informational purposes only.

State

ST	=	State listed; Threatened
SE	=	State listed; Endangered

CDFG

CSC	=	California Special Concern Species

FS	=	Forest Service Sensitive
BLM	=	Bureau of Land Management Sensitive
*	=	Fully Protected Species

According to the literature review and survey results, a total of 16 sensitive wildlife species were identified as occurring or having a potential to occur on the Proposed Project Site. Seven of these 16 species have habitat requirements that are directly related to flowing or standing water, including riparian areas and wetlands associated with creeks and lakes in the vicinity or vernal pools. Due to the lack of any such habitats on the Proposed Project site, these seven wildlife species are considered **absent** from the site:

- southwestern pond turtle (*Actinemys marmorata pallida*), CSC;
- tricolored blackbird (*Agelaius tricolor*), CSC;
- arroyo toad (*Bufo californicus*), FE, CSC;
- Santa Ana sucker (*Catostomus santaanae*), FT, CSC;
- unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), FE, SE;
- mountain yellow-legged frog (*Rana muscosa*), FE, CSC; and
- two-striped garter snake (*Thamnophis hammondii*), CSC.

The following species is found in a habitat containing moist soils and a permanent water source. Due to the lack of any such habitats on the Proposed Project site, this species is considered **absent** from the site:

- silvery legless lizard (*Anniella pulchra pulchra*), CSC.

Although the following two species may be found foraging within the Proposed Project site, nesting habitat requirements include tall trees and rocky cliffs. Due to the lack of these habitats within the Proposed Project site, these two species are considered **absent** from the site:

- Cooper's hawk (*Accipiter cooperii*), CSC; and
- prairie falcon (*Falco mexicanus*), CSC.

The following two species have a **low** potential to occur on the Proposed Project site due to limited suitable habitat conditions and the lack of database records within five miles of the Proposed Project site:

- pallid bat (*Antrozous pallidu*s), CSC; and
- Le Conte's thrasher (*Toxostoma lecontei*), CSC.

The following species has a **moderate** potential to occur on the Proposed Project site due to limited existing suitable habitat conditions and the presence of database records in the vicinity:

- Mohave ground squirrel (*Spermophilus mohavensis*), ST.

The following two species have a **high** potential to occur on the Proposed Project site due to existing suitable habitat conditions and the presence of database records in the vicinity:

- burrowing owl (*Athene cunicularia*), CSC; and
- coast (San Diego) horned lizard (*Phrynosoma coronatum blainvillii*), CSC.

The following species was observed during the survey and therefore determined to be **present** in the vicinity of the project site:

- loggerhead shrike (*Lanius ludovicianus*), CSC.

3.3.3 Thresholds of Significance

U.S. ARMY CORPS OF ENGINEERS

Pursuant to Section 404 of the Clean Water Act, the USACE regulates the discharge of dredged and/or fill material into waters of the United States. Waters of the United States include navigable waterways and wetlands adjacent to navigable waterways, non-navigable waterways and wetlands adjacent to non-navigable waters that are contiguous with navigable waterways. The term "waters of the United States" is defined at 33 CFR Part 328 and currently includes (1) all navigable waters (including all waters subject to the ebb and flow of the tide), (2) all interstate waters and wetlands, (3) all impoundments of waters mentioned above, (4) all tributaries to

waters mentioned above, (5) the territorial seas, and (6) all wetlands adjacent to waters mentioned above.

As of 2007, the USACE asserts jurisdiction over traditional navigable waters, wetlands adjacent to traditional navigable waters, non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (i.e., typically three months), and wetlands that directly abut such tributaries. The USACE does not generally assert jurisdiction over swales or erosional features (e.g., gullies and small washes characterized by low volume, infrequent, or short duration flow) or ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

Wetlands are defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987, the USACE published a manual to guide its field personnel in determining jurisdictional wetland boundaries. Currently, the 1987 Wetland Manual, as amended by the Arid West Supplement of 2006, provides the legally accepted methodology for identification and delineation of USACE-jurisdictional wetlands.

CALIFORNIA STATE WATER RESOURCES CONTROL BOARD

The State regulates discharge of dredged and/or fill material into waters of the State pursuant to Section 401 of the Clean Water Act. The local Regional Water Quality Control Boards (RWQCB) assert jurisdiction to all those areas defined as jurisdictional under Section 404 of the Clean Water Act, plus isolated waters. As a State agency, the State Water Resources Control Board (SWRCB) regulates all waters of the State, including isolated wetlands as defined Under the California Porter-Cologne Water Quality Control Act (Porter Cologne; Ca. Water Code, Div. 7, §13000 et seq.).

CALIFORNIA DEPARTMENT OF FISH AND GAME

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFG defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFG's definition of "lake" includes "natural lakes or man-made reservoirs."

3.3.4 Environmental Impacts

A total of 16 sensitive wildlife species were identified as having the potential to occur within the project vicinity. One state-listed threatened species, Mohave ground squirrel, was determined to have a moderate potential to occur onsite and one California Species of Special Concern (CSC), loggerhead shrike, was observed during the survey. Additionally, two CSC species, burrowing owl and coast (San Diego) horned lizard, are known from the region and have a high potential to occur onsite, and two CSC species, pallid bat and Le Conte's thrasher, have a low potential for occurrence. Due to an absence of suitable roost sites, the pallid bat is assumed absent from the Proposed Project site as a roosting species, but has a low potential as a foraging species, and therefore requires no roost search surveys. The remaining ten species listed above were considered absent from the Proposed Project site due to a lack of suitable habitat.

Focused surveys and/or trapping are recommended for both Mohave ground squirrel and burrowing owl, as summarized below. Upon consultation with the USFWS and CDFG, focused surveys are not required for the remaining sensitive wildlife species assumed absent as well as coast horned lizard, pallid bat, and Le Conte's thrasher. In addition, coast horned lizard and Le Conte's thrasher presence/absence can be surveyed during burrowing owl and Mohave ground squirrel surveys.

Mohave Ground Squirrel

The Mohave ground squirrel lives most of its life in underground burrows, in which it spends at least seven months of the year (usually from July or August through February) in aestivation. It is resident in the various desert scrub communities of the western Mojave Desert in southwestern Inyo, eastern Kern, northwestern San Bernardino, and extreme northeastern Los Angeles Counties.

The Mohave ground squirrel is threatened by loss and degradation of its habitat due to clearing for agriculture and military activities and for urban, suburban, and rural development, livestock grazing, and off-highway vehicles (OHVs).

Although the majority of the Proposed Project site is developed or disturbed by human activities, marginally suitable habitat for this species is present along the southeastern edge of the site. In addition, the Proposed Project site is adjacent to other large areas of suitable habitat, and occurrences of Mohave ground squirrel within five miles of the site have been reported. The Proposed Project site provides moderate quality habitat for this species, and as a result of known occurrences nearby, focused trapping surveys are recommended for this species. A less than significant impact would occur with the incorporation of Mitigation Measure BR-13.

Burrowing Owl

This CSC species occurs primarily in dry annual grasslands or deserts and scrublands characterized by low-growing vegetation. It can also be found in agricultural fields, disturbed environments, and open sites within developed areas. This species is a subterranean nester that often utilizes the burrows of small burrowing mammals, most commonly, the California ground squirrel (*Spermophius beecheyi*). Habitat to support this species exists in the southeastern portions of the Proposed Project site where fewer disturbances have occurred, and occurrences of burrowing owl in the area have been reported within five miles of the site. Therefore, focused surveys are recommended for this species. A less than significant impact would occur with the incorporation of Mitigation Measures BR-9 and BR-10.

Wetlands

No wetlands were found within the study area. There are no listed hydric soils in the Proposed Project site. Other non-wetland waters and streambeds were found (Figure 4).

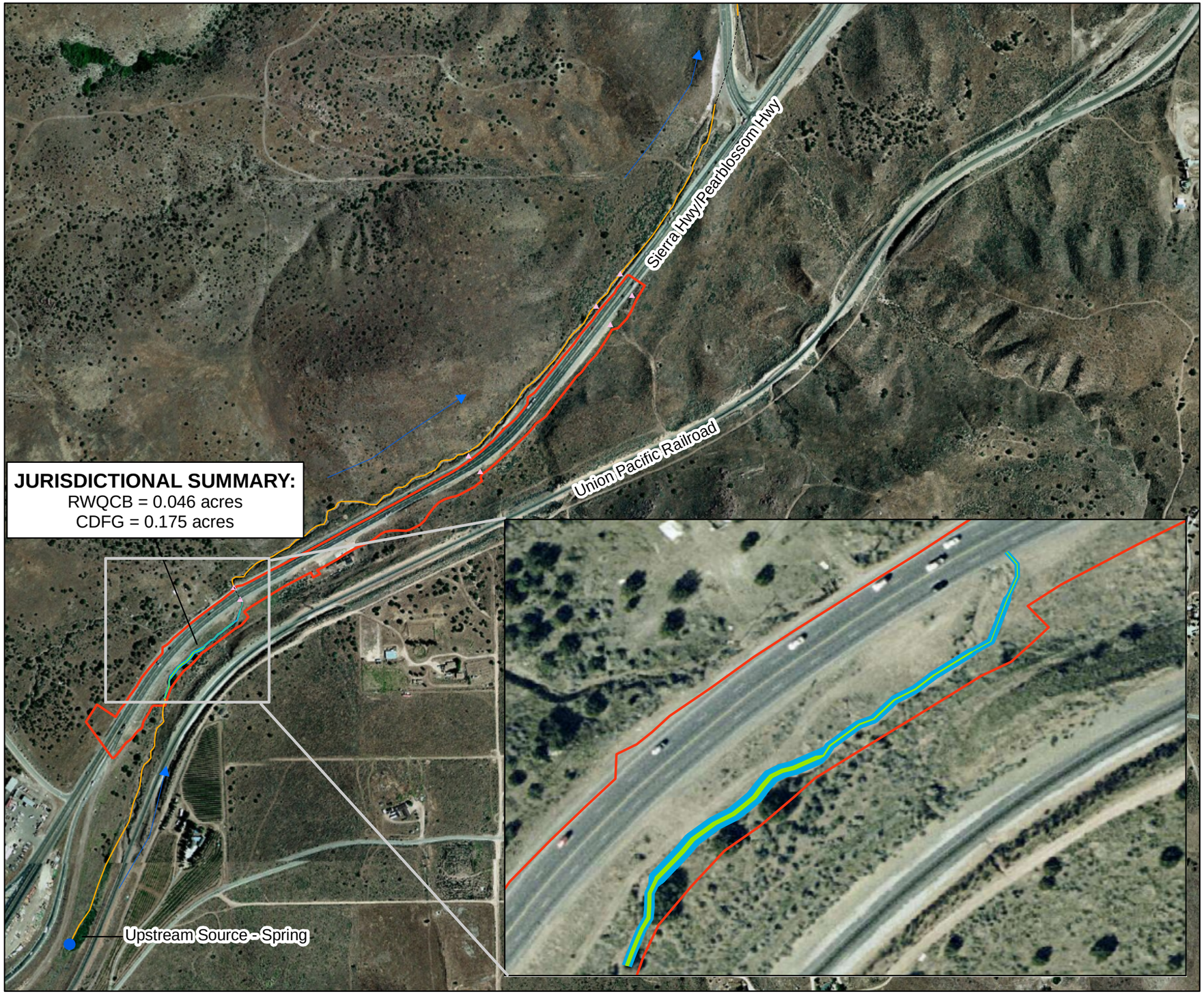


Figure 4
Jurisdictional Delineation Map

Legend

Permanent Impacts

- CDFG Bank to Bank (0.175 acres)
- RWQCB OHWM (0.046 acres)
- Project Extent
- Hydrologic Pathway
- Hydrologic Flow Direction
- Pipe Openings

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Image Source: Aerials Express, May 2006.

USACE Jurisdiction

There are no areas of USACE jurisdiction within the Proposed Project site. As proposed, no permitting pursuant to Section 404 of the "Clean Water Act" would be required.

RWQCB Jurisdiction

As proposed the project would impact **0.046** ac of ephemeral non-wetland waters of the State. The limits of RWQCB jurisdiction are shown in blue on the Delineation Map (Figure 4). As proposed, no permitting pursuant to Section 404 of the "Clean Water Act" would be required. Section 401 permitting is only needed if the activity requires a 404 permit. A Waste Discharge Permit from the RWQCB would be required however. Approximately 29 cubic yards of fill would be introduced into waters of the State.

CDFG Jurisdiction

As proposed the project would impact **0.175** ac of ephemeral CDFG jurisdictional ditches. The limits of CDFG jurisdiction, which would require Section 1600 permitting as proposed, are shown in green on the Delineation Map (Figure 4). The limits of CDFG jurisdiction are larger because CDFG jurisdiction extends laterally to the tops of banks, not just the ordinary high water mark. Approximately 110 cubic yards of fill would be introduced into CDFG jurisdictional ditches. Public Works is preparing a 1602 Streambed Alteration Agreement and submitting it to CDFG along with this Draft EIR. A less than significant impact would occur with the incorporation of Mitigation Measure BR-15.

Table 3.3-1 - Jurisdictional Impacts Matrix

Authority	Wetland Permanent	Riparian Permanent	Streambed Permanent	Other Waters Permanent	Total Permanent
USACE					
RWQCB				0.046	0.046
CDFG			0.175		0.175
Authority	**Wetland Temporary**	**Riparian Temporary**	**Streambed Temporary**	**Other Waters Temporary**	**Total Temporary**
USACE					
RWQCB					
CDFG					

3.3.5 Mitigation Measures

The following mitigation measures have been identified to reduce the impacts to biological resources to a less than significant level.

BR-1: Public Works shall minimize to the greatest extent feasible the area required for project construction, implementation, and operation.

BR-2: Public Works shall retain qualified/permitted biologists as on-call service providers to recover and relocate any ground-dwelling special-status wildlife species encountered during construction.

BR-3: Public Works shall hire a qualified biological firm to provide environmental training to all personnel working onsite. The training shall include details on special-status species

known to occur onsite or that could potentially occur onsite (i.e. burrowing owl and Mohave ground squirrel), a review of the state and federal laws that protect these species, avoidance measures, and implementation measures if a special-status species is encountered or killed. If a special-status species is encountered during any phase of construction, MM B-2 shall be implemented.

BR-4: If an injured or dead special-status species is found during construction, Public Works shall cease all work within the immediate vicinity of the individual (i.e. within 100 feet). The Los Angeles County Planning Department, the appropriate on-call biologist, and the appropriate agency (i.e. USFWS and/or CDFG) shall also be contacted in this event before any further construction may continue in this area.

BR-5: Prior to any ground-disturbing activities, (i.e. mechanized clearing or rough grading), a qualified biologist(s) shall conduct a pre-construction sweep of the Proposed Project site to ensure that:

- All special-status ground dwelling species are safely recovered and relocated to adjacent suitable habitat at least 200 feet from the limits of grading (depending on the species (i.e. Mohave ground squirrel), this may require the services of a permitted biologist).

- All potential burrows are inspected for presence/absence of wildlife species. If presence is found, all species within the burrow(s) shall be safely recovered and relocated to adjacent suitable habitat at least 200 feet from the limits of grading (depending on the species (i.e. Mohave ground squirrel), this may require the services of a permitted biologist). If absence is found, the burrow(s) shall be collapsed to prevent potential inhabitance during construction.

BR-6: Exclusionary fencing shall be installed and maintained around the limits of grading to prevent the inhabitance of wildlife during construction. Fencing shall be installed to a depth of at least six inches underground and extend at least eighteen inches aboveground. All fencing shall be properly maintained (i.e. daily perimeter checks to ensure integrity and the absence of burrows, openings, and other damage).

BR-7: If initial grading and/or grubbing activities must occur during the bird breeding season (i.e. between February 1 and August 15), a qualified biologist(s) shall conduct a preconstruction nesting bird survey for the presence/absence of nests within and adjacent to the Proposed Project site. The search area shall include a buffer area of up to 500 feet from the limits of grading. All nests of birds protected by the MBTA, FESA, CESA, and other regulations resulting from this survey shall be identified and located. (The start date of February 1 reflects the point when loggerhead shrikes, which have been identified onsite, begin to breed, and the end date of August 15 reflects the point when burrowing owls, which have a high potential to occur onsite, are generally considered to be done breeding for the year.)

BR-8: If protected nesting bird(s) are discovered within the preconstruction survey area, a buffer area appropriate to the species shall be established to avoid potential impacts to any protected species found during this survey. This buffer area may range from 200 feet for some passerines to 500 feet for some raptors and some other, more sensitive species (i.e. loggerhead shrike and Le Conte's thrasher). The USFWS and/or CDFG shall be consulted to identify the appropriate actions necessary to prevent impacts on the species. These actions may involve establishing an avoidance perimeter, the erection of sound walls, delays in construction, bio-monitoring of the nest, and/or bio-monitoring of the family group until it is determined that the nest has either failed or succeeded, at which

time, all such preventative measures may be removed and construction shall be allowed to continue.

BR-9: If a burrowing owl(s) and its occupied burrow(s) are identified within the Proposed Project site and/or the surrounding 500-foot survey area during the preconstruction survey between February 1 and August 15, the individual(s) must be avoided. A perimeter of at least 300 feet shall be established to prevent impacts to any identified burrowing owl(s) and corresponding burrow(s) within the Proposed Project site and the 500-foot area surrounding the limits of grading. All construction activities proposed within this buffer area must cease as long as the owl(s) remain in that area.

BR-10: If a burrowing owl(s) and its occupied burrow(s) are identified within the Proposed Project site and/or the surrounding 500-foot survey area between August 16 and January 31 and initial grubbing and/or grading activities must occur during this time, the individual(s) must be passively relocated by a qualified biologist(s). The identified burrow(s) shall be closed once it is determined that the owl(s) have safely left the site by their own means. Once it has been determined that the burrow(s) are no longer active, the burrow(s) shall be permanently closed and monitored to ensure that re-occupancy does not occur. Passive relocation shall be performed as prescribed in the CDFG burrowing owl mitigation guidelines.

BR-11: The lone Joshua tree identified on the Proposed Project site and its recruits shall be safely removed and transplanted at the edge of the right-of way for the new segment of roadway. This mitigation measure shall enhance the aesthetics of the new roadway, increase the localized population, and serve to protect this sensitive plant species. The chosen replanting sites shall incorporate the following components:

- The mature individual shall be planted in its current orientation in similar soils at a similar distance from the new roadway as which it currently exists. All necessary precautions shall be implemented to ensure the safe removal and transplantation of this individual, including transplanting intact soils around the root mass.

- The recruits identified at the base of this mature individual shall be safely separated from the parent plant and/or soils and transplanted elsewhere along the edge of the new right-of-way. The planting area shall mimic natural conditions where the recruits are removed from, and these transplanted recruits shall receive follow-up care (i.e. supplemental watering on an as-need basis) to ensure survival and growth.

- A qualified biological firm shall conduct the replanting and monitoring efforts under an approved Joshua Tree Impact Plan by the CDFG and/or USFWS.

BR-12: If it is determined that the transplanted Joshua tree and/or its recruits die as a result of transplanting efforts or a lack of follow-up care, the number of dead individuals shall be mitigated at a 1:1 ratio within the right-of way for the new road segment.

BR-13 A Mojave Ground Squirrel trapping study shall be conducted prior to ground disturbance activities to determine if the species is present on the project site. If the species if found on the project site, the species shall be mitigated at a ratio of 1:1 ratio at a CDFG approved Mojave Ground Squirrel mitigation bank. If the species is not found on the project site, the loss of vegetation shall be mitigated according to MM BR-14.

BR-14: All impacted acreage of Mojave Mixed Woody Scrub shall be mitigated through the purchase of off-site mitigation at a 1:1 ratio. Since 1.6 acres of this sensitive vegetation community occurs within the Proposed Project site, it is anticipated that no more than 1.6

acres of off-site mitigation will be necessary to satisfy this mitigation measure. The chosen site shall be located as close to the Proposed Project site as possible, and its various components (i.e. slope, species composition, elevation, etc.) shall be similar to the Mojave Mixed Woody Scrub that occurs on the Proposed Project site. The mitigation site shall be approved by the CDFG and the USFWS, and with the purchase of this mitigation site, all impacts to this sensitive vegetation community shall be considered less than significant.

BR-15: All acreages of ephemeral watercourses impacted within the Proposed Project site shall be mitigated through the purchase of off-site mitigation at a 1:1 ratio. Since 0.046 acres of RWQCB jurisdictional ephemeral washes and 0.175 acres of CDFG jurisdictional ephemeral channels occur within the Proposed Project site, it is anticipated that no more than 0.35 acres of off-site mitigation will be necessary to satisfy this mitigation measure. The chosen site(s) shall be located as close to the Proposed Project site as possible, and selection of an appropriate mitigation site shall be coordinated with the Desert and Mountain Conservation Authority. The mitigation site shall be approved by the CDFG, USFWS, and the RWQCB, and with the purchase of this mitigation site, all impacts to the onsite ephemeral washes shall be considered less than significant.

3.4 CULTURAL RESOURCES

This section summarizes the historic and prehistoric archaeological resources in the Proposed Project site, study methodology that includes discussions of the regulatory framework, prehistoric, ethnographic, and historic settings, methods used for research and field survey, and consultation with Native American groups; results of the records search, archival research, pedestrian survey, and archaeological resources findings; and identification of potential impacts from project implementation, and mitigation measures to mitigate impacts. Detailed information can be found in the *Cultural Resources Report* (Chambers Group Inc., 2007) prepared for this project.

Archaeological resources can include prehistoric (pre-contact) and historic (post-contact) artifacts, densities of artifacts or isolated finds. Prehistoric archaeological resources comprise physical remnants of human activities that date prior to European contact. Examples of prehistoric archaeological sites include temporary campsites, villages, lithic or other artifact scatters, hearths and/or roasting pits, bedrock mortars, cupules, or other milling features, burials, rock art that includes petroglyphs, pictographs, intaglios, and rock mosaics, and other rock features such as hunting blinds. Historic archaeological sites include objects, ruins or other physical remnants reflecting Euro-American origins. Historical archaeological sites include physical remnants of human activities that postdate European and Native American contact, but are also over 50 years old. Examples of historic archaeological sites are the remains of foundations and footings, privies and trash scatters associated with former human occupation of homesteads, farms, ranches, towns, transportation activities, and mining.

3.4.1 Regulatory Setting

Federal Regulations

The project requires compliance with Section 106 of the National Historic Preservation Act (NHPA). Section 106 requires that before beginning any undertaking, a federal agency must take into account the effects of the undertaking on historic properties and afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on these actions. This project is considered a federal undertaking because of the County's potential application for federal funding.

The Section 106 review process involves six steps:

- Initiate consultation and public involvement;
- Identify and evaluate historic properties;
- Assess the effects of the undertaking on properties that are eligible for listing in the NRHP;
- Consult with the State Historic Preservation Officer (SHPO) and other agencies for the development of a memorandum of agreement (MOA) that addresses the treatment of historic properties if such properties would be adversely affected;
- Receive ACHP comments on the MOA or results of the consultation; and
- Implement the project according to the conditions of the MOA.

For federal projects, cultural resource significance is evaluated in terms of eligibility for listing in the National Register. Criteria for eligibility on the National Register include the property's quality of significance in American history, architecture, archeology, and culture in districts, sites, buildings, structures, and objects of state and local importance that possess integrity of location, design, setting, materials, workmanship, feeling and association. In addition, criteria for determining eligibility consider whether properties:

- Are associated with events that have made a contribution to the broad pattern of our history;
- Are associated with the lives of people significant in our past;
- Embody the distinct characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that individual distinction; or
- Have yielded, or are likely to yield, information important in prehistory or history (36 CFR 60.4).

To comply with Section 106 of the NHPA, the cultural resources studies completed for this project were prepared in accordance with Caltrans and Federal Highway Administration guidance.

State Regulations

CEQA requires public or private projects financed or approved by public agencies to assess the effects of the project on cultural resources that might qualify as being historical, as that term is defined by statute. (See Public Resources Code, Section
21084.1.) Potentially historical resources could include buildings, sites, structures, or objects, each of which may have historical, architectural, cultural, or scientific importance.
CEQA requires that alternative plans or mitigation measures be considered if a project results in an effect that may cause a substantial adverse change in the significance of an historical resource. Prior to the assessment of effects or the development of mitigation measures, it must first be determined whether a particular resource is "historical." The steps that are taken in a cultural resources investigation for CEQA compliance are as follows:

- Evaluate whether potentially historical resources are in fact historical
- Identify potential historical resources
- Evaluate the effects of a project on all historical resources

CEQA guidelines define three ways that a property can qualify as a significant historical resource for the purposes of CEQA review: 1) if the resource is listed in or determined eligible for listing in the California Register of Historical Resources (CRHR); 2) if the resource is included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code unless the preponderance of evidence demonstrates that it is not historically or culturally significant; or 3) the lead agency determines the resource to be historically significant or significant in the architectural, educational, social, political, military, or cultural annals of California, as supported by substantial evidence in light of the whole record (California Code of Regulations, Title 14, Division 6, Chapter 3, section 15064.5). The CRHR was created by the State Legislature in 1992 and is intended to serve as an authoritative listing of historical and archaeological resources in California.

Additionally, the eligibility criteria for the CRHR are intended to serve as the definitive criteria for assessing the significance of potential historical resources for purposes of CEQA. This establishes a consistent set of criteria to the evaluation process for all public agencies statewide.

For a potential historical resource to be eligible for listing in the CRHR, it must be significant at the local, state, or national level under one or more of the following four criteria:

- It is associated with lives of persons important in our past;
- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic values; or
- It has yielded, or may be likely to yield, information important in prehistory or history.

Historical resources automatically listed in the CRHR include those historic properties listed in, or formally determined eligible for listing in, the National Register.

Under federal regulations, a project has an effect on a historic property when the project could alter the characteristics of the property that may qualify the property for inclusion in the National Register, including alteration of location, setting, or use. A project may be considered to have an adverse effect on a historic property when the effect may diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects on historic properties include, but are not limited to,

- Physical destruction or alteration of all or part of the property;
- Isolation of the property from, or alteration of, the property's setting when that character contributes to the property's qualifications for listing in the National Register;
- Introduction of visual, audible, or atmospheric elements that are out of character with the property or that alter its setting;
- Neglect of a property resulting in its deterioration or destruction; or
- Transfer, lease, or sale of the property (36 CFR 800.9).

3.4.2 Environmental Setting

The Proposed Project site lies within Section 14 of Township 5 North, Range 12 West of the San Bernardino Base Meridian, as depicted on the U.S. Geological Survey (USGS) 7.5-minute *Palmdale, California* (1974) topographic quadrangle. The elevation ranges from approximately 2,990 to 3,150 feet above mean sea level.

The Proposed Project site is within a narrow pass with steep slopes on both sides. In general, the roadway trends downward from southwest to northeast. Much of the area immediately adjacent to Sierra Highway was highly disturbed and sparsely vegetated, or dominated by non-native weeds. Vegetation consists predominately of juniper trees, Mojave woody series plants, rabbit brush and salt brush. Disturbances on the site exist in the form of vehicle tracks, wind-blown trash, and bioturbation. The soils are loosely compacted coarse sands with silt. There is a high percentage of volcanic gravels.

General Prehistory

It is generally believed that human occupation of southern California began at least 10,000 years before present (BP). The archaeological record indicates that between approximately 10,000 and 6,000 years BP, a predominantly hunting economy existed, characterized by archaeological sites containing numerous projectile points and butchered large animal bones. Animals that were hunted likely consisted of mostly large species still alive today. Bones of extinct species have been found, but cannot definitely be associated with human artifacts. Although small animal bones and plant grinding tools are rarely found within archaeological sites of this period, small game and vegetal foods were probably exploited on a limited basis. A lack of deep cultural deposits from this period suggests that groups included only small numbers of individuals who did not often stay in one place for extended periods (Wallace 1978).

Around 6,000 years BP, there was a shift in focus from hunting towards a greater reliance on vegetal resources. Archaeological evidence of this trend consists of a much greater number of

milling tools (e.g., metates and manos) for processing seeds and other vegetable matter. This period, which extended until around 3,000 years BP, is sometimes referred to as the "Millingstone Horizon" (Wallace 1978). Projectile points are found in archaeological sites from this period, but they are far fewer in number than from sites dating to before 6,000 years BP. An increase in the size of groups and the stability of settlements is indicated by deep, extensive middens at some sites from this period (Wallace 1978).

In sites dating to after about 3,000 years BP, archaeological evidence indicates that reliance on both plant gathering and hunting continued as in the previous period, with more specialized adaptation to particular environments. Mortars and pestles were added to metates and manos for grinding seeds and other vegetable material. Chipped-stone tools became more refined and specialized, and bone tools were more common. During this period, new peoples from the Great Basin began entering southern California. These immigrants, who spoke a language of the Uto-Aztecan linguistic stock, seem to have displaced or absorbed the earlier population of Hokan-speaking peoples. The exact time of their entry into the region is not known; however, they were present in southern California during the final phase of prehistory. During this period, known as the "Late Horizon," population densities were higher than before and settlement became concentrated in villages and communities along the coast and interior valleys (Erlandson 1994; McCawley 1996). Regional subcultures also started to develop, each with its own geographical territory and language or dialect (Kroeber 1925; McCawley 1996; Moratto 1984). These were most likely the basis for the groups encountered by the first Europeans during the eighteenth century (Wallace 1978). Despite the regional differences, many material culture traits were shared among groups, indicating a great deal of interaction (Erlandson 1994). The introduction of the bow and arrow into the region sometime around 1,500 to 1,000 years BP is indicated by the presence of small projectile points (Moratto 1984).

Ethnohistory

The Proposed Project site is located in the westernmost territory known to have been occupied by the Serrano Indians, with the Tataviam further to the west. It is likely that both groups passed through or exploited resources within the Proposed Project site at different times; therefore, both groups are discussed below.

Serrano. The Serrano occupied an area in and around the San Bernardino Mountains between approximately 1,500 and 11,000 feet above mean sea level. Their territory extended west into the Cajon Pass, east as far as Twentynine Palms, north to Victorville, and south to the Yucaipa Valley. Along with the nearby Kitanemuk, they spoke Serrano, a language within the Takic family of the Uto-Aztecan language stock. The Serrano were mainly hunters and gatherers who occasionally fished. Game that was hunted included mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Vegetable staples consisted of acorns, piñon nuts, bulbs and tubers, shoots and roots, berries, mesquite, barrel cacti, and Joshua tree (Bean and Smith 1978).

A variety of materials were used for hunting, gathering, and processing food, as well as for shelter, clothing, and luxury items. Shells, wood, stone, plant materials, bone, and animal skins and feathers were used for making baskets, pottery, blankets, mats, nets, bags and pouches, cordage, awls, bows, arrows, drills, stone pipes, musical instruments, and clothing (Bean and Smith 1978).

Settlement locations were determined by water availability, and most Serranos lived in small villages near water sources. Houses and ramadas were round and constructed of poles covered with bark and tule mats (Kroeber 1925). Most Serrano villages also had a ceremonial house used as a religious center. Other structures within the village might have included granaries and sweathouses (Bean and Smith 1978).

The Serrano were loosely organized along patrilineal lines and associated themselves with either the *Tukum* (wildcat) or the *Wahilyam* (coyote) moiety. Organization of individual bands of Serrano was considered by Kroeber (1925) to be similar to modern political groups. Tribes, as opposed to bands, were larger in numbers, and were distinguished from each other by having distinct dialects. Unlike, bands, tribes often had names that were more than merely a designation for the place where they lived (Kroeber 1925).

Partly due to their mountainous inland territory, contact between Serrano and European-Americans was minimal prior to the early 1800s. In 1819, a *Capilla* (chapel) was established in present-day Redlands and was used to help relocate many Serrano to Mission San Gabriel. However, small groups of Serrano remained in the area northeast of the San Gorgonio Pass and were able to preserve some of their native culture. Today, most Serrano live either on the Morongo or San Manuel reservations (Bean and Smith 1978).

Tataviam. The Tataviam lived primarily in the area along the upper Santa Clara River drainage. Occupation was chiefly within the foothills and mountains between the Mojave Desert and the inland valleys. “Tataviam” is a Kitanemuk phrase meaning “people of the south-facing slope,” and as the name suggests, the Tataviam occupied the south-facing slopes of the Sawmill Mountains (King and Blackburn 1978).

Ethnographic evidence indicates that the Tataviam resided in villages ranging in size from 10 to 15 to as many as 200 people. Large, small, and intermediate-sized villages were located near one another. According to two of Harrington’s informants, the Tataviam were the only people to live in the Antelope Valley (Harrington 1916, included in King and Blackburn 1978).

Mesquite flourished on the sun-dominated slopes of the Tataviam territory, and appears to have been a staple in their diet. Exploitation of other plants and animals was the same as the Chumash and Gabrielino-Tongva, who resided to the west and east, respectively. Game consisted of small mammals, deer, and possibly antelope. Vegetal foods included yucca, buds, acorns, sage seeds, and berries (King and Blackburn 1978).

There are no data on Tataviam social organization that differentiates them from the neighboring Kitanemuk, Chumash, and Gabrielino-Tongva cultural groups. Intertribal marriages with the Kitanemuk and participation in Chumash ceremonies were observed during the post-mission period (King and Blackburn 1978).

The Tataviam language was possibly a Takic-influenced remnant of a language family otherwise unknown in southern California. Archaeological data suggest that the Tataviam began to differentiate from other southern California Takic speakers about 2,900 years ago. It appears that around that time, cremation as a mortuary practice began to predominate in those areas dominated by Takic speakers. By 1834, nearly all of the Tataviam had been baptized at the San Fernando Mission and had married members of other groups. By 1910, the last speaker of Tataviam had died (King and Blackburn 1978).

History

The first significant European settlement of California began during the Spanish Period (1769 to 1821) when 21 missions and 4 presidios were established between San Diego and Sonoma. Although located primarily along the coast, the missions dominated economic and political life over the majority of the California region. The purpose of the missions was primarily Indian control and forced assimilation into Spanish society and Catholicism, along with economic support to the presidios (Castillo 1978).

The Mexican Period (1821-1848) began with the success of the Mexican Revolution in 1821, but changes to the mission system were slow to follow. When secularization of the missions occurred in the 1830s, the vast land holdings of the missions in California were divided into large land grants called *ranchos*. The Mexican government granted ranchos throughout California to Spanish and Hispanic soldiers and settlers (Castillo 1978; Cleland 1941).
In 1848, the Treaty of Guadalupe Hidalgo ended the Mexican-American War and marked the beginning of the American Period (1848 to present). The discovery of gold that same year sparked the 1849 California Gold Rush, bringing thousands of miners and settlers to California from various parts of the United States, most of whom settled in the north. For those settlers who chose to come to southern California, much of their economic prosperity was fueled by cattle ranching rather than by gold. This prosperity, however, came to a halt in the 1860s as a result of severe floods and droughts, which put many ranchos into bankruptcy (Castillo 1978; Cleland 1941).

The first known European visitors to the Mojave Desert via the Cajon Pass were Lieutenant Pedro Fages and a small party of soldiers, who traversed the pass and skirted along the north side of the San Gabriel Mountains toward the west in 1769. In 1776, while exploring a route across the Mojave Desert from Mission San Gabriel, Father Francisco Garces, accompanying the expedition of Juan Bautista de Anza, passed through the area. The expedition party is believed to have camped approximately 1.5 miles southeast of present-day Hesperia. In 1826, Jedediah Smith pioneered a section of the Mormon Trail from Needles to Mission San Gabriel through the Victorville/Hesperia area. In 1842, General John Fremont and Kit Carson followed this route during a U.S. Army expedition to explore the Mojave Desert. In the following years, hundreds of settlers used the trail to come to California (California Historic Route 66 Association 1996; City of Hesperia 2002).

According to the Palmdale City Library (2005), Palmdale has its roots in two small, early communities: Harold and Palmenthal. Harold was at the crossroads of the two major routes on the Valley floor: the Southern Pacific Railroad tracks and Fort Tejon Road (now Barrel Springs Road). At that time there were only four roads in the Valley: Soledad, Mojave, San Francisquito Canyon, and Fort Tejon Roads. Fort Tejon was a military road, and was used by stage coaches going from San Bernardino to northern points. It followed the foothills of the San Gabriels because water was more readily available there than on the Valley floor. The town was located at what is now the intersection of Barrel Springs Road and Sierra Highway and was mainly populated by railroad employees and Chinese laborers.

The Palmdale City Library (2005) goes on to describe Palmenthal as a community populated by 50 or 60 families of Swiss and German descent, predominantly from Nebraska and Illinois. “They had been told that when they saw Palm trees, they would be very close to the Pacific Ocean. In 1886, as they came to the Antelope Valley and saw our Joshua trees, they mistook them for Palm trees”. The original settlement was located about 3 miles southeast of the present Civic Center, at R8 and 27th Street East.

By the late 1800s the region was is decline due to drought and land deed problems. In the early 1900s, however, irrigation was introduced and the amount of cultivated land increased, chiefly in the production of alfalfa, pears and apples. The much-diminished communities of Harold and Palmenthal coalesced into Palmdale. Populations increased, especially following the completion of the Sierra Highway in the 1920s, which connected the High Desert with Los Angeles. Agriculture remained the primary industry of the Antelope Valley until World War II. After World War II, Palmdale grew as a center for aerospace and defense industries with the establishment of Edwards Air Force Base in Kern County and U.S. Air Force Plant 42 in Palmdale.

3.4.3 Thresholds of Significance

The criteria used to determine the significance of potential impacts related to cultural resources are Thresholds of Significance based on the model Initial Study checklist in Appendix G of the State CEQA Guidelines. The project would result in a significant impact related to cultural resources if it would:

I. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the CEQA Guidelines.

II. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines.

III. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

IV. Disturb any human remains, including those interred outside of formal cemeteries.

3.4.4 Environmental Impacts

Cultural Resources Record Search/Literature Review Results

Results of the review of the survey reports and site records obtained from the South Central Coastal Information Center indicate that 11 previous cultural resources investigations have occurred within a one-half mile radius of the Proposed Project site. This includes one (Becker and Evans 1991) that covered the northwest side of Sierra Highway, opposite the current Proposed Project site, and another (Anonymous 1996) that followed the railroad tracks parallel to the southeast edge of the Proposed Project site. The record search also revealed that several isolated prehistoric artifact have been found on the northwest side of the Highway.

Native American Coordination Results

The search of the Sacred Lands File by the NAHC did not indicate the presence of Native American cultural resources in the immediate Proposed Project site. A list of tribes, organizations, and/or individuals with traditional ties to the area was included in the NAHC response. All NAHC correspondence is provided in Appendix A

Archaeological Field Survey

No archaeological sites or isolates were found within or adjacent to the Proposed Project site. This is perhaps due to the level of disturbance along the road.

Paleontological Resources Files/Database Search Results

Results of the search of the paleontological files/database conducted with the San Bernardino County Museum on August 20, 2007 (Scott 2007) indicate that the Proposed Project site is located on surface exposures of volcanic andesite dating to the Oligocene Epoch. This rock has no potential to contain paleontologic resources. “However, along some portions of the proposed project alignment, these Oligocene volcanics are overlain by a thin sedimentary of Pleistocene non-marine alluvium. These Pleistocene sediments have undetermined potential to contain significant nonrenewable paleontological resources and so are assigned undetermined paleontologic sensitivity” (Scott 2007). A copy of the paleontological literature and records review is provided in Appendix B.

MANAGEMENT SUMMARY AND RECOMMENDATIONS

Results of the review of the survey reports and site records obtained from the South Central Coastal Archaeological Information Center indicate that 11 previous cultural resources investigations have occurred within one-half mile of the Proposed Project site and there are numerous previously known archaeological isolated finds adjacent to the Proposed Project site. Although no previously unknown historic sites or historic isolated occurrences were found within the Proposed Project site, the proximity of known cultural resources indicates the need for an archaeological monitor to be present during all ground disturbing activities related to the current project.

The search of the paleontological files/database indicates that the Proposed Project site has undetermined paleontologic sensitivity. The San Bernardino County Museum Division of Geological Sciences recommend that a qualified vertebrate paleontologist must be retained to examine the exposed Pleistocene sediments and their depositional context to determine their potential to yield significant paleontologic resources (Scott 2007). The paleontologist will then make recommendations regarding the need for a paleontologic monitor to be present during ground disturbing activities. If paleontologic specimens are encountered during ground disturbance, a paleontological monitor must be empowered to identify, remove, document, and evaluate those specimens. Recovered specimens must be curated in a museum repository with permanent retrievable storage (e.g., San Bernardino County Museum). A report must be prepared with an appended itemized inventory of specimens, if any are recovered. Implementation of this mitigation measure would reduce the potential impact to a level that is less than significant.

3.4.5 Mitigation Measures

The following mitigation measures have been identified to reduce the impacts to cultural resources to a less than significant level.

CR-1: In the event that any historical resources are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist.

CR-2: In the event that any subsurface archaeological deposits are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist.

CR-3: If paleontologic specimens are encountered during ground disturbance, a paleontological monitor must be empowered to identify, remove, document, and evaluate those specimens. Recovered specimens must be curated in a museum repository with permanent retrievable storage (e.g., San Bernardino County Museum). A report must be prepared with an appended itemized inventory of specimens, if any are recovered. Implementation of this mitigation measure would reduce the potential impact to a level that is less than significant.

CR-4: If human remains of any kind are found, all activities must cease immediately and a qualified archaeologist and the Los Angeles County Coroner must be notified. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the most likely descendants to be consulted regarding treatment and/or repatriation of the remains.

3.5 HYDROLOGY AND WATER QUALITY

This section evaluates the Proposed Project with respect to the potential impacts on hydrology, surface water quality, groundwater, flooding, and stormwater runoff. Effects on wetlands resources are analyzed in Section 3.3, Biological Resources.

This analysis describes the potential impacts on all surface water resources including the Section 3.3(d) list of water bodies in the Proposed Project vicinity that have pollutants that cannot be completely managed. This analysis also looks at the potential impacts on flooding due to the Proposed Project.

3.5.1 Regulatory Setting

Federal Regulations

Clean Water Act

The Clean Water Act (CWA) established the basic structure for regulating discharges of pollutants into the waters of the United States (U.S.) and has given the Environmental Protection Agency (EPA) the authority to implement pollution control programs. The CWA also contains requirements that set water quality standards for all contaminants in surface waters. The CWA makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under the provision. A point source of pollution is one that can be easily identified such as pipe leading from industrial and wastewater treatment plants.

Under Section 303(d) of the CWA, states, territories and authorized tribes are required to develop a list of water quality limited segments. These waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for water on the lists and develop action plans, call Total Maximum Daily Loads (TMDL), to improve water quality.

National Pollution Discharge Elimination System

The National Pollution Discharge Elimination System (NPDES) Nonpoint Source Program (established through the CWA) regulated runoff water quality; the NPDES program objective is to control and reduce pollutants to waterbodies from nonpoint discharges. Nonpoint source (NPS) pollution, unlike pollution from industrial and sewage treatment plants, comes from many different sources. NPS pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even underground sources of drinking water. The program and permit are administered by the Regional Water Quality Control Board (RWQCB), as determined by the EPA and the State Water Resources Control Board (SWRCB). An NPDES permit is needed for any construction activity that will, or is part of, a “common plan: of development that will disturb one or more acres and has the potential to have a discharge of stormwater to a waterbody of the U.S.

3.5.2 Environmental Setting

The Proposed Project, Sierra Highway – State Route 14 to Pearblossom Highway Widening Project, consists of a section of the Sierra Highway, located four (4) miles south of the City of Palmdale in unincorporated Los Angeles County (Figure 2). The Proposed Project is approximately a 0.80-mile section of the Sierra Highway, between the Antelope Valley Freeway Interchange and Sierra Highway and Pearblossom Highway intersection. This section of the highway runs parallel with the Union Pacific Railroad line.

The Proposed Project site is within a narrow pass with steep slopes on both sides. In general, the roadway trends downward from southwest to northeast. Much of the area immediately adjacent to Sierra Highway was highly disturbed and sparsely vegetated, or dominated by non-native weeds. Vegetation consists predominately of juniper trees, Mojave woody series plants, rabbit brush and salt brush. Disturbances on the site exist in the form of vehicle tracks, wind-blown trash, and bioturbation. The soils are loosely compacted coarse sands with silt. There is a high percentage of volcanic gravels.

Drainages within the Proposed Project site generally parallel Sierra Highway. The site drains from southwest to northeast. At the southwest end of the project where Sierra Highway intersects with Highway 14 the elevation is roughly 3100 feet. The Highway descends to 2950 feet at the northeast end where Sierra Highway intersects with Pearblossom Highway.

To the north and west side of the Highway (outside the Proposed Project site) there is a deeply incised drainage, which can best be described as an erosion feature. This erosion feature is isolated and terminates before reaching the intersection of Sierra Highway and Pearblossom Highway.

On the south and east side of Sierra Highway there are two manmade ditches, and one wash. All are isolated ephemeral drainages with no associated wetlands or riparian habitat.

The wash is most likely a remnant feature from the period prior to grading of the Railroad and the Highway. The wash comes within 27 feet of the Highway at the closest point. The wash has a natural appearance at the southwest end of the project with several old Junipers and a normal bed and bank formation. The ordinary high water mark width is approximately 4 feet and the bank-to-bank widths are approximately 10 feet. Continuing northwest the wash loses all natural appearance and has clearly been disturbed by grading. A manmade drainage or ditch has been created to intercept the remnant wash for diversion underneath the Highway to the north side.

The manmade drainage associated with the wash has an ordinary high water mark width of approximately 1 foot and an average bank-to-bank width of 6 feet. It connects to a well-maintained cement winged-wall inlet and is culverted underneath the Highway off site. This ditch is nearly unvegetated with some ruderal species such as Tumbleweed and Mediterranean grass.

The second manmade drainage in uplands, or ditch, is approximately mid-site and has an ordinary high water mark ranging from 1-6 feet. The banks are a uniform 10 feet wide. The associated inlet leading under the Highway is obstructed and it is unclear if this ditch is still functional. There is no vegetation associated with this ditch.

3.5.3 Thresholds of Significance

The criteria used to determine the significance of potential impacts related to hydrology and water quality are Thresholds of Significance based on the model Initial Study checklist in Appendix G of the State CEQA Guidelines. The project would result in a significant impact related to hydrology and water quality if it would:

I. Violate any water quality standards or waste discharge requirements.

II. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

III. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or offsite.

IV. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or offsite.

V. Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

VI. Otherwise substantially degrade water quality.

VII. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

VIII. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows.

IX. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

X. Project cause or expose people and structures to inundation by seiche, tsunami, or mudflow.

3.5.4 Environmental Impacts

Each applicable threshold of significance is listed below followed by analysis of the significance of potential impacts and the identification of mitigation measures that would lessen or avoid potential impacts. Finally, the significance of potential impacts after implementation of all identified mitigation measures is presented.

Threshold: **Violate any water quality standards or waste discharge requirements. Otherwise substantially degrade water quality.**

During construction of the Proposed Project, the contractor would be required to follow County of Los Angeles Department of Public Works Best Management Practices designed to prevent spillage and/or runoff of construction-related materials, sediment, or contaminants associated with construction activity. Water would be redirected away from the work area during construction to eliminate adverse impacts to water quality from contact with construction material. Additionally, equipment would be well maintained to prevent pollutants from entering the stream. As a result, the Proposed Project is not expected to degrade water quality. No impact would occur.

The Proposed Project would not generate any excessive runoff to the storm water system other than from the runoff from the improved roadway. In addition, the project would not contribute any

additional increases in the quantity of pesticides, fertilizers, and detergents into the storm drain system. The project would be required to implement preventative measures as a means to control storm water runoff and any pollutants that may enter the storm drain system. A less than significant impact would occur.

Threshold: **Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).**

The Proposed Project would not result in the depletion of groundwater resources or a lowering of the groundwater table. No impact would occur.

Threshold: **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site.**

Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site.

The Proposed Project involves minor excavation and grading needed to widen an existing highway and would slightly change existing drainage patterns at the project site. However, such changes would not significantly alter the hydrological characteristics at the project site. During construction, water would be redirected away from the work area to eliminate adverse impacts to water quality from contact with construction material. With the implementation of the County of Los Angeles Department of Public Works Best Management Practices for runoff control during construction, no significant erosion or siltation problems would occur on- or off-site. A less than significant impact would occur.

The Proposed Project would not substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or offsite. The amount of surface water runoff from the project site would not change relative to current conditions. A less than significant impact would occur.

Threshold: **Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additiona sources of polluted runoff.**

No significant change in the amount of surface runoff volumes from the proposed development is anticipated due to the existing state of the project site. No surface water bodies are found within the project site that would be affected by the project. The nature and extent of storm water runoff ultimately discharged into the existing storm drain system would not substantially change from existing levels. No impact would occur.

Threshold: **Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.**

Place within a 100-year flood hazard area structures that would impede or redirect flood flows.

The Proposed Project does not involve the construction of housing; thus, would not place housing within a 100-year flood hazard areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map (FEMA 2006). No impact would occur.

The Proposed Project would not place structures that would impede or redirect flood flows within a 100-year flood hazard area.

Threshold: **Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.**

The Proposed Project would not expose people or structures to a significant risk of loss, injury or death as a result of the failure of a levee or dam. The project would not construct any structures

Threshold: **Inundation by seiche, tsunami, or mudflow.**

The Project site is not in a coastal area. Therefore, tsunamis (seismic sea waves) are not considered a significant hazard at the site. The site is not located downslope of any large bodies of water that could adversely affect the site in the event of earthquake-induced seiches, which are wave oscillations in an enclosed or semi-enclosed body of water. No impact would occur.

3.5.5 Mitigation Measures

No significant impacts related to hydrology and water quality have been identified. No mitigation measures are required.

3.6 TRANSPORTATION/TRAFFIC

This section describes the existing transportation and traffic conditions found within the Proposed Project area and evaluates the effects the Proposed Project would have on transportation and traffic. The impact analysis is based on the CEQA Guidelines. Detailed information can be found in the *Traffic Study Report* (KOA Corporation, 2007) prepared for this project (Appendix F).

3.6.1 Regulatory Setting

Sierra Highway is classified as a rural major highway in the Los Angeles County Roadway System. It is an important cross-mountain commuter route, acting as an alternative to the Antelope Valley Freeway (SR-14) between Antelope Valley and the Santa Clarita Valley. The Los Angeles County Long Range Transportation Plan (LRTP) of 2001 outlines the transportation goals and objectives for the County through 2025.

3.6.2 Environmental Setting

The Proposed Project route runs in a north-south direction from the Antelope Valley Freeway (SR-14) junction to the Pearblossom Highway. The highway runs north to the City of Palmdale and south to the junction with SR-14. The project site experiences heavy traffic volume at high speeds.

Level of Service Criteria

The Los Angeles County General Plan includes LOS standards for roadways and/or intersections located within the County. LOS is a qualitative measure of the effect of several factors, including speed and travel time, traffic interruptions, freedom to maneuver, safety, and driving comfort and convenience. Levels of service are designated by grades of “A” (optimal) through “F” (worst) representing traffic conditions that are experienced by motorists or traffic conditions that might occur. The California Department of Transportation (CalTrans) endeavors to maintain a target LOS on state highways at the transition between LOS C and D where feasible. Table 3.6-1 shows the existing LOS for the Proposed Project route.

Table 3.6-1 - Existing (2007) Traffic Conditions

	AM Peak Hour		PM Peak Hour	
	N/B	S/B	N/B	S/B
Flow Rate (pc/h/ln)	906	1538	1465	1064
Average Speed (mph)	54.6	58.2	54.4	58.7
Density (pc/mi/ln)	16.6	26.4	29.6	18.1
Level of Service	B	D	D	C

pc/mi/ln = passenger car/mile/lane, mph = miles/hour, pc/h/ln = passenger car/hour/lane

Speed Limit vs. Free-Flow Speed

The posted speed limit along the Proposed Project route is 50 mph with a curve advisory speed of 45 mph around the northernmost horizontal curve. The highest average speed measured was 60-65 mph, which is significantly greater than the posted speed limit. Existing conditions along the highway are not designed for a speed of 60-65 mph. The project intends to improve this road segment to current operational conditions.

Curve Radius and Superelevation

The existing curve radius and superelevation do not meet current highway design standards to facilitate vehicles traveling at the existing free-flow speed of 60-65 mph. To meet current operations conditions along the curves, a larger curve radius and superelevation are needed.

Lane Configuration and Separation

The existing lane configuration is two lanes each for northbound and southbound travel. The existing striping of this portion of the highway is a solid double yellow line between the northbound and southbound lanes.

3.6.3 Thresholds of Significance

The criteria used to determine the significance of potential impacts related to traffic and circulation are Thresholds of Significance based on the model Initial Study checklist in Appendix G of the State CEQA Guidelines. The project would result in a significant impact related to traffic and circulation if it would:

I. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).

II. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

III. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

IV. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

V. Result in inadequate emergency access.

VI. Result in inadequate parking capacity.

VII. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

3.6.4 Environmental Impacts

Construction

The Proposed Project would create an increase in construction related traffic as well as result in increased traffic congestion related to construction activities within the highway. Construction of the project would involve the use of heavy machinery and equipment for grading, paving, and striping. During these activities, the machinery could block, restrict, delay, or impede traffic flows. Public Works would implement temporary traffic control devices and methods from the California Manual on Uniform Traffic Control Devices (CA MUTCD) in order to minimize or avoid these impacts. These may include signs, signals, markings, or other devices used to regulate, warn, or guide traffic, placed on, over, or adjacent to a street, or highway (CalTrans, 2006).

Traffic Conditions

The analysis in this section is based on the roadway having two travel lanes in each direction along with paved shoulders and a striped median. The Proposed Project realignment and widening would not result in an improvement to the existing LOS. Table 3.6-2 shows the LOS for the Proposed Project site with improvements. The LOS does not improve; however, the flow rate, density, and average speed improve.

Table 3.6-2 - Future (2010) Traffic Conditions

	AM Peak Hour		PM Peak Hour	
	N/B	S/B	N/B	S/B
Flow Rate (pc/h/ln)	1008	1709	1629	1183
Average Speed (mph)	60.0	58.6	59.0	60.0
Density (pc/mi/ln)	16.8	29.2	27.6	19.7
Level of Service	B	D	D	C

pc/mi/ln = passenger car/mile/lane, mph = miles/hour, pc/h/ln = passenger car/hour/lane

The flow rate increases during the AM Peak Hour on the northbound lane from 906 to 1008 pc/h/ln, and 1538 to 1709 pc/h/ln on the southbound lane. The flow rate increase during the PM Peak Hour on the northbound lane increased from 1465 to 1629 pc/h/ln, and 1064 to 1183 pc/h/ln on the southbound lane. The increase in the flow rates without a significant decrease in the density demonstrates that the Proposed Project would alleviate the current traffic congestion but would not increase the capacity of the highway as the LOS remains unchanged.

The Proposed Project would not result in a change to air traffic patterns, emergency access, or parking requirements.

Roadway Improvements

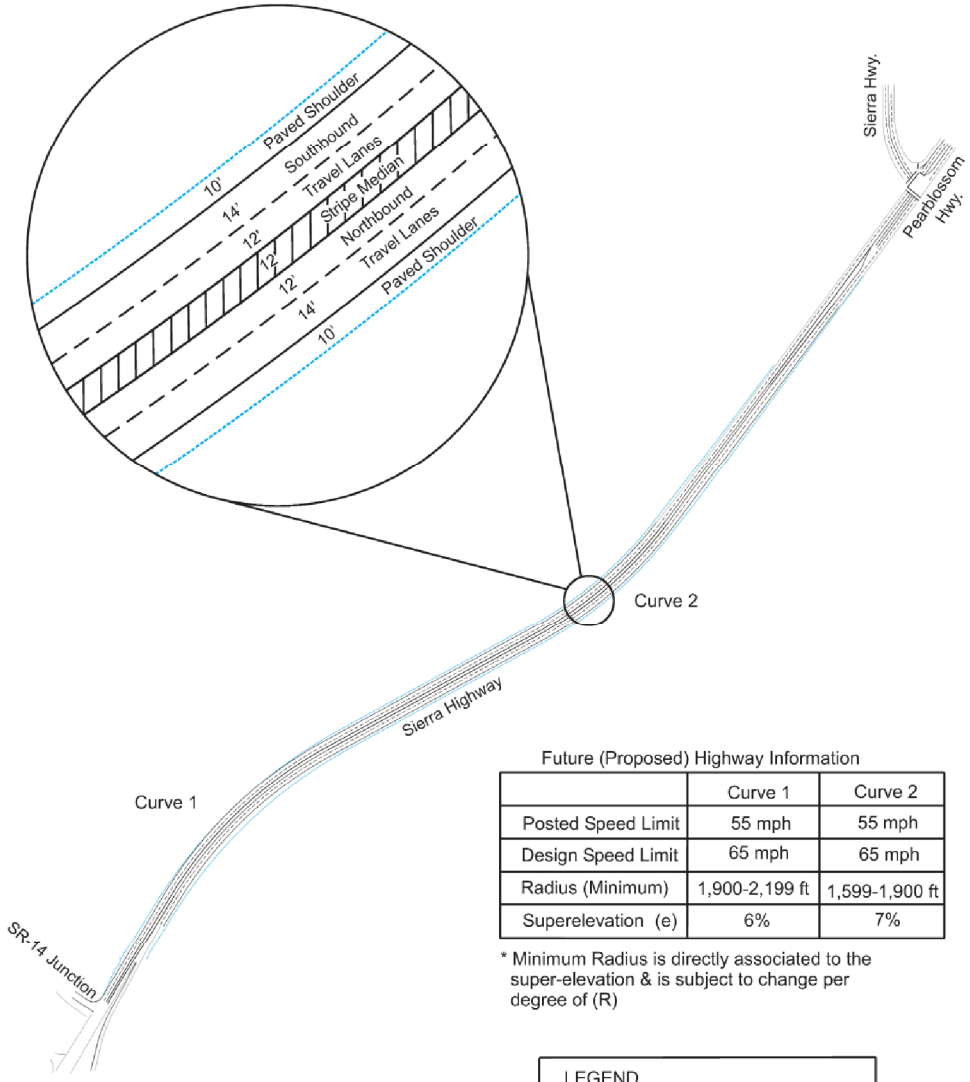
The Proposed Project would widen and realign the portion of the Sierra Highway between SR-14 and Pearblossom Highway to meet current standards and operational needs. The project would not provide additional highway capacity.

Curve Radius and Superelevation

The existing geometry of the highway does not support the speeds that have been recorded along this section of the road (KOA Corporation, 2007). In order to support a design speed limit of 65 mph, the curve radius and superelevation of the highway must satisfy requirements set by the American Association of State Highway and Transportation Officials (AASHTO) and CalTran's Highway Design Manual (HDM). The requirements and design specifics are included in the Traffic Study Report (KOA Corporation) included in Appendix F.

Lane Configuration and Separation

The Proposed Project would restripe the existing highway to provide a 12 ft. inside lane and a 14 ft. outside lane, paved shoulders, and a striped median (Figure 5). The lane widths meet the Highway Capacity Manual (HCM) 2000 requirements for multilane highways (KOA Corporation, 2007).



Future (Proposed) Highway Information

	Curve 1	Curve 2
Posted Speed Limit	55 mph	55 mph
Design Speed Limit	65 mph	65 mph
Radius (Minimum)	1,900-2,199 ft	1,599-1,900 ft
Superelevation (e)	6%	7%

* Minimum Radius is directly associated to the super-elevation & is subject to change per degree of (R)

LEGEND
- Edge of Pavement
- Lane Lines
- Striped Median

N

Chambers Group Inc.

Figure 5
Proposed Roadway Improvements

Source: KOA Corporation.

Paved Shoulders

The Proposed Project would construct 10 ft. wide paved shoulders on both sides of the highway. A 10 ft. wide paved shoulder provides a safe place for vehicles to exit a travel lane in case of emergency. A 10 ft. wide paved shoulder provides an adequate area that is not too small to allow safe vehicle operation and is not too large to encourage drivers to use the shoulder as an illegal travel lane. Highways with paved shoulders are associated with fewer crashes at lower rates than highways with gravel or grass shoulders (KOA Corporation, 2007).

Striped Median

The Proposed Project would construct a 12 ft. wide painted stripe median between the northbound and southbound lanes. The median would provide a separation between opposing traffic. The median would meet HDM and AASHTO standards and requirements.

Policy Compliance

The Proposed Project would not conflict with local policies, plans, or programs supporting alternative transportation.

3.6.5 Mitigation Measures

No significant impacts related to traffic/transportation have been identified. No mitigation measures are required.

3.7 NOISE

This section describes the existing noise levels found within the Proposed Project area and evaluates the effects the project would have on the noise environment. The analysis of noise impacts in the project area is based on a comparison of the noise caused by the Proposed Project relative to the existing noise levels. Mitigation measures are discussed, where necessary and appropriate, to avoid or reduce potential noise impacts. Detailed information can be found in the *Noise Study* (Chambers Group Inc., 2007) prepared for this project (Appendix G).

3.7.1 Regulatory Setting

Federal Standards: Title 23, Part 772 of the Code of Federal Regulations (23 CFR 772), titled "Procedures for Abatement of Highway Traffic Noise and Construction Noise," outlines procedures for noise studies that are required for approval of Federal aid highway projects. The purpose of 23 CFR 772 is to provide procedures to help protect public health and welfare, supply noise abatement criteria and establish requirements for information to be given to local officials for use in the planning and design of highways. As such, 23 CFR 772 provides procedures for preparing operational roadway noise and construction noise studies and evaluating noise abatement considered for highway projects. The highway traffic noise prediction requirements, noise analyses, noise abatement criteria, and requirement for informing local officials constitute the noise standards mandated by Title 23 of the United States Code, Part 109, subparagraph i (23 USC 109(i)), titled the "Federal-Aid Highway Act." All highway projects that are developed in conformance with these regulations shall be deemed to be in conformance with the Federal Highway Administration (FHWA) noise standards. While the project under evaluation in this EIR does not include Federal-Aid or FHWA oversight, because the proposed project is so similar to the types of projects that fall under these regulations and standards, the criteria and methodologies found in 23 CFR 772 are useful in evaluating roadway and construction noise associated with the Sierra Highway improvement project.

State of California Standards: The California Department of Transportation (Caltrans) has developed a set of policies, procedures and standards for applying 23 CFR 772 to Federal and State highway projects in California. Caltrans has published the Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects (Protocol) detailing roadway and construction noise analysis methodologies consistent with 23 CFR 772. While the project under evaluation in this EIR is not a state or federal highway, does not include Federal-Aid or require Caltrans oversight, because the proposed project is so similar to the types of projects that fall under these regulations and standards, the Protocol is useful in evaluating roadway and construction noise associated with the Sierra Highway improvement project.

County of Los Angeles Noise Standards: The proposed project is subject to the County of Los Angeles General Plan Noise Element and Noise Standards incorporated therein. The purpose of the Noise Element is to determine the quality and intensity of the noise environment present within the County and Sphere of Influence and to establish policy and directions for controlling noise in the future development of the area. The General Plan Noise Element does not have standards or criteria directly associated with highway projects. However, it does designate noise level criteria for various land uses that will be in the proximity to the highway project. The objective of the General Plan Noise Element is to achieve and maintain an environment where noise is compatible with human activities interacting with a variety of land uses. In accordance with the General Plan Noise Element, the County has adopted a residential exterior standard of 45 dBA for nighttime (10PM to 7AM) and 50 dBA for the daytime (7AM to 10PM). Exterior noise levels should not exceed 60 dBA during the day or 55 dBA at night for commercial land uses, including general business and general merchandising. Exterior noise should not exceed 70 dBA at any time in industrial zoned properties (Section 12.08390 Los Angeles County Code).

3.7.2 Environmental Setting

The following information briefly describes noise and vibration characteristics, the different ways of averaging noise and vibration, and existing noise levels in the project area.

Noise Characteristics

Noise is defined as unwanted or objectionable sound. The effect of noise on people can include general annoyance, interference with spoken conversation, sleep disturbance and, in the extreme, hearing impairment. The unit of measure used to describe a noise level is the decibel (dB). The human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, the "A-weighted" noise scale (dBA), which is limited to the frequencies humans can hear, is used for measuring sound intensity.

Equivalent Noise Level (Leq): Since Noise levels are seldom constant, varying from moment to moment and throughout the day or night, the A-weighted noise level needs to be further described to provide meaningful data. Noise measurements are often based on the average equivalent energy concept where $Leq_{(X)}$ represents the average energy content of a fluctuating noise source over a sample period and the subscript (x) represents the period of time in which the energy is computed and measured. For example, dBA $Leq_{20\ minutes}$ would represent the twenty-minute average of A-weighted noise measured in decibels. Leq without any designated time average is assumed as a one-hour average of A-weighted noise measured in decibles.

Day Night Noise Level (Ldn): The Ldn scale represents a time weighted 24-hour average noise level based on the A-weighted decibel scale. Time weighted means that a noise occurring during certain sensitive time periods is penalized for occurring at these times. The Ldn scale penalizes noise occurring between the hours of 10PM to 7AM by adding an additional 10dBA to the measurement occurring at between those hours.

Community Noise Equivalent Level (CNEL). Noise levels can be further refined into CNEL, where noise that occurs during certain hours of the evening and night are weighted (penalized) because they are considered subjectively more annoying during these time periods. CNEL is a 24-hour weighted average measure that adds 5dBA to the average hourly noise levels between 7PM and 10PM (evening hours) and 10 dBA to the average hourly noise levels between 10PM and 7AM (nighttime hours). This weighting accounts for the increased human sensitivity to noise in the evening and nighttime hours.

Sensitive noise receptors are areas where humans are participating in activities that may be subject to the stress of significant interference from noise. Land uses associated with sensitive noise receptors often include residential dwellings, hotels and motels, hospitals, nursing homes, education facilities, and libraries. Other receptors include office and industrial buildings, which are not considered as sensitive as residential dwellings, but are still protected by local land use compatibility standards.

Vibration Characteristics

Vibration is a trembling, quivering, or oscillating motion of the earth. Like noise, vibration is transmitted in waves, but in this case through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt rather than heard.

Vibration can be either natural as in the form of earthquakes, volcanic eruptions, sea waves, landslides, etc., or man-made as from explosions, the action of heavy machinery, or heavy vehicles such as trucks or trains. Both natural and man-made vibration may be continuous such as from operating machinery, or transient as from an explosion.

As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways including displacement, velocity, and acceleration. Particle displacement is a measure of the distance that a vibrated particle travels from its original position and for the purposes of soil displacement is typically measured in inches or millimeters. Particle velocity is the rate of speed at which soil particles move in inches per second or millimeters per second. Particle acceleration is the rate of change in velocity with respect to time and is measured in inches per second per second or millimeters per second per second. Typically, particle velocity (measured in inches or millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration.

Vibrations also vary in frequency and this affects perception. Typical construction vibrations fall in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies. However, due to their suspension systems, city buses often generate frequencies around 3 Hz at high vehicle speeds. It is more uncommon, but possible, to measure traffic frequencies above 30 Hz.

The way in which vibration is transmitted through the earth is called propagation. Propagation of earthborne vibrations is complicated and difficult to predict because of the endless variations in the soil through which waves travel. There are three main types of vibration propagation; surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or "side-to-side and perpendicular to the direction of propagation."

As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provides by material damping varies with soil type and condition as well as the frequency of the wave.

Existing Noise Environment

The proposed roadway improvements are within a rural environment with undeveloped property surrounding Sierra Highway between SR-14 Junction and Pearblossom Highway. Industrial development is near the intersection of Sierra Highway with SR-14 Junction. Currently, no commercial or residential development exists within the vicinity of the proposed roadway improvements. Existing roadway noise is approximately 75 dBA at curbside. The County Noise Standard for industrial zoned properties is met at a distance of 215 feet from the roadway centerline. County Noise Standards for commercial development is met at a distance of 990 feet from centerline, and County Noise Standards for residential properties are met at a distance of 4,600 feet from centerline. The primary source of noise in the project area is roadway noise from the Sierra Highway and SR-14.

3.7.3 Thresholds of Significance

The criteria used to determine the significance of potential impacts related to noise are Thresholds of Significance based on the model Initial Study checklist in Appendix G of the State CEQA Guidelines. The project would result in a significant impact related to noise if it would:

I. Expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

II. Expose people to or generate excessive groundborne vibration or groundborne noise levels.

III. Create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

IV. Cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

V. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

VI. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

3.7.4 Environmental Impacts

Project generated noise impacts can be divided into two broad categories: short-term noise impacts generated during construction of the project and long-term noise impacts generated over the life of the project.

The short-term generation of increased noise associated with the proposed project would occur during excavation, grading and paving activities, but will subside when construction of the proposed project is completed. Excavation and grading tends to create the highest noise levels, because the noisiest construction equipment is found in the earthmoving equipment category. Typical equipment in this category includes backhoes, trenchers, draglines, and front loaders. Typical operating cycles may involve 1 or 2 minutes of full power operation followed by 3 to 4 minutes at lower power settings. Table 4.7-1 illustrates the typical noise levels by construction phase.

Table 3.7-1 - Construction Noise Emissions by Phase

Construction Phase	Construction Phase Noise Levels at 50 feet with Mufflers (CNEL)
Ground Clearing	82-84
Excavation, Grading	86-89
Source: EPA, Noise from Construction Equipment and Operations, Building Equipment and Home Appliances, PB 206717, 1971.	

Ambient noise levels in the project vicinity would increase during the construction phase, but no sensitive receptors exist within the vicinity of the construction activities. The nearest sensitive receptor is a residential development on Pearblossom Highway approximately 1.5 miles northeast of the roadway improvements. Project generated construction noise is anticipated to be approximately 45dB at the nearest residential subdivision during the daytime hours. This level of noise is well below all Noise Standards established by the County. Therefore, short-term noise impacts are considered less than significant.

During construction activities, groundborne vibration will be generated during earthmoving and soil compaction using vibratory rollers or other methods. However, given the distance to the nearest residential subdivision, the level of groundborne vibration will not be perceivable to people living within that residential subdivision. Therefore, impacts associated with groundborne vibration are less than significant.

Long-term noise impacts are primarily associated with roadway noise. The proposed project is a roadway improvement project. This project is not expected to increase the amount of future traffic utilizing the roadway. However, the roadway improvements will increase safe operating speeds of travel, which will result in a modest increase in roadway noise. The anticipated increase in roadway noise as a result of the project will be less than 1 dBA. This level of increase is not generally perceptible to people. Therefore, long-term roadway noise impacts are less than significant.

Finally, the project is not within the vicinity of an airport or private airstrip and will not expose people to airport generated noise.

3.7.5 Mitigation Measures

No mitigation is necessary since all project generated noise impacts are below the thresholds of significance.

SECTION 4.0 PROJECT ALTERNATIVES

4.1 INTRODUCTION

This section describes the alternatives in terms of physical and operational characteristics and a "No Project" alternative. An analysis of impacts associated with each alternative is provided, along with a side-by-side comparison among alternatives, including the Proposed Project. The analysis of alternatives includes a comparison of transportation performance of each alternative and an assessment of the physical environmental impacts of each issue area analyzed in Section 3. In addition to evaluating the project alternatives, this section documents the alternatives screened from further analysis in this Draft EIR. Furthermore this section identifies the environmentally superior alternative as required by CEQA.

In accordance with the requirements of CEQA, this section analyzes the environmental impacts of alternatives to the Proposed Project. CEQA Guidelines Section 15126.6(a) states:

> "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

CEQA Guidelines require that a "No Project" alternative be evaluated. The Guidelines define the No Project alternative as the "circumstance under which the project does not proceed." Accordingly, this section provides an analysis of the "No Project" alternative.

4.2 NO PROJECT ALTERNATIVE

Under CEQA Guidelines Section 15126.6(e), evaluation of the "No Project" alternative is required. The No Project Alternative addresses the effect of not implementing the Proposed Project. The No Project analysis must discuss the existing conditions as well as what would reasonable be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services (CEQA Guidelines Section 15126.6(e)(2).

4.2.1 Description

The No Project Alternative consists of the existing highway remaining as it is at the date of the NOP for this Draft EIR (November 5, 2007). The No Project Alternative would not improve the safety or traffic conditions currently present on the Proposed Project route.

4.2.2 Impacts

The environmental impacts associated with the No Project Alternative are summarized below. The No Project Alternative includes reasonably foreseeable population and employment growth, regional development, and transportation for the year 2010. Impacts associated with the construction of the Proposed Project would not occur.

Air Quality

The No Project Alternative would not result in any air quality impacts. The air quality impacts associated with the Proposed Project were related to construction activities.

Biological Resources

The No Project Alternative would not result in any biological resources impacts. No further analysis is required.

Cultural Resources

The No Project Alternative would not result in any cultural resources impacts. No further analysis is required.

Hydrology/Water Quality

The No Project Alternative would not result in any hydrology/water quality impacts. No further analysis is required.

Transportation/Traffic

The No Project Alternative would not result in any adverse impacts; however, it would not provide the beneficial effects of the Proposed Project.

Noise

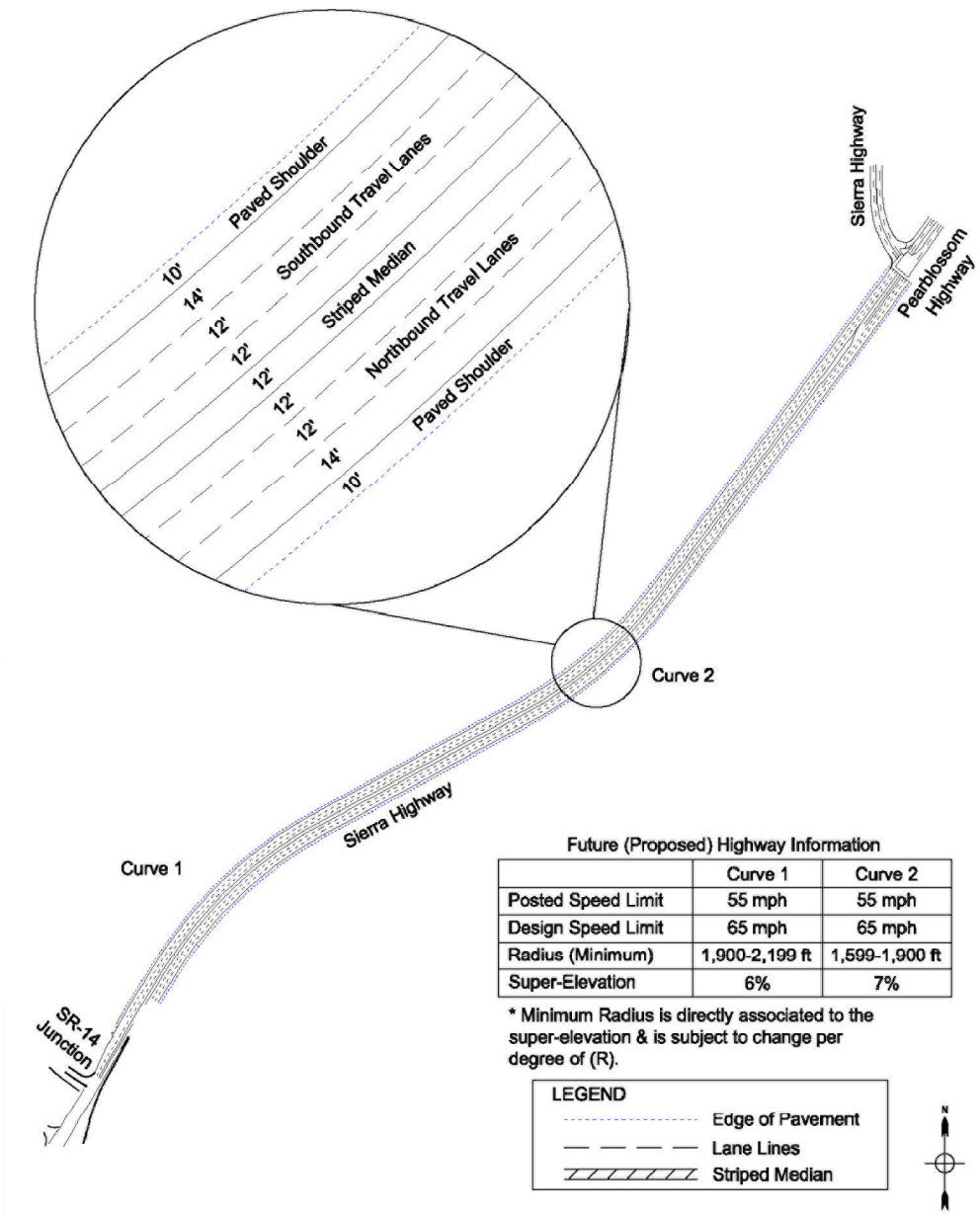
The No Project Alternative would not result in any noise impacts. No further analysis is required.

4.3 ALTERNATIVES CONSIDERED BUT REJECTED

This section summarizes the alternative that was rejected from further analysis in this Draft EIR. There were no alternatives identified that would meet project objectives and would reduce the impacts anticipated from the Proposed Project.

4.3.1 Description

This alternative would result in the Proposed Project site being widened to have three travel lanes in each direction along with paved shoulders and a striped median (Figure 6). An initial analysis of this alternative identified that it would result in additional impacts from the Proposed Project. In order to widen the highway to add a third travel lane in each the direction, additional right-of-way would be required on both the northbound and southbound sides of the road, which would result in greater impacts to the biological resources identified in Section 3.3 as well as impacts to biological resources along the southbound side of the road that were not evaluated. Also, this alternative does not adhere to the goals of the Proposed Project, which would widen and realign the highway to meet 65 mph design guidelines. This alternative would increase the capacity of the highway, which is not the objective of the Proposed Project.



Future (Proposed) Highway Information

	Curve 1	Curve 2
Posted Speed Limit	55 mph	55 mph
Design Speed Limit	65 mph	65 mph
Radius (Minimum)	1,900-2,199 ft	1,599-1,900 ft
Super-Elevation	6%	7%

* Minimum Radius is directly associated to the super-elevation & is subject to change per degree of (R).

LEGEND
- Edge of Pavement
- Lane Lines
- Striped Median

Chambers Group Inc.

Figure 6
Alternative Roadway Configuration

Source: KOA Corporation.

SECTION 5.0 CUMULATIVE IMPACTS

This section discusses the cumulative effects of the Proposed Project. Section 15130(a) of the CEQA Guidelines requires a discussion of cumulative impacts of a project "when the project's incremental effect is cumulatively considerable." The CEQA Guidelines, Section 15355, defines a cumulative impact as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulatively considerable impacts are defined in Section 15065(c) of the CEQA Guidelines as "the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects."

At the time of this EIR, no known projects were identified that would contribute to a cumulative impact when viewed in conjunction with the Proposed Project.

SECTION 6.0 OTHER CEQA CONSIDERATIONS

6.1 INTRODUCTION

The CEQA Guidelines §15126.2(d) require that an EIR:

> "Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth."

The analysis of growth inducement must also discuss ways in which the Proposed Project may encourage or facilitate other activities that may significantly affect the environment individually, or cumulatively.

Growth-inducing impacts may be either direct or indirect. Direct growth-inducing impacts occur when a project directly fosters growth. This may come about in a variety of ways, including, but not limited to, the construction of new homes and businesses and the extension of urban services (such as utilities and improved roads) to previously undeveloped areas. Provision of urban services to previously undeveloped areas can induce growth by allowing new development to occur more easily. Growth inducement can lead to economic growth directly and through multiplier effects, which can cause related growth in the areas near a new project. Indirect growth inducement results from the related multiplier effects whereby additional growth is induced by the demand for housing, goods, and services associated with a project. The following sections discuss the direct and indirect growth inducing impacts of the Proposed Project.

6.2 GROWTH-INDUCING IMPACTS

6.2.1 Direct Growth-Inducing Impacts

The Proposed Project would not result in any direct growth-inducing impacts. The project would widen and realign a portion of the Sierra Highway in order to improve traffic flow and increase safety. The project would not construct new infrastructure nor would it increase the capacity of the existing infrastructure that would result in population growth.

6.2.2 Indirect Growth-Inducing Impacts

The Proposed Project would not result in any indirect growth-inducing impacts. The project would widen and realign a portion of the Sierra Highway in order to improve traffic flow and increase safety. The project would not construct new infrastructure nor would it increase the capacity of the existing infrastructure that would result in population growth.

6.3 EFFECTS NOT FOUND TO BE SIGNIFICANT

The effects not found to be significant are analyzed in the Initial Study prepared for this EIR and is included in Appendix A.

6.4 SIGNIFICANT IRREVERSIBLE EFFECTS

The CEQA Guidelines require that an EIR identify and focus on significant environmental effects, including significant irreversible environmental changes which would be caused by the project should the project be implemented.

The CEQA Guidelines, §15126.2(c), state:

> "Uses of nonrenewable resources during the initial and continued phases of the Proposed Project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts, and particularly secondary impacts (such as highway improvement which provides access to a previously inaccessible area), generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitment of resources should be evaluated to assure that such current consumption is justified."

Implementation of the Proposed Project would not result in an irreversible commitment of renewable and nonrenewable resources including water, energy resources, and construction materials. The Proposed Project would widen and realign an existing highway. Construction activities would require a variety of construction materials including sand, gravel, and lumber.

The project site does not contain significant onsite mineral or energy resources.

6.5 UNAVOIDABLE SIGNIFICANT ADVERSE EFFECTS

The CEQA guidelines, §15126.2(b), require that the EIR:

> "Describe any significant impacts, including those which can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reason why the project is being proposed, notwithstanding their effect, should be described."

Based on the conclusions reached in Section 3.0 of this EIR, implementation of the Proposed Project would not result in any significant, unavoidable project-specific impacts. Therefore, a Statement of Overriding Considerations for these issues will not be necessary before the Proposed Project can be approved by the Los Angeles County Board of Supervisors. The implementation of the mitigation measures identified in this EIR and in the Initial Study (Appendix A) would reduce all impacts to less than significant levels.

SECTION 7.0 LIST OF PREPARERS

7.1 AGENCIES AND PERSONS CONSULTED

CA Department of Fish and Game

Naeem Siddiqui
Scott Harris

Los Angeles Regional Water Quality Control Board

Dana Cole

US Army Corp of Engineers

Ken Wong

7.2 LIST OF PREPARERS

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Lisa Louie	Agency Permitting
Jay Sander	Cultural Resources

KOA CORPORATION
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SECTION 8.0 REFERENCES

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APPENDIX A

Notice of Preparation/Initial Study and Comments

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT
NOVEMBER 5, 2007

To: **Interested Party**

Project: **Sierra Highway – State Route 14 to Pearblossom Highway Widening Project**

Location: **Unincorporated Los Angeles County near the City of Palmdale**

SIERRA HIGHWAY – STATE ROUTE 14 TO PEARBLOSSOM HIGHWAY WIDENING PROJECT

The County of Los Angeles Department of Public Works (Public Works) will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the Proposed Project. Your agency will need to use the Environmental Impact Report (EIR) prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study is attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to:

Sarah Scott
County of Los Angeles
Department of Public Works
900 S. Freemont Avenue, 11th Floor
Alhambra, CA 91803
(626) 458-3916
sscott@dpw.lacounty.org

Sarah D. Scott
Signed

11-5-2007
Date

Sarah D. Scott
Name

INTRODUCTION

This document is the Notice of Preparation (NOP) of an EIR for transportation improvements on Sierra Highway between State Route 14 and Pearblossom Highway. The purpose of the NOP is to describe the Proposed Project, the location of the project, the probable environmental effects of the project that will be evaluated in the EIR, and solicit input regarding the scope and content of the analysis to be included in the EIR. This NOP is being issued in accordance with Section 15082(a) of the CEQA Guidelines.

This document will be based on the goals and objectives included in the following documents:

- The County of Los Angeles Draft Preliminary General Plan, 2007
- The County of Los Angeles General Plan, 1992

BACKGROUND

The Sierra Highway runs from Tunnel Station near the north limit of the City of Los Angeles, where it intersects with San Fernando Road and Foothill Boulevard, as well as Interstate 5, and continues north to Mojave, mostly paralleling State Route 14 (the Antelope Valley Freeway). Formerly, except for the segment between its west junction with Soledad Canyon Road in Santa Clarita and Ward Road in Acton, it was State Route 14. Previous to July, 1964, the part of Sierra Highway identified in the preceding was signed US 6. Previous to the late 1950s or early 1960s, Sierra Highway was signed US 6 in its entirety.

PROJECT SUMMARY

The Proposed Project is the realignment of a portion of the Sierra Highway in the Antelope Valley of unincorporated Los Angeles County. Public Works proposes to realign and widen the existing road to meet design criteria for 65 miles per hour design speed per Traffic and Lighting recommendations and enhance the safety of the road. The project would realign and widen approximately 0.80-miles of Sierra Highway between State Route 14 (SR-14) and Pearblossom Highway.

PROJECT LOCATION

The Proposed Project consists of a section of the Sierra Highway, located four (4) miles south of the City of Palmdale in unincorporated Los Angeles County. The proposed project is approximately a 0.80-mile section of the Sierra Highway, between the Antelope Valley Freeway Interchange and Sierra Highway and Pearblossom Highway intersection. This section of the highway runs parallel with the Union Pacific Railroad line.

The proposed project lies in the area commonly referred to as Antelope Valley. The Antelope Valley consists of 1,200 square miles of elevated desert terrain bounded by the San Gabriel Mountains on the south, Kern County to the North, and extending from Gorman on the west to the San Bernardino County on the east. The Antelope Valley contains a large portion of the Los Angeles National Forest.

PROJECT GOALS and OBJECTIVES

Objectives of the Proposed Project include the following:

- Widen Sierra Highway
- Construct and realign road to meet 65 mph design guidelines
- Construct a road section to provide a 12-foot inside lane, a 14-foot outside lane, a 10-foot paved shoulder on each side of the road, and a 12-foot painted median per Traffic and Lighting recommendations;

- Reconstruct the pavement with 6 inches of Asphalt Concrete on 12 inches of Crushed Miscellaneous Base;
- Upgrade/construct guardrails as necessary;
- Upgrade or replace the existing culverts as necessary; and
- Restore traffic loops and provide pavement striping, markings, and signage.

PROJECT DESCRIPTION

The Proposed Project would realign the existing road to meet design criteria for 65 miles per hour design speed per Traffic and Lighting recommendations, construction of a road section to provide a 12-foot inside lane, a 14-foot outside lane, a 10-foot paved shoulder on each side of the road, and a 12-foot painted median per Traffic and Lighting recommendations, reconstruction of the pavement with 6 inches of Asphalt Concrete on 12 inches of Crushed Miscellaneous Base, and restoration of traffic loops and provide pavement striping, markings, and signage. In addition, guardrails and existing culverts will be upgraded, constructed or replaced as necessary.

Construction Staging Area

One (1) construction staging areas has been identified. The impacts of the construction staging area will be evaluated in the EIR.

ALTERNATIVES BEING CONSIDERED

1. No Project Alternative – Leave roadway as is without any improvements.

2. Preferred Alternative – Widen and realign the roadway, resulting in the following improvements:

    - Establish the road alignment per 65 mph design speed in accordance with the current State of California Highway Design Manual;

    - Roadway will include a 12-foot wide striped median, 12-foot wide inside lanes, 14-foot wide outside lanes, and 10-foot wide paved shoulders;

    - Reconstruct the 5 culverts crossing Sierra Highway to handle a 50-year flood event; and

    - Install guardrail as required.

3. From the Project Design Concept report dated February 28, 1996: "Improve the superelevation on the 1,500-foot radius curve east of Angeles Forest Highway [Curve 1], by overlaying with variable thickness AC or reconstruction of pavement." This alternative does not increase the design speed of Curve 1 to the 65 mph requisite. Furthermore, if the superelevation for Curve 2 is adjusted using the methods described above the design speed will be less than the 65 mph requisite.

RESPONSIBLE AGENCIES

The Proposed Project would require permits, reviews, coordination and related approvals that include, but may not be limited to the following public agencies:

<u>Federal Regulatory Agency</u>

- U.S. Army Corp of Engineers (USACE)

California State Regulatory Agencies

- Antelope Valley Air Quality Management District (AVAQMD) – Review
- California Department of Fish and Game (CDFG) – Section 1602 Streambed Alteration Agreement
- California Department of Transportation (CalTrans) – Review
- Los Angeles Regional Water Quality Control Board (RWQCB) – Section 401 Clean Water Act Certification

ENVIRONMENTAL ISSUES to be ADDRESSED in the EIR

The EIR will include an analysis of potential environmental effects of the Proposed Project during construction, operations, and project termination, and an evaluation of mitigation measures that could avoid or reduce any identified significant adverse impacts. An Initial Study Checklist has been prepared for the Proposed Project. Based on a preliminary review of the project site and the Proposed Project description, Public Works has identified the following environmental factors that would potentially be affected by the Proposed Project involving at least one impact that is a "potentially significant impact". These topics will be addressed in detail in the Draft EIR.

Air Quality

Regional and local air quality may be affected by the construction of the Proposed Project. An air quality analysis will be prepared to identify potential impacts to regional and local air quality. The air quality analysis will discuss both short-term impacts resulting from construction, as well as long-term impacts resulting from project operation. The analysis will be based on the Antelope Valley Air Quality Management District's (AVAQMD) established emissions thresholds.

Biological Resources

The EIR will provide biological surveys and impact assessments to ensure complete analysis of potential impacts. In addition, general field reconnaissance will be conducted to identify whether or not there is a potential for occurrence of any special status plants or animal species. Impacts to jurisdictional water will also be determined and analyzed in the EIR. The necessary agency permits will also be obtained in conjunction with the EIR.

Geology and Soils

The project will require approximately 8,500 cubic yards of fill dirt in order to bring the shoulder where the widening would occur to meet the existing elevation of the highway. A subgrade soil test was completed and a Materials Test report was prepared by the County. The results of the Materials Test Report will be incorporated into the EIR.

Cultural Resources

A records search and survey of the property will be completed and results will be summarized in the EIR. Although it is an unlikely possibility, the potential exists for the discovery of unknown subsurface archaeological resources during site grading that were undetected during field surveys. Accordingly, appropriate standard conditions and/or mitigation measures, such as monitoring during project grading and site testing, will be specified in the EIR to minimize any significant impacts to archaeological resources to a less than significant level.

Hydrology and Water Quality

The EIR will analyze impacts to hydrology and water quality since the drainage pattern of the project site will be altered to allow for the widening of the roadway. A hydrology analysis has been completed and will be included in the evaluation in the EIR.

Traffic and Circulation

The EIR will analyze impacts to traffic and circulation both during construction as well as operation of the highway once the project is completed. A traffic study is being conducted to determine the current Level of Service (LOS), LOS during construction, and post construction LOS.

Noise

Noise Element Guidelines, State of California Office of Planning and Research (OPR), recommends exterior and interior noise level standards for local jurisdictions in order to identify and prevent the creation of incompatible land uses due to noise. Short-term noise impacts would occur during the construction phase of the implementation of Proposed Project, which proposes excavation and grading activities as the modification and new construction takes place. Noise levels in excess of standards established in the Los Angeles County General Plan may occur due to Project-generated construction traffic.

Cumulative Effects

The EIR will analyze the impacts of the Proposed Project in conjunction with any adjacent projects to determine if there will be any cumulative effects. The EIR will address the potential cumulative effects for each of the environmental topics discussed above.

PUBLIC COMMENT PERIOD

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but not later than 30 days after receipt of this notice. The public comment period will close at 5:00 p.m. on December 4, 2007. Please include a name, address, and telephone number of a contact person in your agency for all future correspondence on this subject. Please send your comments to:

Sarah Scott
Los Angeles County
Department of Public Works
900 S. Freemont Avenue, 11th Floor
Alhambra, CA 91803
(626) 458-3916
sscott@dpw.lacounty.org

PUBLIC SCOPING MEETINGS

A public scoping meeting will not be held for this project. If you have any questions or comments regarding this project, please contact Sarah Scott.

1. ENVIRONMENTAL CHECKLIST

1.1 Project Title

Sierra Highway – SR 14 to Pearblossom Highway Widening Project

1.2 Lead Agency Name and Address

Los Angeles County
Department of Public Works
900 S. Fremont Avenue, 11th Floor
Alhambra, CA 91803

1.3 Contact Person and Phone Number

Sarah Scott
(626) 458-3916

1.4 Project Location

The Proposed Project consists of a section of the Sierra Highway, located four (4) miles south of the City of Palmdale between the Antelope Valley Freeway Interchange and Sierra Highway and Pearblossom Highway intersection.

1.5 Proponent's Name and Address

Los Angeles County
Department of Public Works
900 S. Fremont Avenue, 11th Floor
Alhambra, CA 91803

1.6 General Plan Designation

The Los Angeles County General Plan Highway Element designation for Sierra Highway is Major Highway. A Major Highway is classified as a four- to six- lane divided roadway.

1.7 Zoning

The Proposed Project does not have a zoning designation. The land surrounding the project is zoned as A-1-1: Light Agricultural, C-1-DP: Restricted Business, and C-2-DP: Neighborhood Commercial.

1.8 Description of Project

The Proposed Project is the realignment of a portion of the Sierra Highway in the Antelope Valley of unincorporated Los Angeles County. The Los Angeles County Department of Public Works (Public Works) proposes to realign and widen the existing road to meet design criteria for 65 miles per hour design speed per Traffic and Lighting recommendations and enhance the safety of the road. The project would realign and widen approximately 0.80-miles of Sierra Highway between Pearblossom Highway and State Route 14 (SR-14).

1.9 Surrounding Land Uses and Environmental Setting

The Proposed Project, Sierra Highway – State Route 14 to Pearblossom Highway Widening Project – consists of a section of the Sierra Highway, located four (4) miles south of the City of

Palmdale in unincorporated Los Angeles County. The Proposed Project is approximately a 0.80-mile section of the Sierra Highway, between the Antelope Valley Freeway Interchange and Sierra Highway and Pearblossom Highway intersection. This section of the highway runs parallel with the Union Pacific Railroad line.

The Proposed Project lies in the area commonly referred to as Antelope Valley. The Antelope Valley consists of 1,200 square miles of elevated desert terrain bounded by the San Gabriel Mountains on the south, Kern County to the North, and extending from Gorman on the west to the San Bernardino County on the east. The Antelope Valley contains a large portion of the Los Angeles National Forrest.

Adjacent land uses to the Proposed Project site include open space/rural surroundings and a railroad line immediately south of the project site.

1.10 Other Public Agencies who may be involved in reviewing, approving, or permitting in the Proposed Project

- Antelope Valley Air Quality Management District
- California Department of Transportation
- California Department of Fish and Game
- California Regional Water Quality Control Board
- United States Army Corp of Engineers

2. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Hazards/Hazardous Materials	☐ Public Services
☐ Agriculture Resources	☑ Hydrology/Water Quality	☐ Recreation
☑ Air Quality	☐ Land Use and Planning	☑ Transportation/Traffic
☑ Biological Resources	☐ Mineral Resources	☐ Utilities and Service Systems
☑ Cultural Resources	☑ Noise	☑ Mandatory Findings of Significance
☐ Geology	☐ Population and Housing	

2.1 Determination

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared. ☐

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared. ☐

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. ☐

I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☑

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

Sarah D. Scott
Signed

11-5-2007
Date

Sarah D. Scott
Name

2.2 Evaluation of Environmental Impacts

This section describes the environmental consequences, including direct, indirect, and cumulative impacts, of the Proposed Project, as well as recommended best management practices and/or mitigation measures.

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The explanation of each issue should identify:

    a. The significance criteria or threshold, if any, used to evaluate each question; and
    b. The mitigation measure identified, if any, to reduce the impact to less than significance

To provide a clear classification of impacts, this Initial Study defines four types of impacts, including:

- **Potentially Significant Impact.** A potentially significant impact includes effects that exceed established or defined thresholds or may be significant but there is insufficient information to verify the magnitude of the effect. For example, to determine vehicular noise impacts for a new development from a nearby roadway requires information on traffic volume, topography, building location and orientation, construction material, window types and treatment, and height and mass of any structure between the residents and the vehicles. Lack of information relating to these details precludes a definitive conclusion as to whether interior noise levels meet or exceed local or state noise standards.

- **Less than Significant Impact with the Incorporation of Mitigation.** A less than significant impact with the incorporation of mitigation indicates that the effects of a significant or potentially significant impact have been reduced below established thresholds through the implementation of specific mitigation measures. For example, implementation of best management practices (BMPs) for stormwater runoff, which includes silt fences, infiltration galleries and vehicle maintenance, may reduce potential water quality impacts to less than significant.

- **Less than Significant Impact.** A less than significant impact includes effects that are perceptible, but do not exceed established or defined thresholds. For example, alterations in the development intensity of a site would be noticeable but would not necessarily represent a significant change in land use compatibility, especially if the Proposed Project is consistent with local development standards.

- **No Impact.** The Proposed Project would have no perceptible effect on the resource in question.

Impacts can be direct, indirect or cumulative. A direct environmental impact is one that is immediately caused by the project and that occurs at or near the time and place of the project. Indirect impacts are caused by the project but may occur some time later or at some distance. Indirect impacts may, for example, include induced changes in pattern of land use or population density or growth rate and their related effects on natural systems or other social systems. They may also include secondary impacts associated with mitigation measures. Cumulative impacts occur in combination with other actions or projects that are occurring or are projected to occur within the region of the Proposed Project.

I. AESTHETICS

Aesthetic resources include scenic vistas, trees, rock outcroppings, historic buildings, and scenic highways and are identified by examining the visual corridor of the highway. The visual corridor takes into account the entire landscape and the views to and from the highway. Views to the highway include what is seen from an adjacent property when facing the roadway. These views are normally from a fixed vantage point; where as the visual corridor is viewed on a repetitive basis by drivers or pedestrians from the highway. Impacts to aesthetic resources include obstruction and destruction of views to or from scenic resources.

Evaluation

a) Would the project have a substantial adverse effect on a scenic vista?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

There are no scenic vistas or prominent ridgelines within the vicinity of the project site[1]. During project construction activity, equipment and vehicles could be discernible from off-site vantage points and from adjacent properties. However, short-term construction activities would not create aesthetic impacts since there would be no obstruction of scenic views by construction equipment. The project is consistent with the existing land use. No impact would occur.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The Proposed Project is not within the vicinity of any historic buildings and is not designated a State scenic highways. Caltrans designates roadways that provide scenic views as official Scenic Highways or Corridors.[2] The project is not located near a designated State scenic highway, nor is it adjacent to local freeways or roadways that are designated or eligible scenic roadways.[3] No impact would occur.

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[1] Los Angeles County 2007 Draft Preliminary General Plan. Figure 5.7 – Hillside Management Areas and Significant Ridgelines Map. http://planning.co.la.ca.us/spGPmaps.htm.

[2] California Department of Transportation. 1996. Guidelines for the Official Designation of Scenic Highways. March. http://www.dot.ca.gov/hq/LandArch/scenic/shpg1.htm.

[3] California Department of Transportation. 2003. The California Scenic Highway System: A List of Eligible and Officially Designated Routes and Officially Designated State Scenic Routes. http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm.

c) Would the project substantially degrade the existing visual character or quality of the site and its surroundings?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The project would widen the existing highway and would be consistent with the existing visual character of the area. No impact would occur.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project does not include the construction of any lighting. No impact would occur.

II. AGRICULTURAL RESOURCES

Agricultural resources include prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and commercial grazing land as defined in the Guidelines for the Farmland Mapping and Monitoring Program, pursuant to Section 65570 of the Government Code; as well as land in a Williamson Act contract.

Prime farmland is land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion. (7U.S.C. 4201(c)(1)(A))

Unique farmland is land other than prime farmland that is used for the production of specific high-value food and fiber crops...such as, citrus, tree nuts, olives, cranberries, fruits, and vegetables. (7 U.S.C. 4201(c)(1)(B))

Additional farmland of statewide or local importance is land identified by state or local agencies for agricultural use, but not of national significance. (7 U.S.C. 4201(c)(1)(C))

The California Legislature passed the Williamson Act in 1965 to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. The Act creates an arrangement whereby private landowners contract with counties and cities to voluntarily restrict their land to agricultural and compatible open-space uses.

The Williamson Act is a means to restrict the uses of agricultural and open space lands to farming and ranching uses during the length of the contract period. The Williamson Act Program was also envisioned as a way for local governments to integrate the protection of open space and agricultural resources into their overall strategies for planning urban growth patterns.

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

Evaluation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒

The Proposed Project would not convert Prime Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program[4]. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

There are no agricultural uses on the site nor is it located within an agricultural zone or bound by a Williamson Act contract. The project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Would the project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	☐	☐	☐	☒

The project does not involve the conversion of land use, nor do the project limits contain any farmland. No impact would occur.

III. AIR QUALITY

The Federal Clean Air Act Amendment of 1971 (CAA) established national Ambient Air Quality Standards (AAQS) with states retaining the option to adopt more stringent standards or to include other pollution species. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those "sensitive receptors" most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

[4] California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. Important Farmland in California, 2004.

Both the State of California and the federal government have established health based AAQS for six air pollutants. These pollutants include ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulate matter (PM_{10}, $PM_{2.5}$), and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

In addition to primary and secondary Ambient AAQS, the State of California has established a set of episode criteria for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and particulate matter. These criteria refer to episode levels representing periods of short-term exposure to air pollutants that actually threaten public health.

The quality of the ambient air is affected by pollutants emitted into the air from stationary and mobile sources. Stationary sources can be divided into two major subcategories: point sources and area sources. Point sources consist of one or more emission sources at a facility with an identified location and are usually associated with manufacturing and industrial processing plants. Area sources are widely distributed and produce many small emissions.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources are a combination of emissions from automobiles, trucks, and indirect sources. Indirect sources are sources that by themselves may not emit air contaminants; however, they indirectly cause the generation of air pollutants by attracting vehicle trips or consuming energy. Examples of indirect sources include an office complex or commercial center that generates commuter trips and consumes energy resources through the use of natural gas for space and water heating. Indirect sources also include actions proposed by local governments, such as redevelopment districts and private projects involving the development of either large buildings or tracts. In addition, indirect sources include those emissions created by the distance vehicles travel. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

In order to determine whether or not a proposed project would cause a significant effect on the environment, the impact of the project must be determined by examining the types and levels of emissions generated and its impacts on factors that affect air quality. To accomplish this determination of significance, the SCAQMD has established air pollution thresholds against which a proposed project can be evaluated and assist lead agencies in determining whether or not the proposed project is significant. If the thresholds are exceeded by a proposed project, then it should be considered significant.

While, the final determination of significance thresholds is within the purview of the lead agency pursuant to the State CEQA Guidelines, the AVAQMD *recommends* air pollution thresholds be used by lead agencies in determining whether the construction or operational phase of a proposed project is significant. If the lead agency finds that the proposed project has the potential to exceed any of the air pollution thresholds, the project should be considered significant.

Evaluation

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The Proposed Project is located in the Antelope Valley portion of the Mojave Desert Air Basin (MDAB) within the Antelope Valley Air Quality Management District (AVAQMD). The MDAB encompasses approximately 21,480 square miles and includes the desert portions of San Bernardino County, Palo Verde Valley, and the Antelope Valley. The MDAB is bordered to the southwest by the South Coast Air Basin (SCAB), the Salton Sea Air Basin to the south, the Great Basin Unified Air Basin to the north, and

the Arizona and Nevada borders to the east.

The AVAQMD and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the Air Quality Management Plan (AQMP) for the Basin. Since 1979, a number of AQMPs have been prepared. The 1997 AQMP, updated in 1999 and replaced in 2003, was based on the 1994 AQMP and ultimately the 1991 AQMP, and was designed to comply with State and Federal requirements, reduce the high level of pollutant emissions in the Basin, and ensure clean air for the region through various control measures. To accomplish its task, the 1991 AQMP relied on a multilevel partnership of governmental agencies at the federal, State, regional, and local level. These agencies (i.e., the USEPA, CARB, local governments, SCAG, and AVAQMD) are the cornerstones that implement the AQMP programs.

The 2003 AQMP, adopted in August 2003, updated the attainment demonstration for the federal standards for ozone and PM_{10}; replaced the 1997 attainment demonstration for the federal CO standard and provided a basis for a maintenance plan for CO for the future; and updated the maintenance plan for the federal NO_2 standard that the Basin has met since 1992.

The most recent comprehensive plan is the 2007 AQMP adopted on July 13, 2007. The 2007 AQMP is designed to meet the State and Federal Clean Air Act planning requirements and focuses on ozone and $PM_{2.5}$. The 2007 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling.

All projects constructed in the Basin are subject to Standard Conditions and Uniform Codes. Compliance with these provisions is mandatory and as such, does not constitute mitigation under CEQA. Those conditions specific to air quality are included below:

- Adherence to AVAQMD Rule 403, which sets requirements for dust control associated with grading and construction activities.
- Adherence to AVAQMD Rules 431.1 and 431.2, which require the use of low sulfur fuel for stationary construction equipment.
- Adherence to AVAQMD Rule 1108, which sets limitations on ROG content in asphalt.
- Adherence to AVAQMD Rule 1113, which sets limitations on ROG content in architectural coatings.
- Adherence to Title 24 energy-efficient design requirements as well as the provision of window glazing, wall insulation, and efficient ventilation methods in accordance with the requirements of the Uniform Building Code.

During construction, the project would be subject to AVAQMD Rule 403 (fugitive dust). AVAQMD Rule 403 does not require a permit for construction activities, per se, but rather, sets forth general and specific requirements for all construction sites (as well as other fugitive dust sources) in the South Coast Air Basin. The general requirement prohibits a person from causing or allowing emissions of fugitive dust from construction (or other fugitive dust source) such that the presence of such dust remains visible in the atmosphere beyond the property line of the emissions source. AVAQMD Rule 403 also prohibits a construction site from causing an incremental PM_{10} concentration impact at the property line of more than 50 micrograms per cubic meter as determined through PM_{10} high-volume sampling, but the concentration standard and associated PM_{10} sampling do not apply if specific measures identified in the rule are implemented and appropriately documented.

In accordance with Rule 403, the AVAQMD requires that contractors implement Best Available Control Measures for construction activities. Note that these measures are regulatory requirements and as such, do not constitute mitigation under CEQA.

The Proposed Project would be constructed in accordance with the plans and provisions mentioned above. No impact would occur.

b) Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☒	☐	☐	☐

The project has the potential to generate emissions that would exceed the daily thresholds for criteria pollutants. This will be evaluated in depth in the Draft EIR. A potentially significant impact could occur.

c) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☒	☐	☐	☐

The project has the potential to generate emissions that would exceed the daily thresholds for criteria pollutants, which the basin is in non-attainment, when combined with existing traffic emissions. This will be evaluated in depth in the Draft EIR. A potentially significant impact would occur.

d) Would the project expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

Project construction has the potential to raise local ambient pollutant concentrations. This could present a significant impact if these concentrations were to exceed the Ambient Air Quality Standards at receptor locations. There are no sensitive receptors located in the vicinity of the project site. The only structure adjacent to the project is a business. No impact would occur.

e) Would the project create objectionable odors affecting a substantial number of people?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☒	☐

Project construction would involve the use of heavy equipment creating exhaust pollutants from on-site earth movement and from equipment bringing concrete and other building materials to the site. With regards to nuisance odors, any air quality impacts will be confined to the immediate vicinity of the equipment itself. By the time such emissions reach any sensitive receptor sites away from the project site, they will be diluted to well below any level of air quality concern. An occasional “whiff” of diesel exhaust from trucks accessing the site from public roadways may result. Such brief exhaust odors may be adverse, but not a significant air quality impact. Additionally, some odor would be produced from the application of asphalt, paints, and coatings. Again, any exposure of the general public to these common odors would be of short duration. A less than significant impact would occur.

IV. BIOLOGICAL RESOURCES

Biological resources include Habitats and Vegetative Communities, Migratory Corridors, Plants, Wildlife, Fisheries, Special Status Species (regulated by a law, regulation or policy, such as threatened and endangered species), and waters of the United States. CEQA establishes State policy to prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures.

California Endangered Species Act (CESA) (Fish and Game Code 2050 et seq.). This act establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that affect both a state and federal listed species, compliance with the Federal Endangered Species Act (FESA) will satisfy CESA if the Department of Fish and Game (DFG) determines that the federal incidental take authorization is "consistent" with CESA under F&G Code Section 2080.1. For projects that will result in a take of a state only listed species, Caltrans must apply for a take permit under section 2081(b).

Native Plant Protection Act (NPPA) (Fish and Game Code 1900-1913). California's Native Plant Protection Act (NPPA) requires all State agencies to utilize their authority to carry out programs to conserve endangered and rare native plants. Provisions of NPPA prohibit the taking of listed plants from the wild and require notification of the DFG at least 10 days in advance of any change in land use. This allows DFG to salvage listed plant species that would otherwise be destroyed. Caltrans is required to conduct botanical inventories and consult with DFG during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Sections 1601-1603 of the Fish and Game Code. Under these sections of the Fish and Game Code, Caltrans and other agencies are required to notify DFG prior to any project that would divert, obstruct or change the natural flow, bed, channel, or bank of any river, stream, or lake. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, DFG is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement that becomes part of the plans, specifications and bid documents for the project.

Clean Water Act (33 U.S.C. 1251-1376). The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

- **Section 401** requires that an applicant for a Federal license or permit that allows activities resulting in a discharge to waters of the United States, must obtain a state certification that the discharge complies with other provisions of CWA. The Regional Water Quality Boards administer the certification program in California.

- **Section 402** establishes a permitting system for the discharge of any pollutant (except dredge or fill material) into waters of the United States.

- **Section 404** establishes a permit program administered by ACOE regulating the discharge of dredged or fill material into waters of the United States (including wetlands). Implementing regulations by ACOE are found at 33 CFR Parts 320-330. Guidelines for implementation are referred to as the Section 404 (b)(1) Guidelines and were developed by the Environmental Protection Agency (EPA) in conjunction with ACOE (40 CFR Parts 230). The Guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

<u>Evaluation</u>

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and game or U.S. Fish and Wildlife Service?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

Chambers Group Inc. conducted a reconnaissance-level field survey of the project site on September 13, 2007 (Chambers Group, Inc. 2007) to characterize the distribution and relative abundance of wildlife, wildlife resources, and wildlife habitats within the project site. Wildlife and wildlife signs (including tracks, scat, carcasses, burrows, nests, excavations, and vocalizations) were noted and recorded.

A total of 16 sensitive wildlife species were identified as having the potential to occur within the project site vicinity. One state-listed threatened species, Mojave ground squirrel, was determined to have a moderate potential to occur onsite and one of California species of special concern (CSC) species, loggerhead shrike, was determined to be present onsite during the survey. Additionally, two California species of special concern (CSC species, burrowing owl and Coast (San Diego) horned lizard), are known from the region and have a high potential to occur onsite and two were determined to have a high potential for occurrence, one state-listed threatened species, Mojave ground squirrel, was determined to have a moderate potential for occurrence, one CSC, pallid bat and Le Conte's thrasher, had a low potential for occurrence, and eight sensitive species of various status were considered absent from the site due to lack of suitable habitat. The remaining 10 species were considered absent from the site due to lack of suitable habitat.

Of the nine special status plant species evaluated for their potential occurrence onsite, two were determined to have a low potential and two had a moderate potential to occur prior to the focused survey onsite. Due to the presence of suitable, although limited, habitat for these two species on the project site, a focused survey was conducted concurrently with the reconnaissance survey. Because both Nevin's barberry and Davidson's bush mallow are perennial shrubs and would have been conspicuous at the time of the survey, but were not observed, it was determined that these species are absent from the project site. All other sensitive species were determined absent from the project site due to a lack of suitable habitat within the limits of construction. As those sensitive plant species with a potential to occur onsite are not federal- or state-listed as threatened or endangered, no additional surveys are necessary.

A less than significant impact would occur with the incorporation of mitigation measures. The mitigation will be determined through coordination with the resource agencies during the preparation of the Draft EIR.

We anticipate that these impacts will be less than significant with the incorporation of mitigation measures.
The mitigation measures will be determined through consultation with the resource agency.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

Chambers Group Inc. conducted a wetland delineation and jurisdictional determination for the Proposed Project on September 11, 2007. No wetlands or riparian habitat were found within the study area. There are no listed hydric soils in the project area (Chambers Group Inc., 2007).

The project would impact **0.06** ac of ephemeral non-wetland waters of the State. As proposed, no permitting pursuant to Section 404 of the "Clean Water Act" would be required. Section 401 permitting is only needed if the activity requires a 404 permit. A Waste Discharge Permit from the RWQCB would be required however. Approximately 29 cubic yards of fill would be introduced into waters of the State.

The project would impact **0.19** ac of ephemeral CDFG jurisdictional ditches. Approximately 110 cubic yards of fill would be introduced into CDFG jurisdictional ditches.

A less than significant impact would occur with the incorporation of mitigation measures. The mitigation will be determined through coordination with the resource agencies during the preparation of the Draft EIR.

We anticipate that these impacts will be less than significant with the incorporation of mitigation measures.
The mitigation measures will be determined through consultation with the resource agency.

c) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

No wetlands or riparian habitat were found within the study area. There are no areas of USACE jurisdiction within the project area. As proposed, no permitting pursuant to Section 404 of the "Clean Water Act" would be required (Chambers Group Inc., 2007). No impact would occur.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The project would not interfere with the movement of a migratory species, wildlife corridor, or a wildlife nursery site sine there are none present within the vicinity of the project site. The project site is not within a Significant Ecological Area (SEA)[5]. No impact would occur.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

[5] Los Angeles County Draft Preliminary General Plan 2007, Los Angeles County Department of Regional Planning. Figure 5.3 – Proposed Significant Ecological Areas.

The project would not conflict with any local policies or ordinances protecting biological resources. Since the project is proposed by Public Works, it would be implemented in accordance with the goals and policies of the 2007 Draft Preliminary General Plan. No impact would occur.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The project site is not within or in the vicinity of a Habitat Conservation Plan, Natural Community Conservation Plan, or other local, regional, or state habitat conservation plan. No impact would occur.

V. CULTURAL RESOURCES

Cultural resources include archaeological and paleontological artifacts, including human remains, geologic features, historical buildings and structures, and Native American remains and artifacts. CEQA defines cultural resources as:

- Resources listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code 5024.0, Title 14 CCR, Section 4850 et seq.);

- Resources included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified in a historical resource survey meeting the requirements of section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public Agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant; and

- Any object, building structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code, 5024.1, Title 14 CCR, Section 4852).

Impacts to cultural resources include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired.

Evaluation

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☒	☐	☐

A record search/literature review was conducted on September 10, 2006 at the South Central Coastal

Information Center, located at California State Museum, Fullerton (Chambers Group, Inc. 2007). The purpose of this review was to examine any existing cultural resources survey reports, archaeological site records, and historic maps to determine whether previously documented prehistoric or historic archaeological sites, architectural resources, cultural landscapes, or ethnic resources exist within or near the project area. The record search/literature review was also conducted to determine whether any historic properties listed on or determined eligible for listing on the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) exist within the project area.

Results of the review of the survey reports and site records obtained from the South Central Coastal Information Center indicate that 11 previous cultural resources investigations have occurred within a one-half mile radius of the project area. This includes one that covered the northwest side of Sierra Highway, opposite the current project area, and another that followed the railroad tracks parallel to the southeast edge of the project area. The record search also revealed that several isolated prehistoric artifact have been found on the northwest side of the Highway (Chambers Group Inc., 2007)

A less than significant impact would occur with the incorporation of Mitigation Measure CR-1.

CR-1: In the event that any historical resources are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☒	☐	☐

Chambers Group sent a letter to the Native American Heritage Commission (NAHC) notifying them of the proposed project activities. The NAHC was also asked to conduct a search of the Sacred Lands File and to make a recommendation as to whether any local Federally-recognized Native American groups should be contacted regarding their concerns about potential impacts to cultural resources resulting from implementation of the proposed project (Chambers Group Inc., 2007). The search of the Sacred Lands File by the NAHC did not indicate the presence of Native American cultural resources in the immediate project area.

On September 11, 2007 one Chambers Group archaeologist conducted an intensive pedestrian survey of the approximately 0.80-mile/2.4-acre project area that is slated for construction. The surveyor walked two transects spaced 5-meters apart in order to ensure overlapping fields of view along the southeast side of the road. Notes were taken on the environmental setting and disturbances. No archaeological sites or isolates were found within or adjacent to the project area. This is perhaps due to the level of disturbance along the road.

A less than significant impact would occur with the incorporation of Mitigation Measure CR-2.

CR-2: In the event that any subsurface archaeological deposits are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist.

c) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☒	☐	☐

Results of the search of the paleontological files/database conducted with the San Bernardino County Museum on August 20, 2007 (Chambers Group Inc., 2007) indicate that the project area is located on surface exposures of volcanic andesite dating to the Oligocene Epoch. This rock has no potential to contain paleontologic resources (Chambers Group Inc., 2007).

A less than significant impact would occur with the incorporation of Mitigation Measure CR-3.

CR-3: If paleontologic specimens are encountered during ground disturbance, a paleontological monitor must be empowered to identify, remove, document, and evaluate those specimens. Recovered specimens must be curated in a museum repository with permanent retrievable storage (e.g., San Bernardino County Museum). A report must be prepared with an appended itemized inventory of specimens, if any are recovered. Implementation of this mitigation measure would reduce the potential impact to a level that is less than significant.

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☒	☐	☒

The project would not disturb any human remains. The potential for human remains to occur on the project site is very low.

A less than significant impact would occur with the incorporation of Mitigation Measure CR-4.

CR-4: If human remains of any kind are found, all activities must cease immediately and a qualified archaeologist and the Los Angeles County Coroner must be notified. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the most likely descendants to be consulted regarding treatment and/or repatriation of the remains.

VI. GEOLOGY

The California Geological Survey (CGS) provides technical information and advice about landslides, erosion, sedimentation, and other geologic hazards to the public, local governments, agencies and industries that make land-use decisions in California.

Informed land-use decisions require information about California's geologic and seismic hazards. Geologic and seismic hazards include ground rupture, ground failure, landslides, liquefaction, soil erosion, and subsidence.

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This state law was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes,

commercial buildings, and other structures. Surface rupture is the most easily avoided seismic hazard. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The Seismic Hazards Mapping Act, passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically induced landslides.[6]

Surface rupture is the breakage of ground along the surface trace of a fault caused by the intersection of the fault surface area ruptured in an earthquake.

Liquefaction is a process by which water-saturated granular soils transform a solid to a liquid state during strong ground shaking.

A seismically induced landslide is a general term for falling, sliding or flowing mass of soil, rocks, water, and debris caused by an earthquake.

Erosion is displacement of soil usually by moving water and wind.

Evaluation

a) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The project site is not located within an Alquist-Priolo Earthquake Fault Zone. No impact would occur.

ii) Strong seismic ground shaking?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

Southern California is a seismically active region that is prone to earthquakes. There is a potential for the project site to experience strong seismic ground shaking in the future from local and regional faults. No impact would occur.

[6] California Department of Conservation, 2006. http://www.consrv.ca.gov/CGS/rghm/ap/index.htm

iii) Seismic-related ground failure, including liquefaction?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

The California Building Code requires specific provisions for seismic design to mitigate and minimize the effects of earthquakes and ground shaking on structures, including liquefaction. A less than significant impact would occur.

iv) Landslides?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The topography of the project site generally flat. The potential for landslide to occur is very low. No impact would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

The project would involve the use of import soil in order to bring the expansion area up to elevation with the existing highway. There is a potential for erosion whenever soil is exposed. The project would have exposed soil during the construction phase; however, this would be temporary and all exposed soil would be stabilized or covered upon completion of construction. A less than significant impact would occur.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The project not located on a geologic unit or soil that is unstable. The project would use engineered fill to bring the expansion area up to match the current elevation of the existing highway. No impact would occur.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project involves widening an existing highway. The project site does not contain an expansive soil. No impact would occur.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project does not involve the construction or installation of septic tanks or other wastewater disposal systems. No impact would occur.

VII. HAZARDS AND HAZARDOUS MATERIALS

The Environmental Protection Agency (EPA) defines and regulates hazardous waste under the regulatory authority of the Resource Conservation and Recovery Act (RCRA). Hazardous wastes are discarded materials that are so classified because of the public health and safety concerns they pose. The EPA specifically classifies the residual remaining in a container that has held hazardous materials or substances as hazardous waste.

Hazardous or flammable substances that may be used during the construction phase of the project would include vehicle fuels and oils for the operation of heavy equipment. Diesel and/or other construction equipment and vehicle fuels would be used; however, the transport, storage, and usage of hazardous materials such as fuels are regulated by the State and would be in compliance with all State regulations during construction.

Evaluation

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project involves widening an existing highway and would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. No impact would occur.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Hazardous or flammable substances that may be used during the construction phase of the project would include vehicle fuels and oils for the operation of heavy equipment. Diesel and/or other construction equipment and vehicle fuels would be used; however, the transport, storage, and usage of hazardous materials such as fuels are regulated by the State and would be in compliance with all State regulations during construction. No impact would occur.

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project involves widening an existing highway and would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would occur.

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The project site is not included on a list of hazardous waste sites compiled pursuant to Government Code Section 65962.5. No impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The project site is not within the vicinity of a public airport. No impact would occur.

f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The project site is not within the vicinity of a private airstrip. No impact would occur.

g) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

All projects approved in the project area must follow County of Los Angeles emergency response and evacuation guidelines, such as adequate access. The Proposed Project would not affect an adopted emergency response plan or emergency evacuation plan. No impact would occur.

h) Would the project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. No impact would occur.

VIII. HYDROLOGY AND WATER QUALITY

Hydrology is the study of the movement, distribution, and quality of water throughout the Earth, and thus addresses both the hydrologic cycle and water resources. Water quality is the physical, chemical and biological characteristics of water, characterized through the methods of hydrometry. The primary bases for such characterization are parameters which relate to drinking water, safety of human contact and for health of ecosystems.

A project would have significant impacts to hydrology and water quality if it would result in the following:

- Violated water quality standards;
- Depleted groundwater supplies or caused well water levels to drop;
- Altered existing drainage patterns causing erosion or other issues on or off site;
- Altered existing drainage patterns or increased the rate of surface runoff resulting in flooding;
- Contribute to runoff water quality issues;
- Degraded water quality;
- Affected the 100-year flood hazard area;
- Impeded or redirected flow;
- Exposed people/property to loss or injury resulting from dam/levee failure; or
- Was affected by inundation by seiche, tsunami, or mudflow.

A seiche is a standing wave in an enclosed or partially enclosed body of water.

A tsunami is a series of waves created when a body of water, such as an ocean, is rapidly displaced.

A mudflow or mudslide is the most rapid (up to 80 km/h) and fluid type of downhill mass wasting.

Evaluation

a) Would the project violate any water quality standards or waste discharge requirements?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

The Proposed Project would not generate any excessive runoff to the storm water system other than from the runoff from the improved roadway. In addition, the project would not contribute any additional increases in the quantity of pesticides, fertilizers, and detergents into the storm drain system. The project would be required to implement preventative measures as a means to control storm water runoff and any pollutants that may enter the storm drain system. A less than significant impact would occur.

b) Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project would not result in the depletion of groundwater resources or a lowering of the groundwater table. No impact would occur.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or offsite?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

The Proposed Project involves minor excavation and grading needed to widen an existing highway and would slightly change existing drainage patterns at the project site. However, such changes would not significantly alter the hydrological characteristics at the project site. During construction, water would be redirected away from the work area to eliminate adverse impacts to water quality from contact with construction material. With the implementation of the County of Los Angeles Department of Public Works Best Management Practices for runoff control during construction, no significant erosion or siltation problems would occur on- or off-site. A less than significant impact would occur.

d) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or offsite?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

The Proposed Project would not substantially alter the existing drainage pattern of the site or area or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or offsite. The amount of surface water runoff from the project site would not change relative to current conditions. A less than significant impact would occur.

e) Would the project create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

No significant change in the amount of surface runoff volumes from the proposed development is anticipated due to the existing state of the project site. No surface water bodies are found within the project site that would be affected by the project. The nature and extent of storm water runoff ultimately discharged into the existing storm drain system would not substantially change from existing levels No impact would occur.

f) Would the project otherwise substantially degrade water quality?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

During construction of the Proposed Project, the contractor would be required to follow County of Los Angeles Department of Public Works Best Management Practices designed to prevent spillage and/or runoff of construction-related materials, sediment, or contaminants associated with construction activity. Water would be redirected away from the work area during construction to eliminate adverse impacts to water quality from contact with construction material. Additionally, equipment would be well maintained to prevent pollutants from entering the stream. As a result, the Proposed Project is not expected to degrade water quality. No impact would occur.

g) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The Proposed Project does not involve the construction of housing; thus, would not place housing within a 100-year flood hazard areas as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map (FEMA 2006). No impact would occur.

h) Would the project place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The Proposed Project would not place structures that would impede or redirect flood flows within a 100-year flood hazard area. No impact would occur.

i) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The Proposed Project would not expose people or structures to a significant risk of loss, injury or death as a result of the failure of a levee or dam. No impact would occur.

j) Would the project cause or expose people and structures to inundation by seiche, tsunami, or mudflow?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The Proposed Project would not cause or expose people or structures to inundation by seiche, tsunami, or mudflow. No impact would occur.

IX. LAND USE PLANNING

Cities and counties "plan" in order to identify important community issues (such as new growth, housing needs, and environmental protection), project future demand for services (such as sewer, water, roads, etc.), anticipate potential problems (such as overloaded sewer facilities or crowded roads), and establish goals and policies for directing and managing growth. Local governments use a variety of tools in the planning process including the general plan, specific plans, zoning, and the subdivision ordinance.

Evaluation

a) Would the project physically divide an established community?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The Proposed Project involves widening an existing highway and would not physically divide an established community. No impact would occur.

b) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The Proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project. No impact would occur.

c) Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
	☐	☐	☐	☒

The Proposed Project would not conflict with any habitat conservation plan or natural community conservation plan. No impact would occur.

X. MINERAL RESOURCES

Mineral resources are commercially viable mineral or aggregate deposits, such as sand, gravel and other construction aggregate. California is the largest consumer of sand and gravel in the nation, but is also a major provider, producing approximately one billion dollars worth of mineral resources annually.[7]

The California Geological Survey provides objective geologic expertise and information about California's diverse non-fuel mineral resources. Maps, reports, and other data products developed by the staff assist governmental agencies, mining companies, consultants, and the public in recognizing, developing, and protecting important mineral resources. The California Department of Conservation protects mineral resources to ensure adequate supplies for future production. The California Surface Mining and Reclamation Act of 1975 (SMARA) was developed to encourage production and conservation of mineral resources, prevent or minimize adverse effects to the environment, and protect public health and safety.[8]

Evaluation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

The Proposed Project would not deplete mineral resources. No resource extraction would occur on the project site. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan other land use plan?	☐	☐	☐	☒

The Proposed Project site has not been identified in a general plan, specific plan, or any other land use plan as a locally important mineral resource recovery site. No impact would occur.

XI. NOISE

The noise environment is made up of background or ambient noise, and intrusive noise. Noise can be generated from either point sources (stationary equipment) or from a line source, such as a roadway with moving vehicles, or aircraft flying overhead.

Sound and noise are often described in qualitative terms, and individuals differ greatly on what noises are

[7] Los Angeles County 2007 Draft Preliminary General Plan, Section V. Mineral and Energy Resources
[8] California Geological Survey Mineral Resources website, http://www.consrv.ca.gov/CGS/geologic_resources/mineral_resource_mapping/index.htm visited 10/09/07

considered pleasant or annoying. Quantitative noise measurements are described in terms of strength, frequency, duration, and location.

- Decibels (dB): The strength of a sound as dependent on the pressure exerted by sound waves.
- Frequency: Sounds that are produced by rapidly or slow vibrating objects.
- Community Noise Equivalent Level (CNEL): A range of measurement for community noise levels that range from 30 dBs (very quiet) to 100 dBs (very loud).
- Day-Night Average Level (DNL): The aggregate of numerous single noise events to generate an average or composite sound level.

Noise impacts result when a project generates noise levels in excess of established standards or generate noise within the vicinity of sensitive receptors.

Evaluation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project expose people to or generate noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐

The Proposed Project has the potential to generate noise levels in excess of standards established in the Los Angeles County General Plan. A noise study will be prepared to evaluate the noise generated by the project. This issue will be analyzed further in the DEIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Would the project expose people to or generate excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐

The Proposed Project has the potential to generate groundbourne vibration and noise. A noise study will be prepared to evaluate the noise generated by the project. This issue will be analyzed further in the DEIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Would the project create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐

The Proposed Project has the potential to result in a permanent increase in ambient noise levels. A noise study will be prepared to evaluate the noise generated by the project. This issue will be analyzed further in the DEIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Would the project cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐

The Proposed Project has the potential to result in a temporary increase in ambient noise levels. A noise study will be prepared to evaluate the noise generated by the project. This issue will be analyzed further in the DEIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

The Proposed Project site is not located within an airport land use plan, or within two miles of a public airport or public use airport. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

The Proposed Project site is not located within the vicinity of a private airstrip and would not expose people residing or working in the project area to excessive noise levels. No impact would occur.

XII. POPULATION AND HOUSING

Population refers to the occupants of housing projects; population indirectly associated with workers or proposed non-residential projects, or changes in the amount and distribution of population and employment permitted by adoption or revision to a land use plan. Important areas include changes in the number, characteristics, geographical distribution, and timing of new residents directly or indirectly resulting from a proposed project, and the degree to which project-related changes are consistent with City, regional or other adopted population growth policies. Other issues are the degree to which project-related population is already present in the area under analysis (i.e. already residing or working in the area), or whether they represent in-migrants.

Housing impacts may result directly from project, which include housing units, or indirectly from revisions to the Housing Element in a General Plan or changes in housing demand associated with new non-residential development projects.

A project would have a significant adverse impact if it would induce substantial population growth in an area, either directly by proposing new homes and businesses or indirectly through the extension of roads or other infrastructure; displace housing units causing the construction of replacement housing somewhere else; or displace people causing the construction of replacement housing somewhere else.

Evaluation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒

The Proposed Project would not induce population growth since it does not provide any housing or expand the infrastructure necessary for housing. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Would the project displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

The Proposed Project would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

The Proposed Project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No impact would occur.

XIII. PUBLIC SERVICES

Public services include fire, police, schools, parks, and libraries. A project would impact a public service if it would result in an increased demand for that service or if the project would result in a hindrance to that service.

Evaluation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any or the public services: Fire protection? Police protection? Schools? Parks? Other public facilities?	☐	☐	☐	☒

The Proposed Project involves widening an existing highway and would not result in an increased need for fire and police protection services. There would be no impacts to schools, parks and other public facilities. No impact would occur.

XIV. RECREATION

Recreational facilities include active and passive facilities. Active recreational facilities include parks, tennis and basketball courts, pools, golf courses, and various other facilities. Passive recreational facilities include movie theatres, plazas, and other public places.

A project would result in a significant impact on recreational facilities if it would increase the use of existing parks and facilities such that substantial physical deterioration of the facility would occur or be accelerated, or if the project included recreational facilities or required construction that might have an adverse physical effect on the environment.

Evaluation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒

The Proposed Project would not increase the use of any parks. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Would the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse effect on the environment?	☐	☐	☐	☒

The Proposed Project does not include recreational facilities and would not require the expansion of existing recreational facilities. No impact would occur.

XV. TRANSPORTATION/TRAFFIC

Transportation/traffic involves the ability of an intersection to accommodate the increased vehicular traffic demands associated with a proposed project. The impact typically results from the additions of new project-generated traffic to an intersection. In situations where a project involves street vacations or other substantial street system design changes, it can also result from diverted or shifted traffic caused by the project. Impacts may also result from a combination of new trips and diverted traffic. The impact is measures as the effect of the project on traffic operating conditions, expressed in terms of level of service (LOS), and either volume to capacity (V/C) ratio (for signalized intersections) or average vehicle delay (for unsignalized intersections). Impacts are related to factors such as type of use, size of project, access points, capacity of the transportation system, and other characteristics of the project and surrounding area.

Intersection capacity impacts are evaluated when project details, such as land use and size, location of access points, etc., are known. Intersection capacity impacts are typically evaluated for permanent traffic increases after project completion, but can also be evaluated for temporary traffic increases generated during project construction. Impacts should be evaluated for the future study year usually set one or two years after the expected year of project completion.

Evaluation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☒	☐	☐	☐

The Proposed Project would widen and realign the Sierra Highway between SR-14 and Pearblossom Highway. A traffic study will be prepared to analyze the impacts of the project. This impact will be further analyzed in the Draft EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐

The project would widen and realign the Sierra Highway between SR-14 and Pearblossom Highway. A traffic study will be prepared to analyze the impacts of the project. This impact will be further analyzed in the Draft EIR.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☒

The Proposed Project would not result in a change in air traffic patterns or an increase in traffic levels or location resulting in substantial safety risks. No impact would occur.

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Potentially Significant Impact ☒	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☐

The Proposed Project would widen and realign the Sierra Highway between SR-14 and Pearblossom Highway. A traffic study will be prepared to analyze the impacts of the project. This impact will be further analyzed in the Draft EIR.

e) Would the project result in inadequate emergency access?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

Fire and other emergency response access would be provided in compliance with State and local fire requirements. Prior to issuance of construction permits, Fire Department review would ensure that project design and construction adhere to all regulations and requirements of the County Fire Code. Neither the size nor the scope of the project would create conditions that would adversely affect access to the site during an emergency. The County and Fire Department's review and approval procedures would ensure that emergency access impacts are kept to a minimum. A less than significant impact would occur.

f) Would the project result in inadequate parking capacity?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project would not change on-street parking capacity. Parking for construction workers would be provided within a construction staging area on the project site. No additional off-site parking would be required for the project. No impact would occur.

g) Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project would not conflict with alternative transportation. No impact would occur.

XVI. UTILITIES AND SERVICE SYSTEMS

Utilities and service systems include potable water and wastewater treatment. The quantity of water consumed and wastewater generated by a project is determined by several factors, including the size, type and characteristics of the project. The need for construction of new or replacement water and wastewater treatment facilities (e.g. reservoirs, storage tanks, water mains, filtration plants, pumps, wells, and other connections or distribution facilities) would depend on the existing capacity and anticipated demand for the project area.

Evaluation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒

The Proposed Project would not generate wastewater. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒

The Proposed Project would not require the construction of new water or wastewater treatment facilities or the expansion of existing facilities. No impact would occur

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒

The Proposed Project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporation	Less than Significant Impact	No Impact
d) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒

The Proposed Project would have sufficient water supplies available to serve the project. No impact would occur.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Would the project result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒

The Proposed Project would not result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. No impact would occur.

f) Would the project be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs. No impacts would occur.

g) Would the project comply with federal, state, and local statutes and regulations related to solid waste?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☒

The Proposed Project would comply with federal, state, and local statutes and regulations related to solid waste. No impact would occur.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☒	Less than Significant Impact ☐	No Impact ☐

The Proposed Project would result in impacts that can be reduced to a less than significant level with the incorporation of mitigation measures. Appropriate mitigation measures will be determined through coordination with the resource agencies and evaluated in the EIR.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	Potentially Significant Impact ☐	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☒	No Impact ☐

The Proposed Project would contribute to impacts resulting in significant cumulative effects from the combination of other projects. The EIR will evaluate the possibility of any potential significant cumulative impacts. The discussion of cumulative impacts will consider the Proposed Project's impacts in combination with those of other present or reasonable foreseeable future projects. At this time, there are no known projects within the vicinity of the Proposed Project. A less than significant impact would occur.

c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	Potentially Significant Impact ☒	Less than Significant with Mitigation Incorporated ☐	Less than Significant Impact ☐	No Impact ☐

The Proposed Project would not result in significant impacts that would cause substantial adverse effects on human beings, either directly or indirectly. The project has the potential to result in significant impacts to air quality, traffic, and noise that would affect people travelling along the highway. These impacts will be further evaluated in the EIR.

3. LIST OF PREPARERS

Chambers Group, Inc.
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Lisa Sander Ph.D., Environmental Policy Specialist

Andrew Minor, Staff Environmental Planner

Taylor Elliott, Staff Environmental Planner

County of Los Angeles
Department of Public Works
900 S. Freemont Ave., 11th Floor
Alhambra, CA 91802

Sarah Scott, Project Manager

Ed Dingman

4. REFERENCES

1992 Los Angeles County. General Plan as amended.

1993 South Coast Air Quality Management District. CEQA Air Quality Handbook

2005 Antelope Valley Air Quality Management District. CEQA and Federal Conformity Guidelines.

2007 Antelope Valley Air Quality Management District, AVAQMD Rule Book. http://www.avaqmd.ca.gov/RulesPlans/rulebook-toc.htm, visited on 9/26/07

2007 California Department of Transportation (CalTrans), Scenic Highway Program website: http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm, visited on 7/20/07

2007 Chambers Group Inc. Results of the Biological Reconnaissance Survey for the Sierra Highway Widening Project.

Chambers Group Inc. Wetland Delineation and Jurisdictional Determination for Sierra Highway – State Route 14 to Pearblossom Highway Widening Project.

Chambers Group Inc. Cultural and Paleontologic Resources Inventory Sierra Highway – State Route 14 to Pearblossom Highway Widening Project.

2007 Los Angeles County Department of Regional Planning. 2007 - Draft Preliminary General Plan.

2007 Los Angeles County Department of Parks and Recreation website http://parks.co.la.ca.us/santa_fe_rpark.html, viewed on 6/08/2007

2007 South Coast Air Quality Management District, 2007 South Coast Air Quality Management Program, June 2007, located at http://www.aqmd.gov/aqmp/AQMPintro.htm

State of California – The Resources Agency

ARNOLD SCHWARZENEGGER, *Governor*

DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
South Coast Region
4949 Viewridge Avenue
San Diego, CA 92123
(858) 467-4201

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December 10, 2007

Ms. Sarah Scott
Los Angeles County Department of Public Works
900 South Fremont Avenue, 11th Floor
Los Angeles, CA 91803

Notice of Preparation of a
Draft Environmental Impact Report for the
Sierra Highway – State Route 14 to Pearblossom Highway Widening Project
SCH # 2007111050, Los Angeles County

Dear Ms. Scott:

The Department of Fish and Game (Department) reviewed the above-referenced Notice of Preparation (NOP), for a Draft Environmental Impact Report relative to impacts to biological resources. The proposed 0.08 mile long project consists of activities to meet 65 mile per hour highway speed design criteria standards including the realignment and widening of the existing Sierra Highway between the Antelope Valley Freeway interchange and Sierra Highway and Pearblossom Highway intersection. The project is located approximately 4 miles south of the City of Palmdale.

To enable Department staff to adequately review and comment on the proposed project we recommend the following information, where applicable, be included in the Draft Environmental Impact Report:

1. A complete, recent assessment of flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, and locally unique species and sensitive habitats (Attachment 1).

    a. A thorough recent assessment of rare plants and rare natural communities, following the Department's Guidelines for Assessing Impacts to Rare Plants and Rare Natural Communities.

    b. A complete, recent assessment of sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Recent, focused, species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with the Department and U.S. Fish and Wildlife Service.

c. Rare, threatened, and endangered species to be addressed should include all those which meet the California Environmental Quality Act (CEQA) definition (see CEQA Guidelines, Section 15380).

d. The Department's Wildlife Habitat Data Analysis Branch in Sacramento should be contacted at (916) 322-2493 to obtain current information on any previously reported sensitive species and habitats, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code. Also, any Significant Ecological Areas (SEAs) or Environmentally Sensitive Habitats (ESHs) or any areas that are considered sensitive by the local jurisdiction that are located in or adjacent to the project area must be addressed.

2. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts. This discussion should focus on maximizing avoidance, and minimizing impacts.

a. CEQA Guidelines, Section 15125(a), direct that knowledge of the regional setting is critical to an assessment of environmental impacts and that special emphasis should be placed on resources that are rare or unique to the region.

b. Project impacts should also be analyzed relative to their effects on off-site habitats and populations. Specifically, this should include nearby public lands, open space, adjacent natural habitats, and riparian ecosystems. Impacts to and maintenance of wildlife corridor/movement areas, including access to undisturbed habitat in adjacent areas are of concern to the Department and should be fully evaluated and provided. The analysis should also include a discussion of the potential for impacts resulting from such effects as increased vehicle traffic, outdoor artificial lighting, noise and vibration.

c. A cumulative effects analysis should be developed as described under CEQA Guidelines, Section 15130. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

d. Impacts to migratory wildlife affected by the project should be fully evaluated including proposals to removal/disturb native and ornamental landscaping and other nesting habitat for native birds. Impact evaluation may also include such elements as migratory butterfly roost sites and neo-tropical bird and waterfowl stop-over and staging sites. All migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5 and 3513 of the California Fish and Game Code prohibit take of birds and their active nests, including raptors and other migratory nongame birds as listed under the MBTA.

e. Impacts to all habitats from City or County required Fuel Modification Zones (FMZ). Areas slated as mitigation for loss of habitat shall not occur within the FMZ.

f. Proposed project activities (including disturbances to vegetation) should take place outside of the breeding bird season (February 1- September 1) to avoid take (including disturbances which would cause abandonment of active nests containing eggs and/or young). If project activities cannot avoid the breeding bird season, nest surveys should be conducted and active nests should be avoided and provided with a minimum buffer as determined by a biological monitor (the Department recommends a minimum 500-foot buffer for all active raptor nests).

3. A range of alternatives should be analyzed to ensure that alternatives to the proposed project are fully considered and evaluated. A range of alternatives which avoid or otherwise minimize impacts to sensitive biological resources including wetlands/riparian habitats, alluvial scrub, coastal sage scrub, Joshua tree woodlands, etc. should be included. Specific alternative locations should also be evaluated in areas with lower resource sensitivity where appropriate.

   a. Mitigation measures for project impacts to sensitive plants, animals, and habitats should emphasize evaluation and selection of alternatives which avoid or otherwise minimize project impacts. Compensation for unavoidable impacts through acquisition and protection of high quality habitat elsewhere should be addressed with offsite mitigation locations clearly identified.

   b. The Department considers Rare Natural Communities as threatened habitats having both regional and local significance. Thus, these communities should be fully avoided and otherwise protected from project-related impacts (Attachment 2).

   c. The Department generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species. Department studies have shown that these efforts are experimental in nature and largely unsuccessful.

4. A California Endangered Species Act (CESA) Permit must be obtained, if the project has the potential to result in "take" of species of plants or animals listed under CESA, either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to the proposed project and mitigation measures may be required in order to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, require that the Department issue a separate CEQA document for the issuance of a CESA permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a CESA permit. For these reasons, the following information is requested:

   a. Biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit.

   b. A Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

5. The Department opposes the elimination of watercourses (including concrete channels) and/or the canalization of natural and manmade drainages or conversion to subsurface drains. All wetlands and watercourses, whether intermittent, ephemeral, or perennial, must be retained and provided with substantial setbacks which preserve the riparian and aquatic habitat values and maintain their value to on-site and off-site wildlife populations. The Department recommends a minimum natural buffer of 100 feet from the outside edge of the riparian zone on each side of a drainage.

   a. The Department requires a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant prior to any direct or indirect impact to a lake or stream bed, bank or channel or associated riparian resources. The Department's issuance of a SAA may be a project that is subject to CEQA. To facilitate our issuance of the Agreement when CEQA applies, the

Department as a responsible agency under CEQA may consider the local jurisdiction's (lead agency) document for the project. To minimize additional requirements by the Department under CEQA the document should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the Agreement. Early consultation is recommended, since modification of the proposed project may be required to avoid or reduce impacts to fish and wildlife resources.

Thank you for this opportunity to provide comment. Please contact Mr. Scott Harris, Environmental Scientist, at (626) 797-3170 if you should have any questions and for further coordination on the proposed project.

Sincerely,

Scott Harris for

Terri Dickerson
Senior Environmental Scientist

cc: Mr. Michael Mulligan, San Diego
Ms. Terri Dickerson, Laguna Niguel

bcc: Mr. Scott Harris, Pasadena
Mr. Jamie Jackson, Altadena
HCP-Chron
Department of Fish and Game

State Clearinghouse, Sacramento

SPH:sph
spharris/County of Los Angeles/ LACDPW Sierra Hwy. Project NOP/2007

1

Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened, and Endangered Plants and Natural Communities

State of California
THE RESOURCES AGENCY
Department of Fish and Game
December 9, 1983
Revised May 8, 2000

The following recommendations are intended to help those who prepare and review environmental documents determine **when** a botanical survey is needed, **who** should be considered qualified to conduct such surveys, **how** field surveys should be conducted, and **what** information should be contained in the survey report. The Department may recommend that lead agencies not accept the results of surveys that are not conducted according to these guidelines.

1. Botanical surveys are conducted in order to determine the environmental effects of proposed projects on all rare, threatened, and endangered plants and plant communities. Rare, threatened, and endangered plants are not necessarily limited to those species which have been "listed" by state and federal agencies but should include any species that, based on all available data, can be shown to be rare, threatened, and/or endangered under the following definitions:

A species, subspecies, or variety of plant is "endangered" when the prospects of its survival and reproduction are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, over-exploitation, predation, competition, or disease. A plant is "threatened" when it is likely to become endangered in the foreseeable future in the absence of protection measures. A plant is "rare" when, although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.

Rare natural communities are those communities that are of highly limited distribution. These communities may or may not contain rare, threatened, or endangered species. The most current version of the California Natural Diversity Database's List of California Terrestrial Natural Communities may be used as a guide to the names and status of communities.

2. It is appropriate to conduct a botanical field survey to determine if, or to the extent that, rare, threatened, or endangered plants will be affected by a proposed project when:

a. Natural vegetation occurs on the site, it is unknown if rare, threatened, or endangered plants or habitats occur on the site, and the project has the potential for direct or indirect effects on vegetation; or
b. Rare plants have historically been identified on the project site, but adequate information for impact assessment is lacking.

3. Botanical consultants should possess the following qualifications:

a. Experience conducting floristic field surveys;
b. Knowledge of plant taxonomy and plant community ecology;
c. Familiarity with the plants of the area, including rare, threatened, and endangered species;
d. Familiarity with the appropriate state and federal statutes related to plants and plant collecting; and,
e. Experience with analyzing impacts of development on native plant species and communities.

4. Field surveys should be conducted in a manner that will locate any rare, threatened, or endangered species that may be present. Specifically, rare, threatened, or endangered plant surveys should be:

a. Conducted in the field at the proper time of year when rare, threatened, or endangered species are both evident and identifiable. Usually, this is when the plants are flowering.

When rare, threatened, or endangered plants are known to occur in the type(s) of habitat present in the project

area, nearby accessible occurrences of the plants (reference sites) should be observed to determine that the species are identifiable at the time of the survey.

b. Floristic in nature. A floristic survey requires that every plant observed be identified to the extent necessary to determine its rarity and listing status. In addition, a sufficient number of visits spaced throughout the growing season are necessary to accurately determine what plants exist on the site. In order to properly characterize the site and document the completeness of the survey, a complete list of plants observed on the site should be included in every botanical survey report.

c. Conducted in a manner that is consistent with conservation ethics. Collections (voucher specimens) of rare, threatened, or endangered species, or suspected rare, threatened, or endangered species should be made only when such actions would not jeopardize the continued existence of the population and in accordance with applicable state and federal permit requirements. A collecting permit from the Habitat Conservation Planning Branch of DFG is required for collection of state-listed plant species. Voucher specimens should be deposited at recognized public herbaria for future reference. Photography should be used to document plant identification and habitat whenever possible, but especially when the population cannot withstand collection of voucher specimens.

d. Conducted using systematic field techniques in all habitats of the site to ensure a thorough coverage of potential impact areas.

e. Well documented. When a rare, threatened, or endangered plant (or rare plant community) is located, a California Native Species (or Community) Field Survey Form or equivalent written form, accompanied by a copy of the appropriate portion of a 7.5 minute topographic map with the occurrence mapped, should be completed and submitted to the Natural Diversity Database. Locations may be best documented using global positioning systems (GPS) and presented in map and digital forms as these tools become more accessible.

5. Reports of botanical field surveys should be included in or with environmental assessments, negative declarations and mitigated negative declarations, Timber Harvesting Plans (THPs), EIR's, and EIS's, and should contain the following information:

a. Project description, including a detailed map of the project location and study area.
b. A written description of biological setting referencing the community nomenclature used and a vegetation map.
c. Detailed description of survey methodology.
d. Dates of field surveys and total person-hours spent on field surveys.
e. Results of field survey including detailed maps and specific location data for each plant population found. Investigators are encouraged to provide GPS data and maps documenting population boundaries.
f. An assessment of potential impacts. This should include a map showing the distribution of plants in relation to proposed activities.
g. Discussion of the significance of rare, threatened, or endangered plant populations in the project area considering nearby populations and total species distribution.
h. Recommended measures to avoid impacts.
i. A list of all plants observed on the project area. Plants should be identified to the taxonomic level necessary to determine whether or not they are rare, threatened or endangered.
j. Description of reference site(s) visited and phenological development of rare, threatened, or endangered plant(s).
k. Copies of all California Native Species Field Survey Forms or Natural Community Field Survey Forms.
l. Name of field investigator(s).
m. References cited, persons contacted, herbaria visited, and the location of voucher specimens.

2

Sensitivity of Top Priority Rare Natural Communities in Southern California

Sensitivity rankings are determined by the Department of Fish and Game, California Natural Diversity Data Base and based on either number of known occurrences (locations) and/or amount of habitat remaining (acreage). The three rankings used for these top priority rare natural communities are as follows

S1.# Fewer than 6 known locations and/or on fewer than 2,000 acres of habitat remaining

S2.# Occurs in 6-20 known locations and/or 2,000-10,000 acres of habitat remaining.

S3.# Occurs in 21-100-known locations and/or 10,000-50,000 acres of habitat remaining.

The number to the right of the decimal point after the ranking refers to the degree of threat posed to that natural community regardless of the ranking. For example:

S1.1 = very threatened
S2.2 = threatened
S3.3 = no current threats known

Sensitivity Rankings (February 1992)

Rank	Community Name
S1.1	Mojave Riparian Forest
	Sonoran Cottonwood Willow Riparian
	Mesquite Bosque
	Elephant Tree Woodland
	Crucifixion Thorn Woodland
	Allthorn Woodland
	Arizonan Woodland
	Southern California Walnut Forest
	Mainland Cherry Forest
	Southern Bishop Pine Forest
	Torrey Pine Forest
	Desert Mountain White Fir Forest
	Southern Dune Scrub
	Southern Coastal Bluff Scrub
	Maritime Succulent Scrub
	Riversidean Alluvial Fan Sage Scrub
	Southern Maritime Chaparral
	Valley Needlegrass Grassland
	Great Basin Grassland
	Mojave Desert Grassland
	Pebble Plains
	Southern Sedge Bog
	Cismontane Alkali Marsh

S1.2	Southern Foredunes Mono Pumice Flat Southern Interior Basalt Flow Vernal Pool
S2.1	Venturan Coastal Sage Scrub Diegan Coastal Sage Scrub Riversidean Upland Coastal Sage Scrub Riversidean Desert Sage Scrub Sagebrush Steppe Desert Sink Scrub Mafic Southern Mixed Chaparral San Diego Mesa Hardpan Vernal Pool San Diego Mesa Claypan Vernal Pool Alkali Meadow Southern Coastal Salt Marsh Coastal Brackish Marsh Transmontane Alkali Marsh Coastal and Valley Freshwater Marsh Southern Arroyo Willow Riparian Forest Southern Willow Scrub Modoc-Great Basin Cottonwood Willow Riparian Modoc-Great Basin Riparian Scrub Mojave Desert Wash Scrub Engelmann Oak Woodland Open Engelmann Oak Woodland Closed Engelmann Oak Woodland Island Oak Woodland California Walnut Woodland Island Ironwood Forest Island Cherry Forest Southern Interior Cypress Forest Bigcone Spruce-Canyon Oak Forest
S2.2	Active Coastal Dunes Active Desert Dunes Stabilized and Partially Stabilized Desert Dunes Stabilized and Partially Stabilized Desert Sandfield Mojave Mixed Steppe Transmontane Freshwater Marsh Coulter Pine Forest Southern California Fellfield White Mountains Fellfield
S2.3	Bristlecone Pine Forest Limber Pine Forest
S3.2	Joshua tree woodland Mojave mixed woody scrub

STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

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November 16, 2007

Ms. Sarah Scott
Los Angeles County Department of Public Works
900 S. FREMONT AVENUE, 11TH FLOOR
ALHAMBRA, CA 91803

Re: SCH# 2007111050; CEQA Notice of Preparation (NOP) draft Environmental Impact Report (DEIR) for the Sierra Highway – S.R. 14 – to Peaarlblossom Highway Widening Project; Los Angeles County, California

Dear Ms. Scott:

Thank you for the opportunity to comment on the above-referenced document. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR per CEQA guidelines § 15064.5(b)(c). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE),' and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

√ Contact the appropriate California Historic Resources Information Center (CHRIS). Contact information for the 'Information Center' nearest you is available from the State Office of Historic Preservation in Sacramento (916/653-7278). The record search will determine:

- If a part or the entire (APE) has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

√ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

√ Contact the Native American Heritage Commission (NAHC) for:

* A Sacred Lands File (SLF) search of the project area and information on tribal contacts in the project vicinity who may have information on cultural resources in or near the APE. Please provide us site identification as follows: USGS 7.5-minute quadrangle citation with name, township, range and section. This will assist us with the SLF.

- Also, we recommend that you contact the Native American contacts on the attached list to get their input on the effect of potential project (e.g. APE) impact. In many cases a culturally-affiliated Native American tribe or person will be the only source of information about the existence of a cultural resource.

√ Lack of surface evidence of archeological resources does not preclude their subsurface existence.

- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

√ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigations plans.

- CEQA Guidelines §15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the Initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American groups, identified by the NAHE, to ensure the appropriate and dignified treatmentof Native American human remains and any associated grave goods.
- Health and Safety Code §7050.5, Public Resources Code §5097.98 and CEQA Guidelines §15064.5(d) mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

√ Lead agencies should consider avoidance, as defined in CEQA Guidelines §15370 when significant cultura resources are discovered during the course of project planning or execution.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List

Native American Contacts
Los Angeles County
November 16, 2007

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32835 Santiago Road
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Chumash
Fernandeno
Tataviam
Kitanemuk

Kitanemuk & Yowlumne Tejon Indians
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Covina , CA 91722
(626) 339-6785

Yowlumne
Kitanemuk

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Chumash
Tataviam
Fernandeño

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Fernandeno Tataviam Band of Mission Indians
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(818) 837-0796 Fax

Fernandeno
Tataviam

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th Street, Rm. 403
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(213) 351-5324
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This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed SCH#2007111050; CEQA Notice of Preparation (NOP); draft Environmental Impact Report (DEIR) for the Sierra Highway - State Route 14 to Pearlblosssom Highway Widening Project; Los Angeles County, California.

STATE OF CALIFORNIA
ARNOLD SCHWARZENEGGER, *Governor*

PUBLIC UTILITIES COMMISSION
320 WEST 4TH STREET, SUITE 500
LOS ANGELES, CA 90013

December 7, 2007

Sarah Scott
Los Angeles County Department of Public Works
900 S. Freemont Avenue, 11th Fl.
Alhambra, CA 91803

Dear Ms. Scott:

Re: SCH# 2007111050; Sierra Highway -State Route 14 to Pearblossom Highway Widening Project

The California Public Utilities Commission (Commission) has jurisdiction over the safety of highway-rail crossings (crossings) in California. The California Public Utilities Code requires Commission approval for the construction or alteration of crossings and grants the Commission exclusive power on the design, alteration, and closure of crossings.

The Commission Rail Crossings Engineering Section (RCES) is in receipt of the *Notice of Completion & Environmental Document Transmittal-NOP* from the State Clearinghouse. RCES staff is concerned that this proposal to widen Sierra Highway (lat= 34.512949, long= -118.108263) may increase traffic volumes not only on streets and at intersections, but also at the nearby Sierra Highway (DOT# 750600W) crossings. This includes considering pedestrian circulation patterns/destinations with respect to the railroad right-of-way.

Mitigation Measures to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and continuous vandal resistant fencing or other appropriate barriers to limit the access of trespassers onto the railroad right-of-way. We also recommend that measures be taken so that any traffic delays due to construction not adversely affect the nearby crossing.

Please advise us on the status of the project. If you have any questions in this matter, please contact me at (213) 576-7078 or at rxm@cpuc.ca.gov.

Sincerely,

Rosa Muñoz, PE
Utilities Engineer
Rail Crossings Engineering Section
Consumer Protection & Safety Division

C: Rob Harris, SCRRA

APPENDIX B

Air Quality Study Data

Road Construction Emissions Model, Version 5.2

Emission Estimates for -> Sierra Highway					Exhaust	Fugitive Dust	
Project Phases (English Units)	**ROG (lbs/day)**	**CO (lbs/day)**	**NOx (lbs/day)**	**PM10 (lbs/day)**	**PM10 (lbs/day)**	**PM10 (lbs/day)**	
Grubbing/Land Clearing	0	4	1	10	0	10	
Grading/Excavation	18	78	83	14	4	10	
Drainage/Utilities/Sub-Grade	8	42	42	12	2	10	
Paving	3	15	19	1	1	0	
Maximum (pounds/day)	18	78	83	14	4	10	
Total (tons/construction project)	1.02	4.21	5.61	0.82	0.27	0.55	<-tons

Notes:

Project Start Year ->	2008
Project Length (months) ->	10
Total Project Area (acres) ->	3
Maximum Area Disturbed/Day (acres) ->	2
Total Soil Imported/Exported (yd^3/day)->	44

PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I.

Emission Estimates for -> Sierra Highway

Project Phases (Metric Units)	ROG (kgs/day)	CO (kgs/day)	NOx (kgs/day)	PM10 (kgs/day)	Exhaust PM10 (kgs/day)	Fugitive Dust PM10 (kgs/day)	
Grubbing/Land Clearing	0	2	0	5	0	5	
Grading/Excavation	8	35	38	7	2	5	
Drainage/Utilities/Sub-Grade	4	19	19	6	1	5	
Paving	1	7	9	0	0	0	
Maximum (kilograms/day)	8	35	38	7	2	5	
Total (megagrams/construction project)	0.93	3.82	5.09	0.75	0.25	0.50	<-megagrams

Notes:	
Project Start Year ->	2008
Project Length (months) ->	10
Total Project Area (hectares) ->	1
Maximum Area Disturbed/Day (hectares) ->	1
Total Soil Imported/Exported (meters^3/day)->	33

PM10 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns H and I.

Road Construction Emissions Model
Data Entry Worksheet

Version 5.2

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Note: Required data input sections have a yellow background.
Optional data input sections have a blue background. Only areas with a yellow or blue background can be modified. Program defaults have a white background.
The user is required to enter information in cells C10 through C28.

To begin a new project, click this button to clear data previously entered. This button will only work if you opted not to disable macros when loading this spreadsheet.

Input Type		
Project Name	Sierra Highway	
Construction Start Year	2008	Enter a Year between 2000 and 2010 inclusive
Project Type	2	1 New Road Construction 2 Road Widening 3 Bridge/Overpass Construction
Project Construction Time	10	months
Predominate Soil/Site Type: Enter 1, 2, or 3	2	1. Sand Gravel 2. Weathered Rock-Earth 3. Blasted Rock
On-Road Emission Factors: Enter 1, 2, 3, or 4	4	1. Emfac7fv1.1 4. Emfac2002 (default) 2. Emfac7G 3. Emfac2001
Project Length	0.8	miles
Total Project Area	3	acres
Maximum Area Disturbed/Day	2	acres
Water Trucks Used?	1	1. Yes 2. No
Soil Imported		yd^3/day
Soil Exported	44	yd^3/day
Average Truck Capacity	20	yd^3 (assume 20 if unknown)

The remaining sections of this sheet contain areas that can be modified by the user, although those modifications are optional.

Note: The program's estimates of construction period phase length can be overridden in cells C37 through C40.

Construction Periods	User Override of Construction Months	Program Calculated Months	2000	%	2001	%	2002
Grubbing/Land Clearing	0.00	1.00	0.00	0.00	0.00	0.00	0.00
Grading/Excavation	4.00	4.50	0.00	0.00	0.00	0.00	0.00
Drainage/Utilities/Sub-Grade	1.00	3.00	0.00	0.00	0.00	0.00	0.00
Paving	5.00	1.50	0.00	0.00	0.00	0.00	0.00
Totals	10.00	10.00					

Hauling emission default values can be overridden in cells C48 through C50.

Soil Hauling Emissions	User Override of Soil Hauling Defaults	Default Values			
User Input					
Miles/round trip		30			30
Round trips/day		2			2.19
Vehicle miles traveled/day (calculated)			65.7		
Hauling Emissions	**ROG**	**NOx**	**CO**	**PM10**	
Emission rate (grams/mile)	0.75	8.63	7.25	0.27	
Pounds per day	0.1	1.2	1.0	0.0	
Tons per contruction period	0.00	0.05	0.05	0.00	

Worker commute default values can be overridden in cells C62 through C67.

Worker Commute Emissions	User Override of Worker Commute Default Values	Default Values			
Miles/ one-way trip		20			20
One-way trips/day		2			2
No. of employees: Grubbing/Land Clearing		5			4.5
No. of employees: Grading/Excavation		7			7
No. of employees: Drainage/Utilities/Sub-Grade		7			7
No. of employees: Paving		6			5.75
	ROG	**NOx**	**CO**	**PM10**	
Emission rate (grams/mile)	0.30		6.25	0.04	
Emission rate (grams/trip)	1.62	0.72	16.13	0.02	
Pounds per day - Grubbing/Land Clearing	0.2	0.0	3.1	0.0	
Tons per const. Period - Grub/Land Clear	0.0	0.0	0.0	0.0	
Pounds per day - Grading/Excavation	0.3	0.0	4.8	0.0	
Tons per const. Period - Grading/Excavation	0.0	0.0	0.2	0.0	
Pounds per day - Drainage/Utilities/Sub-Grade	0.3	0.0	4.8	0.0	
Tons per const. Period - Drain/Util/Sub-Grade	0.0	0.0	0.1	0.0	
Pounds per day - Paving	0.2	0.0	4.0	0.0	
Tons per const. Period - Paving	0.0	0.0	0.2	0.0	
tons per construction period	0.0	0.0	0.5	0.0	

Water truck default values can be overriden in cells C87 through C89 and E87 through E89.

Water Truck Emissions	Number of Water Trucks	Program Estimate of Number of Water Trucks	User Override of Water Truck Miles Traveled	Default Values Miles Traveled/Day	
Grubbing/Land Clearing - Exhaust		1		40	40

Grading/Excavation - Exhaust		1		40	40
Drainage/Utilities/Subgrade		1		40	40
	ROG	**NOx**	**CO**	**PM10**	
Emission rate (grams/mile)	0.75	8.63	7.25	0.27	
Pounds per day - Grubbing/Land Clearing	0.1	0.8	0.6	0.0	
Tons per const. Period - Grub/Land Clear	0.00	0.01	0.01	0.00	
Pound per day - Grading/Excavation	0.1	0.8	0.6	0.0	
Tons per const. Period - Grading/Excavation	0.00	0.03	0.03	0.00	
Pound per day - Drainage/Utilities/Subgrade	0.1	0.8	0.6	0.0	
Tons per const. Period - Drainage/Utilities/Subgrade	0.00	0.01	0.01	0.00	

Fugitive dust default values can be overridden in cells C104 and C105.

Fugitive PM10 Dust	User Override of Max Acrerage/Day	Default Maximum Acreage/Day	pounds/day	tons/per period
Fugitive Dust - Grubbing/Land Clearing		2	10.0	0.0
Fugitive Dust - Grading/Excavation		2	10.0	0.4
Fugitive Dust - Drainage/Utilities/Subgrade		2	10.0	0.1

Off road equipment default number of vehicles can be overridden in cells B115 through B224.

Off-Road Equipment Emissions

Grubbing/Land Clearing Override of Default Number of Vehicles	Default Number of Vehicles *Program-estimate*	Type	ROG pounds/day	CO pounds/day	NOx pounds/day	PM10 pounds/day
		Backhoes	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00
		Compactor	0.00	0.00	0.00	0.00
		Cranes	0.00	0.00	0.00	0.00
		Crawler Tractors	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00
	1	Dozer	0.00	0.00	0.00	0.00
		Excavator	0.00	0.00	0.00	0.00
		Forklifts, Rough Terrain	0.00	0.00	0.00	0.00
		Grader	0.00	0.00	0.00	0.00
		Loaders, Rubber Tired	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00
		Other Construction Equip.	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00

	1	Scrapper	0.00	0.00	0.00	0.00
0	2	Signal Boards	0.00	0.00	0.00	0.00
		Skid Steer Loaders	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00
		Tractors	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00
		pounds per day	0.0	0.0	0.0	0.0
		tons per period	0.0	0.0	0.0	0.0

Grading/Excavation	Number of Vehicles		ROG	CO	NOx	PM10
Override of Default Number of Vehicles	*Program-estimate*	Type	pounds/day	pounds/day	pounds/day	pounds/day
		Backhoes	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00
		Compactor	0.00	0.00	0.00	0.00
	0	Cranes	0.00	0.00	0.00	0.00
		Crawler Tractors	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00
		Dozer	0.00	0.00	0.00	0.00
2	1	Excavator	3.68	12.67	12.94	0.68
		Forklifts, Rough Terrain	0.00	0.00	0.00	0.00
	1	Grader	1.20	5.64	9.73	0.53
2	1	Loaders, Rubber Tired	1.84	9.01	14.02	0.76
2		Off-Highway Trucks	7.20	27.23	27.95	1.44
	0	Other Construction Equip.	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00
	1	Scrapper	3.64	16.63	15.96	0.85
0	2	Signal Boards	0.00	0.00	0.00	0.00
		Skid Steer Loaders	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00
		Tractors	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00
		max pounds per day	17.6	71.2	80.6	4.3
		tons per period	0.8	3.1	3.5	0.2

Drainage/Utilities/Subgrade	Number of Vehicles		ROG	CO	NOx	PM10
Override of Default Number of Vehicles	*Program-estimate*	Type	pounds/day	pounds/day	pounds/day	pounds/day
		Backhoes	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00
	1	Compactor	2.08	10.32	9.43	0.52

		Cranes	0.00	0.00	0.00	0.00
		Crawler Tractors	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00
		Dozer	0.00	0.00	0.00	0.00
		Excavator	0.00	0.00	0.00	0.00
		Forklifts, Rough Terrain	0.00	0.00	0.00	0.00
	1	Grader	1.20	5.64	9.73	0.53
		Loaders, Rubber Tired	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00
		Other Construction Equip.	0.00	0.00	0.00	0.00
		Pavers	0.00	0.00	0.00	0.00
		Paving Equipment	0.00	0.00	0.00	0.00
		Rollers	0.00	0.00	0.00	0.00
	1	Scrapper	3.64	16.63	15.96	0.85
0	2	Signal Boards	0.00	0.00	0.00	0.00
		Skid Steer Loaders	0.00	0.00	0.00	0.00
		Surfacing Equipment	0.00	0.00	0.00	0.00
		Tractors	0.00	0.00	0.00	0.00
	1	Trenchers	0.99	3.65	5.69	0.41
		max pounds per day	7.9	36.2	40.8	2.3
		tons per period	0.1	0.4	0.4	0.0

Paving	Number of Vehicles		ROG	CO	NOx	PM10
Override of Default Number of Vehicles	*Program-estimate*	Type	pounds/day	pounds/day	pounds/day	pounds/day
		Backhoes	0.00	0.00	0.00	0.00
		Bore/Drill Rigs	0.00	0.00	0.00	0.00
		Concrete/Industrial Saws	0.00	0.00	0.00	0.00
		Compactor	0.00	0.00	0.00	0.00
		Cranes	0.00	0.00	0.00	0.00
		Crawler Tractors	0.00	0.00	0.00	0.00
		Crushing/Proc. Equipment	0.00	0.00	0.00	0.00
		Dozer	0.00	0.00	0.00	0.00
		Excavator	0.00	0.00	0.00	0.00
		Forklifts, Rough Terrain	0.00	0.00	0.00	0.00
		Grader	0.00	0.00	0.00	0.00
		Loaders, Rubber Tired	0.00	0.00	0.00	0.00
		Off-Highway Trucks	0.00	0.00	0.00	0.00
		Other Construction Equip.	0.00	0.00	0.00	0.00
	1	Pavers	0.93	4.55	7.08	0.38
	1	Paving Equipment	0.78	3.44	7.28	0.39
	1	Rollers	0.59	2.87	4.47	0.24
		Scrapper	0.00	0.00	0.00	0.00
0	2	Signal Boards	0.00	0.00	0.00	0.00
		Skid Steer Loaders	0.00	0.00	0.00	0.00

		Surfacing Equipment	0.00	0.00	0.00	0.00
		Tractors	0.00	0.00	0.00	0.00
		Trenchers	0.00	0.00	0.00	0.00
		pounds per day	2.3	10.9	18.8	1.0
		tons per period	0.1	0.6	1.0	0.1
Total Emissions (tons per construction period)			1.0	4.1	5.0	0.3

6

Equipment default values for horsepower, load factor, and hours/day can be overridden in cells C235 through C256, E235 through E256, and G235 through G256.

Equipment		Default Values Horsepower		Default Values Load Factor		Default Values Hours/day
Bore/Drill Rigs		218		0.75		8
Concrete/Industrial Saws		84		0.73		8
Cranes		190		0.43		8
Crawler Tractors		143		0.575		8
Crushing/Proc. Equipment		154		0.78		8
Excavators		180		0.58		8
Graders		174		0.575		8
Off-Highway Tractors		255		0.41		8
Off-Highway Trucks		417		0.49		8
Other Construction Equipment		190		0.62		8
Pavers		132		0.59		8
Paving Equipment		111		0.53		8
Rollers		114		0.43		8
Rough Terrain Forklifts		94		0.475		8
Rubber Tired Dozers		352		0.59		8
Rubber Tired Loaders		165		0.465		8
Scrapers		313		0.66		8
Signal Boards		25		0.82		8
Skid Steer Loaders		62		0.515		8
Surfacing Equipment		437		0.49		8
Tractors/Loaders/Backhoes		79		0.465		8
Trenchers		82		0.695		8

Default load factors from SCAQMD CEQA Handbook, 1993.

Default horsepower values from Appendix B, California Air Resources Board's Offroad Model (see also Appendix B of this spreadsheet).

Signal board horsepower based on: U.S. EPA, 1998. Final Regulatory Impact Analysis: Control of Emissions from Nonroad Diesel Engines (EPA420-R-98-016).

0 16

END OF DATA ENTRY SHEET

APPENDIX C

Biological Resources Report

DRAFT
RESULTS OF THE BIOLOGICAL RECONNAISSANCE SURVEY FOR THE SIERRA HIGHWAY - STATE ROUTE 14 TO PEARBLOSSOM HIGHWAY WIDENING PROJECT LOS ANGELES COUNTY, CALIFORNIA

Prepared for:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
900 South Fremont Avenue, 11th Floor
Alhambra, California 91803-1331

Prepared by:

CHAMBERS GROUP, INC.
17671 Cowan Avenue, Suite 100
Irvine, California 92614
(949) 261-5414

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SECTION 1.0 – INTRODUCTION

Chambers Group, Inc was retained by the Los Angeles County Department of Public Works (LACPW) to conduct a literature review and a reconnaissance-level biological survey for the Sierra Highway widening project (Project Site) along a portion of Sierra Highway located in an unincorporated area of Palmdale, Los Angeles County, California (Figure 1). The project site can be found in Section 14, Township 5 North, Range 12 West on the Palmdale quadrangle U.S. Geological Survey (USGS) map (1974). The project site is located along 0.81 mile of Sierra Highway between Interstate 14 and Pearblossom Highway (Figure 2). This portion of Sierra Highway runs in a northeast/southwest direction parallel to the Union Pacific Railroad line.

The proposed work by LADPW includes realignment of the existing road to meet design criteria for 65 miles per hour design speed per Traffic and Lighting recommendations, construction of a road section to provide a 12-foot inside lane, a 14-foot outside lane, a 10-foot paved shoulder on each side of the road, and a 12-foot painted median per Traffic and Lighting recommendations, reconstruction of the pavement with 6 inches of Asphalt Concrete on 12 inches of Crushed Miscellaneous Base, and restoration of traffic loops and provide pavement striping, markings, and signage. In addition, guardrails and existing culverts will be upgraded, constructed or replaced as necessary.

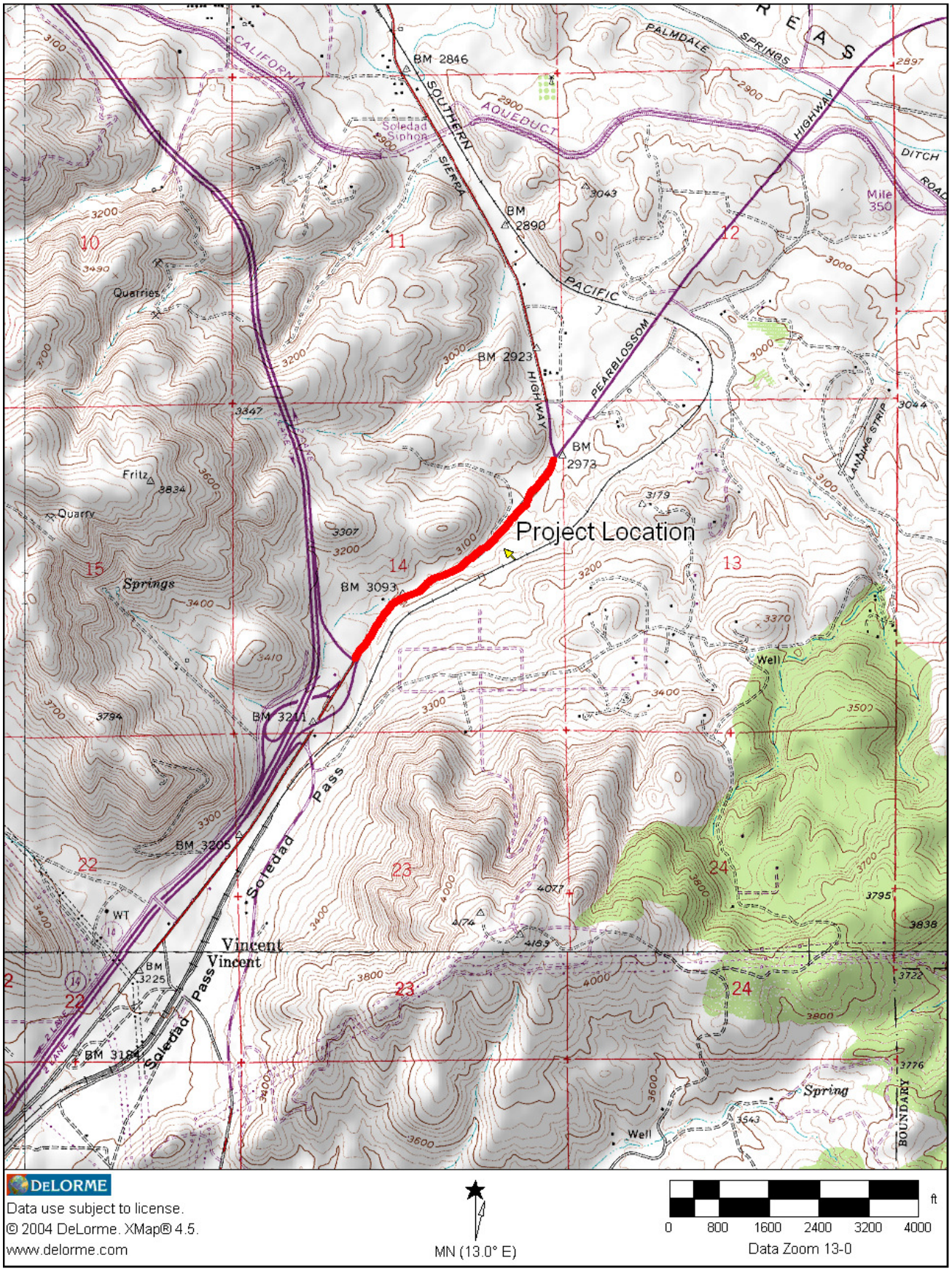
SCALE 1:175,000

SOURCE: DeLorme 3-D Topo Quads

N

SIERRA HIGHWAY WIDENING PROJECT
VICINITY MAP
Figure 1

Chambers Group, Inc.



SCALE 1:25,000

SOURCE: DeLorme 3-D Topo Quads

N

SIERRA HIGHWAY WIDENING PROJECT
LOCATION MAP
Figure 2

Chambers Group, Inc.

SECTION 2.0 – METHODOLOGY

Prior to performing the field survey, existing documentation relevant to the project site was reviewed. The most recent records of the California Natural Diversity Database (CNDDB 2007) and the California Native Plant Society Electronic Inventory of Rare and Endangered Vascular Plants of California (CNPSEI 2007) were reviewed for the quadrangles including and surrounding the Project site (Palmdale, Ritter Ridge, Acton, and Pacifico Mountain, California USGS 7.5-minute topographic quadrangles). These databases contain records of reported occurrences of federal- and state-listed threatened and endangered species, species proposed for listing as threatened or endangered, former Federal Species of Concern (FSC), California Special Concern Species (CSC), and otherwise sensitive species or habitats that may occur within or in the immediate vicinity of the Project site. From these sources, lists of sensitive plant and wildlife species with the potential to occur within the Project site were compiled.

The reconnaissance-level survey was conducted on September 13, 2007 by Chambers Group biologists Heather Clayton and Shannan Shaffer between the hours of 8:30 a.m. and 11:50 a.m. The objective of the reconnaissance survey was to identify and map vegetation communities and the distribution and relative abundance of general and sensitive wildlife habitats on the Project site. The survey was conducted by walking the entire project area as well as adjacent areas. All plant and wildlife observations were recorded.

2.1 VEGETATION

Vegetation communities were determined in accordance with the categories set forth in *A Manual of California Vegetation* (Sawyer and Keeler-Wolf, 1995) and *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland, 1986). Plants of uncertain identity were collected and subsequently identified using the keys, descriptions, and illustrations in Hickman (1993) and Munz (1974). Plant nomenclature follows that of *The Jepson Manual, Higher Plants of California* (Hickman 1993). All plant species observed onsite were documented (Appendix A).

2.2 WILDLIFE

A reconnaissance-level field survey was performed over the entire Project site to characterize the distribution and relative abundance of wildlife, wildlife resources, and wildlife habitats within the Project site. Wildlife and wildlife signs (including tracks, scat, carcasses, burrows, nests, excavations, and vocalizations) were noted and recorded. A list of wildlife species observed during the project site visit is included in Appendix B.

2.3 SENSITIVE SPECIES

A sensitive species is considered a potential inhabitant of the project site if its known geographical distribution encompasses part of the project site or if its distribution is near the site and if general habitat requirements or environmental conditions (e.g. soil type, elevation, vegetation assemblage, etc.) required for the species are present at the time of the survey. The potential for each sensitive species to occur on the project site was assessed during the literature review and field survey.

Historical information on the location of some sensitive species is not available; therefore, for survey purposes, the presence of environmental conditions or habitats associated with species occurrence requirements may be considered sufficient to give a species a potential for occurrence. Sensitive species and their potential for occurrence on the project site are discussed later in this document.

SECTION 3.0 – RESULTS

3.1 GENERAL

Weather conditions during the survey included clear skies and temperatures ranging from 79° to 90° Fahrenheit. Wind speeds averaged 5.0 miles per hour with gusts up to 8.5 miles per hour. Vegetation communities on the Project site were identified and qualitatively described. Biological resources on the property were inventoried and the potential for the presence of sensitive plant and wildlife species and sensitive habitats was assessed, focusing on those species listed as threatened or endangered by the state and federal agencies. Notes were made of the general vegetation types, species observed, and potential plant and wildlife habitats existing on the site.

3.2 VEGETATION

The project site encompasses approximately 13.22 acres, extending 80 feet southeast of the existing paved portion of Sierra Highway and for 0.81 mile in length. Much of the area immediately adjacent to Sierra Highway was highly disturbed and sparsely vegetated, or dominated by non-native weeds. If the project continues as planned, several cuts into steep cliffs will require removal of Mojave Desert Scrub habitat.

The vegetation communities identified on the project site were mapped onto an aerial photograph (Figure 3). Representative site photographs were taken to emphasize portions of the project site and show key vegetation community features (Appendix D). The acreage of each of the vegetation communities present within the project site was determined using Geographic Information Systems (GIS) technology (Table 2). Thirty-one plant species were observed onsite during the surveys (Appendix B).

Table 1
Vegetation Communities Occurring Within the Project Site

Vegetation Community	Approximate Acreage
Woodland Habitats	
California Juniper Series	0.1
Joshua Tree Series	<0.1
Scrub Habitats	
Mojave Mixed Woody Scrub	1.6
Disturbed Mojave Mixed Woody Scrub	0.3
Four-Wing Saltbrush Series	0.1
Rubber Rabbitbrush-Big Sagebrush Series	1.1
Other Areas	
Russian Thistle Series	0.4
Disturbed	4.4
Developed	5.2
Total:	**13.2**

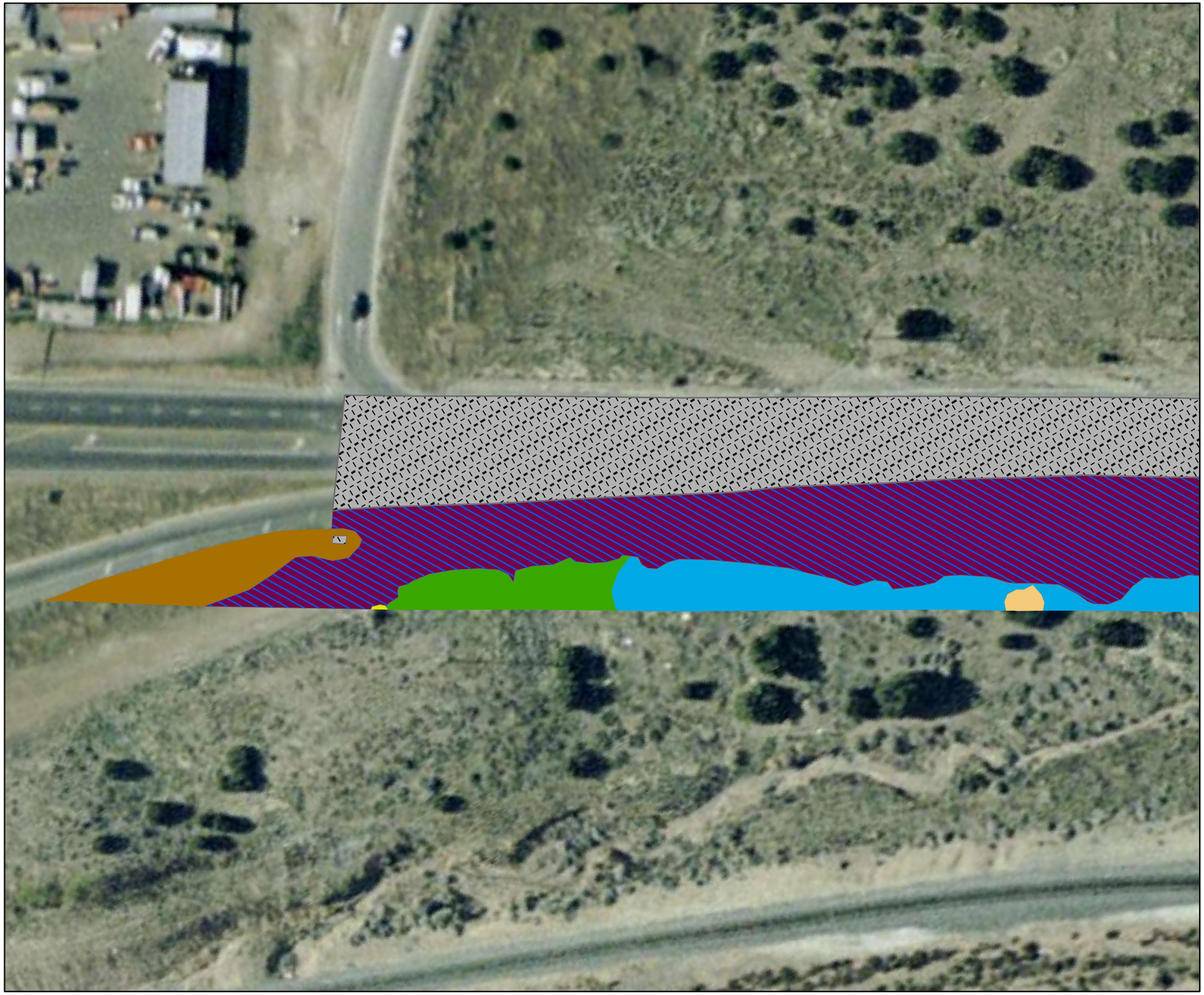


Figure 3
Sierra Highway Widening Project
Vegetation Communities

Map 1 of 7

Legend

Vegetation Communities

- California Juniper Series
- Mojave Mixed Woody Scrub
- Disturbed
- Disturbed Mojave Mixed Woody Scrub
- Russian Thistle Series
- Fourwing Saltbush Series
- Joshua Tree Series
- Rubber Rabbitbrush-Big Sagebrush Series
- Developed

Chambers Group Inc.

N

0 25 50 100 150 Feet

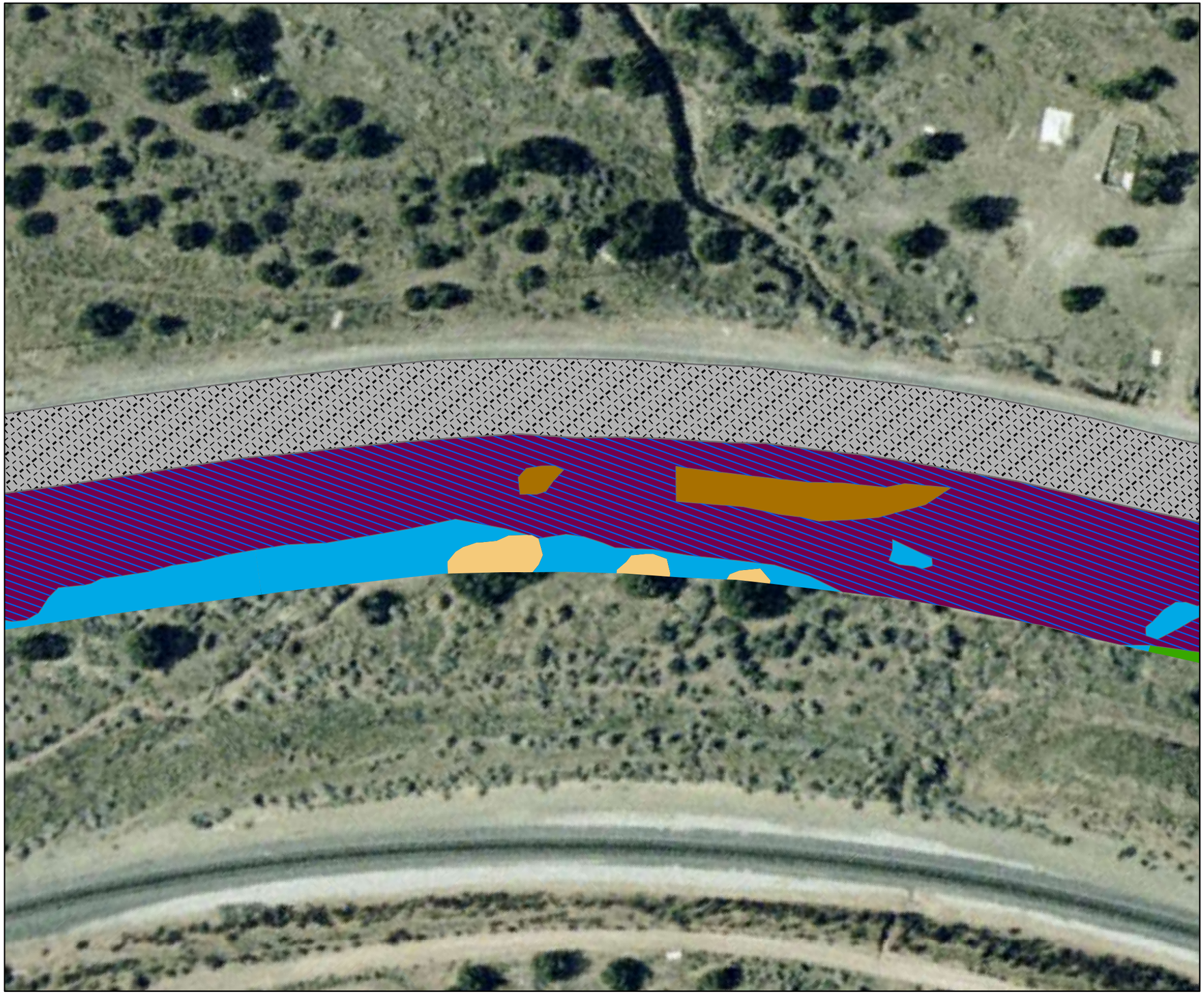


Figure 3
Sierra Highway Widening Project
Vegetation Communities

Map 2 of 7

Legend

Vegetation Communities

- California Juniper Series
- Mojave Mixed Woody Scrub
- Disturbed
- Disturbed Mojave Mixed Woody Scrub
- Russian Thistle Series
- Fourwing Saltbush Series
- Joshua Tree Series
- Rubber Rabbitbrush-Big Sagebrush Series
- Developed

Chambers Group Inc.

N

0 25 50 100 150 Feet

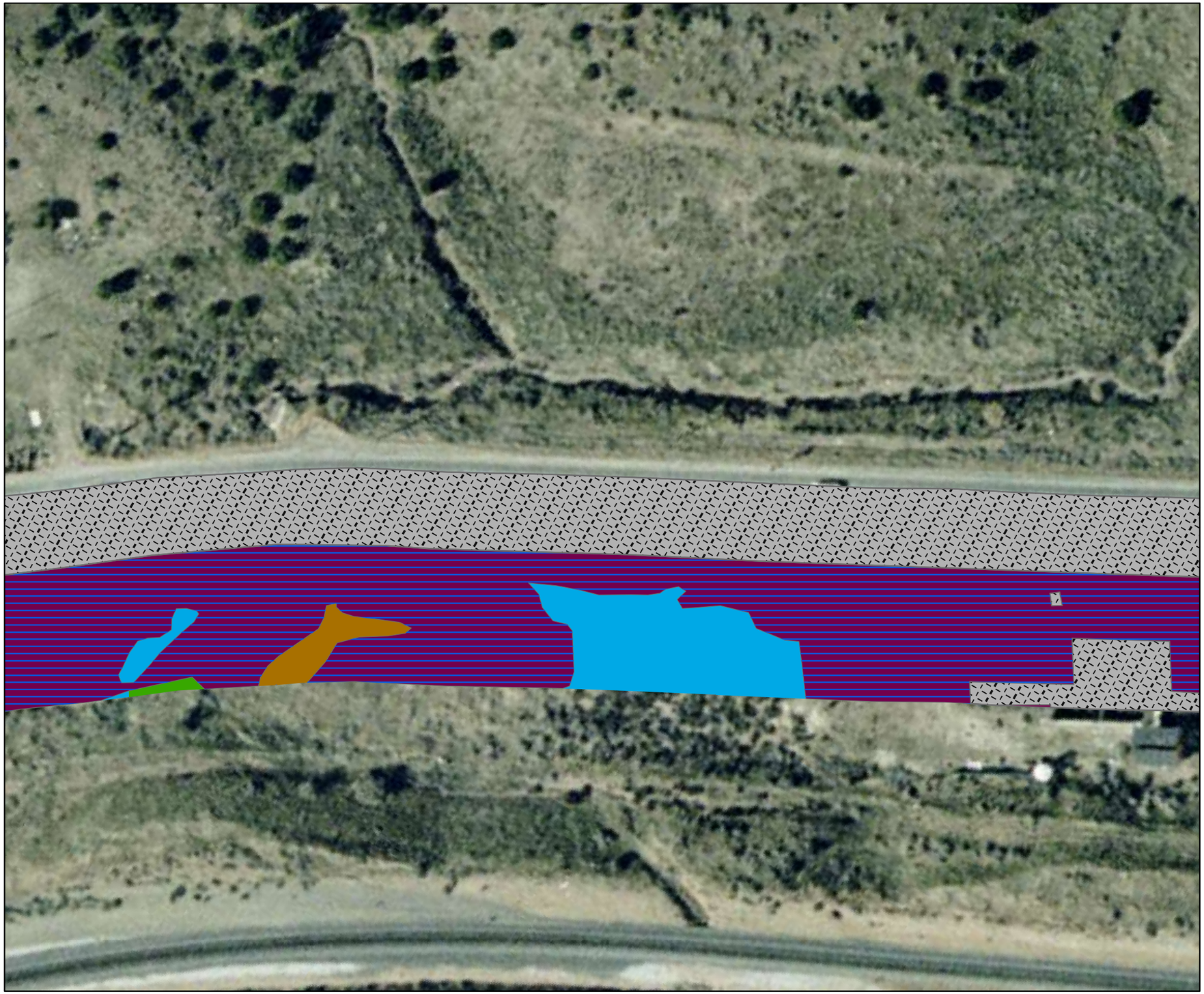


Figure 3
Sierra Highway Widening Project
Vegetation Communities

Map 3 of 7

Legend

Vegetation Communities

- California Juniper Series
- Mojave Mixed Woody Scrub
- Disturbed
- Disturbed Mojave Mixed Woody Scrub
- Russian Thistle Series
- Fourwing Saltbush Series
- Joshua Tree Series
- Rubber Rabbitbrush-Big Sagebrush Series
- Developed

Chambers Group Inc.

N

0 25 50 100 150 Feet

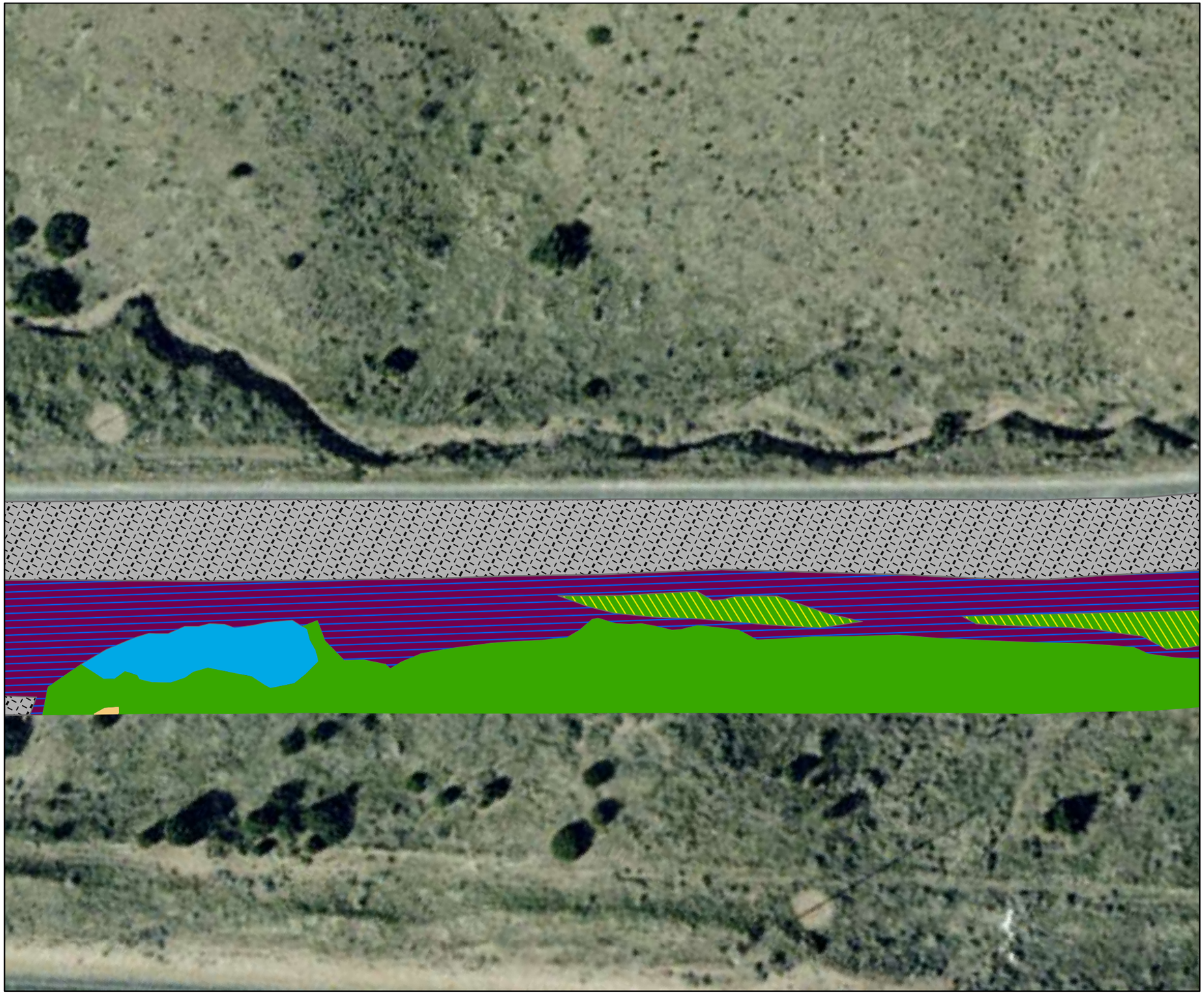


Figure 3
Sierra Highway Widening Project
Vegetation Communities

Map 4 of 7

Legend

Vegetation Communities

- California Juniper Series
- Mojave Mixed Woody Scrub
- Disturbed
- Disturbed Mojave Mixed Woody Scrub
- Russian Thistle Series
- Fourwing Saltbush Series
- Joshua Tree Series
- Rubber Rabbitbrush-Big Sagebrush Series
- Developed

Chambers Group Inc.

N

0 25 50 100 150 Feet

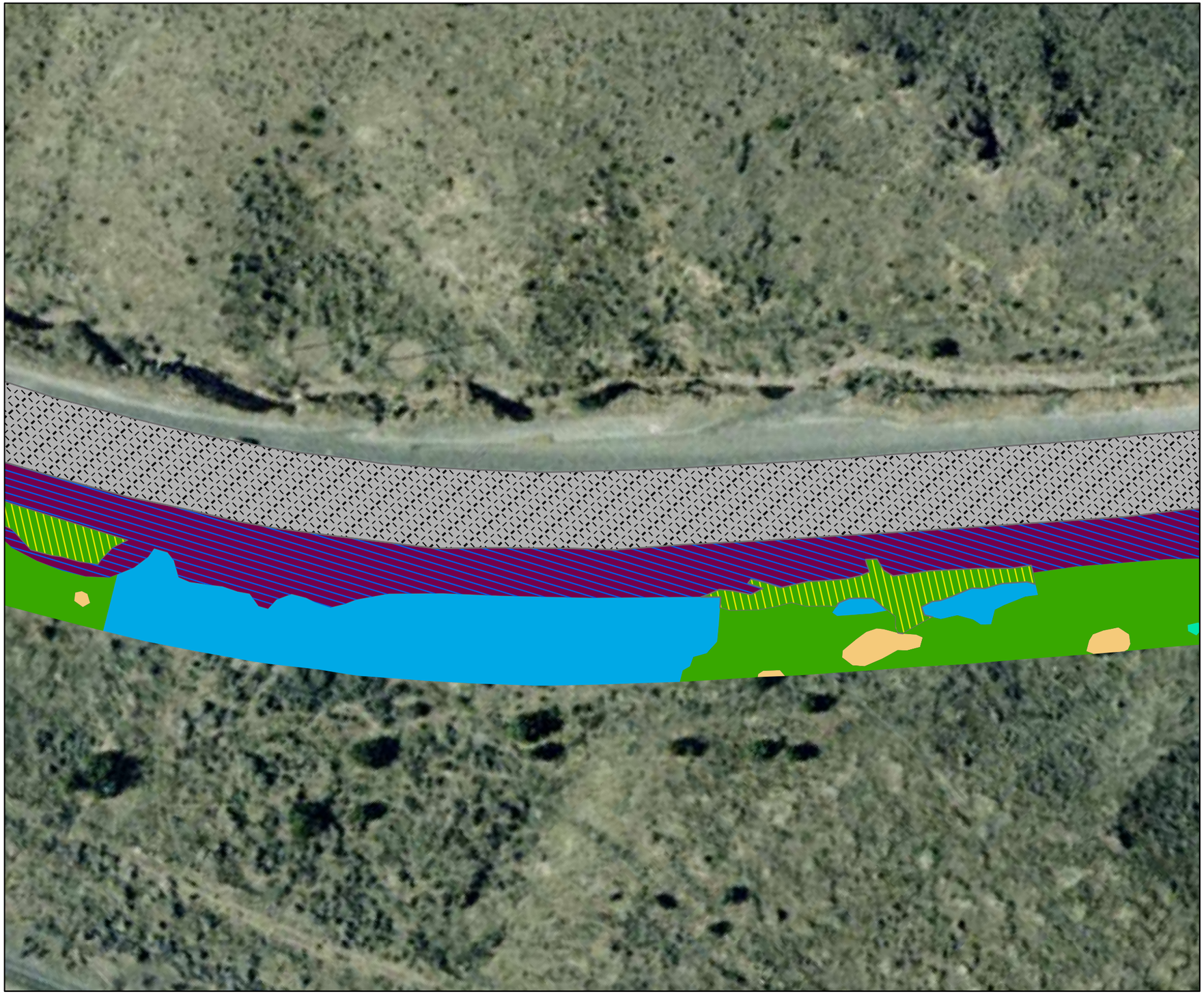


Figure 3
Sierra Highway Widening Project
Vegetation Communities

Map 5 of 7

Legend

Vegetation Communities

- California Juniper Series
- Mojave Mixed Woody Scrub
- Disturbed
- Disturbed Mojave Mixed Woody Scrub
- Russian Thistle Series
- Fourwing Saltbush Series
- Joshua Tree Series
- Rubber Rabbitbrush-Big Sagebrush Series
- Developed

Chambers Group Inc.

N

0 25 50 100 150 Feet

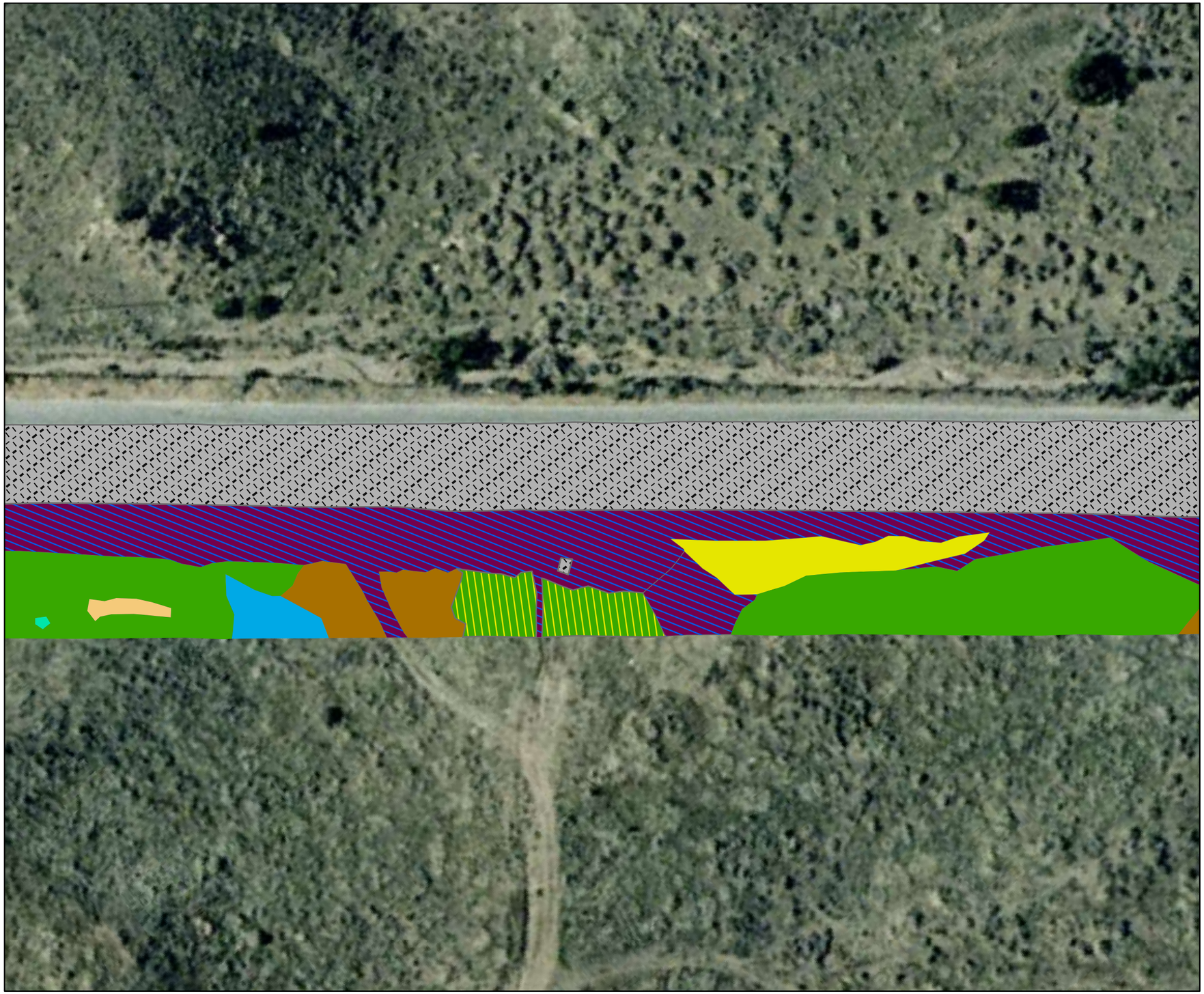


Figure 3
Sierra Highway Widening Project
Vegetation Communities
Map 6 of 7

Legend

Vegetation Communities

- California Juniper Series
- Mojave Mixed Woody Scrub
- Disturbed
- Disturbed Mojave Mixed Woody Scrub
- Russian Thistle Series
- Fourwing Saltbush Series
- Joshua Tree Series
- Rubber Rabbitbrush-Big Sagebrush Series
- Developed

Chambers Group Inc.

N

0 25 50 100 150 Feet

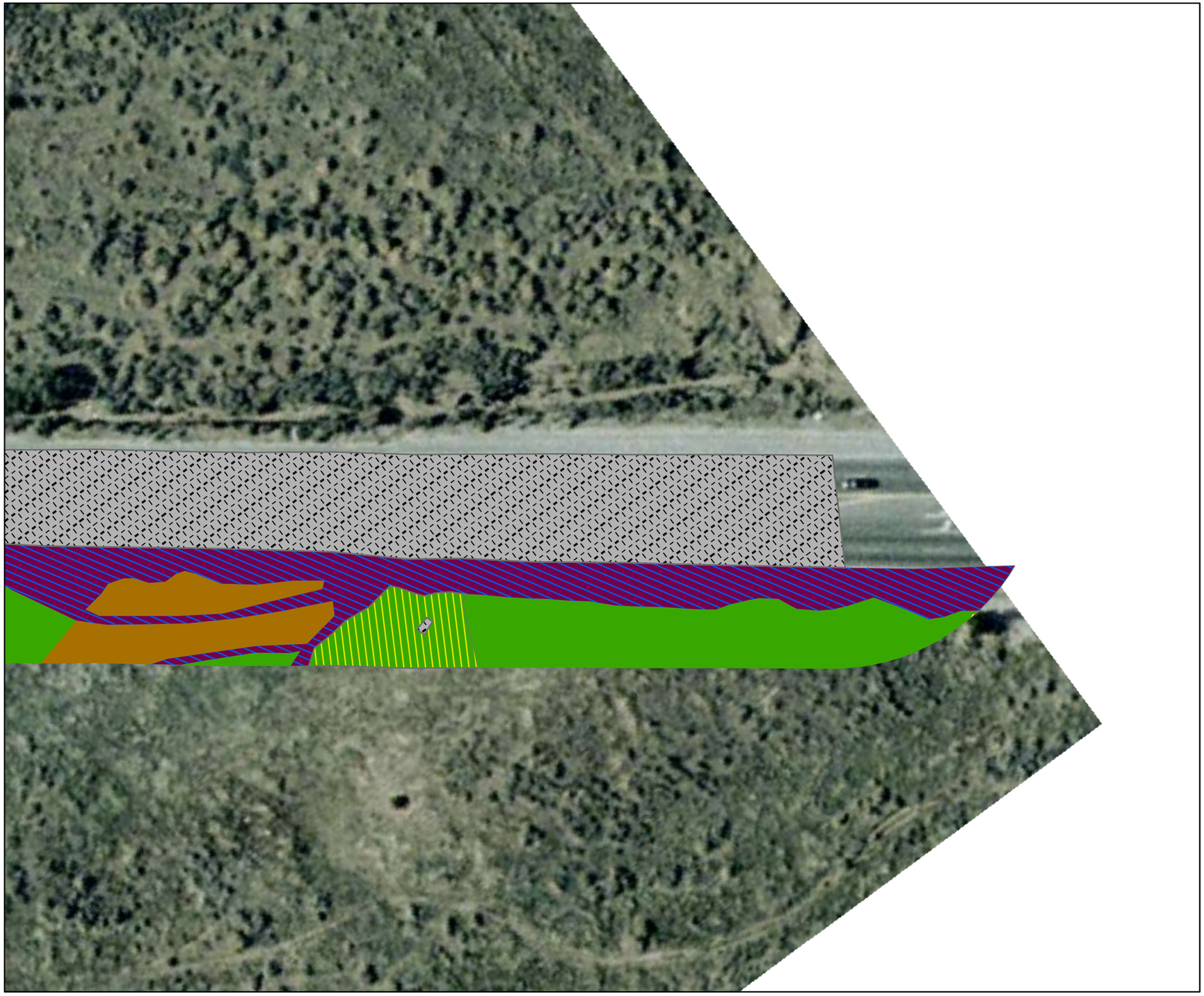


Figure 3
Sierra Highway Widening Project
Vegetation Communities

Map 7 of 7

Legend

Vegetation Communities

- California Juniper Series
- Mojave Mixed Woody Scrub
- Disturbed
- Disturbed Mojave Mixed Woody Scrub
- Russian Thistle Series
- Fourwing Saltbush Series
- Joshua Tree Series
- Rubber Rabbitbrush-Big Sagebrush Series
- Developed

Chambers Group Inc.

N

0 25 50 100 150 Feet

3.2.1 Woodland Habitats

California Juniper Series

The California Juniper Series was comprised by California juniper (*Juniperus californica*) trees with an understory of non-native brome grasses. California juniper is a large evergreen shrub, or tree, that can reach up to 15 feet in height. The canopy of the California Juniper Series is open and can occur on uplands, ridges, slopes, or in valleys, typically associated with soils derived from bedrock or alluvium (Sawyer and Keeler-Wolf 1995). Only several California juniper trees were observed within the project boundary although more trees were observed within the surrounding areas. This community comprised approximately 0.1 acre within the project area.

Joshua Tree Woodland Series

Joshua Tree woodlands (Sawyer and Keeler-wolf 1995) are dominated by Joshua trees (*Yucca brevifolia*) and usually occur at elevations from 2,460 to 7,550 feet on well-drained alluvial or rock slopes in the Mojave Desert. They are characterized as open canopy woodlands of widely scattered Joshua trees growing among a lower canopy of deciduous shrubs. Plant species typical of this vegetation community that were observed onsite include, Joshua tree, and common Mediterranean grass (*Schismus barbatus*). Less than 0.1 acre of this community type are present within the project area.

3.2.2 Scrub Habitats

Mojave Mixed Woody Scrub

This community is a complex scrub habitat with uniformly scattered low-growing shrubs (Holland 1986). Soils of this type of habitat are often very shallow, overly-drained, have a low water holding capacity, and are derived from granitic parent materials (Holland 1986). Soils also tend to be alkaline, but are not very saline. Many of the native shrubs characteristic of this community were observed within the project vicinity such as four-wing saltbush (*Atriplex canescens*), rubber-rabbitbrush (*Chrysothamnus nauseosus*), Nevada ephedra (*Ephedra nevadensis*), interior goldenbush (*Ericameria linearifolia*), California buckwheat (*Eriogonum fasciculatum* var. *poliofolium*), bladder pod (*Isomeris arborea*), and bladder sage (*Salazaria mexicana*). The understory onsite consisted of non-native grasses including cheat grass (*Bromus tectorum*), Mediterranean schismus (*Schismus barbatus*). Other species occurring with much less abundance within this community onsite include big sagebrush (*Artemisia tridentata*), four-wing saltbush (*Atriplex canescens*), Acton daisy (*Encelia actonii*), slender woolly buckwheat (*Eriogonum gracile*), cudweed aster (*Lessingia filaginifolia*), box-thorn (*Lycium* sp.), and Malpais bluegrass (*Poa secunda*). This community comprised approximately 1.6 acres within the project area.

Disturbed Mojave Mixed Woody Scrub

A less dense variety of this association in which a greater percent cover of non-native species and more bare ground characterized the habitat is referred to as Disturbed Mojave Mixed Woody Scrub. In addition to occasional four-wing saltbush, rubber-rabbitbrush, California buckwheat, and bladder pod shrubs, this disturbed community was also characterized by bur-sage (*Ambrosia acanthicarpa*), jimson weed (*Datura wrightii*), dove weed (*Eremocarpus setigerus*), short-podded mustard (*Hirschfeldia incana*), prickly lettuce (*Lactuca serriola*), and Russian thistle (*Salsola tragus*). Disturbed Mojave Mixed Woody Scrub comprised approximately 0.3 acre within the project area.

Four-Wing Saltbrush Series

Fourwing saltbush series, described by Sawyer and Keeler-Wolf (1995), is dominated by fourwing saltbush (*Atriplex canescens*). Cheesebush (*Hymenoclea salsola*), creosote bush (*Larrea tridentata*), green ephedra (*Ephedra viridis*), and honey mesquite may also be present. Four-Wing Saltbush Series occurs in habitats with carbonate-rich soils on bluffs, dunes, and lower, rocky slopes. Plant species found on the project site

typical of this series included four-wing saltbush and common Mediterranean grass. This community comprised approximately 0.1 acre within the project area.

Rubber Rabbitbrush-Big Sagebrush Series

The Rubber Rabbitbrush-Big Sagebrush Series described by Sawyer and Keeler-Wolf (1995), is dominated by rubber rabbitbrush and big sagebrush (*Artemisia tridentata*). This community type generally occurs on uplands, bajadas, pediments, and valleys in well drained gravelly soils. Plant species found on the project site typical of this series include rubber rabbitbrush, big sagebrush, cheat grass (*Bromus tectorum*), dove weed (*Eremocarpus setigerus*), small wreathplant (*Stephanomeria exigua*), long-stemmed buckwheat (*Eriogonum elongatum*), and slender woolly buckwheat (*Eriogonum gracile*). This community comprised approximately 1.1 acres within the project area.

3.2.3 Other Areas

Russian Thistle Series

Russian Thistle Series is dominated by Russian thistle, brome grasses (*Bromus* sp.), and other non-native weedy species. This community type typically occurs in areas with highly disturbed soils. This community comprised approximately 0.4 acres within the project area.

Disturbed

Disturbed areas are those regions that are mostly devoid of vegetation due to human activities. Generally, most vegetation present in disturbed areas is composed of non-native weedy species. Native vegetation present in this area included wreathplant. Non-native vegetation included cheat grass, Russian thistle, jimson weed (*Datura wrightii*), and common Mediterranean grass. Approximately 4.4 acres of the project area is disturbed.

Developed

Developed areas are areas that have been altered by humans and now display man-made structures such as houses, roads, buildings, parks, and other maintained areas (Gray and Bramlet 1992). Developed areas are found throughout the site, primarily as heavily compacted dirt roads. Approximately 5.2 acres of the project site is developed.

3.3 SPECIAL STATUS PLANTS

The CNDDB and CNPSEI literature reviews resulted in a list of 9 sensitive plant species that have records of occurrence within or near the same quad as the project site. One of the 9 sensitive plant species are federal- and/or state-listed as endangered, threatened, rare or candidate species.

Status Codes

Federal

FE = Federally listed; Endangered
FT = Federally listed; Threatened
FC = Federal Candidate for listing
FSC = Federal Species of Special Concern

State

ST = State listed; Threatened
SE = State listed; Endangered
RARE = State-listed; Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
CSC = State Species of Special Concern

CNPS

List 1A = Plants presumed extinct in California.
List 1B = Plants rare and endangered in California and throughout their range.
List 2 = Plants rare, threatened or endangered in California but more common elsewhere in their range.
List 3 = Plants about which we need more information; a review list.
List 4 = Plants of limited distribution; a watch list.

List Extension 0.1: = Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
List Extension 0.2: = Fairly endangered in California (20-80% occurrences threatened)
List Extension 0.3: = Not very endangered in California (<20% of occurrences threatened)

Five of the 9 sensitive plant species were determined to be **absent** from the site based on lack of required habitat and/or elevation requirements. Two of these sensitive species are federal-endangered species.

- San Gabriel manzanita (*Arctostaphylos gabrielensis*) – FE, CNPS List 1B.2 and
- Mt. Gleason Indian paintbrush (*Castilleja* gleasonii) – FE, SR, CNPS List 1B.2.
- Greata's aster (*Symphyotrichum greatae*) – CNPS List 1B.3.
- lemon lily (*Lilium parryi*) – CNPS List 1B.2;
- San Gabriel linanthus (*Linanthus concinnus*) – CNPS List 1B.2;

Two of the 9 sensitive plant species can occur in Mojave Desert Scrub or Chenopod Scrub habitats and were determined to have a **low** potential for occurrence within the site due to the disturbed nature of the project site. These species have no historical records of occurrence within 5 miles of the project site.

- Abrams' sandmat (*Chamaesyce abramsiana*) –CNPS List 2.2;
- Mason's neststraw (*Stylocline masonii*) – CNPS List 1B.1; and

Two species can occur in Mojave Desert Scrub and have historical records of occurrence within 5 miles of the project site; these species were therefore determined to have a **moderate** potential to occur onsite.

- sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*) – CNPS List 2.2;
- short-joint beavertail (*Opuntia basilaris* var. *brachyclada*)– CNPS List 1B.2;

None of the 4 plant species with a potential to occur on the site are federal- and/or state-listed as endangered or threatened and focused plant surveys are not required for CNPS listed species.

3.4 WILDLIFE

During the reconnaissance-level survey, 16 species of wildlife were observed or otherwise detected on or in the vicinity of the Project site (Appendix B). Wildlife detections included butterflies, reptiles, birds, and mammals. The wildlife species detected on the site are characteristic of the vegetation communities observed onsite. One sensitive species, loggerhead shrike *(Lanius ludovicianus*), was observed during the survey.

3.5 SENSITIVE WILDLIFE SPECIES

The CNDDB literature review resulted in a list of 15 sensitive wildlife species that have records of occurrence within or near the vicinity of the project site. In addition, one sensitive wildlife species was observed but does not have a previous record of occurrence within or near the vicinity of the project site. Five of the 16 sensitive wildlife species are federal- and/or state-listed as endangered or threatened species.

Status Codes

Federal:

FE	=	Federally listed; Endangered
FT	=	Federally listed; Threatened
FC	=	Federal Candidate for listing
(FSC)	=	Federal Species of Concern; not an active term, and is provided for informational purposes only.

State:

ST	=	State listed; Threatened
SE	=	State listed; Endangered

CDFG:

CSC	=	California Special Concern Species

FS	=	Forest Service Sensitive
BLM	=	Bureau of Land Management Sensitive
*	=	Fully Protected Species

According to the literature review and survey results, a total of 16 sensitive wildlife species were identified as occurring or having a potential to occur on the Project Site. Seven of these 16 species have habitat requirements that are directly related to flowing or standing water, including riparian areas and wetlands associated with creeks and lakes in the vicinity or vernal pools. Due to the lack of any such habitats on the site, these 7 wildlife species are considered **absent** from the site:

- southwestern pond turtle (*Actinemys marmorata pallida*), CSC;
- tricolored blackbird (*Agelaius tricolor*), CSC;
- arroyo toad (*Bufo californicus*), FE, CSC;
- Santa Ana sucker (*Catostomus santaanae*), FT, CSC;
- unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), FE, SE;
- mountain yellow-legged frog (*Rana muscosa*), FE, CSC; and
- two-striped garter snake (*Thamnophis hammondii*), CSC.

The following species is found in a habitat containing moist soils and a permanent water source. Due to the lack of any such habitats on the site, this species is considered **absent** from the site:

- silvery legless lizard (*Anniella pulchra pulchra*), CSC.

Although the following 2 species may be found foraging within the project area, nesting habitat requirements include tall trees and rocky cliffs. Due to the lack of these habitats within the project site, these 2 species are considered **absent** from the site:

- Cooper's hawk (*Accipiter cooperii*), CSC; and
- prairie falcon (*Falco mexicanus*), CSC.

The following 2 species have a **low** potential to occur on the project site due to limited suitable habitat conditions and the lack of database records within 5 miles of the project site:

- pallid bat (*Antrozous pallidu*s), CSC; and
- Le Conte's thrasher (*Toxostoma lecontei*), CSC.

The following species has a **moderate** potential to occur on the project site due to limited existing suitable habitat conditions and the presence of database records in the vicinity:

- Mohave ground squirrel (*Spermophilus mohavensis*), ST.

The following 2 species have a **high** potential to occur on the project site due to existing suitable habitat conditions and the presence of database records in the vicinity:

- burrowing owl (*Athene cunicularia*), CSC; and
- Coast (San Diego) horned lizard (*Phrynosoma coronatum blainvillii*), CSC.

The following species was observed during the survey and therefore determined to be **present** in the vicinity of the project site:

- loggerhead shrike (*Lanius ludovicianus*), CSC.

SECTION 4.0 – SUMMARY AND RECOMMENDATIONS

This section summarizes the findings of the surveys for the Sierra Highway Project site. Reconnaissance-level biological surveys were conducted to identify and map the vegetation communities, to document the existing biological resources, and to assess the habitat for its potential to support sensitive plant and wildlife species on the project site.

4.1 SENSITIVE PLANTS

Of the 9 special status plant species evaluated for their potential occurrence onsite, 2 had a low potential and 2 had a moderate potential to occur onsite. All other sensitive species were determined absent from the Project site due to a lack of suitable habitat within the limits of construction. As those sensitive plant species with a potential to occur onsite are not federal- or state-listed as threatened or endangered, no additional surveys are necessary.

4.2 SENSITIVE WILDLIFE

A total of 16 sensitive wildlife species were identified as having the potential to occur within the project vicinity. One state-listed threatened species, Mojave ground squirrel, was determined to have a moderate potential to occur onsite and one California species of special concern (CSC), loggerhead shrike, was observed during the survey. Additionally, 2 CSC species, burrowing owl and Coast (San Diego) horned lizard, are known from the region and have a high potential to occur onsite and 2 CSC, pallid bat and Le Conte's thrasher, had a low potential for occurrence. The remaining 10 species were considered absent from the site due to lack of suitable habitat.

Focused surveys and/or trapping are recommended for both Mojave ground squirrel and burrowing owl, as summarized below. Focused surveys are not required for the remaining sensitive wildlife species.

<u>Mojave Ground Squirrel</u>

The Mojave ground squirrel lives in underground burrows, in which it spends at least seven months of the year (usually from July or August through February) in aestivation. It is resident in the various desert scrub communities of the western Mojave Desert in southwestern Inyo, eastern Kern, northwestern San Bernardino, and extreme northeastern Los Angeles counties.

The squirrel is threatened by loss and degradation of its habitat due to clearing for agriculture and military activities and for urban, suburban, and rural development, livestock grazing, and off-highway vehicles (OHVs).

Although the majority of the project site is developed or disturbed by human activities, marginal habitat for this species is present along the southeastern edge of the site. In addition, the site is adjacent to other large areas of habitat and occurrences of Mojave ground squirrel in the area have been reported. Therefore, the site provides moderate quality habitat for this species and as a result, focused trapping surveys are recommended for this species.

<u>Burrowing Owl</u>

This CSC species occurs in dry annual grasslands or deserts and scrublands characterized by low-growing vegetation. This species is a subterranean nester dependent upon small burrowing mammals, most commonly, the California ground squirrel. Habitat to support this species exists in the southeastern portions of the site where fewer disturbances have occurred and occurrences of burrowing owl in the area have been reported. Therefore, focused surveys are recommended for this species.

SECTION 5.0 – REFERENCES

California Native Plant Society Electronic Inventory (CNPSEI)
2007 Palmdale, Ritter Ridge, Acton, and Pacifico Mountain, California, 7.5-minute USGS quadrangles.

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U. S. Geological Survey (USGS)
Palmdale, Ritter Ridge, Acton, and Pacifico Mountain, 7.5-minute quadrangles.

APPENDIX A

PLANT SPECIES OBSERVED

Appendix A
Plant Species Observed within the Sierra Highway Project Site

Scientific Name	Common Name
GYMNOSPERMS	
CUPRESSACEAE	**CYPRESS FAMILY**
Juniperus californica	California juniper
EPHEDRACEAE	**EPHEDRA FAMILY**
Ephedra nevadensis	Nevada ephedra
ANGIOSPERMS (DICOTYLEDONS)	
ASTERACEAE	**SUNFLOWER FAMILY**
Ambrosia acanthicarpa	annual bur-sage
Artemisia tridentata	big sagebrush
Baileya sp.	desert marigold
Chrysothamnus nauseosus	rubber rabbitbrush
Encelia actoni	Acton daisy
Ericameria linearifolia	interior goldenbush
*Lactuca serriola**	prickly lettuce
Lessingia filaginifolia	cudweed aster
Stephanomeria exigua	small wreathplant
BRASSICACEAE	**MUSTARD FAMILY**
*Hirshfeldia incana**	short-podded mustard
*Sisymbrium irio**	London rocket
CAPPARACEAE	**CAPER FAMILY**
Isomeris arborea	bladderpod
CAPRIFOLIACEAE	**HONEYSUCKLE FAMILY**
Sambucus mexicana	Mexican elderberry
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
Atriplex canescens	four-wing saltbush
*Salsola tragus**	Russian thistle
EUPHORBIACEAE	**SPURGE FAMILY**
Chamaesyce albomarginata	rattlesnake weed
Chamaesyce serpens	creeping spurge
Eremocarpus setigerus	dove weed
LAMIACEAE	**MINT FAMILY**
Salazaria mexicana	bladder sage
POLYGONACEAE	**BUCKWHEAT FAMILY**
Eriogonum elongatum	long-stemmed buckwheat
Eriogonum fasciculatum var. *fasciculatum*	California buckwheat
Eriogonum fasciculatum var. *polifolium*	California buckwheat
Eriogonum gracile	slender woolly buckwheat
SOLANACEAE	**NIGHTSHADE FAMILY**
Datura wrightii	jimson weed
Lycium sp.	box-thorn

Appendix A (Continued)
Plant Species Observed within the Sierra Highway Project Site

Scientific Name	Common Name
ANGIOSPERMS (MONOCOTYLEDONS)	
LILIACEAE	**LILY FAMILY**
Yucca brevifolia	Joshua tree
POACEAE	**GRASS FAMILY**
*Bromus tectorum**	cheat grass
POACEAE (cont.)	**GRASS FAMILY**
Poa secunda	Malpais bluegrass
*Schismus barbatus**	Mediterranean schismus
* Indicates non-native species.	

APPENDIX B

WILDLIFE SPECIES DETECTED

Appendix B
Wildlife Detected Within The Sierra Highway Project Site

Scientific Name	Common Name
CLASS INSECTA	**INSECTS**
PIERIDAE	**WHITES & SULPHURS**
Pontia protodice	Common white
CLASS REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNY LIZARDS**
Sceloporus occidentalis	western fence lizard
CLASS AVES	**BIRDS**
ACCIPITRIDAE	**HAWKS, KITES, EAGLES**
Buteo jamaicensis	red-tailed hawk
ODONTOPHORIDAE	**NEW WORLD QUAIL**
Callipepla californica	California quail
TYRANNIDAE	**TYRANT FLYCATCHERS**
Tyrannus verticalis	western kingbird
CORVIDAE	**JAYS & CROWS**
Corvus brachyrhynchos	American crow
Corvus corax	common raven
MIMIDAE	**MOCKINGBIRDS, THRASHERS**
Mimus polyglottos	northern mockingbird
LANIIDAE	**SHRIKES**
Lanius ludovicianus	loggerhead shrike
EMBERIZIDAE	**EMBERIZIDS**
Pipilo crissalis	California towhee
FRINGILLIDAE	**FINCHES**
Carduelis psaltria	lesser goldfinch
Carpodacus mexicanus	house finch
CLASS MAMMALIA	**MAMMALS**
SCIURIDAE	**SQUIRRELS**
Spermophilus beecheyi	California ground squirrel
GEOMYIDAE	**POCKET GOPHERS**
Thomomys bottae	Botta's pocket gopher
MURIDAE	**MICE, RATS, AND VOLES**
Neotoma lepida intermedia	desert woodrat
CANIDAE	**WOLVES & FOXES**
Canis latrans	coyote

APPENDIX C

SITE PHOTOGRAPHS

Photo 1. Photo taken facing west at the west end of the project site depicting Disturbed habitat adjacent to Sierra Highway. Rubber Rabbitbrush-Big Sagebrush Series dominates the foreground of the photo, with patches of California Juniper Series depicted in the background. (See Figure 3, Map 2.)

Photo 2. Photo taken facing west depicting Disturbed habitat adjacent to Sierra Highway with patches of Rubber Rabbitbrush-Big Sagebrush Series and Mojave Mixed Woody Scrub. The commercial building has been mapped as Developed. (See Figure 3, Maps 3 and 4.)

Photo 3. Photo taken facing west depicting Joshua Tree Series. This tree was in moderate condition with many re-sprouting natural recruits. The surrounding habitat was comprised of Mojave Mixed Woody Scrub. (See Figure 3, Map 6.)

Photo 4. Photo taken facing west at the east end of the project site. Non-native Russian Thistle Series is shown (light green color) in the depression on the right of the photo. The surrounding vegetation consisted of Mojave Mixed Woody Scrub with a small area of Disturbed Mojave Mixed Woody Scrub shown southeast of the Russian Thistle Series. (See Figure 3, Maps 6 and 7.)

APPENDIX D

Jurisdictional Delineation Report

WETLAND DELINEATION
AND
JURISDICTIONAL DETERMINATIONS
FOR
SIERRA HIGHWAY – STATE ROUTE 14 TO
PEARBLOSSOM HIGHWAY WIDENING PROJECT

Prepared for:

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
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February 2008

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SECTION 1.0 – INTRODUCTION

1.1 PROJECT DESCRIPTION

The proposed project is the realignment of a portion of the Sierra Highway in the Antelope Valley of unincorporated Los Angeles County. To meet design criteria for the 65 miles per hour design speed per Los Angeles Department of Public Works (LADPW) Traffic and Lighting recommendations and to enhance the safety of the road, LADPW proposes to realign and widen the existing road. The proposed project would realign and widen approximately 0.80 miles of Sierra Highway between Pearblossom Highway and State Route 14 (SR-14) (Antelope Valley Freeway).

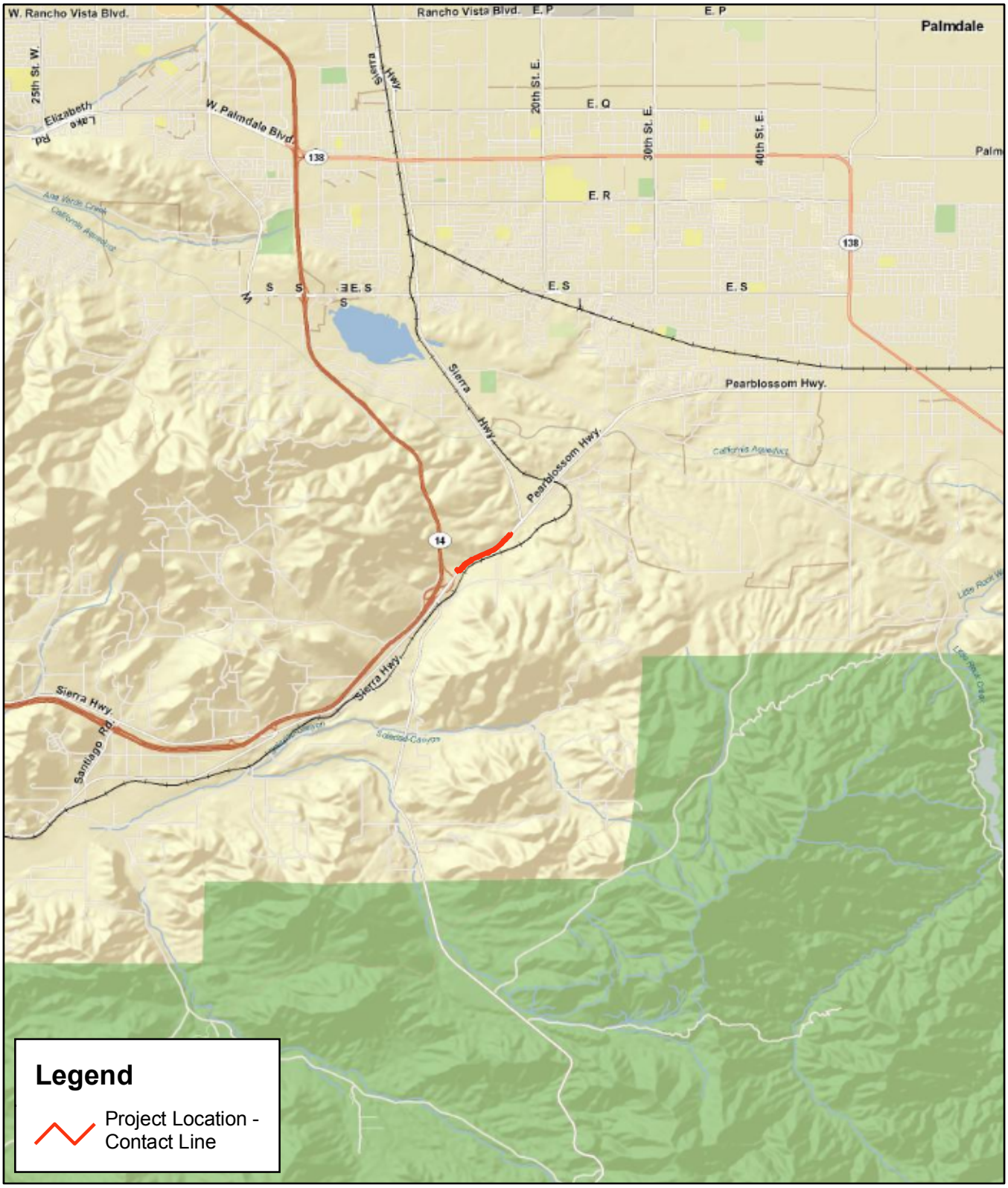
Objectives of the Sierra Highway Widening Project include the following:

- Construct an additional road section to provide a 12-foot inside lane, a 14-foot outside lane, a 10-foot paved shoulder on each side of the road, and a 12-foot painted median per Traffic and Lighting recommendations.
- Reconstruct the pavement with 6 inches of Asphalt Concrete on 12 inches of Crushed Miscellaneous Base.
- Upgrade/construct guardrails as necessary.
- Upgrade or replace the existing culverts as necessary.
- Restore traffic loops and provide pavement striping, markings, and signage.

1.2 PROJECT LOCATION

The proposed project lies in the area commonly referred to as Antelope Valley, California (Figure 1). Antelope Valley consists of approximately 1,200 square miles of elevated desert terrain bounded by the San Gabriel Mountains on the south and Kern County to the north. It extends from the unincorporated community of Gorman on the west to San Bernardino County on the east, and it includes a large portion of the Los Angeles National Forest.

The proposed project consists of a 0.80-mile section of the Sierra Highway, located four miles south of the City of Palmdale in unincorporated Los Angeles County (Figure 2). This section of the highway runs parallel to and north of the Union Pacific Railroad line, and is found between the Antelope Valley Freeway Interchange and the Sierra Highway / Pearblossom Highway intersection.



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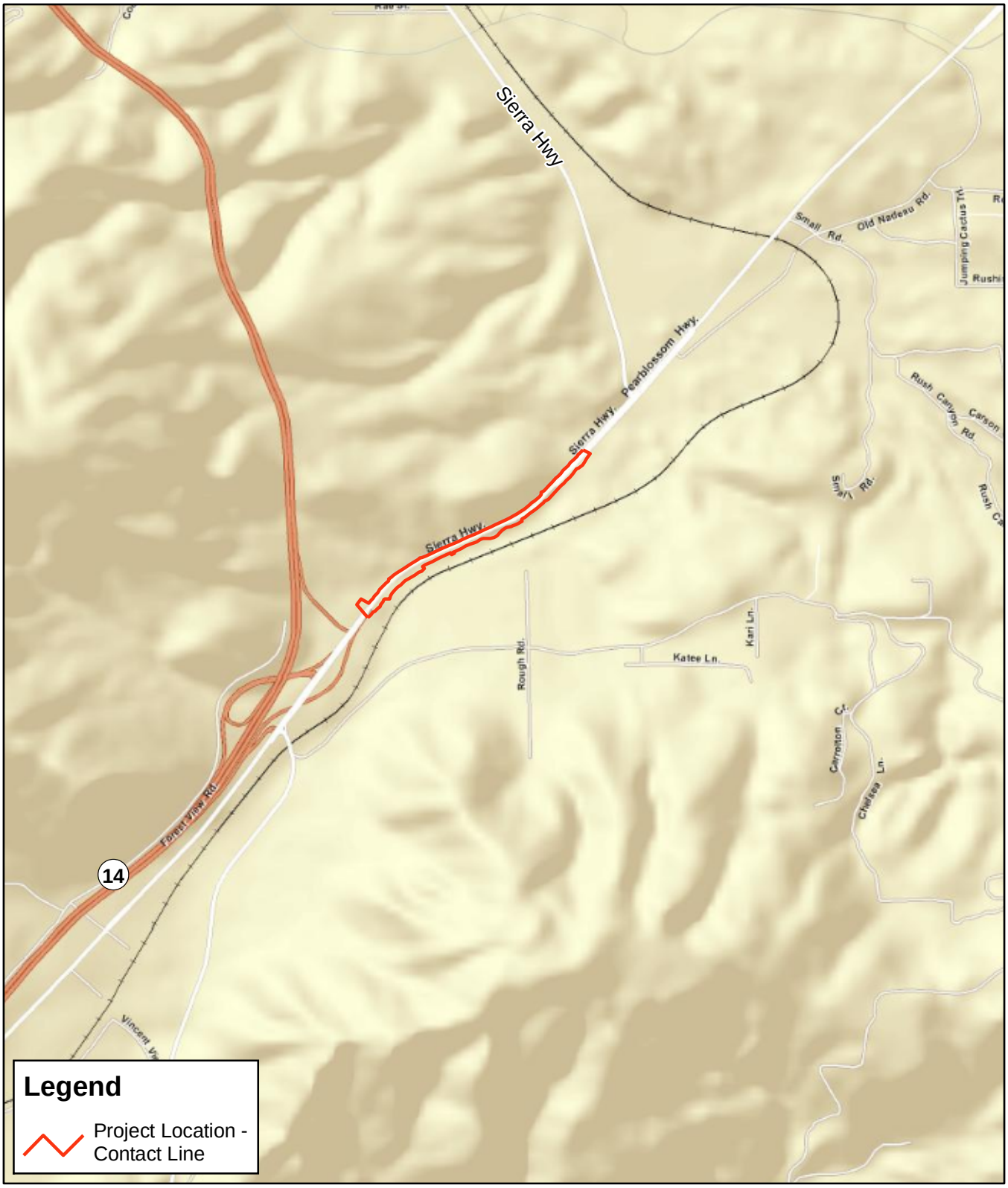
N
W E
S

0 0.5 1 2 3 Miles

Figure 1
Project Vicinity Map

Source: ESRI Street Map.



Chambers Group Inc.

N
W E
S

0 600 1,200 2,400 3,600
Feet

Figure 2
Project Location Map

Source: ESRI Street Map.

SECTION 2.0 – METHODS

Prior to beginning the field delineation, high-resolution aerial photographs and U.S. Geologic Service (USGS) topographic quadrangle maps (quads) of the project site were examined to determine the potential areas of U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Game (CDFG) jurisdiction. In the field, boundaries and dimensions of jurisdictional features were recorded on aerial photographs. Features within the project footprint were investigated for the presence of drainages, water bodies, riparian habitats, and potential wetlands.

Only features that exhibited the potential to be three-parameter wetlands (i.e., vegetation, soils, and hydrology) were investigated and recorded onto standardized data sheets. Recorded data typically includes present vegetation and percent covers, soil profiles in dug soil pits, and evidence of hydrology. Potential wetland habitats are evaluated using the methodology set forth in the *U.S. Army Corps of Engineers Wetland Delineation Manual* (USACE 1987), hereafter called the 1987 Wetland Manual. The 2006 Arid West Supplement (Arid Supplement) to the 1987 Wetland Manual was in effect at the time this survey commenced and was therefore applied to this project. Data related to USACE-defined wetlands is recorded onto Wetland Determination Data Forms – Arid West Region for each individually numbered soil pit. Features with no evidence of wetland hydrology, and which supports only upland vegetation, are evaluated for the upward limits of jurisdiction only and not for wetland parameters.

Potential USACE/RWQCB/CDFG jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, riparian habitat, soils, and hydrology. The lateral extent of a jurisdictional drainage may be measured in several ways depending on the particular situation. In the absence of a defined wetland, the USACE traditionally uses the determination of the presence of a bed and bank to the upper limit of the ordinary high water mark (OHWM). Under court decisions reached in *Rapanos v. United States* and *Carabell v. United States* (126 S. Ct. 2208 (2006)) (hereafter referred to as "Rapanos"), the USACE now requires that a fact-specific “significant nexus” analysis be performed for dry or ephemeral washes (non-Relatively Permanent Waters, or "non-RPW"s) in California in order to determine USACE jurisdiction. The significant nexus analysis is performed on an Approved Jurisdictional Determination Form issued by USACE. The analysis essentially requires a more detailed and thorough method of data collection on a host of variables (i.e., watershed size, water route and distance, presence of federally listed animals, etc.) for the drainages of a project site from its origin(s) to its terminus. The RWQCB includes all USACE jurisdictional areas as well as the OHWM in non-RPWs. Depending on which measurement is greater, the CDFG takes jurisdiction to the top of the bank on either side of the drainage or to the outer edge of all riparian vegetation. This edge, as determined by the “drip line” of the riparian canopy, is used as the line of demarcation between riparian and upland habitats. On smaller streams or dry washes with little or no riparian habitat, the top of the bank is used to mark the lateral extent of CDFG jurisdictional drainage. Potential CDFG jurisdictional riparian habitats were evaluated using the guidance described in *A Field Guide to Lake and Streambed Alteration Agreements Sections 1600-1607* (CDFG 1994). In order to calculate jurisdictional acreages after the fieldwork is complete, measurements are gathered in feet.

Hydrologic indicators were observed per the 1987 Wetland Manual guidelines as amended by the Arid Supplement. Indicators typically include evidence of inundation, saturation, high water table, watermarks, drift lines, sediment deposits, surface soil cracks, water-stained leaves, biotic crust, aquatic invertebrates, hydrogen sulfide odor, and the presence or oxidation/reduction features in the soil, among several others. Consideration of the climate and flow frequency was given when observing watermarks and drift lines. For the purpose of determining hydrologic connectivity to a Traditionally Navigable Water (TNW) body, aerial photos and USGS quads are referenced, and all features are inspected in the field for true connectivity.

For a wetland delineation, plants are categorized according to their probabilities to occur in wetlands versus non-wetlands in accordance with the categories in the *National list of Species that Occur in Wetlands* (Reed et al. 1988). More specifically, the California Land Resource Region (Region 0)

wetlands plant list is used, which is a regional adaptation of the *National List*. The wetland species categories are:

I. **Obligate Wetland (OBL)** – Occur almost always (estimated probability >99%) under natural conditions in wetlands.

II. **Facultative Wetland (FACW) –** Usually occur in wetlands (estimated probability 67% to 99%), but occasionally found in non-wetlands.

III. **Facultative (FAC) –** Equally likely to occur in wetlands or non-wetlands (estimated probability 34% to 66%).

IV. **Facultative Upland (FACU) –** Usually occur in non-wetlands (estimated probability 67% to 99%), but occasionally found in wetlands.

V. **Obligate Upland (UPL) –** May occur in wetlands in another region, but occur almost always (estimated probability >99 %) under natural conditions in non-wetlands in southern California. All species not listed on the *National List of Species that Occur in Wetlands* (Reed et al. 1988) are considered to be UPL.

VI. **No Indicator (NI)** – NI is recorded for those species for which insufficient information was available to determine an indicator status.

Reference photographs were gathered during this project and are included as Appendix A. As prescribed by the 1987 Wetland Manual, all available lists of hydric soils were referenced to identify any occurrence of hydric soils listed within the proposed project area. The national, state, and local hydric soils lists were used along with local soil survey maps (Appendix B).

All determinations and delineations were digitized for the precise mapping of jurisdictional areas. Where no wetlands were present, the lateral limits of USACE/RWQCB/CDFG jurisdiction were measured and recorded onto aerial photographs or field notes. All data on jurisdictional determinations and wetland delineations were reproduced using Global Information System (GIS) software and displayed on an aerial map for this report (Figure 3).

SECTION 3.0 – JURISDICTIONAL CRITERIA

3.1 U.S. ARMY CORPS OF ENGINEERS

Pursuant to Section 404 of the Clean Water Act, the USACE regulates the discharge of dredged and/or fill material into waters of the United States. Waters of the United States include navigable waterways and wetlands adjacent to navigable waterways, and non-navigable waterways and wetlands adjacent to non-navigable waters that are contiguous with navigable waterways. The term "waters of the United States" is defined at 33 Code of Federal Regulations (CFR) Part 328 and currently includes (1) all navigable waters (including all waters subject to the ebb and flow of the tide), (2) all interstate waters and wetlands, (3) all other waters (e.g., lakes, rivers, intermittent streams) that could affect interstate or foreign commerce, (4) all impoundments of waters mentioned above, (5) all tributaries to waters mentioned above, (6) the territorial seas, and (7) all wetlands adjacent to waters mentioned above.

Wetlands are defined in 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions". In 1987, the USACE published the Wetland Manual to guide its field personnel in determining jurisdictional wetland boundaries. Currently, the 1987 Wetland Manual provides the basis for the legally accepted methodology for the identification and delineation of USACE-jurisdictional wetlands.

The methodology set forth in the 1987 Wetland Manual generally requires that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. Currently, the 1987 Wetland Manual, as amended by the Arid Supplement, provides the legally accepted method for identification and delineation of USACE-jurisdictional wetlands in California. While the manual provides great detail in methodology and allows for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the 1988 National List of Plant Species that Occur in Wetlands [Reed, P.B., Jr., et al. 1988]). These plants are known as "hydrophytic vegetation";

- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions). Such soils, known as "hydric soils", have characteristics that indicate they were developed in conditions where soil oxygen is limited by the presence of saturated soil for long periods during the growing season; and
- Hydrologic characteristics must indicate that the ground is saturated to within 12 inches of the surface for at least 5 percent of the growing season during a normal rainfall year. For most of low-lying southern California, 5 percent of the growing season is equivalent to 18 days.

Although the most reliable evidence of wetland hydrology may be provided by a gauging station or groundwater well data, such information is often limited for most areas. Thus, most hydrologic indicators are those that can be observed during field inspection. The following indicators provide some evidence of hydrology: (1) standing or flowing water; (2) water-logged soils during the growing season; (3) water marks present on trees or other objects associated with a drainage; (4) drift lines, or small piles of debris oriented in the direction of water movement through an area; (5) shelving; (6) destruction of terrestrial vegetation; and (7) thin layers of sediments deposited on leaves or other objects. The Arid Supplement includes all of these indicators as well as surface soil cracks, inundation visible on aerial imagery, salt and biotic crusts, aquatic invertebrates, hydrogen sulfide odor, oxidation/reduction reactions within the soil profile, and several others. In general, a combination of hydrologic indicators indicates a more defined hydrological system.

In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, including intermittent RPW streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

> *...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

On January 9, 2001, the U.S. Supreme Court ruled (in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*) ("SWANCC") that USACE jurisdiction does not extend to "isolated, non-navigable, intra-state waters or wetlands," including but not limited to isolated ponds, reservoirs, and wetlands. Examples of isolated waters that are affected by this ruling include vernal pools, stock ponds, lakes (without outlets), playa lakes, and desert washes that are not tributary to navigable or interstate waters or to other jurisdictional waters.

A joint guidance by the U.S. Environmental Protection Agency (EPA) and the USACE was issued on June 5, 2007 to clarify circumstances where a Clean Water Act (CWA) Section 404 permit would be required before conducting activities in wetlands, tributaries, and other waters. This guidance is consistent with the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* (126 S. Ct. 2208 (2006)) ("Rapanos"), which address the jurisdiction over waters of the United States under the Clean Water Act (33 U.S.C. §1251 et seq.). This *Rapanos* guidance does not supersede the 2003 guidance interpreting SWANCC, and the agencies will continue to evaluate jurisdiction over isolated waters on a case-by-case basis.

The USACE will continue to assert jurisdiction over traditional navigable waters (TNW), wetlands adjacent to traditional navigable waters, non-navigable tributaries of traditional navigable waters that are relatively permanent (RPW) where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months), and wetlands that directly abut such tributaries.

The USACE will use fact-specific analysis to determine whether waters have a significant nexus with a traditional navigable water for non-navigable tributaries that are not relatively permanent, wetlands adjacent to non-navigable tributaries that are not relatively permanent, and wetlands adjacent to, but that do not directly abut, a relatively permanent non-navigable tributary. "A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters," including consideration of hydrologic and ecologic factors.

In May 2007, the USACE and EPA jointly published and authorized the use of the *Jurisdictional Determination Form Instructional Guidebook* (USACE 2007). The form and guidebook define how to determine if an area is jurisdictional, and if there is a significant nexus per the *Rapanos* decision. A nexus is defined as some property of a drainage that has an effect on the physical, chemical, or biological integrity of a downstream TNW. A significant nexus must be more than insubstantial and have more than speculative effects.

3.2 REGIONAL WATER QUALITY CONTROL BOARD

The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act (CA Water Code, Div. 7, §13000 et seq.). Porter–Cologne reserves the right for the State of California to regulate activities that could affect the quantity and/or quality of any surface and/or ground waters, including isolated wetlands and saline waters, within the State. Waters of the State determined to be jurisdictional for these purposes require, if impacted, waste discharge requirements and a 401 Certification (in the case of the required USACE permit). The State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Boards (RWQCB) are the relevant permitting agencies. RWQCB limits of jurisdiction extend to the OHWM or the wetland boundary.

3.3 CALIFORNIA DEPARTMENT OF FISH AND GAME

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, the CDFG regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFG defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation". CDFG's definition of "lake" includes "natural lakes or man-made reservoirs". CDFG limits of jurisdiction include the maximum extents of the uppermost bank-to-bank distance, wetland boundary, or riparian vegetation dripline.

CDFG jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. CDFG Legal Advisor has prepared the following opinion:

- Natural waterways that have been subsequently modified and which have the potential to contain fish, aquatic insects and riparian vegetation will be treated like natural waterways;

- Artificial waterways that have acquired the physical attributes of natural stream courses and which have been viewed by the community as natural stream courses, should be treated as natural waterways; and

- Artificial waterways without the attributes of natural waterways should generally not be subject to Fish and Game Code provisions.

SECTION 4.0 – ENVIRONMENTAL SETTING

The proposed project lies in the Antelope Valley, which consists of approximately 1,300 square miles at an average elevation of 2,500 feet above sea level. Key topographical features in the area are the Tehachapi Mountains to the west, the San Gabriel Mountains to the south, and the southern end of the Sierra Nevada to the north. These features surrounding the Valley, with peak elevations from 7,000 to 10,000 feet effectively remove most of the precipitable water from the atmosphere before it reaches the Antelope Valley, reducing the average annual precipitation to approximately five inches, occurring mostly between November and April. The resulting desert climate is characterized by extreme fluctuations of daily temperatures, strong seasonal winds, and clear skies. Summer high temperatures in Palmdale approach 100° Fahrenheit, while winter high temperatures range from the high 50s to low 60s.

The proposed project site is within a narrow pass with steep slopes on both sides. In general, the roadway trends downward from southwest to northeast. Much of the area immediately adjacent to Sierra Highway was highly disturbed and sparsely vegetated, or dominated by non-native weeds. Disturbances on the site exist in the form of vehicle tracks, wind-blown trash, and bioturbation. The soils are loosely compacted coarse sands with silt, and there is a high percentage of volcanic gravels.

4.1 VEGETATION

Vegetation communities on the proposed project site consisted primarily of developed areas (5.2 acres), disturbed areas (4.4 acres), Mojave-mixed woody scrub (1.9 acres), rubber rabbitbrush-big sagebrush (1.1 acres), and Russian thistle (0.4 acres). The project site also contained small amounts (less than 0.1 acre) of California juniper, Joshua tree woodlands, and four-wing saltbush.

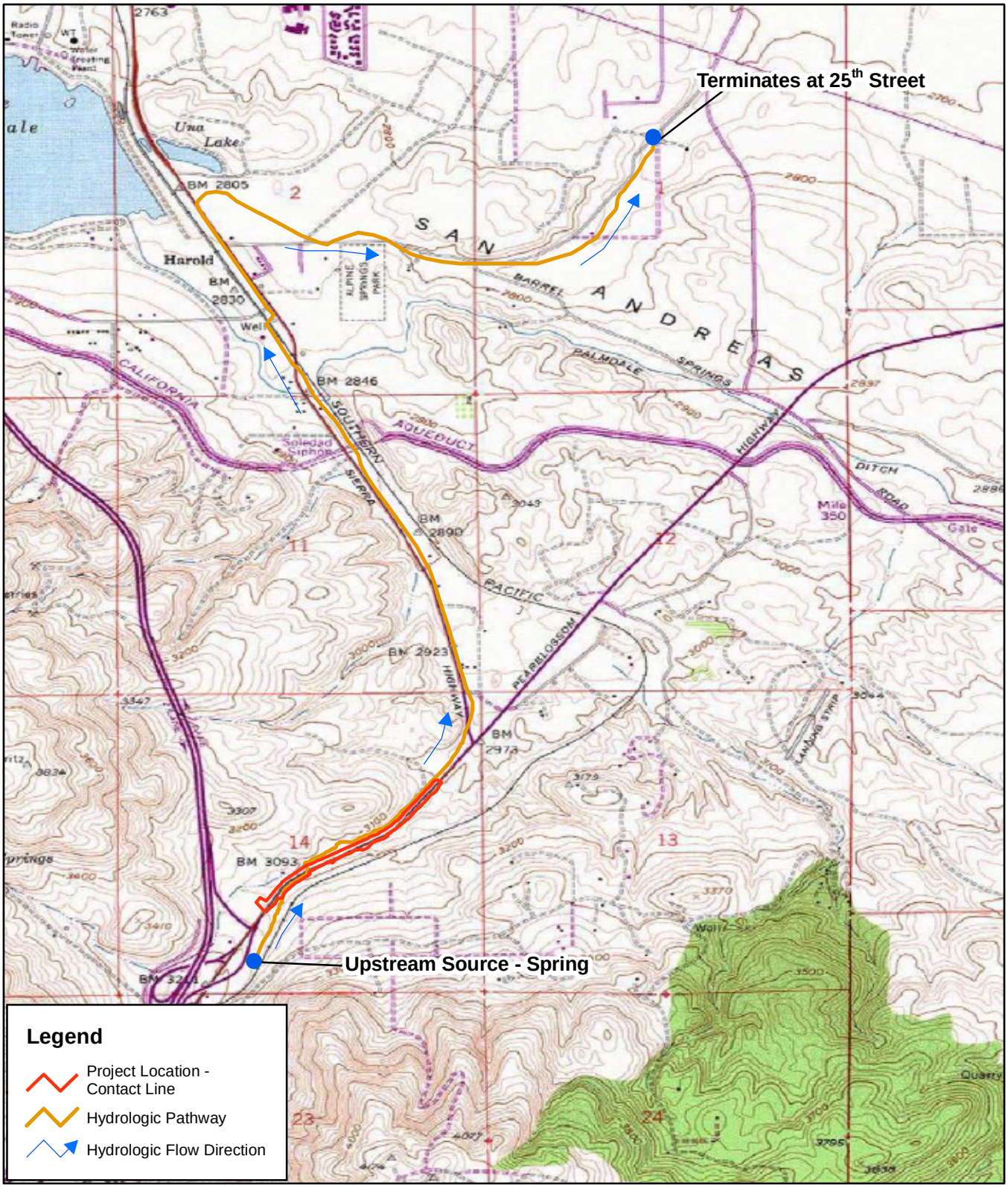
Many of the native shrubs characteristic of the Mojave-Mixed Woody Scrub community observed within the proposed project site were four-wing saltbush (*Atriplex canescens*), rubber-rabbitbrush (*Chrysothamnus nauseosus*), Nevada ephedra (*Ephedra nevadensis*), interior goldenbush (*Ericameria linearifolia*), California buckwheat (*Eriogonum fasciculatum* var. *poliofolium*), bladder pod (*Isomeris arborea*), and bladder sage (*Salazaria mexicana*). The understory onsite consisted of non-native grasses, including cheat grass (*Bromus tectorum*) and Mediterranean schismus (*Schismus barbatus*). Other species occurring with much less abundance within this community onsite included big sagebrush (*Artemisia tridentata*), Acton daisy (*Encelia actonii*), slender woolly buckwheat (*Eriogonum gracile*), cudweed aster (*Lessingia filaginifolia*), box-thorn (*Lycium* sp.), and Malpais bluegrass (*Poa secunda*). This community comprised approximately 1.6 acres within the proposed project site. The disturbed Mojave-Mixed Woody Scrub community was characterized by bur-sage (*Ambrosia acanthicarpa*), jimson weed (*Datura wrightii*), dove weed (*Eremocarpus setigerus*), short-podded mustard (*Hirschfeldia incana*), prickly lettuce (*Lactuca serriola*), and Russian thistle (*Salsola tragus*). Disturbed Mojave Mixed Woody Scrub comprised approximately 0.3 acre within the proposed project site.

Plant species found on the proposed project site typical of the Rubber Rabbitbrush-Big Sagebrush Series included rubber rabbitbrush, big sagebrush, cheat grass, dove weed, small wreathplant (*Stephanomeria exigua*), long-stemmed buckwheat (*Eriogonum elongatum*), and slender woolly buckwheat.

The onsite California Juniper Series was composed of sparse California juniper trees with an understory of non-native brome (*Bromus* spp.) grasses. Although more trees were observed within the surrounding areas, only several California juniper trees were observed within the proposed project site. Plant species of Joshua Tree Woodland Series vegetation community that were observed onsite included Joshua tree and common Mediterranean grass (*Schismus barbatus*). One Joshua tree with several resprouting natural recruits was present within the proposed project site. Plant species found on the onsite typical of Fourwing Saltbush Series included four-wing saltbush and common Mediterranean grass.

4.2 HYDROLOGY

The upstream origin of the washes that enter the proposed project site begins just off-site to the southwest of the proposed project site. A seep and wetland dominated by broad-leaved cattail (*Typha latifolia*) and willows (*Salix* spp.) exists at the origin and continues for approximately 200 feet before sloping steeply and disappearing into the dry washes that then enter the proposed project site. At this point, surface water flow appears to move below ground. Drainages within the proposed project site generally parallel Sierra Highway. The site drains from southwest to northeast. At the southwest end of the project, where Sierra Highway intersects with Highway 14, the elevation is roughly 3,100 feet. The Highway descends to 2,950 feet at the northeast end, where Sierra Highway intersects with Pearblossom Highway. At the southwest end of the proposed project site, one section of dry wash is within the footprint. It is connected via culvert to the downstream portion that parallels the north side of the highway. The hydrologic pathway continues to follow along Sierra Highway to the north/northeast until Barrel Springs Road, where it heads east before terminating at 25th Street. The pathway is continuous to its terminus at 25th Street, but includes a series of culverts, a distribution box, railroad bridge underpasses, and intermittent or graded OHWMs, especially adjacent to the east side of Sierra Highway. An isolated wetland exists along the lower reaches of the pathway to the east of Palmdale Lake. This wetland is well-developed and encompasses several acres. A field examination revealed that it had no connectivity to a RPW or TNW. The hydrologic pathway is represented on a topographic map in Figure 3 and on an aerial photograph in Figure 4.



Chambers Group Inc.

N
W E
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0 750 1,500 3,000 4,500
Feet

Figure 3
Hydrologic Pathway Map

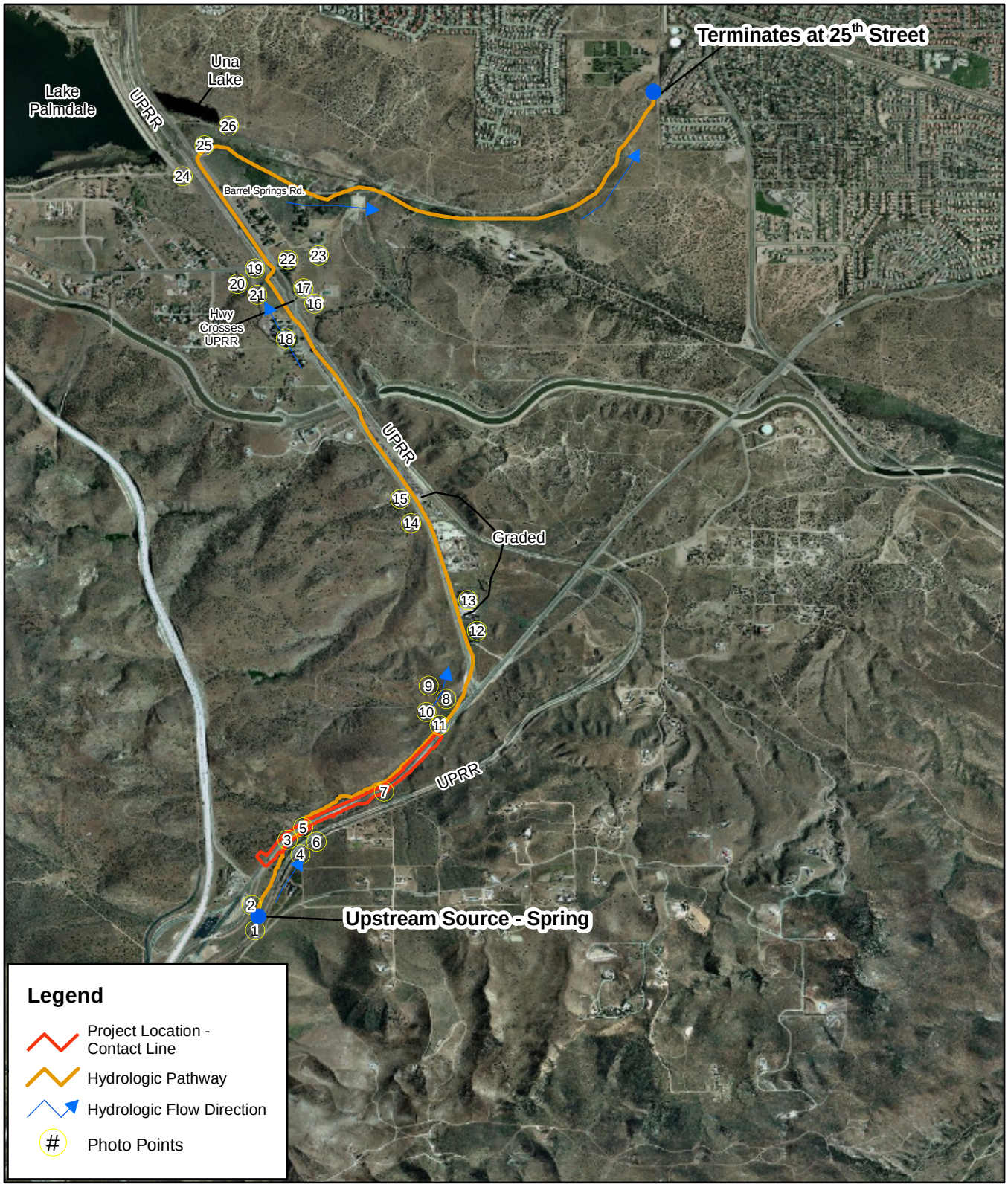

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Figure 4
Hydrologic Pathway Aerial

SECTION 5.0 – RESULTS

A field survey was conducted on September 11, 2007 by Damon Corley (Chambers Group). A follow-up site visit was conducted on February 12, 2008 by Lisa Louie and Kris Alberts (Chambers Group), accompanied by US Army Corps of Engineers regulator Valisa Nez.

The upstream source of water, identified by a small wetland area consisting of cattails and willows (Photos 1 and 2), begins off-site at a spring southwest of the project site across the highway from the Park and Ride parking lot. On the south and east side of the proposed project site, there are two manmade ditches and one wash; all are isolated, ephemeral drainages with no associated wetlands or riparian habitat. The wash (Photos 3 and 4) is connected to the off-site upland wetland, goes dry through the southwest end just off-site of the project site, and then passes via culvert to the dry wash at the north end of the highway. The wash has a natural appearance at the southwest end of the proposed project site, with several old junipers and a normal bed and bank formation. It extends for 588 linear feet through the proposed project site. The OHWM width is approximately 4 feet and the bank-to-bank width is approximately 10 feet. Continuing northeast and outside of the proposed project site, the dry wash loses all natural appearance and has been disturbed by grading. A manmade drainage or ditch has been created to intercept the remnant wash for diversion underneath the Highway to the north side (Photo 5).

The manmade drainage associated with the wash has an OHWM width of approximately 1 foot and an average bank-to-bank width of 6 feet. It connects to a well-maintained cement winged-wall inlet and is culverted underneath the Highway off-site (mile marker 21.17, Photo 6). This ditch is nearly unvegetated with some ruderal species.

The second manmade drainage, located approximately mid- project site (mile marker 20.97, Photo 7), has no OHWM and is erosional. The associated inlet leading under the Highway was recently graded at the time of the delineation. There is no vegetation associated with this ditch.

To the north and east side of the Highway (just north of and parallel to the proposed project site) there is a deeply incised drainage, which can best be described as an ephemeral wash. This wash is the downstream extension of the wash at the southwest end of the proposed project site. Downstream, it is connected to another dry wash parallel to and just east of Sierra Highway via a double concrete box culvert at the intersection of Sierra Highway and Pearblossom Highway.

Hydrologic flows continue off-site from the project site and follows along Sierra Highway, with multiple crossings, to the north/northwest with intermittent OHWMs due to multiple graded areas. Just east of Palmdale Lake, where the dry wash feeds into a well-developed and high quality, yet isolated wetland, flows then travel east along Barrel Springs Road. Wetland conditions continue intermittently along Barrel Springs Road and only within the defined channels, before the system again exhibits only bed and bank formations until it abruptly terminates at 25th Street, where it abuts development and a paved road and becomes a part of the Palmdale sewer system.

5.1 WETLANDS

Riparian vegetation associated with wetlands was not present within the proposed project site at the time of this jurisdictional determination. With the absence of one wetland parameter (i.e., vegetation) and a lack of hydric soil based on the background soils search, it was determined that no wetlands exist within the proposed project site. As a result, there are **0.0** acres of wetlands on the proposed project site.

5.2 USACE JURISDICTION

There were no RPWs, TNWs, or wetlands found on the proposed project site. Additionally, the dry washes that characterize some of the site are isolated, non-navigable, and intra-state waters. As proposed, this project requires no permitting pursuant to Section 404 of the “Clean Water Act”. There are

no areas (**0.0** acres) of USACE jurisdiction within the proposed project area, as per the *SWANCC* decision.

5.3 RWQCB JURISDICTION

As proposed, the project would impact **0.046** acres (588 linear feet) of ephemeral non-wetland waters of the State. The limits of RWQCB jurisdiction are shown in blue on Figure 5. Approximately 29 cubic yards of fill would be introduced into these non-wetland waters of the State, and are considered a permanent impact from this proposed project. No temporary RWQCB impacts should result from this project. Since permanent fill is included within the project design, a Waste Discharge Permit from the RWQCB would be required prior to the commencement of this project.

5.4 CDFG JURISDICTION

As proposed, the project would impact **0.175** acres (588 linear feet) of ephemeral CDFG jurisdictional ditches. The limits of CDFG jurisdiction, which would require Section 1600 permitting, are shown in green on Figure 5. Since CDFG jurisdiction extends laterally to the tops of the banks in this case, and not just to the OHWM, the limits of CDFG jurisdiction are larger. Approximately 110 cubic yards of fill would be introduced into CDFG jurisdictional ditches according to the project design, and are considered a permanent impact that necessitates a Streambed Alteration Agreement under jurisdiction of the CDFG. No temporary CDFG impacts should result from this project.

Table 5-1
Jurisdictional Impacts Matrix

Authority	Wetland Permanent	Riparian Permanent	Streambed/Lake Permanent	Other Waters Permanent	Total Permanent
USACE	0	0	0	0	**0**
RWQCB	0	0	0	**0.046**	**0.046**
CDFG	0	0	**0.175**	0	**0.175**
Authority	**Wetland Temporary**	**Riparian Temporary**	**Streambed/Lake Temporary**	**Other Waters Temporary**	**Total Temporary**
USACE	0	0	0	0	0
RWQCB	0	0	0	0	0
CDFG	0	0	0	0	0

The locations of all jurisdictional features within the Proposed Project site are shown on Figure 5.

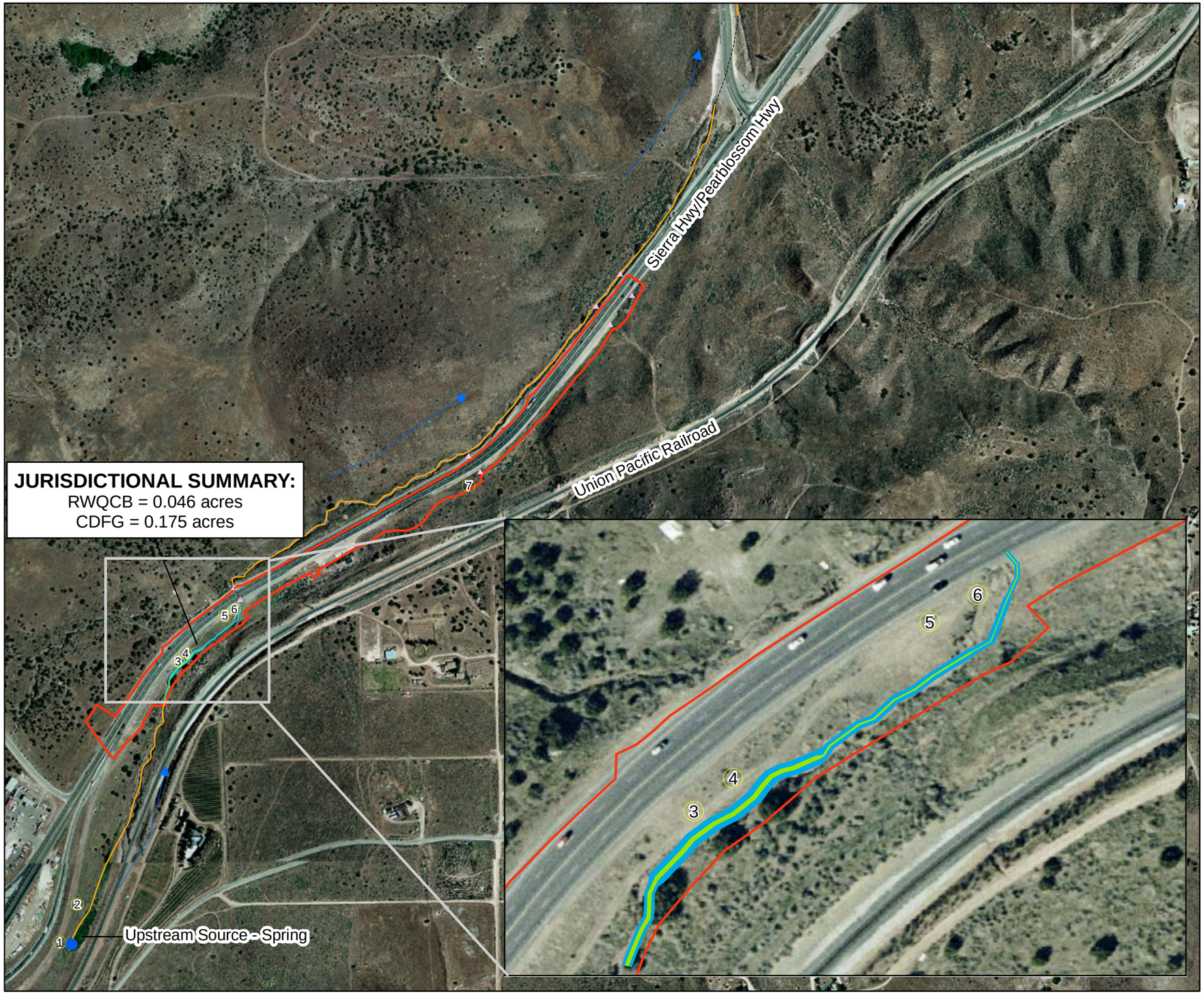


Figure 5
Jurisdictional Delineation Map

Legend

Permanent Impacts

- CDFG Bank to Bank (0.175 acres)
- RWQCB OHWM (0.046 acres)
- Project Extent
- Hydrologic Pathway
- Hydrologic Flow Direction
- # Photo Points
- Pipe Openings

Chambers Group Inc.

N
W E
S

0 200 400 800 1,200
Feet

Image Source: Aerials Express, May 2006.

SECTION 6.0 – CONCLUSION

Based on the jurisdictional findings for this proposed project, LADPW will need to obtain a Waste Discharge Permit from the RWQCB for impacts to **0.046** acres and a Streambed Alteration Agreement from the CDFG for impacts to **0.175** acres within the proposed project site. Since fill is proposed for portions of this road-widening project, all impacts will be permanent. According to the project design, there will be no temporary impacts, and therefore, no permitting will be required for any temporary impacts.

SECTION 7.0 – REFERENCES

California Department of Fish and Game (CDFG)

1994 *A Field Guide to Lake and Streambed Alteration Agreements, Sections 1600-1607*. Environmental Services Division.

Reed, Jr., P. B. et al.

1988 *National List of Plant Species That Occur in Wetlands: Intermountain (Region 8).* U.S. Fish and Wildlife Service Biological Report 88 (26.8).

U.S. Army Corps of Engineers (USACE)

1987 *U.S. Army Corps of Engineers Wetlands Delineation Manu*al, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

2006 *Arid West Supplement*.

2007 *U.S. Army Corps of Engineers Jurisdictional Delineation Form Instructional Guidebook*.

U.S. Department of Agriculture Soil Conservation Service

1980 The Soil Survey of San Bernardino County Southwestern Part, California.

APPENDIX A

SITE PHOTOS

Photo 1: Facing northeast at the spring-induced wetland origin just southwest of the proposed project site. Note the dominance of cattails and willows. The cut banks at the right contain the UPRR track alignment.

Photo 2: Another view of the spring-induced wetland origin. The junipers on the left side occur in the dry wash down-slope of this wetland.

Photo 3: Facing southwest along the dry wash at the southwest end of the proposed project site. Note the strong bed and bank formation, OHWM, and the dominance of upland shrubs, weeds, and grasses along the banks.

Photo 4: Facing northeast along the dry wash at the southwest end of the proposed project site. Note the continued strong bed and bank formation, OHWM, and the dominance of upland shrubs, weeds, and grasses along the banks.

Photo 5: Facing southwest along a non-jurisdictional roadside ditch caused by road runoff. The ditch begins just beyond the vehicle in the far right of the frame. Note the lack of an OHWM and the evidence of apparent grading maintenance.

Photo 6: Facing northeast to the east end of the proposed project site, this culvert is located at the end of the non-jurisdictional ditch shown in Photo 5. The culvert continues below the highway and connects to the ephemeral wash that runs north of and parallel to the proposed project site.

Photo 7: Facing northeast to the east end of the proposed project site. This photo depicts another non-jurisdictional ditch/culvert that also connects to the ephemeral wash north of and parallel to the proposed project site.

Photo 8: Facing northeast, this culvert is located just northeast of the proposed project site at the Sierra/Pearlblossom Highways interchange. Note the strong bed and bank formation, OHWM, drainage patterns, and the dominance of upland vegetation.

Photo 9: Facing northwest, this is one of two ephemeral washes that feeds into the culvert shown in Photo 8.

Photo 10: Facing southwest, this is the second of two ephemeral wash that feeds into the culvert shown in Photo 8.

Photo 11: Facing southeast, this maintained and graded roadside swale allows for additional water flow into the culvert shown in Photo 8.

Photo 12: Facing south along the ephemeral wash, north of the Sierra/Pearlblossom Highway interchange. Note continued strong bed and bank formation, OHWM, and the dominance of upland vegetation.

Photo 13: Facing north at the apparent terminus of the dry wash shown in Photo 12. Note the bed and bank formation and OHWM dissipating before the silver pick-up truck. At this point, the downward topography continues for approximately 2,000 feet along a graded road shoulder.

Photo 14: Facing south at a graded road shoulder and intermittent OHWM area downgrade from the area shown in Photo 13. Note fresh tire tracks, gate crossing, and the intermittent small dry wash indicated by peripheral grasses, OHWM, and drainage patterns.

Photo 15: Facing north along the ephemeral wash that extends from the graded and intermittent OHWM areas. Note the bed and bank formation, OHWM, drainage patterns, and proximity to Sierra Highway.

Photo 16: Facing southeast along a downstream extension of the area shown in Photo 15. Note the much stronger bed and bank formation, OHWM, and drainage patterns.

Photo 17: Facing northwest where the ephemeral wash of Photo 16 continues below Sierra Highway via pipe openings.

Photo 18: Facing northeast at the downstream opening of the pipe system shown in Photo 17.

Photo 19: Facing north at another downstream pipe entry opening of the ephemeral wash.

Photo 20: Facing southwest at a piped underpass below the railroad tracks. This wash is a tributary of the wash examined for this delineation.

Photo 21: Facing east, this photo shows the magnitude of sedimentation and debris deposition that was blocking most of the available openings for the underpass shown in Photo 20.

Photo 22: Facing west, this railroad underpass extends the main wash delineated for this survey from the west back to the east between the railroad and Sierra Highway. Note OHWM, drainage patterns, and fresh tire tracks.

Photo 23: Facing west, this photo depicts a small willow patch along the wash extending from the railroad underpass shown in Photo 22. Note the bed and bank formation, OHWM, and changes in sedimentation.

Photo 24: Facing south towards the willow patch shown in Photo 23, and extending the dry wash, this photo depicts the terminus of this ephemeral portion of the wash system at a distribution box on the west side of Sierra Highway.

Photo 25: Facing east at the high-quality isolated wetland, located immediately east of Sierra Highway and immediately opposite the highway from the distribution box shown in Photo 24.

Photo 26: Facing west, this photo shows the culvert entry for water into the wetland system shown in Photo 25.

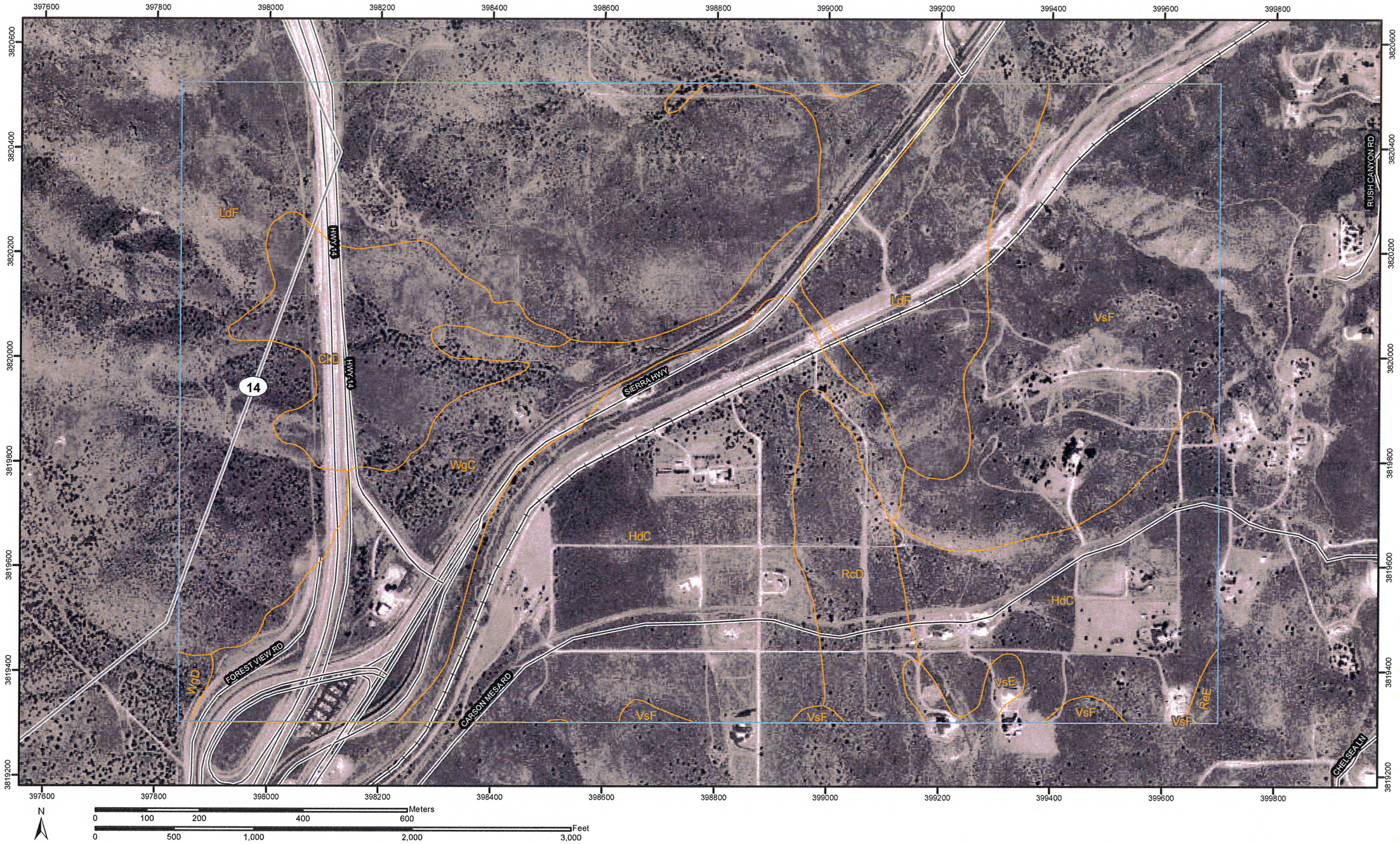
APPENDIX B

SOILS DATA

Map Unit Legend

Antelope Valley Area, California (CA675)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
CkD	Castaic silty clay loam, 9 to 15 percent slopes	38.8	6.4%
HdC	Hanford gravelly sandy loam, 2 to 9 percent slopes	163.0	27.0%
LdF	Las Posas-Toomes rocky loams, 30 to 50 percent slopes	198.1	32.8%
RcD	Ramona coarse sandy loam, 9 to 15 percent slopes	24.2	4.0%
ReE	Ramona gravelly sandy loam, 9 to 30 percent slopes	1.3	0.2%
VsE	Vista coarse sandy loam, 15 to 30 percent slopes	3.8	0.6%
VsF	Vista coarse sandy loam, 30 to 50 percent slopes	93.3	15.5%
WgC	Wyman gravelly loam, 2 to 9 percent slopes	79.2	13.1%
WgD	Wyman gravelly loam, 9 to 15 percent slopes	1.6	0.3%
Totals for Area of Interest (AOI)		603.2	100.0%

Soil Map–Antelope Valley Area, California
(Sierra Highway Widening)



Natural Resources
Conservation Service

Web Soil Survey 2.0
National Cooperative Soil Survey

APPENDIX E

Cultural Resources Report

Cultural and Paleontologic Resources Inventory
Sierra Highway – State Route 14 to Pearblossom Highway Widening Project
Palmdale, Los Angeles County, California

Prepared For:

County of Los Angeles, Department of Public Works
Alhambra, California

Prepared By:

Chambers Group, Inc.
Redlands, California

September 2007

Cultural and Paleontologic Resources Inventory
Sierra Highway – State Route 14 to Pearblossom
Highway Widening Project
Palmdale, Los Angeles County, California

Prepared For:

County of Los Angeles, Department of Public Works
Programs Development Division
900 South Fremont Avenue
Alhambra, California

Prepared By:

Jay K. Sander

Chambers Group, Inc.
302 Brookside Avenue
Redlands, California

September 2007

U.S. Geological Survey 7.5' Quadrangle:

Palmdale, California (1974)

Area Surveyed: Approximately 2.42 Acres

Resources Identified:

None

Keywords: Archaeological Survey, Ethnohistory, History, Historic Site, Project Area, Los Angeles County, Serrano, Tataviam, Palmdale

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1.0 INTRODUCTION

This report provides the results of the cultural and paleontological resources inventory of the proposed Sierra Highway Widening Project in Adelanto, San Bernardino County, California (Figures 1 and 2). State law, as set forth in the California Environmental Quality Act (CEQA), requires that a cultural resources evaluation of the project area be completed before construction work can proceed.

In compliance with CEQA, the County of Los Angeles, Department of Public Works, Programs Development Division (LADPW) retained Chambers Group, Inc. (Chambers Group) to perform a records/literature review of cultural resources known to exist in the project area, as well as an intensive archaeological field survey to identify any previously unrecorded cultural resources that may exist there. The cultural and paleontologic resources inventories presented here consist of the results of the cultural/paleontologic resources records search/literature reviews, and the results of the archaeological field survey of the LADPW project area.

2.0 PROJECT DESCRIPTION

LADPW proposes to widen approximately 0.8 mile of the Sierra Highway between Highway 14 and Pearblossom Highway. The project area consists of a 25-foot wide strip adjacent to the southeast side of Sierra Highway, encompassing a total of 2.42 acres. The project will realign the existing road to meet design criteria for 65 miles per hour traffic speed. A road section will be constructed to provide a 12-foot inside lane, a 14-foot outside lane, a 10-foot paved shoulder, and a 12-foot painted median.

3.0 LOCATION AND ENVIRONMENTAL SETTING

The LADPW project area is located in an unincorporated portion of the town of Palmdale, Las Angeles County, California. The project area is within the Soledad Pass of the San Gabriel Mountains, 15 miles above the head of the Santa Clara River.

The property lies within Section 14 of Township 5 North, Range 12 West of the San Bernardino Base Meridian, as depicted on the U.S. Geological Survey (USGS) 7.5-minute *Palmdale, California* (1974) topographic quadrangle. The elevation ranges from approximately 2,990 to 3,150 feet above mean sea level (see Figure 2).

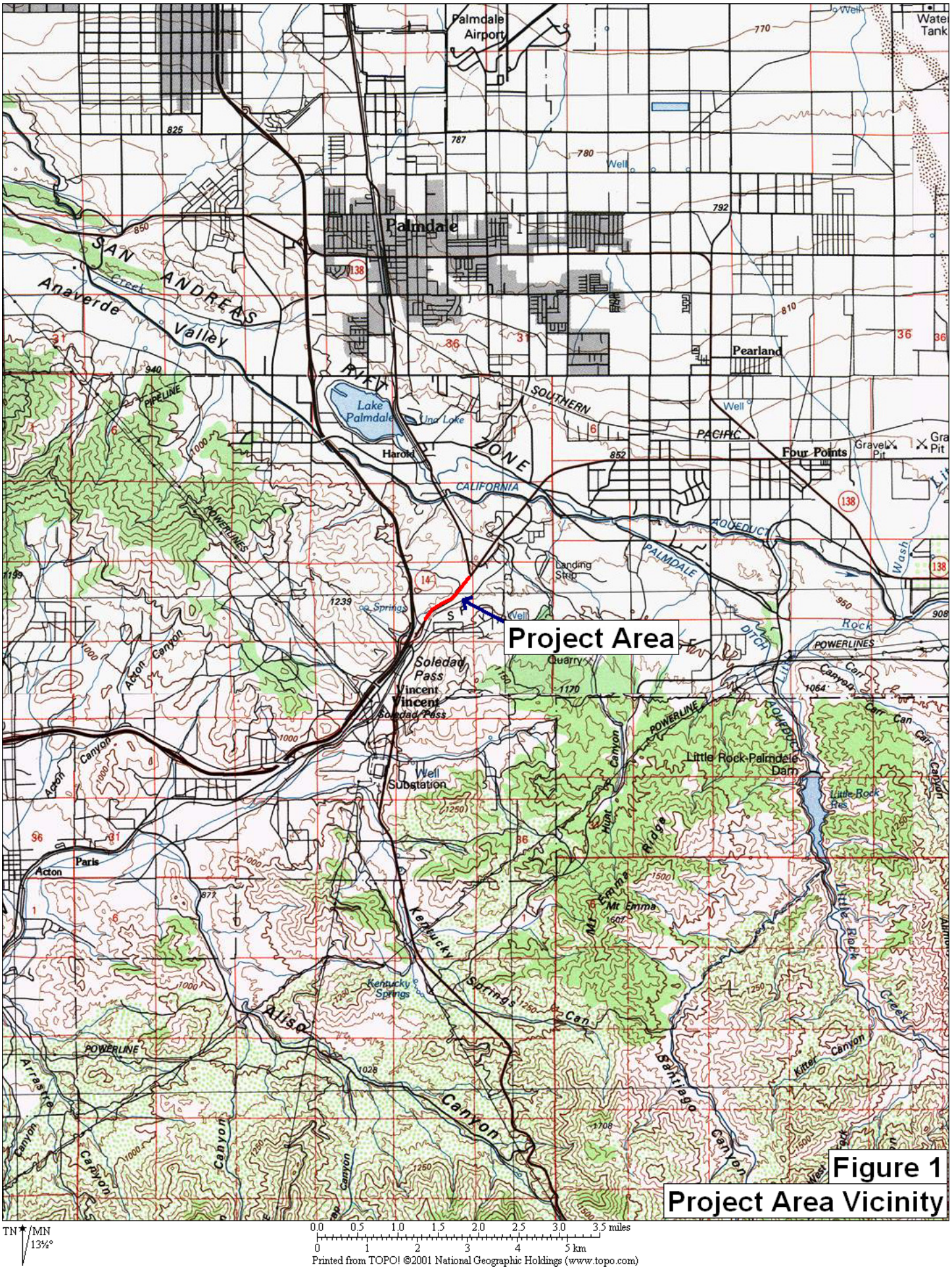

Figure 1
Project Area Vicinity

TN ★ MN 13½°

0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 miles
0 1 2 3 4 5 km

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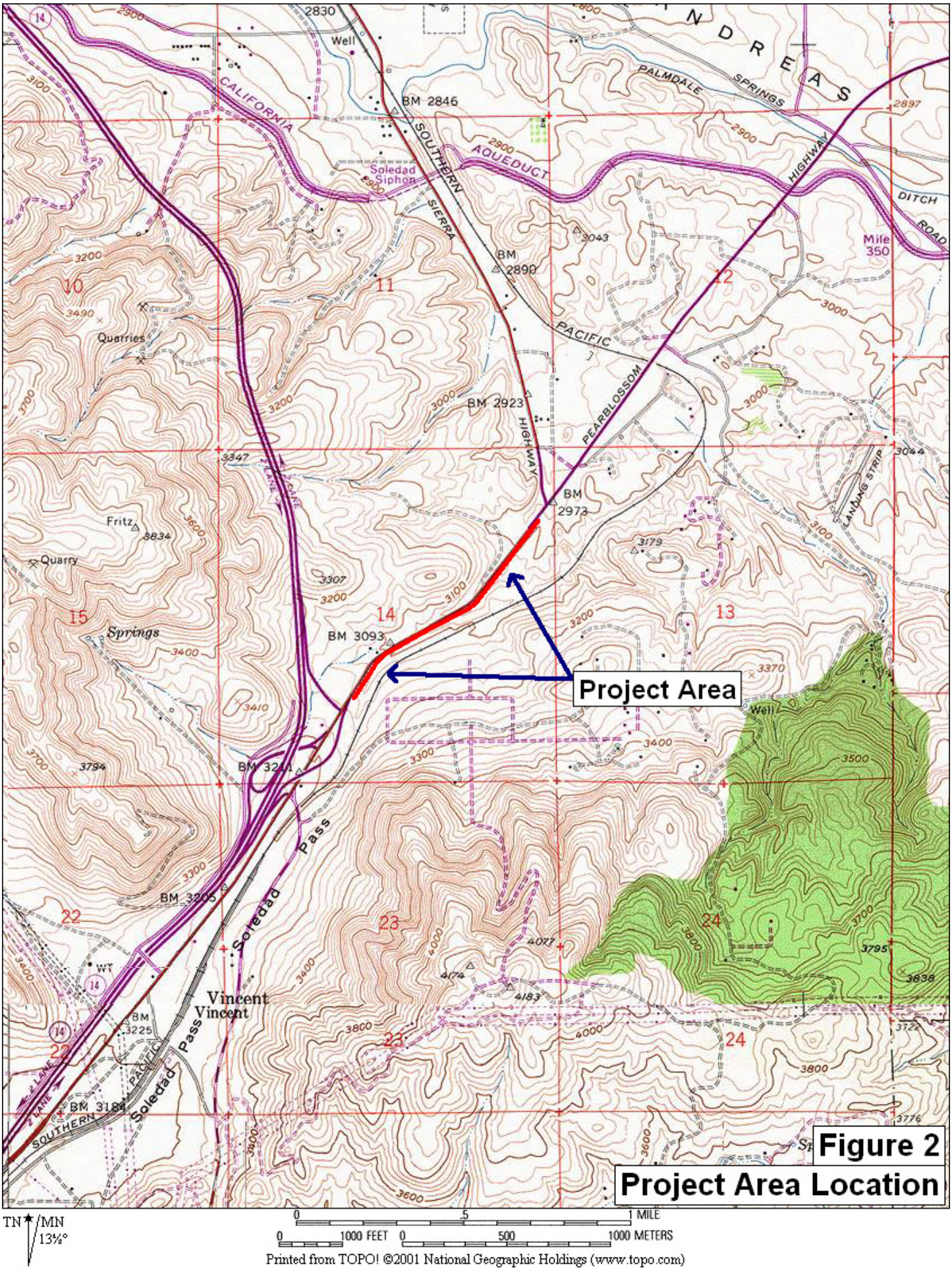

Figure 2

Project Area Location

TN ★ /MN 13½°

0 .5 1 MILE

0 1000 FEET 0 500 1000 METERS

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The project area is within a narrow pass with steep slopes on both sides. In general, the roadway trends downward from southwest to northeast. Much of the area immediately adjacent to Sierra Highway was highly disturbed and sparsely vegetated, or dominated by non-native weeds. Vegetation consists predominately of juniper trees, Mojave woody series plants, rabbit brush and salt brush. Disturbances on the site exist in the form of vehicle tracks, wind-blown trash, and bioturbation. The soils are loosely compacted coarse sands with silt. There is a high percentage of volcanic gravels.

4.0 CULTURAL OVERVIEW

4.1 General Prehistory

It is generally believed that human occupation of southern California began at least 10,000 years before present (BP). The archaeological record indicates that between approximately 10,000 and 6,000 years BP, a predominantly hunting economy existed, characterized by archaeological sites containing numerous projectile points and butchered large animal bones. Animals that were hunted likely consisted of mostly large species still alive today. Bones of extinct species have been found, but cannot definitely be associated with human artifacts. Although small animal bones and plant grinding tools are rarely found within archaeological sites of this period, small game and vegetal foods were probably exploited on a limited basis. A lack of deep cultural deposits from this period suggests that groups included only small numbers of individuals who did not often stay in one place for extended periods (Wallace 1978).

Around 6,000 years BP, there was a shift in focus from hunting towards a greater reliance on vegetal resources. Archaeological evidence of this trend consists of a much greater number of milling tools (e.g., metates and manos) for processing seeds and other vegetable matter. This period, which extended until around 3,000 years BP, is sometimes referred to as the “Millingstone Horizon” (Wallace 1978). Projectile points are found in archaeological sites from this period, but they are far fewer in number than from sites dating to before 6,000 years BP. An increase in the size of groups and the stability of settlements is indicated by deep, extensive middens at some sites from this period (Wallace 1978).

In sites dating to after about 3,000 years BP, archaeological evidence indicates that reliance on both plant gathering and hunting continued as in the previous period, with more specialized adaptation to particular environments. Mortars and pestles were added to metates and manos for grinding seeds and other vegetable material. Chipped-stone tools became more refined and specialized, and bone tools were more common. During this period, new peoples from the Great

Basin began entering southern California. These immigrants, who spoke a language of the Uto-Aztecan linguistic stock, seem to have displaced or absorbed the earlier population of Hokan-speaking peoples. The exact time of their entry into the region is not known; however, they were present in southern California during the final phase of prehistory. During this period, known as the "Late Horizon," population densities were higher than before and settlement became concentrated in villages and communities along the coast and interior valleys (Erlandson 1994; McCawley 1996). Regional subcultures also started to develop, each with its own geographical territory and language or dialect (Kroeber 1925; McCawley 1996; Moratto 1984). These were most likely the basis for the groups encountered by the first Europeans during the eighteenth century (Wallace 1978). Despite the regional differences, many material culture traits were shared among groups, indicating a great deal of interaction (Erlandson 1994). The introduction of the bow and arrow into the region sometime around 1,500 to 1,000 years BP is indicated by the presence of small projectile points (Moratto 1984).

4.2 Ethnohistory

The project area is located in the westernmost territory known to have been occupied by the Serrano Indians, with the Tataviam further to the west. It is likely that both groups passed through or exploited resources within the project area at different times; therefore, both groups are discussed below.

Serrano. The Serrano occupied an area in and around the San Bernardino Mountains between approximately 1,500 and 11,000 feet above mean sea level. Their territory extended west into the Cajon Pass, east as far as Twentynine Palms, north to Victorville, and south to the Yucaipa Valley. Along with the nearby Kitanemuk, they spoke Serrano, a language within the Takic family of the Uto-Aztecan language stock. The Serrano were mainly hunters and gatherers who occasionally fished. Game that was hunted included mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Vegetable staples consisted of acorns, piñon nuts, bulbs and tubers, shoots and roots, berries, mesquite, barrel cacti, and Joshua tree (Bean and Smith 1978).

A variety of materials were used for hunting, gathering, and processing food, as well as for shelter, clothing, and luxury items. Shells, wood, stone, plant materials, bone, and animal skins and feathers were used for making baskets, pottery, blankets, mats, nets, bags and pouches, cordage, awls, bows, arrows, drills, stone pipes, musical instruments, and clothing (Bean and Smith 1978).

Settlement locations were determined by water availability, and most Serranos lived in small villages near water sources. Houses and ramadas were round and constructed of poles covered with bark and tule mats (Kroeber 1925). Most Serrano villages also had a ceremonial house used as a religious center. Other structures within the village might have included granaries and sweathouses (Bean and Smith 1978).

The Serrano were loosely organized along patrilineal lines and associated themselves with either the *Tukum* (wildcat) or the *Wahilyam* (coyote) moiety. Organization of individual bands of Serrano was considered by Kroeber (1925) to be similar to modern political groups. Tribes, as opposed to bands, were larger in numbers, and were distinguished from each other by having distinct dialects. Unlike, bands, tribes often had names that were more than merely a designation for the place where they lived (Kroeber 1925).

Partly due to their mountainous inland territory, contact between Serrano and European-Americans was minimal prior to the early 1800s. In 1819, a *Capilla* (chapel) was established in present-day Redlands and was used to help relocate many Serrano to Mission San Gabriel. However, small groups of Serrano remained in the area northeast of the San Gorgonio Pass and were able to preserve some of their native culture. Today, most Serrano live either on the Morongo or San Manuel reservations (Bean and Smith 1978).

TATAVIAM. The Tataviam lived primarily in the area along the upper Santa Clara River drainage. Occupation was chiefly within the foothills and mountains between the Mojave Desert and the inland valleys. “Tataviam” is a Kitanemuk phrase meaning “people of the south-facing slope,” and as the name suggests, the Tataviam occupied the south-facing slopes of the Sawmill Mountains (King and Blackburn 1978).

Ethnographic evidence indicates that the Tataviam resided in villages ranging in size from 10 to 15 to as many as 200 people. Large, small, and intermediate-sized villages were located near one another. According to two of Harrington’s informants, the Tataviam were the only people to live in the Antelope Valley (Harrington 1916, included in King and Blackburn 1978).

Mesquite flourished on the sun-dominated slopes of the Tataviam territory, and appears to have been a staple in their diet. Exploitation of other plants and animals was the same as the Chumash and Gabrielino-Tongva, who resided to the west and east, respectively. Game consisted of small mammals, deer, and possibly antelope. Vegetal foods included yucca, buds, acorns, sage seeds, and berries (King and Blackburn 1978).

There are no data on Tataviam social organization that differentiates them from the neighboring Kitanemuk, Chumash, and Gabrielino-Tongva cultural groups. Intertribal marriages with the Kitanemuk and participation in Chumash ceremonies were observed during the post-mission period (King and Blackburn 1978).

The Tataviam language was possibly a Takic-influenced remnant of a language family otherwise unknown in southern California. Archaeological data suggest that the Tataviam began to differentiate from other southern California Takic speakers about 2,900 years ago. It appears that around that time, cremation as a mortuary practice began to predominate in those areas dominated by Takic speakers. By 1834, nearly all of the Tataviam had been baptized at the San Fernando Mission and had married members of other groups. By 1910, the last speaker of Tataviam had died (King and Blackburn 1978).

4.3 History

The first significant European settlement of California began during the Spanish Period (1769 to 1821) when 21 missions and 4 presidios were established between San Diego and Sonoma. Although located primarily along the coast, the missions dominated economic and political life over the majority of the California region. The purpose of the missions was primarily Indian control and forced assimilation into Spanish society and Catholicism, along with economic support to the presidios (Castillo 1978).

The Mexican Period (1821-1848) began with the success of the Mexican Revolution in 1821, but changes to the mission system were slow to follow. When secularization of the missions occurred in the 1830s, the vast land holdings of the missions in California were divided into large land grants called *ranchos*. The Mexican government granted ranchos throughout California to Spanish and Hispanic soldiers and settlers (Castillo 1978; Cleland 1941).

In 1848, the Treaty of Guadalupe Hidalgo ended the Mexican-American War and marked the beginning of the American Period (1848 to present). The discovery of gold that same year sparked the 1849 California Gold Rush, bringing thousands of miners and settlers to California from various parts of the United States, most of whom settled in the north. For those settlers who chose to come to southern California, much of their economic prosperity was fueled by cattle ranching rather than by gold. This prosperity, however, came to a halt in the 1860s as a result of severe floods and droughts, which put many ranchos into bankruptcy (Castillo 1978; Cleland 1941).

The first known European visitors to the Mojave Desert via the Cajon Pass were Lieutenant Pedro Fages and a small party of soldiers, who traversed the pass and skirted along the north side of the San Gabriel Mountains toward the west in 1769. In 1776, while exploring a route across the Mojave Desert from Mission San Gabriel, Father Francisco Garces, accompanying the expedition of Juan Bautista de Anza, passed through the area. The expedition party is believed to have camped approximately 1.5 miles southeast of present-day Hesperia. In 1826, Jedediah Smith pioneered a section of the Mormon Trail from Needles to Mission San Gabriel through the Victorville/Hesperia area. In 1842, General John Fremont and Kit Carson followed this route during a U.S. Army expedition to explore the Mojave Desert. In the following years, hundreds of settlers used the trail to come to California (California Historic Route 66 Association 1996; City of Hesperia 2002).

According to the Palmdale City Library (2005), Palmdale has its roots in two small, early communities: Harold and Palmenthal. Harold was at the crossroads of the two major routes on the Valley floor: the Southern Pacific Railroad tracks and Fort Tejon Road (now Barrel Springs Road). At that time there were only four roads in the Valley: Soledad, Mojave, San Francisquito Canyon, and Fort Tejon Roads. Fort Tejon was a military road, and was used by stage coaches going from San Bernardino to northern points. It followed the foothills of the San Gabriels because water was more readily available there than on the Valley floor. The town was located at what is now the intersection of Barrel Springs Road and Sierra Highway and was mainly populated by railroad employees and Chinese laborers.

The Palmdale City Library (2005) goes on to describe Palmenthal as a community populated by 50 or 60 families of Swiss and German descent, predominantly from Nebraska and Illinois. “They had been told that when they saw Palm trees, they would be very close to the Pacific Ocean. In 1886, as they came to the Antelope Valley and saw our Joshua trees, they mistook them for Palm trees”. The original settlement was located about 3 miles southeast of the present Civic Center, at R8 and 27th Street East.

By the late 1800s the region was is decline due to drought and land deed problems. In the early 1900s, however, irrigation was introduced and the amount of cultivated land increased, chiefly in the production of alfalfa, pears and apples. The much-diminished communities of Harold and Palmenthal coalesced into Palmdale. Populations increased, especially following the completion of the Sierra Highway in the 1920s, which connected the High Desert with Los Angeles. Agriculture remained the primary industry of the Antelope Valley until World War II. After World War II, Palmdale grew as a center for aerospace and defense industries with the establishment of Edwards Air Force Base in Kern County and U.S. Air Force Plant 42 in Palmdale.

5.0 METHODS

5.1 Cultural Resources Record Search/Literature Review Methods

A record search/literature review was conducted on September 10, 2006 at the South Central Coastal Information Center, located at California State Museum, Fullerton. The purpose of this review was to examine any existing cultural resources survey reports, archaeological site records, and historic maps to determine whether previously documented prehistoric or historic archaeological sites, architectural resources, cultural landscapes, or ethnic resources exist within or near the project area. The record search/literature review was also conducted to determine whether any historic properties listed on or determined eligible for listing on the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) exist within the project area.

5.2 Native American Coordination Methods

Chambers Group sent a letter to the Native American Heritage Commission (NAHC) notifying them of the proposed project activities. The NAHC was also asked to conduct a search of the Sacred Lands File and to make a recommendation as to whether any local Federally-recognized Native American groups should be contacted regarding their concerns about potential impacts to cultural resources resulting from implementation of the proposed project (Appendix A).

5.3 Paleontological Resources Files/Database Search Methods

A search of the Paleontological files/database was initiated with the Division of Geological Sciences of the San Bernardino County Museum in Redlands, California on August 31, 2007. The purpose of the search was to provide information regarding previous paleontologic studies that have been conducted within or near the project area, known fossils or other paleontological resources that may have been identified within or near the project area, and the sensitivity of the project area to contain significant nonrenewable paleontologic resources (Appendix B).

5.4 Archaeological Field Survey Methods

On September 11, 2007 one Chambers Group archaeologist conducted an intensive pedestrian survey of the approximately 0.80-mile/2.4-acre project area that is slated for construction. The surveyor walked two transects spaced 5-meters apart in order to ensure overlapping fields of view along the southeast side of the road. Notes were taken on the environmental setting and disturbances.

6.0 RESULTS

6.1 Cultural Resources Record Search/Literature Review Results

Results of the review of the survey reports and site records obtained from the South Central Coastal Information Center indicate that 11 previous cultural resources investigations have occurred within a one-half mile radius of the project area. This includes one (Becker and Evans 1991) that covered the northwest side of Sierra Highway, opposite the current project area, and another (Anonymous 1996) that followed the railroad tracks parallel to the southeast edge of the project area. The record search also revealed that several isolated prehistoric artifact have been found on the northwest side of the Highway.

6.2 Native American Coordination Results

The search of the Sacred Lands File by the NAHC did not indicate the presence of Native American cultural resources in the immediate project area. A list of tribes, organizations, and/or individuals with traditional ties to the area was included in the NAHC response. All NAHC correspondence is provided in Appendix A

6.3 Archaeological Field Survey

No archaeological sites or isolates were found within or adjacent to the project area. This is perhaps due to the level of disturbance along the road.

6.4 Paleontological Resources Files/Database Search Results

Results of the search of the paleontological files/database conducted with the San Bernardino County Museum on August 20, 2007 (Scott 2007) indicate that the project area is located on surface exposures of volcanic andesite dating to the Oligocene Epoch. This rock has no potential to contain paleontologic resources. “However, along some portions of the proposed project alignment, these Oligocene volcanics are overlain by a thin sedimentary of Pleistocene non-marine alluvium. These Pleistocene sediments have undetermined potential to contain significant nonrenewable paleontological resources and so are assigned undetermined paleontologic sensitivity” (Scott 2007). A copy of the paleontological literature and records review is provided in Appendix B.

7.0 MANAGEMENT SUMMARY AND RECOMMENDATIONS

Results of the review of the survey reports and site records obtained from the San Bernardino County Archaeological Information Center indicate that 11 previous cultural resources investigations have occurred within one-half mile of the project area and there are numerous previously known archaeological isolated finds adjacent to the project area. Although no previously unknown historic sites or historic isolated occurrences were found within the project area, the proximity of known cultural resources indicates the need for an archaeological monitor to be present during all ground disturbing activities related to the current project.

In the event that any subsurface archaeological deposits are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist. If human remains of any kind are found, all activities must cease immediately and a qualified archaeologist and the Los Angeles County Coroner must be notified. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the most likely descendants to be consulted regarding treatment and/or repatriation of the remains.

The search of the paleontological files/database indicates that the project area has undetermined paleontologic sensitivity. The San Bernardino County Museum Division of Geological Sciences recommend that a qualified vertebrate paleontologist must be retained to examine the exposed Pleistocene sediments and their depositional context to determine their potential to yield significant paleontologic resources (Scott 2007). The paleontologist will then make recommendations regarding the need for a paleontologic monitor to be present during ground disturbing activities. If paleontologic specimens are encountered during ground disturbance, a paleontological monitor must be empowered to identify, remove, document, and evaluate those specimens. Recovered specimens must be curated in a museum repository with permanent retrievable storage (e.g., San Bernardino County Museum). A report must be prepared with an appended itemized inventory of specimens, if any are recovered. Implementation of this mitigation measure would reduce the potential impact to a level that is less than significant.

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9.0 REPORT AND FIELD PERSONNEL

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1993 B.A., Anthropology, University of Arizona, Tucson
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STATE OF CALIFORNIA Arnold Schwarzenegger, Governor

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September 5, 2007

Mr. Jay K. Sander, M.A., Senior Archaeologist
Chambers Group, Inc.
302 Brookside Avenue
Redlands, CA 92373

Sent by FAX to: 909-335-8318
Number of pages: 2

Re: Cultural Resource Identification Study/Sacred Lands File Search for Proposed Proposed Pearblossom Highway Road Widening Project; Palmdale Area; Los Angeles County, California

Dear Mr. Sander: * Project No. 8500

The Native American Heritage Commission was able to perform a record search of its Sacred Lands File (SLF) for the affected project area. The SLF failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the Sacred Lands File does not guarantee the absence of cultural resources in any 'area of potential effect (APE).'

Early consultation with Native American tribes in your area is the best way to avoid unanticipated discoveries once a project is underway. Enclosed are the nearest tribes that may have knowledge of cultural resources in the project area. A List of Native American contacts are attached to assist you. The Commission makes no recommendation of a single individual or group over another. It is advisable to contact the person listed; if they cannot supply you with specific information about the impact on cultural resources, they may be able to refer you to another tribe or person knowledgeable of the cultural resources in or near the affected project area (APE).

Lack of surface evidence of archeological resources does not preclude the existance of archeological resources. Lead agencies should consider avoidance, as defined in Section 15370 of the California Environmental Quality Act (CEQA) when significant cultural resources could be affected by a project. Also, Public Resources Code Section 5097.98 and Health & Safety Code Section 7050.5 provide for provisions for accidentally discovered archeological resources during construction and mandate the processes to be followed in the event of an accidental discovery of any human remains in a project location other than a 'dedicated cemetery. Discussion of these should be included in your environmental documents, as appropriate.

If you have any questions about this response to your request, please do not hesitate to contact me at (916) 653-6251.

Sincerely,

Dave Singleton
Program Analyst

Attachment: Native American Contact List

Native American Contacts
Los Angeles County
September 4, 2007

Charles Cooke
32835 Santiago Road
Acton , CA 93510
(661) 269-1422
(661) 733-1812

Chumash
Fernandeno
Tataviam
Kitanemuk

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez
981 N. Virginia
Covina , CA 91722
(626) 339-6785

Yowlumne
Kitanemuk

Beverly Salazar Folkes
1931 Shadybrook Drive
Thousand Oaks , CA 91362
805 492-7255

Chumash
Tataviam
Fernandeño

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838
Newhall , CA 91322
tsen2u@msn.com
(661) 753-9833 Office
(760) 885-0955 Cell
(760) 949-1604 Fax

Fernandeño
Tataviam
Serrano
Vanyume
Kitanemuk

Fernandeno Tataviam Band of Mission Indians
Randy Guzman-Folkes, Dir. Cultural and Environmental Department
601 South Brand Boulevard, Suite 102
San Fernando , CA 91340
ced@tataviam.org
(818) 837-0794 Office
(805) 501-5279 Cell
(818) 837-0796 Fax

Fernandeno
Tataviam

Kern Valley Indian Council
Robert Robinson, Historic Preservtion Officer
P.O. 401
Weldon , CA 93283
brobinson@mchsi.com
(760) 378-4575 (Home)
(760) 549-2131 (Work)

Tubatulabal
Kawaliisu
Koso
Yokuts

LA City/County Native American Indian Comm
Ron Andrade, Director
3175 West 6th Street, Rm. 403
Los Angeles , CA 90020
(213) 351-5324
(213) 386-3995 FAX

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed Pearblossom Highway Road Widening Project located in the Palmdale Area of Los Angeles County, California for which a Sacred Lands File search was requested.

SAN BERNARDINO COUNTY MUSEUM

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COUNTY OF SAN BERNARDINO
PUBLIC AND SUPPORT
SERVICES GROUP

ROBERT L. McKERNAN
Director

20 August 2007

Chambers Group, Incorporated
attn: Jay K. Sander, Senior Archaeologist
302 Brookside Avenue
Redlands, CA 92373

re: **PALEONTOLOGY LITERATURE AND RECORDS REVIEW, PEARBLOSSOM HIGHWAY ROAD WIDENING PROJECT, PALMDALE REGION, LOS ANGELES COUNTY, CALIFORNIA**

Dear Mr. Sander,

The Division of Geological Sciences of the San Bernardino County Museum (SBCM) has completed a literature review and records search for the above-named property near the City of Palmdale, Los Angeles County, California. The proposed project corridor traverses a portion of section 14, Township 5 North, Range 12 West, San Bernardino Base and Meridian, as seen on the Palmdale, California 7.5' United States Geological Survey topographic quadrangle map (1958 edition, photorevised 1974).

Previous geologic mapping (Jennings and Strand, 1969) indicates that the proposed study area is located primarily upon surface exposures of volcanic andesite dating to the Oligocene Epoch. This rock unit has no potential to contain paleontologic resources, and so is assigned low paleontologic sensitivity. However, along some portions of the proposed project alignment, these Oligocene volcanics are overlain by a thin sedimentary of Pleistocene nonmarine alluvium. These Pleistocene sediments have undetermined potential to contain significant nonrenewable paleontologic resources, and so are assigned undetermined paleontologic sensitivity.

For this review, I conducted a search of the Regional Paleontologic Locality Inventory (RPLI) at the SBCM. The results of this search indicate that no previously-known paleontologic resource localities are recorded by the SBCM from within the study area, nor from within at least one mile in any direction.

Recommendations

The results of the literature review and the check of the RPLI at the SBCM demonstrate that excavation for the proposed property near the City of Palmdale has undetermined potential to impact significant nonrenewable fossil resources potentially present in Pleistocene older alluvial sediments.

A qualified vertebrate paleontologist must be retained to examine the exposed Pleistocene sediments and their depositional context to determine their potential to yield significant paleontologic resources. If this potential is interpreted by the paleontologist to be high, then a program to mitigate impacts to significant fossil resources must be developed by the paleontologist. This mitigation program would need to be consistent with the provisions of the California Environmental Quality Act (Scott and Springer, 2003), as well as with regulations currently implemented by the County of Los Angeles and the proposed guidelines of the Society of Vertebrate Paleontology. This program should include, but not be limited to:

1. Field reconnaissance of the proposed area of potential effect, in advance of development related excavation, to assess paleontologic sensitivity. The survey would focus on determining the likelihood of older Pleistocene sediments encountered during excavation to contain significant fossils.

2. *As determined to be necessary by the field reconnaissance*, mitigation of impacts to significant fossil resources. This mitigation would include salvage of any significant resources encountered during the field reconnaissance as well as monitoring of excavation in areas identified as likely to contain paleontologic resources by a qualified paleontologic monitor. Based upon the results of this review, areas of concern include any undisturbed subsurface sediments of Pleistocene older alluvium determined by the reconnaissance to have high paleontologic sensitivity. Paleontologic monitors should be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors must be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. *As discussed above, monitoring is not necessary unless potentially-fossiliferous units are encountered and determined upon exposure and examination by qualified paleontologic personnel to have potential to contain fossil resources.*

3. Preparation of recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Preparation and stabilization of all recovered fossils are essential in order to fully mitigate adverse impacts to the resources (Scott and others, 2004).

4. Identification and curation of specimens into an established, accredited museum repository with permanent retrievable paleontologic storage (e.g., SBCM). These procedures are also essential steps in effective paleontologic mitigation (Scott and others, 2004) and CEQA compliance (Scott and Springer, 2003). The paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. Mitigation of adverse impacts to significant paleontologic resources is not complete until such curation into an established museum repository has been fully completed and documented.

5. Preparation of a report of findings with an appended itemized inventory of specimens. The report and inventory, when submitted to the appropriate Lead Agency along with

confirmation of the curation of recovered specimens into an established, accredited museum repository, would signify completion of the program to mitigate impacts to paleontologic resources.

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Please do not hesitate to contact us with any further questions you may have.

Sincerely,

Eric Scott, Curator of Paleontology
Division of Geological Sciences
San Bernardino County Museum

APPENDIX F

Traffic Study

Traffic Study for the Sierra Highway (Phase 3A) Widening and Realignment Project in the County of Los Angeles

3rd DRAFT

February 14, 2008

Prepared For:

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Executive Summary

This Traffic Study has been prepared at the request of the County of Los Angeles. This report is intended to meet the County's requirements for analysis of traffic impacts along with current design standards associated with the proposed widening and realignment of Sierra Highway.

Sierra Highway is a rural four-lane undivided highway that runs on a north/south alignment. between the SR-14 junction and Pearblossom Highway. The County is planning to improve the features of the roadway by widening and realigning the study segment. The desired design speed of the proposed roadway is 65mph.

Following paragraphs present a summary of our findings:

Existing Conditions (Year 2007)

1. Traffic volume – The existing (2007) traffic volume was obtained through interpolating traffic count data provided by the County of Los Angeles. 15 percent of the volume was considered heavy vehicles in the analysis.

2. Traffic Accident – There have been 31 reported accidents throughout the past five years. The calculated accident rate is 2.12 accidents/per million vehicle miles/per year.

3. Geometry- The existing roadway has two travel lanes in each direction separated by a double yellow striped centerline. Using the HCM methodology, the roadway operates at a level of service D during AM and PM peak hours.

4. Traffic Speed – The posted advisory speed limit is 50mph along the study segment and 45mph along the northernmost curve. The 85th percentile speed was measured at 60-65mph.

Future Conditions (Year 2010)

1. Traffic Volume – A County standard growth rate of 3.58% was applied to traffic count data to determine the projected traffic volumes in the future (2010) scenario.

2. Proposed Geometry- The County is proposing to widen the roadway to provide two travel lanes in each direction plus a 12' striped median to separate the two travel directions. In addition, a 10' paved shoulder is proposed in each direction. The proposed improvements will enhance the safety of the highway and adequately facilitates a design speed of 65mph, however, it will not improve the level of service. To improve the level of service, an

additional travel lane in each direction is recommended.

3. Design Elements – The design parameters can be found in The American Association of State Highway and Transportation Officials (AASHTO) policy 4th edition and Caltran's "Highway Design Manual" (HDM) for multilane conventional highways. It is recommended to meet the most conservative requirement between the AASHTO and HDM parameters for design.

    - Curve radii and superelevation
      The minimum radius of a horizontal curve is directly associated with the superelevation. When designing the road to meet the proposed design speed, it is recommended to meet the most conservative requirement. Tables can be found in section 4 of this report.

    - Stopping Sight Distance Around the Curves
      Once the curve is determined, the stopping sight distance along the curves must also meet certain criteria. Exhibit 3-57 and 3-75 in AASHTO policy (4th edition) will aid in the design of the curves to have the adequate stopping sight distance.

    - Highway Lighting
      Existing safety lighting should be evaluated and upgraded as needed to meet current lighting standards.

Conclusion and Recommendation

The proposed improvements will provide a facility that meets current design standards and operational needs. The County has proposed larger curve radii and superelevation, which improves the traffic flow within the study area. Also, the County is proposing to widen the road to incorporate a striped median and shoulders. The proposed improvements will meet all HDM and AASHTO standards.

The widening improvements discussed in Alternative 1 will not improve the level of service along the segment of highway, however, will improve the safety for motorist traveling in both directions. Alternative 2 improvements will improve both the safety and level of service along the segment of highway, however, it will require right-of-way acquisition, realignment, and reconfiguration of bordering intersections.

1. Introduction

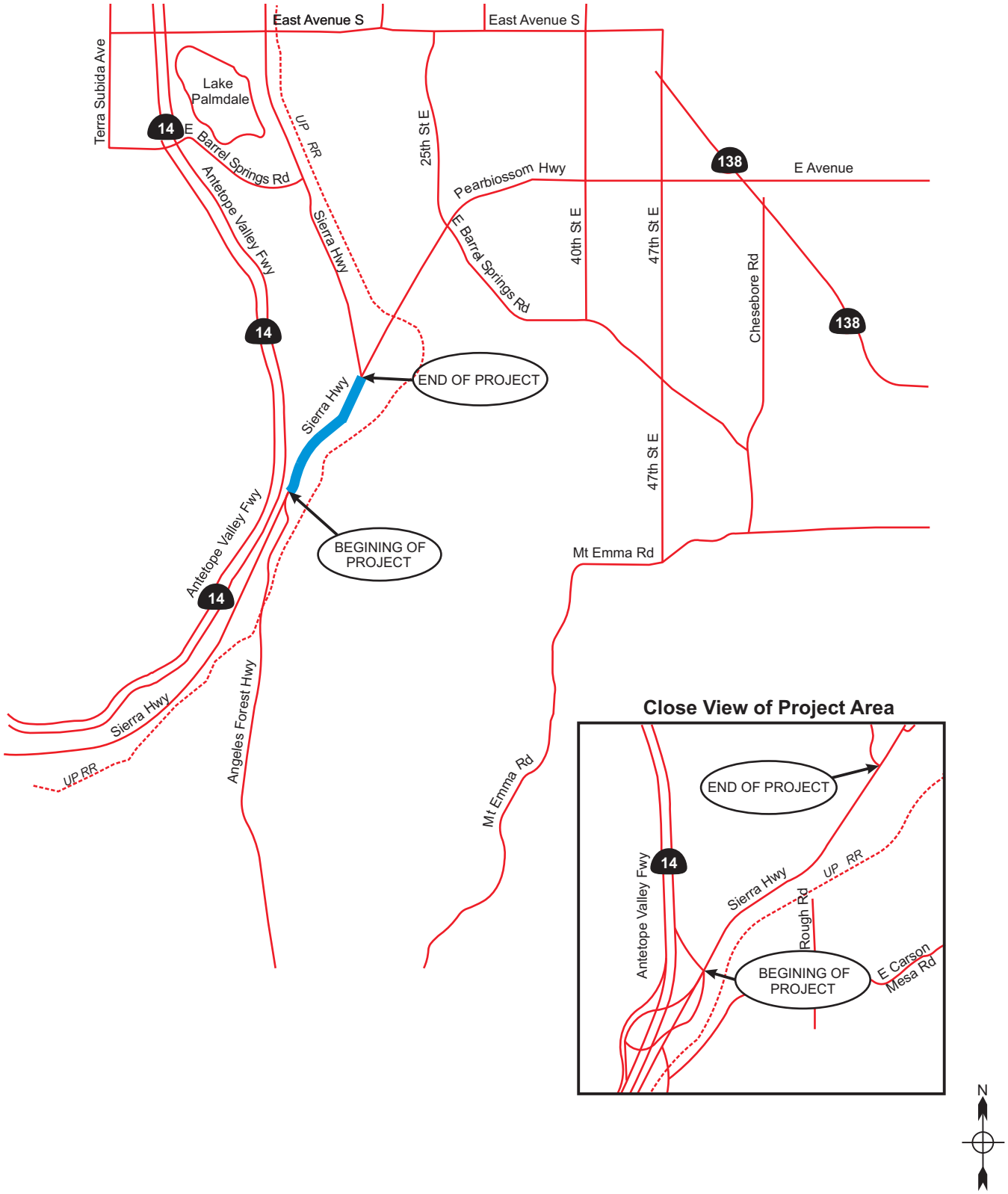
This Traffic Study has been prepared at the request of the County of Los Angeles. This report is intended to meet the County's requirements for analysis of traffic impacts associated with the proposed widening and realignment of Sierra Highway.

Background and Existing Conditions

Sierra Highway is classified as a rural major highway in the Los Angeles County Roadway System. It is an important cross-mountain commuter route, acting as an alternative to the Antelope Valley Freeway (SR-14) between the Antelope Valley and the Santa Clarita Valley. Figure 1 illustrates the projects vicinity.

On the portion of Sierra Highway from the Antelope Valley Freeway (SR-14) junction to Pearblossom Highway, the roadway runs essentially in a north-south direction, north leading to the City of Palmdale and south leading to the junction with the Antelope Valley Freeway. The property adjacent to the roadway in this area is undeveloped. The highway grade runs significantly uphill from north to south at around 4%. In this area, there are two striped lanes in each direction and a solid double yellow centerline separating the directions of travel.

Arial Photo of Project Area



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Sierra Highway (Phase 3A) Project, County of Los Angeles

Figure 1

Project Vicinity Map

Key Issues

On the segment of Sierra Highway between the SR-14 junction and Pearblossom Highway, the accident rate is higher than the statewide average and as a result, the County has proposed to widen and realign this portion of Sierra Highway to improve the facility to meet current design standards and operational needs. Below are some features that are to be improved.

Speed Limit vs. Free-Flow Speed: The posted advisory speed limit along this stretch of Sierra Highway is 50mph, and 45mph around the northernmost horizontal curve. However, a speed survey performed in 2006 indicates an 85th percentile speed of 60-65 mph. A evaluation of the advisory speed limit is recommended. The speed survey can be found in Appendix C.

Curve Radius: The existing curve radius and superelevation do not facilitate vehicles traveling at the existing free-flow speed of 60-65mph. A larger curve radius and superelevation is proposed to improve the facility to meet current design standards.

Lane Configuration and Separation: The existing striping of this portion of Sierra Highway is shown in the picture to the right. There is a solid double yellow line separating the northbound and southbound traffic. A raised/striped median is proposed to increase the space between on-coming traffic. Additionally, a paved shoulder is also proposed to create room for vehicles in need of roadside assistance.

Highway Lighting: Existing safety lighting should be evaluated and upgraded as needed to meet current lighting standards.

Recommended Improvements

The study highway is to be designed to satisfy a design speed of 65 miles per hour. The horizontal curves will be realigned and given larger radii and superelevation to accommodate the design speed. The road will also be widened. Below are the two alternatives for widening the highway.

Alternative 1: Widen the roadway to provide for two travel lanes in each direction plus a 12' striped median to separate the two travel directions. In addition, there will be a 10' paved shoulder in each direction.

Alternative 2: Same as alternative 1 except the widening will provide three travel lanes in each direction.

Alternative 1 is based on the County's proposed plan to improve the facility to meet current design standards. Alternative 2 is developed to improve the level of service along the study segment of Sierra Highway.

2. Project Study Methodology

This chapter presents the methodology used and assumptions made to conduct the traffic impact analysis for the proposed project.

Traffic Data

The study evaluates the operational condition of the roadway during AM and PM peak hours for the existing and future conditions. County of Los Angles provided existing traffic volumes for a period between 2002 and 2007; raw data is included in Appendix A. It is assumed that the proposed improvements will be completed by the year 2010 and therefore the projected data for 2010 is used for future analysis.

Analysis Methodology

The study uses the methodology for undivided multilane highways as described in the Highway Capacity Manual, 2000 Edition (HCM). The methodology is based upon measurements or forecasts of the speed, flow-rate, and density along the roadway segment. However, this methodology has the limitation of only analyzing a Free-flow Speed (FFS) up to 60 miles per hour (mph). To accommodate the future design speed of 65mph, it is recommended to have a posted speed limit of 55mph, therefore assigning a FFS of 60mph during the future scenario analysis.

Operational Level-Of-Service

Street system operating conditions are typically described in terms of "level of service." Level of service (LOS) ranges from Level of Service A (free flow, little congestion) to Level of Service F (forced flow, extreme congestion). Table 1 gives brief definitions of Level of Service.

Table 1 - Level of Service Descriptions

Level of Service	Traffic Description
A	Excellent, Light Traffic
B	Good, Light to Moderate Traffic
C	Moderate Traffic, with Insignificant Delay
D	Heavy Traffic, with Significant Delay
E	Severe Congestion and Delay
F	Failed, Indicated Levels Cannot be Handled

Table 2 shows the relationship between level-of-service and the performance measures as mentioned above.

Table 2 - Levels of Service for Multilane Highways

Free-Flow Speed	Criteria	LOS				
		A	B	C	D	E
60 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	40
	Average Speed (mi/h)	60.0	60.0	59.4	56.7	55.0
	Maximum volume to capacity ratio (v/c)	0.30	0.49	0.70	0.90	1.00
	Maximum service flow rate (pc/h/ln)	660	1080	1550	1980	2200
55 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	41
	Average Speed (mi/h)	55.0	55.0	54.9	52.9	51.9
	Maximum volume to capacity ratio (v/c)	0.29	0.47	0.68	0.88	1.00
	Maximum service flow rate (pc/h/ln)	600	990	1430	1850	2100
50mi/h	Maximum density (pc/mi/ln)	11	18	26	35	43
	Average Speed (mi/h)	50.0	50.0	50.0	48.9	47.5
	Maximum volume to capacity ratio (v/c)	0.28	0.45	0.65	0.86	1.00
	Maximum service flow rate (pc/h/ln)	550	900	1300	1710	2000
45 mi/h	Maximum density (pc/mi/ln)	11	18	26	35	45
	Average Speed (mi/h)	45.0	45.0	45.0	44.4	42.2
	Maximum volume to capacity ratio (v/c)	0.26	0.43	0.62	0.82	1.00
	Maximum service flow rate (pc/h/ln)	490	810	1170	1550	1900

pc/mi/lane = passenger car/mile/lane, mi/h = miles/hour, v/c = volume/capacity, pc/h/ln = passenger car/hour/lane

3. Existing (2007) Conditions

Traffic Volumes

The traffic data obtained from the County of Los Angeles did not portray any consistent growth patterns from year to year. To estimate volume in the year 2007, a growth rate of 3.58% per year was provide by the County of Los Angeles and applied to the highest peak hour volumes from 2002 to 2006. An average was taken from all 2007 projected values and used in the LOS analysis for year 2007.

Table 3 summarizes the results of the existing level of service. Figure 2 illustrate the existing peak hour traffic volumes during the AM and PM peak hour. Analysis worksheets are located in Appendix B.

Table 3 - Existing (2007) Traffic Conditions for Sierra Highway

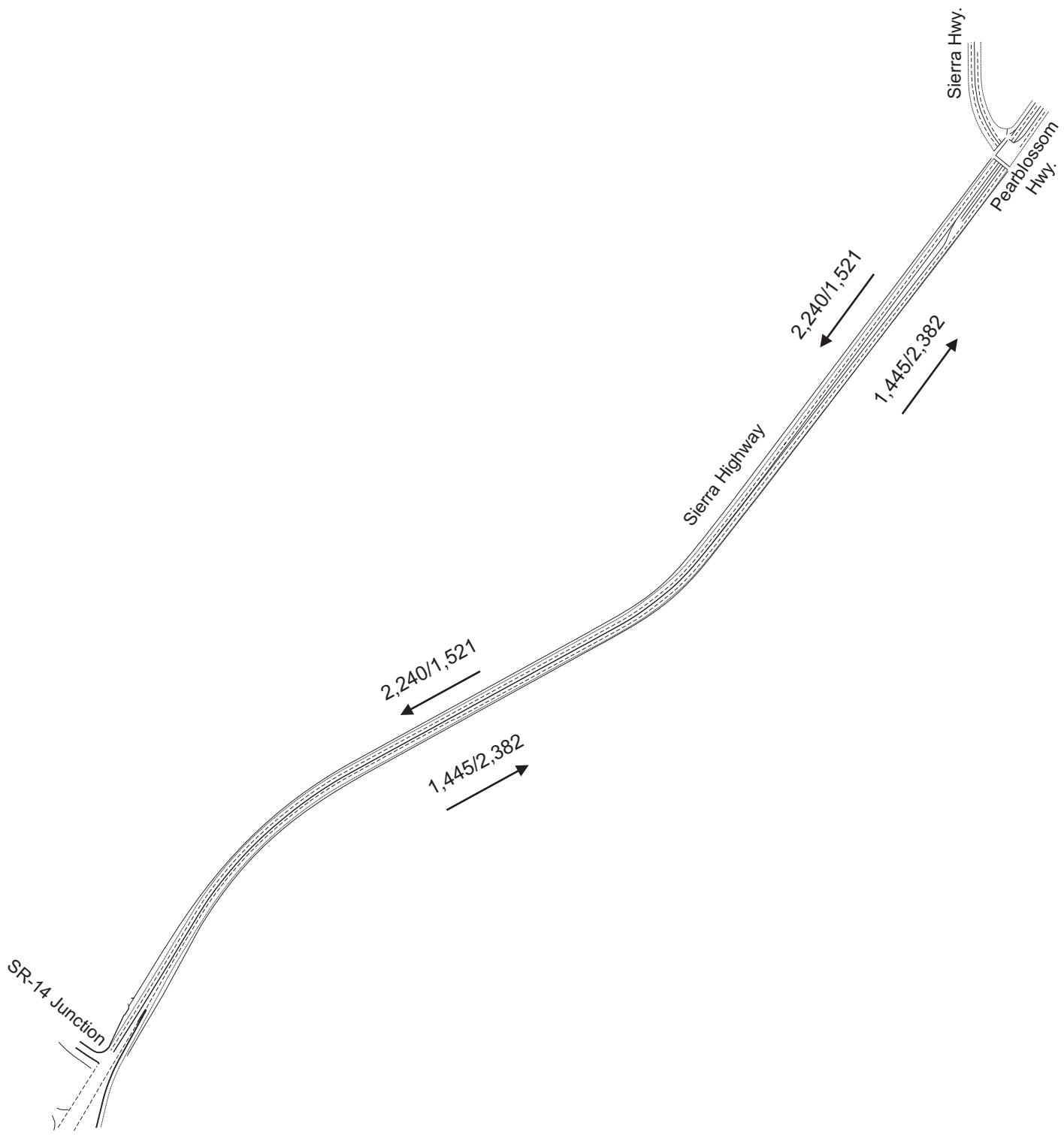
	AM Peak Hour		PM Peak hour	
	N/B	S/B	N/B	S/B
Flow rate (pc/h/ln)	906	1538	1465	1064
Average Speed (mph)	54.6	58.2	54.4	58.7
Density (pc/mi/ln)	16.6	26.4	26.9	18.1
Level of Service	B	D	D	C

pc/mi/lane = passenger car/mile/lane, mph = miles/hour, pc/h/ln = passenger car/hour/lane

As shown in Table 3, traffic traveling southbound during the AM peak hour and northbound during the PM peak hour experience a level of service D due to the high volume of traffic.

Highway Attributes

The speed survey performed in 2006 indicates an 85th percentile speed of 60-65 mph. As shown in figure 2, curve 2 has a superelevation of 3.5 – 4 percent and a radius of approximately 1,200 feet. Figure 3 illustrates existing geometries. The radar speed survey can be found in Appendix C.



LEGEND

/ # # : AM/PM Peak Hour Traffic Volumes

N

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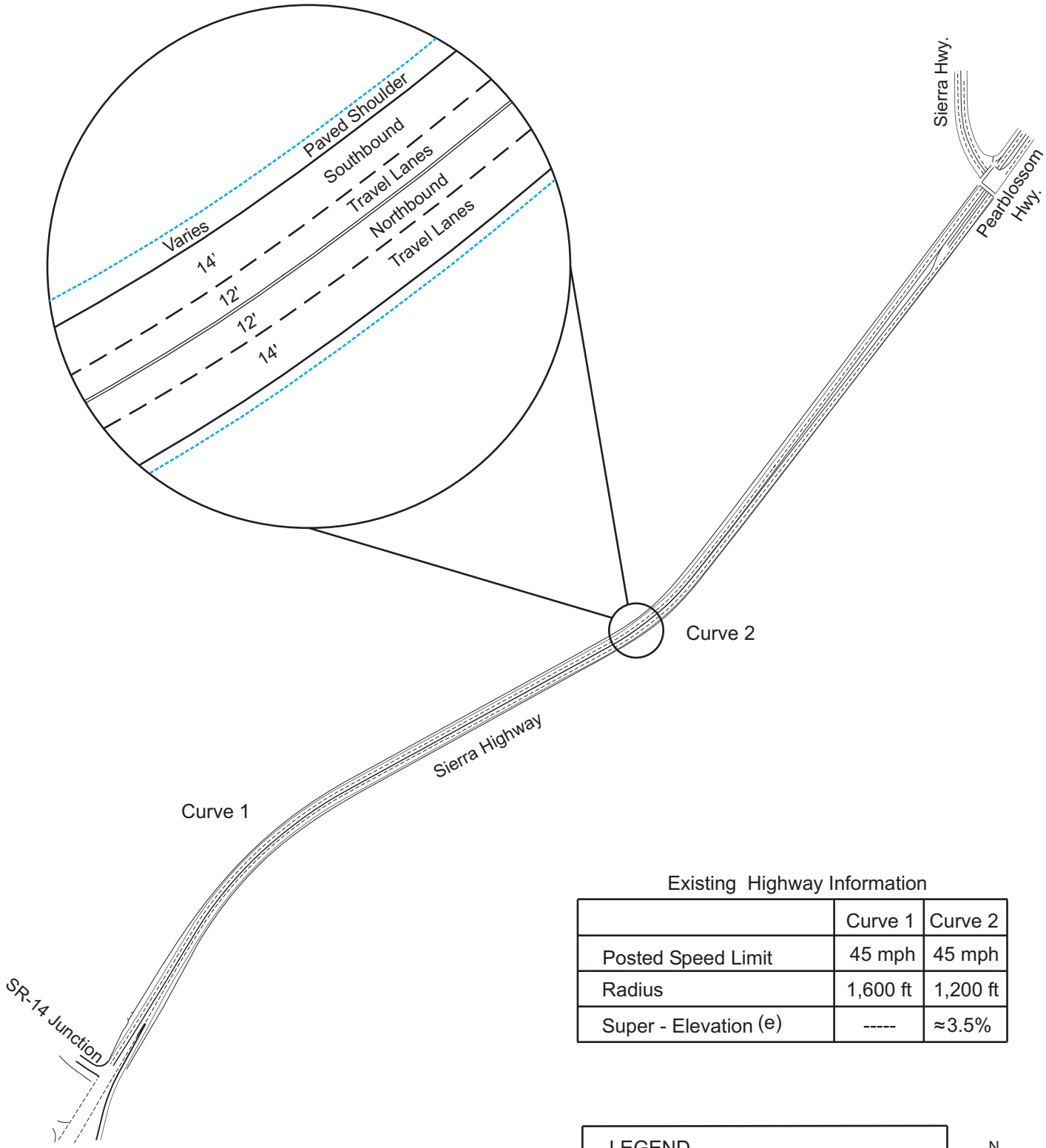
Sierra Highway (Phase 3A) Project, County of Los Angeles — Figure 2

Existing (2007) Traffic Volumes - AM/PM Peak Hour



Existing Highway Information

	Curve 1	Curve 2
Posted Speed Limit	45 mph	45 mph
Radius	1,600 ft	1,200 ft
Super - Elevation (e)	-----	≈3.5%

LEGEND

- Edge of Pavement
- Double Yellow Line
- Lane Lines

N

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Sierra Highway (Phase 3A) Project, County of Los Angeles

Figure 3

Existing Geometry & Road Configuration

4. Future (2010) Conditions

The County's proposed improvement plan includes the realignment and widening of the highway. This section will discuss two improvement alternatives that will satisfy the design speed of 65mph.

Traffic Volumes

Future (2010) peak hour highway volumes were forecasted based on calculated 2007 peak hour volumes and were adjusted to reflect anticipated growth in the project area. A growth rate of 3.58% per year was supplied by the County of Los Angeles and applied to the 2007 values to simulate traffic volumes in the year 2010. For any scenario in which project related activity is ceased, existing traffic activity associated with this project activity is removed from the forecast.

Figure 4 illustrate the future peak hour traffic volumes during the AM and PM peak hour. Analysis worksheets are located in Appendix B.

Alternative 1

The analysis in this scenario is based of on the roadway having two travel lanes in each direction along with paved shoulders and a striped median. Figure 5 illustrates the road geometry and configuration for this future alternative. Table 5 summarizes the results of the future level of service.

Table 4 - Future (2010) Traffic Conditions for Sierra Highway – Alternative 1

	AM Peak Hour		PM Peak hour	
	N/B	S/B	N/B	S/B
Flow rate (pc/h/ln)	1008	1709	1629	1183
Average Speed (mph)	60.0	58.6	59.0	60.0
Density (pc/mi/ln)	16.8	29.2	27.6	19.7
Level of Service	B	D	D	C

pc/mi/lane = passenger car/mile/lane, mph = miles/hour, pc/h/ln = passenger car/hour/lane

As shown in Table 4, traffic traveling southbound during the AM peak hour and northbound during the PM peak hour experience a level of service D due to the high volume of traffic. Alternative 1 improvements will not improve the level of service, but it will provide features comply with current design standards.

Alternative 2

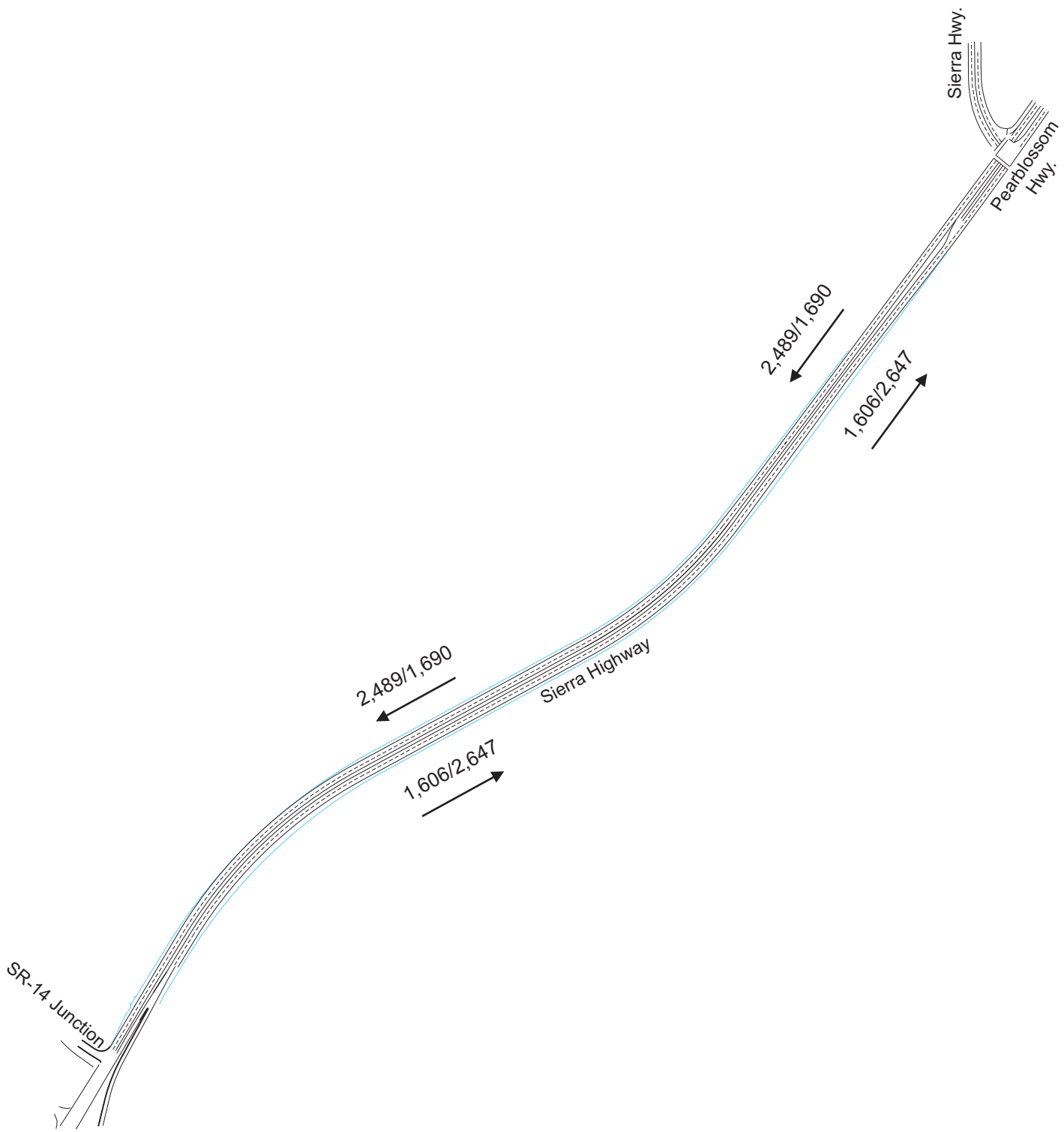
The analysis in this scenario is based of on the roadway having three travel lanes in each direction along with paved shoulders and a striped median. Figure 6 illustrates the road geometry and configuration for this future alternative. Table 5 summarizes the results of the future level of service.

Table 5 - Future (2010) Traffic Conditions for Sierra Highway – Alternative 2

	AM Peak Hour		PM Peak hour	
	N/B	**S/B**	**N/B**	**S/B**
Flow rate (pc/h/ln)	672	1139	1086	715
Average Speed (mph)	60.0	60.0	60.0	60.0
Density (pc/mi/ln)	11.2	19.0	18.1	11.9
Level of Service	B	C	C	B

pc/mi/lane = passenger car/mile/lane, mph = miles/hour, pc/h/ln = passenger car/hour/lane

As shown in Table 5, both directions of traffic along Sierra Highway have a level of service C or better during the AM and PM peak hour. This alternative generates a better level of service, however, will require right-of-way acquisition, realignment, and reconfiguration of bordering intersections.



LEGEND

/ # # : AM/PM Peak Hour Traffic Volumes

N

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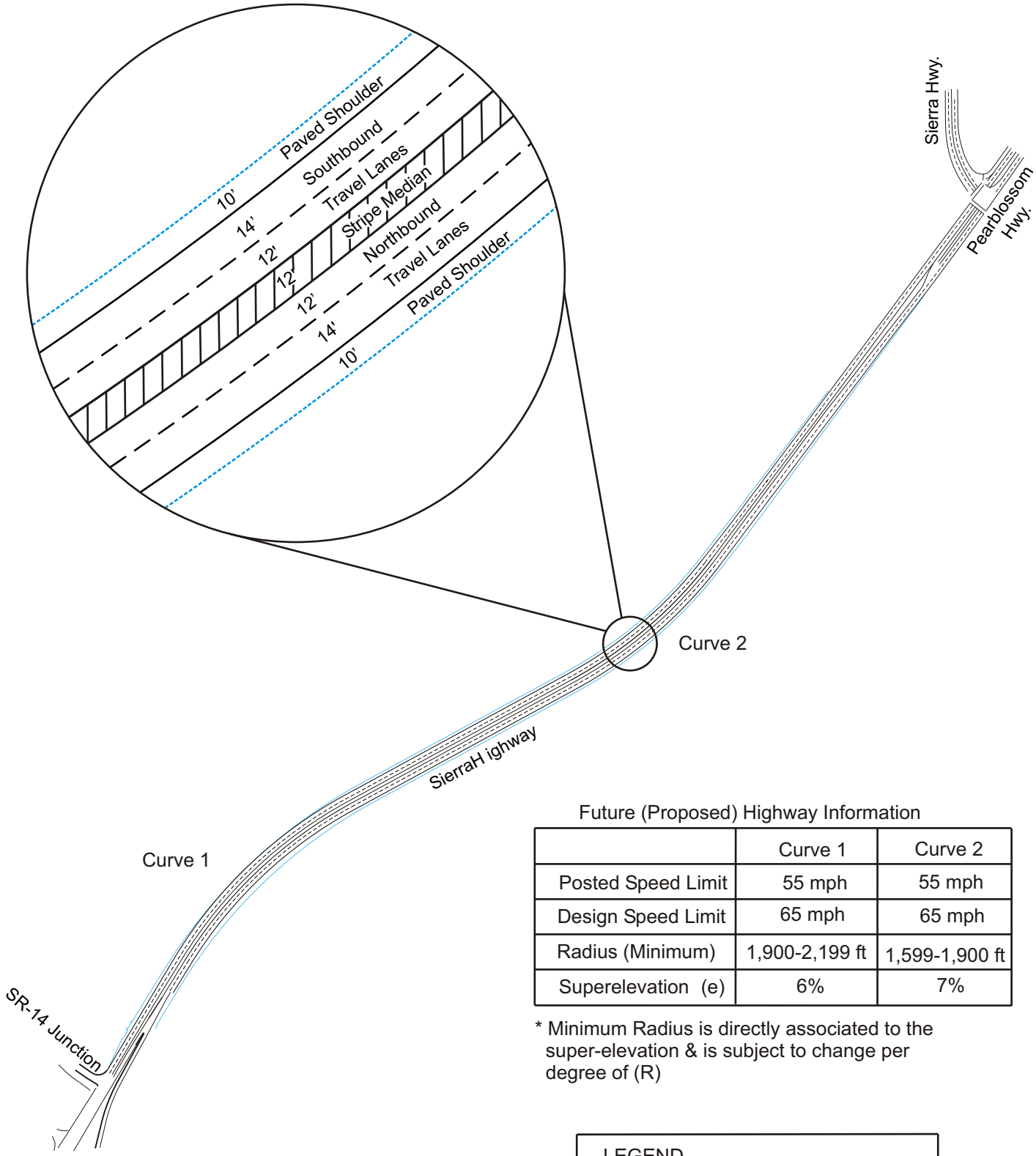
Sierra Highway (Phase 3A) Project, County of Los Angeles — Figure 4

Future (2010) Traffic Volumes - AM/PM Peak Hour



Future (Proposed) Highway Information

	Curve 1	Curve 2
Posted Speed Limit	55 mph	55 mph
Design Speed Limit	65 mph	65 mph
Radius (Minimum)	1,900-2,199 ft	1,599-1,900 ft
Superelevation (e)	6%	7%

* Minimum Radius is directly associated to the super-elevation & is subject to change per degree of (R)

LEGEND

- Edge of Pavement
- Lane Lines
- Striped Median

N

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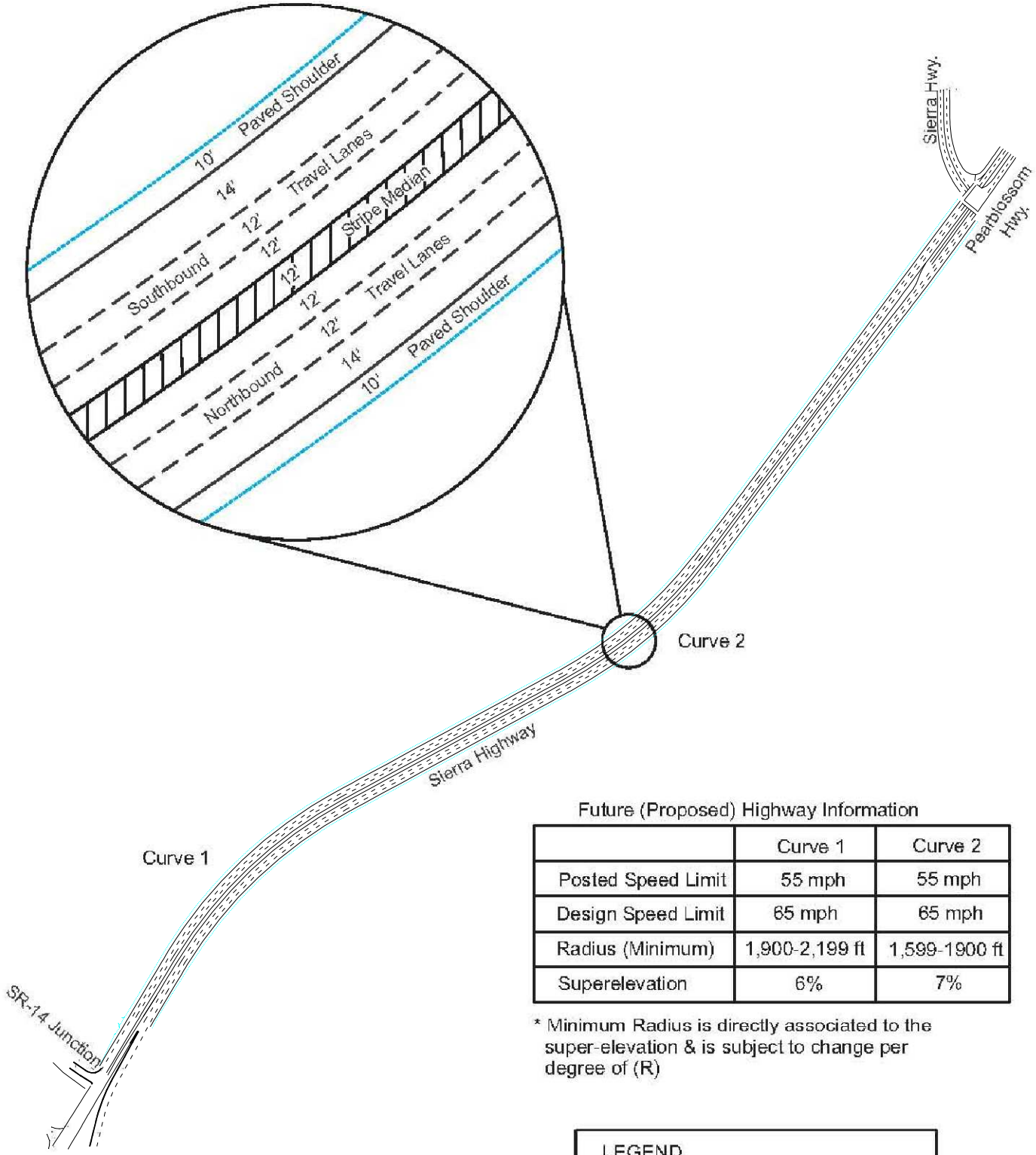
Sierra Highway (Phase 3A) Project, County of Los Angeles — Figure 5

Future Geometry & Road Configuration - Alternative 1



Future (Proposed) Highway Information

	Curve 1	Curve 2
Posted Speed Limit	55 mph	55 mph
Design Speed Limit	65 mph	65 mph
Radius (Minimum)	1,900-2,199 ft	1,599-1900 ft
Superelevation	6%	7%

* Minimum Radius is directly associated to the super-elevation & is subject to change per degree of (R)

LEGEND

- Edge of Pavement
- Lane Lines
- Striped Median

N

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Sierra Highway (Phase 3A) Project, County of Los Angeles — Figure 6

Future Geometry & Road Configuration - Alternative 2

Design Considerations

The following are some design considerations that must be reviewed before the design of the project.

Curve Radius and Superelevation

Along this segment of Sierra Highway, there are two curves, both with different degrees of superelevation and radius. To facilitate a design speed of 65 miles per hour, the radius and superelevation must satisfy certain requirements. The American Association of State Highway and Transportation Officials (AASHTO) have standards based on design speed. Table 6 illustrates AASHTO parameters for minimum curve radii. Caltran's "Highway Design Manual"(HDM) contains standards for multilane conventional highways as shown on Table 7. The full form of these tables can be found in Appendix C.

Table 6 - AASHTO Parameters

Design Speed (mph)	Maximum e (%)	Limiting Values of f	Total (e/100+f)	Calculated Radius (ft)	Rounded Radius (ft)
15	10.0	0.175	0.275	54.7	55
20	10.0	0.170	0.270	99.1	100
25	10.0	0.165	0.265	157.8	160
30	10.0	0.160	0.280	231.5	230
35	10.0	0.155	0.255	321.3	320
40	10.0	0.150	0.250	428.1	430
45	10.0	0.145	0.245	552.9	555
50	10.0	0.140	0.240	696.8	695
55	10.0	0.130	0.230	879.7	880
60	10.0	0.120	0.220	1,094.6	1,095
65	10.0	0.110	0.210	1,345.8	1,345
70	10.0	0.100	0.200	1,838.8	1,840
75	10.0	0.090	0.190	1,980.3	1,980
80	10.0	0.080	0.180	2,378.3	2,380

Table 7 - HDM Parameters

Freeways, Expressways, Multilane Conventional Highways	
For e_{max} = 0.10	
Range of Curve Radii	e Rate
Under 1,100	0.10
1,100 - 1,349	0.09
1,350 – 1,599	0.08
1,600 – 1,899	0.07
1,900 – 2,199	0.06
2,200 – 2,699	0.05
2,700 – 3,499	0.04
3,500 – 4,499	0.03
4,500 – 19,999	0.02
20,000 & Over	*

* Use standard crown section

As shown in Tables 6 and 7, the minimum radius of a horizontal curve is directly associated with the superelevation. When designing the road to meet the proposed design speed, it is recommended to meet the most conservative requirement between the AASHTO and HDM parameters.

Stopping Sight Distance

Once curve radii are determined, AASHTO guidelines must satisfy horizontal and vertical stopping sight distance requirements. Exhibit 3-57 and 3-75 in AASHTO will aid in the design of the curves to have the adequate stopping sight distance. The AASHTO exhibits can be found in Appendix C.

Appendix A
Traffic Count Data
(2002-2007)

Run Date *09/27/2007*
Run Time *11:18 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: X51
Page: 1

Count Date: 08/07/2007 12:00 a Tuesday Condition: : Location: SIERRA HIGHWAY E/O ANGELES FOREST HIGHWAY
Align Coord:

	E/B		W/B		Total			E/B		W/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	6	32	3	10	9	42	12:00 pm	34	172	46	160	80	332
12:15 am	10	31	3	8	13	39	12:15 pm	43	188	40	147	83	335
12:30 am	11	23	3	7	14	30	12:30 pm	54	194	37	159	91	353
12:45 am	5	13	1	5	6	18	12:45 pm	41	192	37	161	78	353
1:00 am	5	10	1	6	6	16	1:00 pm	50	202	33	162	83	364
1:15 am	2	8	2	7	4	15	1:15 pm	49	208	52	170	101	378
1:30 am	1	12	1	5	2	17	1:30 pm	52	207	39	170	91	377
1:45 am	2	14	2	9	4	23	1:45 pm	51	210	38	164	89	374
2:00 am	3	12	2	10	5	22	2:00 pm	56	220	41	160	97	380
2:15 am	6	17	0	14	6	31	2:15 pm	48	245	52	145	100	390
2:30 am	3	16	5	20	8	36	2:30 pm	55	321	33	130	88	451
2:45 am	0	17	3	28	3	45	2:45 pm	61	359	34	137	95	496
3:00 am	8	19	6	36	14	55	3:00 pm	81	401	26	138	107	539
3:15 am	5	15	6	72	11	87	3:15 pm	124	466	37	152	161	618
3:30 am	4	17	13	118	17	135	3:30 pm	93	479	40	163	133	642
3:45 am	2	15	11	194	13	209	3:45 pm	103	563	35	161	138	724
4:00 am	4	17	42	386	46	403	4:00 pm	146	614	40	163	186	777
4:15 am	7	20	52	627	59	647	4:15 pm	137	685	48	169	185	854
4:30 am	2	29	89	848	91	877	4:30 pm	177	765	38	158	215	923
4:45 am	4	42	203	1039	207	1081	4:45 pm	154	798	37	149	191	947
5:00 am	7	58	283	1131	290	1189	5:00 pm	217	833	46	143	263	976
5:15 am	16	84	273	1224	289	1308	5:15 pm	217	839	37	151	254	990
5:30 am	15	87	280	1337	295	1424	5:30 pm	210	839	29	148	239	987
5:45 am	20	95	295	1446	315	1541	5:45 pm	189	854	31	151	220	1005
6:00 am	33	107	376	1431	409	1538	6:00 pm	223	812	54	146	277	958
6:15 am	19	99	386	1318	405	1417	6:15 pm	217	739	34	119	251	858
6:30 am	23	114	389	1167	412	1281	6:30 pm	225	649	32	100	257	749
6:45 am	32	127	280	943	312	1070	6:45 pm	147	510	26	86	173	596
7:00 am	25	126	263	797	288	923	7:00 pm	150	433	27	88	177	521
7:15 am	34	132	235	636	269	768	7:15 pm	127	375	15	84	142	459
7:30 am	36	124	165	514	201	638	7:30 pm	86	297	18	92	104	389
7:45 am	31	122	134	427	165	549	7:45 pm	70	266	28	97	98	363
8:00 am	31	124	102	352	133	476	8:00 pm	92	233	23	82	115	315
8:15 am	26	124	113	307	139	431	8:15 pm	49	183	23	76	72	259
8:30 am	34	128	78	255	112	383	8:30 pm	55	158	23	72	78	230
8:45 am	33	128	59	218	92	346	8:45 pm	37	129	13	68	50	197
9:00 am	31	132	57	203	88	335	9:00 pm	42	110	17	65	59	175
9:15 am	30	138	61	188	91	326	9:15 pm	24	96	19	67	43	163
9:30 am	34	141	41	171	75	312	9:30 pm	26	89	19	74	45	163
9:45 am	37	142	44	169	81	311	9:45 pm	18	89	10	63	28	152
10:00 am	37	149	42	168	79	317	10:00 pm	28	90	19	59	47	149
10:15 am	33	154	44	169	77	323	10:15 pm	17	79	26	45	43	124
10:30 am	35	167	39	157	74	324	10:30 pm	26	70	8	23	34	93
10:45 am	44	163	43	165	87	328	10:45 pm	19	53	6	22	25	75
11:00 am	42	160	43	164	85	324	11:00 pm	17	50	5	22	22	72
11:15 am	46	152	32	167	78	319	11:15 pm	8		4		12	
11:30 am	31	149	47	175	78	324	11:30 pm	9		7		16	
11:45 am	41	172	42	165	83	337	11:45 pm	16		6		22	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	11198	5:45 am	1541	5:45 pm	1005
E/B	5116	11:45 am	172	5:45 pm	854
W/B	6082	5:45 am	1446	1:15 pm	170

Run Date *09/27/2007*
Run Time *11:19 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: W38-W39
Page: 1

Count Date: 07/30/2007 12:00 a Monday Condition: : Location: SIERRA HIGHWAY E/O ANGELES FOREST HIGHWAY
Align Coord:

	E/B		W/B		Total			E/B		W/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	10	33	0	12	10	45	12:00 pm	36	179	51	168	87	347
12:15 am	9	28	5	14	14	42	12:15 pm	48	194	41	164	89	358
12:30 am	9	24	4	9	13	33	12:30 pm	49	189	37	149	86	338
12:45 am	5	17	3	7	8	24	12:45 pm	46	198	39	163	85	361
1:00 am	5	15	2	9	7	24	1:00 pm	51	215	47	162	98	377
1:15 am	5	15	0	7	5	22	1:15 pm	43	235	26	154	69	389
1:30 am	2	12	2	9	4	21	1:30 pm	58	260	51	160	109	420
1:45 am	3	12	5	7	8	19	1:45 pm	63	262	38	142	101	404
2:00 am	5	10	0	3	5	13	2:00 pm	71	271	39	147	110	418
2:15 am	2	6	2	10	4	16	2:15 pm	68	277	32	143	100	420
2:30 am	2	8	0	16	2	24	2:30 pm	60	307	33	147	93	454
2:45 am	1	10	1	26	2	36	2:45 pm	72	349	43	152	115	501
3:00 am	1	14	7	47	8	61	3:00 pm	77	379	35	147	112	526
3:15 am	4	21	8	93	12	114	3:15 pm	98	467	36	153	134	620
3:30 am	4	26	10	134	14	160	3:30 pm	102	501	38	148	140	649
3:45 am	5	29	22	239	27	268	3:45 pm	102	589	38	155	140	744
4:00 am	8	29	53	453	61	482	4:00 pm	165	674	41	153	206	827
4:15 am	9	34	49	676	58	710	4:15 pm	132	708	31	144	163	852
4:30 am	7	36	115	914	122	950	4:30 pm	190	881	45	144	235	1025
4:45 am	5	41	236	1051	241	1092	4:45 pm	187	958	36	126	223	1084
5:00 am	13	54	276	1094	289	1148	5:00 pm	199	987	32	126	231	1113
5:15 am	11	62	287	1098	298	1160	5:15 pm	305	977	31	124	336	1101
5:30 am	12	72	252	1043	264	1115	5:30 pm	267	848	27	118	294	966
5:45 am	18	94	279	1025	297	1119	5:45 pm	216	793	36	122	252	915
6:00 am	21	105	280	976	301	1081	6:00 pm	189	709	30	114	219	823
6:15 am	21	109	232	916	253	1025	6:15 pm	176	633	25	109	201	742
6:30 am	34	115	234	847	268	962	6:30 pm	212	577	31	105	243	682
6:45 am	29	121	230	768	259	889	6:45 pm	132	436	28	110	160	546
7:00 am	25	122	220	667	245	789	7:00 pm	113	409	25	102	138	511
7:15 am	27	125	163	541	190	666	7:15 pm	120	380	21	96	141	476
7:30 am	40	135	155	461	195	596	7:30 pm	71	322	36	106	107	428
7:45 am	30	130	129	376	159	506	7:45 pm	105	306	20	87	125	393
8:00 am	28	140	94	320	122	460	8:00 pm	84	248	19	93	103	341
8:15 am	37	135	83	283	120	418	8:15 pm	62	219	31	91	93	310
8:30 am	35	123	70	257	105	380	8:30 pm	55	191	17	80	72	271
8:45 am	40	122	73	244	113	366	8:45 pm	47	163	26	85	73	248
9:00 am	23	108	57	192	80	300	9:00 pm	55	138	17	69	72	207
9:15 am	25	114	57	180	82	294	9:15 pm	34	111	20	66	54	177
9:30 am	34	125	57	158	91	283	9:30 pm	27	96	22	57	49	153
9:45 am	26	129	21	143	47	272	9:45 pm	22	101	10	47	32	148
10:00 am	29	147	45	163	74	310	10:00 pm	28	90	14	44	42	134
10:15 am	36	155	35	159	71	314	10:15 pm	19	78	11	35	30	113
10:30 am	38	156	42	170	80	326	10:30 pm	32	74	12	26	44	100
10:45 am	44	156	41	168	85	324	10:45 pm	11	50	7	19	18	69
11:00 am	37	151	41	176	78	327	11:00 pm	16	50	5	17	21	67
11:15 am	37	150	46	186	83	336	11:15 pm	15		2		17	
11:30 am	38	161	40	181	78	342	11:30 pm	8		5		13	
11:45 am	39	172	49	178	88	350	11:45 pm	11		5		16	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	10731	5:15 am	1160	5:00 pm	1113
E/B	5277	11:45 am	172	5:00 pm	987
W/B	5454	5:15 am	1098	12:00 pm	168

Run Date *09/27/2007*
Run Time *11:19 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: W38-W39
Page: 1

Count Date: 07/31/2007 12:00 a Tuesday Condition: : Location: SIERRA HIGHWAY E/O ANGELES FOREST HIGHWAY
Align Coord:

	E/B		W/B		Total			E/B		W/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	10	33	0	12	10	45	12:00 pm	42	185	44	139	86	324
12:15 am	9	28	5	14	14	42	12:15 pm	53	197	34	121	87	318
12:30 am	9	24	4	9	13	33	12:30 pm	40	197	32	131	72	328
12:45 am	5	17	3	7	8	24	12:45 pm	50	198	29	143	79	341
1:00 am	5	15	2	9	7	24	1:00 pm	54	195	26	165	80	360
1:15 am	5	15	0	7	5	22	1:15 pm	53	187	44	182	97	369
1:30 am	2	12	2	9	4	21	1:30 pm	41	192	44	172	85	364
1:45 am	3	12	5	7	8	19	1:45 pm	47	226	51	164	98	390
2:00 am	5	10	0	3	5	13	2:00 pm	46	255	43	147	89	402
2:15 am	2	6	2	10	4	16	2:15 pm	58	301	34	136	92	437
2:30 am	2	8	0	16	2	24	2:30 pm	75	340	36	137	111	477
2:45 am	1	10	1	26	2	36	2:45 pm	76	399	34	128	110	527
3:00 am	1	14	7	47	8	61	3:00 pm	92	443	32	129	124	572
3:15 am	4	21	8	93	12	114	3:15 pm	97	500	35	140	132	640
3:30 am	4	26	10	134	14	160	3:30 pm	134	570	27	140	161	710
3:45 am	5	29	22	239	27	268	3:45 pm	120	609	35	150	155	759
4:00 am	8	29	53	453	61	482	4:00 pm	149	662	43	150	192	812
4:15 am	9	34	49	676	58	710	4:15 pm	167	681	35	146	202	827
4:30 am	7	36	115	914	122	950	4:30 pm	173	786	37	147	210	933
4:45 am	5	41	236	1051	241	1092	4:45 pm	173	816	35	147	208	963
5:00 am	13	54	276	1094	289	1148	5:00 pm	168	824	39	148	207	972
5:15 am	11	62	287	1098	298	1160	5:15 pm	272	869	36	146	308	1015
5:30 am	12	72	252	1043	264	1115	5:30 pm	203	800	37	148	240	948
5:45 am	18	94	279	1025	297	1119	5:45 pm	181	766	36	145	217	911
6:00 am	21	105	280	976	301	1081	6:00 pm	213	785	37	144	250	929
6:15 am	21	109	232	916	253	1025	6:15 pm	203	685	38	143	241	828
6:30 am	34	115	234	847	268	962	6:30 pm	169	622	34	130	203	752
6:45 am	29	121	230	768	259	889	6:45 pm	200	539	35	120	235	659
7:00 am	25	122	220	667	245	789	7:00 pm	113	417	36	100	149	517
7:15 am	27	125	163	541	190	666	7:15 pm	140	385	25	81	165	466
7:30 am	40	135	155	461	195	596	7:30 pm	86	314	24	79	110	393
7:45 am	30	130	129	376	159	506	7:45 pm	78	273	15	76	93	349
8:00 am	28	140	94	320	122	460	8:00 pm	81	265	17	85	98	350
8:15 am	37	135	83	283	120	418	8:15 pm	69	237	23	85	92	322
8:30 am	35	123	70	257	105	380	8:30 pm	45	195	21	75	66	270
8:45 am	40	122	73	244	113	366	8:45 pm	70	167	24	73	94	240
9:00 am	23	108	57	192	80	300	9:00 pm	53	131	17	61	70	192
9:15 am	25	109	57	177	82	286	9:15 pm	27	129	13	60	40	189
9:30 am	34	117	57	169	91	286	9:30 pm	17	129	19	56	36	185
9:45 am	26	114	21	150	47	264	9:45 pm	34	128	12	52	46	180
10:00 am	24	104	42	172	66	276	10:00 pm	51	127	16	50	67	177
10:15 am	33	127	49	158	82	285	10:15 pm	27	102	9	37	36	139
10:30 am	31	130	38	145	69	275	10:30 pm	16	90	15	36	31	126
10:45 am	16	139	43	157	59	296	10:45 pm	33	92	10	30	43	122
11:00 am	47	174	28	147	75	321	11:00 pm	26	71	3	23	29	94
11:15 am	36	169	36	163	72	332	11:15 pm	15		8		23	
11:30 am	40	186	50	161	90	347	11:30 pm	18		9		27	
11:45 am	51	186	33	143	84	329	11:45 pm	12		3		15	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	10701	5:15 am	1160	5:15 pm	1015
E/B	5268	11:30 am	186	5:15 pm	869
W/B	5433	5:15 am	1098	1:15 pm	182

Run Date *09/27/2007*
Run Time *11:19 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: F25
Page: 1

Count Date: 03/08/2005 12:00 a Tuesday Condition: Location: SIERRA HIGHWAY E/O ANGELES FOREST HIGHWAY
Align Coord:

	E/B		W/B		Total			E/B		W/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	5	25	2	8	7	33	12:00 pm	38	179	39	158	77	337
12:15 am	11	28	3	7	14	35	12:15 pm	51	186	46	157	97	343
12:30 am	5	20	1	5	6	25	12:30 pm	42	203	32	163	74	366
12:45 am	4	17	2	6	6	23	12:45 pm	48	232	41	190	89	422
1:00 am	8	18	1	5	9	23	1:00 pm	45	245	38	210	83	455
1:15 am	3	13	1	6	4	19	1:15 pm	68	257	52	209	120	466
1:30 am	2	13	2	7	4	20	1:30 pm	71	244	59	212	130	456
1:45 am	5	13	1	5	6	18	1:45 pm	61	236	61	198	122	434
2:00 am	3	9	2	6	5	15	2:00 pm	57	236	37	181	94	417
2:15 am	3	10	2	8	5	18	2:15 pm	55	266	55	190	110	456
2:30 am	2	8	0	8	2	16	2:30 pm	63	331	45	200	108	531
2:45 am	1	8	2	18	3	26	2:45 pm	61	393	44	200	105	593
3:00 am	4	10	4	38	8	48	3:00 pm	87	458	46	199	133	657
3:15 am	1	14	2	96	3	110	3:15 pm	120	508	65	191	185	699
3:30 am	2	25	10	182	12	207	3:30 pm	125	551	45	172	170	723
3:45 am	3	29	22	344	25	373	3:45 pm	126	608	43	173	169	781
4:00 am	8	41	62	544	70	585	4:00 pm	137	680	38	186	175	866
4:15 am	12	42	88	888	100	930	4:15 pm	163	761	46	196	209	957
4:30 am	6	50	172	1209	178	1259	4:30 pm	182	909	46	190	228	1099
4:45 am	15	66	222	1412	237	1478	4:45 pm	198	958	56	188	254	1146
5:00 am	9	67	406	1561	415	1628	5:00 pm	218	1021	48	171	266	1192
5:15 am	20	92	409	1455	429	1547	5:15 pm	311	1001	40	167	351	1168
5:30 am	22	98	375	1303	397	1401	5:30 pm	231	872	44	169	275	1041
5:45 am	16	126	371	1158	387	1284	5:45 pm	261	872	39	159	300	1031
6:00 am	34	141	300	1014	334	1155	6:00 pm	198	770	44	150	242	920
6:15 am	26	155	257	947	283	1102	6:15 pm	182	739	42	148	224	887
6:30 am	50	178	230	858	280	1036	6:30 pm	231	646	34	126	265	772
6:45 am	31	158	227	788	258	946	6:45 pm	159	479	30	114	189	593
7:00 am	48	170	233	681	281	851	7:00 pm	167	376	42	114	209	490
7:15 am	49	166	168	577	217	743	7:15 pm	89	305	20	89	109	394
7:30 am	30	143	160	510	190	653	7:30 pm	64	250	22	86	86	336
7:45 am	43	162	120	428	163	590	7:45 pm	56	211	30	75	86	286
8:00 am	44	159	129	363	173	522	8:00 pm	96	177	17	65	113	242
8:15 am	26	160	101	289	127	449	8:15 pm	34	135	17	74	51	209
8:30 am	49	181	78	235	127	416	8:30 pm	25	134	11	75	36	209
8:45 am	40	174	55	203	95	377	8:45 pm	22	135	20	75	42	210
9:00 am	45	173	55	182	100	355	9:00 pm	54	131	26	72	80	203
9:15 am	47	179	47	175	94	354	9:15 pm	33	97	18	55	51	152
9:30 am	42	173	46	184	88	357	9:30 pm	26	78	11	40	37	118
9:45 am	39	177	34	186	73	363	9:45 pm	18	71	17	36	35	107
10:00 am	51	188	48	192	99	380	10:00 pm	20	65	9	25	29	90
10:15 am	41	188	56	180	97	368	10:15 pm	14	53	3	23	17	76
10:30 am	46	185	48	165	94	350	10:30 pm	19	58	7	22	26	80
10:45 am	50	184	40	165	90	349	10:45 pm	12	47	6	18	18	65
11:00 am	51	171	36	169	87	340	11:00 pm	8	42	7	17	15	59
11:15 am	38	158	41	172	79	330	11:15 pm	19		2		21	
11:30 am	45	171	48	177	93	348	11:30 pm	8		3		11	
11:45 am	37	168	44	161	81	329	11:45 pm	7		5		12	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	11863	5:00 am	1628	5:00 pm	1192
E/B	5552	10:00 am	188	5:00 pm	1021
W/B	6311	5:00 am	1561	1:30 pm	212

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: S53-S57
Page: 1

Count Date: 06/13/2007 12:00 a Wednesday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	130	419	26	92	156	511	12:00 pm	119	577	124	560	243	1137
12:15 am	93	371	20	93	113	464	12:15 pm	133	638	135	571	268	1209
12:30 am	102	339	29	93	131	432	12:30 pm	153	676	169	573	322	1249
12:45 am	94	293	17	87	111	380	12:45 pm	172	672	132	562	304	1234
1:00 am	82	240	27	97	109	337	1:00 pm	180	681	135	548	315	1229
1:15 am	61	232	20	107	81	339	1:15 pm	171	662	137	549	308	1211
1:30 am	56	213	23	128	79	341	1:30 pm	149	691	158	572	307	1263
1:45 am	41	203	27	130	68	333	1:45 pm	181	784	118	549	299	1333
2:00 am	74	203	37	156	111	359	2:00 pm	161	813	136	538	297	1351
2:15 am	42	185	41	182	83	367	2:15 pm	200	897	160	511	360	1408
2:30 am	46	174	25	226	71	400	2:30 pm	242	936	135	446	377	1382
2:45 am	41	177	53	348	94	525	2:45 pm	210	931	107	389	317	1320
3:00 am	56	186	63	473	119	659	3:00 pm	245	971	109	382	354	1353
3:15 am	31	166	85	670	116	836	3:15 pm	239	956	95	366	334	1322
3:30 am	49	178	147	869	196	1047	3:30 pm	237	957	78	338	315	1295
3:45 am	50	174	178	956	228	1130	3:45 pm	250	982	100	320	350	1302
4:00 am	36	160	260	1003	296	1163	4:00 pm	230	1049	93	278	323	1327
4:15 am	43	165	284	1014	327	1179	4:15 pm	240	1090	67	243	307	1333
4:30 am	45	163	234	1012	279	1175	4:30 pm	262	1127	60	250	322	1377
4:45 am	36	173	225	1032	261	1205	4:45 pm	317	1150	58	256	375	1406
5:00 am	41	202	271	1069	312	1271	5:00 pm	271	1131	58	245	329	1376
5:15 am	41	234	282	1008	323	1242	5:15 pm	277	1196	74	237	351	1433
5:30 am	55	252	254	911	309	1163	5:30 pm	285	1208	66	223	351	1431
5:45 am	65	271	262	896	327	1167	5:45 pm	298	1176	47	203	345	1379
6:00 am	73	295	210	839	283	1134	6:00 pm	336	1208	50	217	386	1425
6:15 am	59	306	185	807	244	1113	6:15 pm	289	1194	60	222	349	1416
6:30 am	74	335	239	828	313	1163	6:30 pm	253	1204	46	236	299	1440
6:45 am	89	369	205	835	294	1204	6:45 pm	330	1260	61	253	391	1513
7:00 am	84	398	178	810	262	1208	7:00 pm	322	1173	55	251	377	1424
7:15 am	88	426	206	826	294	1252	7:15 pm	299	1102	74	271	373	1373
7:30 am	108	457	246	848	354	1305	7:30 pm	309	1032	63	269	372	1301
7:45 am	118	448	180	790	298	1238	7:45 pm	243	972	59	275	302	1247
8:00 am	112	458	194	805	306	1263	8:00 pm	251	959	75	307	326	1266
8:15 am	119	456	228	800	347	1256	8:15 pm	229	919	72	301	301	1220
8:30 am	99	453	188	715	287	1168	8:30 pm	249	874	69	326	318	1200
8:45 am	128	450	195	714	323	1164	8:45 pm	230	795	91	323	321	1118
9:00 am	110	446	189	662	299	1108	9:00 pm	211	792	69	320	280	1112
9:15 am	116	440	143	627	259	1067	9:15 pm	184	784	97	328	281	1112
9:30 am	96	457	187	647	283	1104	9:30 pm	170	785	66	299	236	1084
9:45 am	124	477	143	611	267	1088	9:45 pm	227	774	88	297	315	1071
10:00 am	104	486	154	643	258	1129	10:00 pm	203	726	77	259	280	985
10:15 am	133	528	163	661	296	1189	10:15 pm	185	720	68	223	253	943
10:30 am	116	518	151	673	267	1191	10:30 pm	159	675	64	202	223	877
10:45 am	133	555	175	653	308	1208	10:45 pm	179	671	50	188	229	859
11:00 am	146	547	172	643	318	1190	11:00 pm	197	628	41	167	238	795
11:15 am	123	520	175	595	298	1115	11:15 pm	140		47		187	
11:30 am	153	530	131	555	284	1085	11:30 pm	155		50		205	
11:45 am	125	530	165	593	290	1123	11:45 pm	136		29		165	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	26112	7:30 am	1305	6:45 pm	1513
N/B	14748	10:45 am	555	6:45 pm	1260
S/B	11364	5:00 am	1069	12:30 pm	573

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: S53-S57
Page: 1

Count Date: 06/14/2007 12:00 a Thursday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	130	419	26	92	156	511	12:00 pm	156	623	144	586	300	1209
12:15 am	93	371	20	93	113	464	12:15 pm	122	628	160	583	282	1211
12:30 am	102	339	29	93	131	432	12:30 pm	165	670	142	566	307	1236
12:45 am	94	293	17	87	111	380	12:45 pm	180	651	140	552	320	1203
1:00 am	82	240	27	97	109	337	1:00 pm	161	640	141	535	302	1175
1:15 am	61	232	20	107	81	339	1:15 pm	164	631	143	497	307	1128
1:30 am	56	213	23	128	79	341	1:30 pm	146	661	128	479	274	1140
1:45 am	41	203	27	130	68	333	1:45 pm	169	725	123	474	292	1199
2:00 am	74	203	37	156	111	359	2:00 pm	152	765	103	458	255	1223
2:15 am	42	185	41	182	83	367	2:15 pm	194	873	125	473	319	1346
2:30 am	46	174	25	226	71	400	2:30 pm	210	904	123	448	333	1352
2:45 am	41	177	53	348	94	525	2:45 pm	209	906	107	417	316	1323
3:00 am	56	186	63	473	119	659	3:00 pm	260	962	118	416	378	1378
3:15 am	31	166	85	670	116	836	3:15 pm	225	940	100	385	325	1325
3:30 am	49	178	147	869	196	1047	3:30 pm	212	983	92	362	304	1345
3:45 am	50	174	178	956	228	1130	3:45 pm	265	1049	106	352	371	1401
4:00 am	36	160	260	1003	296	1163	4:00 pm	238	1047	87	311	325	1358
4:15 am	43	165	284	1014	327	1179	4:15 pm	268	1073	77	284	345	1357
4:30 am	45	163	234	1012	279	1175	4:30 pm	278	1113	82	277	360	1390
4:45 am	36	173	225	1032	261	1205	4:45 pm	263	1131	65	252	328	1383
5:00 am	41	202	271	1069	312	1271	5:00 pm	264	1161	60	243	324	1404
5:15 am	41	234	282	1008	323	1242	5:15 pm	308	1199	70	243	378	1442
5:30 am	55	252	254	911	309	1163	5:30 pm	296	1218	57	252	353	1470
5:45 am	65	271	262	896	327	1167	5:45 pm	293	1291	56	243	349	1534
6:00 am	73	295	210	839	283	1134	6:00 pm	302	1365	60	250	362	1615
6:15 am	59	306	185	807	244	1113	6:15 pm	327	1366	79	271	406	1637
6:30 am	74	335	239	828	313	1163	6:30 pm	369	1387	48	241	417	1628
6:45 am	89	369	205	835	294	1204	6:45 pm	367	1327	63	260	430	1587
7:00 am	84	398	178	810	262	1208	7:00 pm	303	1252	81	274	384	1526
7:15 am	88	426	206	826	294	1252	7:15 pm	348	1226	49	268	397	1494
7:30 am	108	457	246	848	354	1305	7:30 pm	309	1156	67	309	376	1465
7:45 am	118	448	180	790	298	1238	7:45 pm	292	1087	77	311	369	1398
8:00 am	112	458	194	805	306	1263	8:00 pm	277	1057	75	312	352	1369
8:15 am	119	456	228	800	347	1256	8:15 pm	278	1031	90	321	368	1352
8:30 am	99	453	188	715	287	1168	8:30 pm	240	983	69	324	309	1307
8:45 am	128	450	195	714	323	1164	8:45 pm	262	943	78	328	340	1271
9:00 am	110	446	189	662	299	1108	9:00 pm	251	914	84	323	335	1237
9:15 am	116	440	143	627	259	1067	9:15 pm	230	858	93	318	323	1176
9:30 am	96	457	187	647	283	1104	9:30 pm	200	826	73	291	273	1117
9:45 am	124	477	143	611	267	1088	9:45 pm	233	801	73	254	306	1055
10:00 am	104	486	154	643	258	1129	10:00 pm	195	712	79	251	274	963
10:15 am	133	528	163	661	296	1189	10:15 pm	198	709	66	236	264	945
10:30 am	116	518	151	673	267	1191	10:30 pm	175	686	36	217	211	903
10:45 am	133	555	175	653	308	1208	10:45 pm	144	658	70	220	214	878
11:00 am	146	547	172	643	318	1190	11:00 pm	192	652	64	182	256	834
11:15 am	123	557	175	615	298	1172	11:15 pm	175		47		222	
11:30 am	153	556	131	600	284	1156	11:30 pm	147		39		186	
11:45 am	125	568	165	611	290	1179	11:45 pm	138		32		170	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	26623	7:30 am	1305	6:15 pm	1637
N/B	15190	11:45 am	568	6:30 pm	1387
S/B	11433	5:00 am	1069	12:00 pm	586

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: S53-S57
Page: 1

Count Date: 06/15/2007 12:00 a Friday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	124	423	36	128	160	551	12:00 pm	159	651	159	549	318	1200
12:15 am	114	361	38	110	152	471	12:15 pm	185	677	115	535	300	1212
12:30 am	101	308	30	91	131	399	12:30 pm	175	637	131	564	306	1201
12:45 am	84	263	24	82	108	345	12:45 pm	132	669	144	565	276	1234
1:00 am	62	233	18	87	80	320	1:00 pm	185	737	145	523	330	1260
1:15 am	61	214	19	94	80	308	1:15 pm	145	768	144	509	289	1277
1:30 am	56	199	21	109	77	308	1:30 pm	207	828	132	482	339	1310
1:45 am	54	188	29	128	83	316	1:45 pm	200	829	102	455	302	1284
2:00 am	43	181	25	154	68	335	2:00 pm	216	865	131	464	347	1329
2:15 am	46	171	34	192	80	363	2:15 pm	205	906	117	426	322	1332
2:30 am	45	165	40	253	85	418	2:30 pm	208	956	105	384	313	1340
2:45 am	47	167	55	339	102	506	2:45 pm	236	989	111	363	347	1352
3:00 am	33	174	63	456	96	630	3:00 pm	257	1032	93	361	350	1393
3:15 am	40	193	95	662	135	855	3:15 pm	255	1051	75	361	330	1412
3:30 am	47	186	126	871	173	1057	3:30 pm	241	1081	84	362	325	1443
3:45 am	54	182	172	958	226	1140	3:45 pm	279	1090	109	352	388	1442
4:00 am	52	165	269	1105	321	1270	4:00 pm	276	1030	93	336	369	1366
4:15 am	33	153	304	1080	337	1233	4:15 pm	285	965	76	353	361	1318
4:30 am	43	171	213	1078	256	1249	4:30 pm	250	937	74	394	324	1331
4:45 am	37	211	319	1158	356	1369	4:45 pm	219	997	93	367	312	1364
5:00 am	40	242	244	1096	284	1338	5:00 pm	211	1094	110	334	321	1428
5:15 am	51	258	302	1091	353	1349	5:15 pm	257	1208	117	271	374	1479
5:30 am	83	274	293	1034	376	1308	5:30 pm	310	1273	47	213	357	1486
5:45 am	68	278	257	1007	325	1285	5:45 pm	316	1220	60	218	376	1438
6:00 am	56	295	239	928	295	1223	6:00 pm	325	1178	47	221	372	1399
6:15 am	67	338	245	932	312	1270	6:15 pm	322	1172	59	229	381	1401
6:30 am	87	376	266	914	353	1290	6:30 pm	257	1143	52	211	309	1354
6:45 am	85	395	178	850	263	1245	6:45 pm	274	1247	63	232	337	1479
7:00 am	99	437	243	855	342	1292	7:00 pm	319	1254	55	231	374	1485
7:15 am	105	467	227	782	332	1249	7:15 pm	293	1195	41	247	334	1442
7:30 am	106	489	202	717	308	1206	7:30 pm	361	1194	73	273	434	1467
7:45 am	127	482	183	679	310	1161	7:45 pm	281	1136	62	283	343	1419
8:00 am	129	470	170	658	299	1128	8:00 pm	260	1119	71	281	331	1400
8:15 am	127	456	162	680	289	1136	8:15 pm	292	1136	67	288	359	1424
8:30 am	99	468	164	688	263	1156	8:30 pm	303	1142	83	293	386	1435
8:45 am	115	496	162	728	277	1224	8:45 pm	264	1100	60	287	324	1387
9:00 am	115	532	192	767	307	1299	9:00 pm	277	1082	78	315	355	1397
9:15 am	139	543	170	741	309	1284	9:15 pm	298	1045	72	322	370	1367
9:30 am	127	540	204	728	331	1268	9:30 pm	261	981	77	325	338	1306
9:45 am	151	541	201	710	352	1251	9:45 pm	246	953	88	312	334	1265
10:00 am	126	524	166	661	292	1185	10:00 pm	240	931	85	281	325	1212
10:15 am	136	533	157	643	293	1176	10:15 pm	234	905	75	249	309	1154
10:30 am	128	529	186	656	314	1185	10:30 pm	233	874	64	227	297	1101
10:45 am	134	549	152	619	286	1168	10:45 pm	224	828	57	204	281	1032
11:00 am	135	559	148	602	283	1161	11:00 pm	214	807	53	195	267	1002
11:15 am	132	583	170	613	302	1196	11:15 pm	203		53		256	
11:30 am	148	636	149	558	297	1194	11:30 pm	187		41		228	
11:45 am	144	663	135	540	279	1203	11:45 pm	203		48		251	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	27603	4:45 am	1369	5:30 pm	1486
N/B	16015	11:45 am	663	5:30 pm	1273
S/B	11588	4:45 am	1158	12:45 pm	565

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: S53-S57
Page: 1

Count Date: 06/16/2007 12:00 a Saturday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	162	594	46	141	208	735	12:00 pm	158	720	160	590	318	1310
12:15 am	168	531	35	123	203	654	12:15 pm	176	738	140	566	316	1304
12:30 am	126	470	32	115	158	585	12:30 pm	173	750	143	529	316	1279
12:45 am	138	455	28	107	166	562	12:45 pm	213	761	147	520	360	1281
1:00 am	99	396	28	106	127	502	1:00 pm	176	733	136	515	312	1248
1:15 am	107	365	27	110	134	475	1:15 pm	188	750	103	485	291	1235
1:30 am	111	320	24	106	135	426	1:30 pm	184	760	134	501	318	1261
1:45 am	79	266	27	117	106	383	1:45 pm	185	772	142	477	327	1249
2:00 am	68	246	32	127	100	373	2:00 pm	193	821	106	464	299	1285
2:15 am	62	238	23	137	85	375	2:15 pm	198	848	119	472	317	1320
2:30 am	57	225	35	164	92	389	2:30 pm	196	854	110	470	306	1324
2:45 am	59	217	37	190	96	407	2:45 pm	234	866	129	483	363	1349
3:00 am	60	192	42	234	102	426	3:00 pm	220	856	114	450	334	1306
3:15 am	49	159	50	310	99	469	3:15 pm	204	863	117	450	321	1313
3:30 am	49	144	61	381	110	525	3:30 pm	208	891	123	449	331	1340
3:45 am	34	137	81	442	115	579	3:45 pm	224	916	96	432	320	1348
4:00 am	27	149	118	539	145	688	4:00 pm	227	920	114	443	341	1363
4:15 am	34	165	121	630	155	795	4:15 pm	232	944	116	453	348	1397
4:30 am	42	170	122	707	164	877	4:30 pm	233	950	106	432	339	1382
4:45 am	46	179	178	788	224	967	4:45 pm	228	956	107	427	335	1383
5:00 am	43	196	209	792	252	988	5:00 pm	251	955	124	440	375	1395
5:15 am	39	201	198	839	237	1040	5:15 pm	238	922	95	406	333	1328
5:30 am	51	234	203	900	254	1134	5:30 pm	239	929	101	402	340	1331
5:45 am	63	266	182	937	245	1203	5:45 pm	227	931	120	397	347	1328
6:00 am	48	276	256	988	304	1264	6:00 pm	218	998	90	392	308	1390
6:15 am	72	334	259	936	331	1270	6:15 pm	245	1015	91	412	336	1427
6:30 am	83	348	240	870	323	1218	6:30 pm	241	1008	96	424	337	1432
6:45 am	73	375	233	784	306	1159	6:45 pm	294	1030	115	431	409	1461
7:00 am	106	396	204	751	310	1147	7:00 pm	235	966	110	434	345	1400
7:15 am	86	393	193	732	279	1125	7:15 pm	238	966	103	438	341	1404
7:30 am	110	443	154	713	264	1156	7:30 pm	263	981	103	427	366	1408
7:45 am	94	477	200	739	294	1216	7:45 pm	230	923	118	421	348	1344
8:00 am	103	541	185	731	288	1272	8:00 pm	235	882	114	408	349	1290
8:15 am	136	584	174	702	310	1286	8:15 pm	253	856	92	399	345	1255
8:30 am	144	561	180	698	324	1259	8:30 pm	205	794	97	435	302	1229
8:45 am	158	538	192	733	350	1271	8:45 pm	189	820	105	461	294	1281
9:00 am	146	507	156	712	302	1219	9:00 pm	209	827	105	465	314	1292
9:15 am	113	528	170	725	283	1253	9:15 pm	191	811	128	467	319	1278
9:30 am	121	566	215	702	336	1268	9:30 pm	231	841	123	439	354	1280
9:45 am	127	589	171	632	298	1221	9:45 pm	196	841	109	408	305	1249
10:00 am	167	627	169	613	336	1240	10:00 pm	193	856	107	406	300	1262
10:15 am	151	641	147	600	298	1241	10:15 pm	221	886	100	371	321	1257
10:30 am	144	642	145	629	289	1271	10:30 pm	231	877	92	371	323	1248
10:45 am	165	640	152	651	317	1291	10:45 pm	211	855	107	350	318	1205
11:00 am	181	655	156	650	337	1305	11:00 pm	223	849	72	307	295	1156
11:15 am	152	632	176	654	328	1286	11:15 pm	212		100		312	
11:30 am	142	656	167	618	309	1274	11:30 pm	209		71		280	
11:45 am	180	687	151	594	331	1281	11:45 pm	205		64		269	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	26856	11:00 am	1305	6:45 pm	1461
N/B	15158	11:45 am	687	6:45 pm	1030
S/B	11698	6:00 am	988	12:00 pm	590

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: S53-S57
Page: 1

Count Date: 06/17/2007 12:00 a Sunday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	178	638	65	247	243	885	12:00 pm	167	658	165	600	332	1258
12:15 am	177	575	61	212	238	787	12:15 pm	165	660	142	576	307	1236
12:30 am	142	511	60	185	202	696	12:30 pm	162	636	167	575	329	1211
12:45 am	141	483	61	159	202	642	12:45 pm	164	627	126	546	290	1173
1:00 am	115	418	30	127	145	545	1:00 pm	169	627	141	579	310	1206
1:15 am	113	392	34	120	147	512	1:15 pm	141	625	141	575	282	1200
1:30 am	114	346	34	113	148	459	1:30 pm	153	665	138	590	291	1255
1:45 am	76	302	29	99	105	401	1:45 pm	164	692	159	600	323	1292
2:00 am	89	283	23	88	112	371	2:00 pm	167	708	137	583	304	1291
2:15 am	67	257	27	89	94	346	2:15 pm	181	703	156	580	337	1283
2:30 am	70	233	20	75	90	308	2:30 pm	180	678	148	557	328	1235
2:45 am	57	195	18	81	75	276	2:45 pm	180	674	142	530	322	1204
3:00 am	63	167	24	106	87	273	3:00 pm	162	666	134	537	296	1203
3:15 am	43	122	13	131	56	253	3:15 pm	156	682	133	560	289	1242
3:30 am	32	83	26	155	58	238	3:30 pm	176	711	121	556	297	1267
3:45 am	29	58	43	172	72	230	3:45 pm	172	697	149	576	321	1273
4:00 am	18	36	49	176	67	212	4:00 pm	178	724	157	557	335	1281
4:15 am	4	93	37	183	41	276	4:15 pm	185	713	129	494	314	1207
4:30 am	7	164	43	233	50	397	4:30 pm	162	689	141	545	303	1234
4:45 am	7	199	47	254	54	453	4:45 pm	199	735	130	567	329	1302
5:00 am	75	239	56	298	131	537	5:00 pm	167	741	94	575	261	1316
5:15 am	75	218	87	332	162	550	5:15 pm	161	769	180	627	341	1396
5:30 am	42	180	64	368	106	548	5:30 pm	208	775	163	594	371	1369
5:45 am	47	203	91	404	138	607	5:45 pm	205	742	138	555	343	1297
6:00 am	54	217	90	419	144	636	6:00 pm	195	740	146	504	341	1244
6:15 am	37	214	123	438	160	652	6:15 pm	167	773	147	490	314	1263
6:30 am	65	271	100	434	165	705	6:30 pm	175	829	124	487	299	1316
6:45 am	61	301	106	453	167	754	6:45 pm	203	825	87	494	290	1319
7:00 am	51	341	109	482	160	823	7:00 pm	228	846	132	524	360	1370
7:15 am	94	404	119	517	213	921	7:15 pm	223	827	144	523	367	1350
7:30 am	95	425	119	533	214	958	7:30 pm	171	804	131	511	302	1315
7:45 am	101	434	135	555	236	989	7:45 pm	224	824	117	507	341	1331
8:00 am	114	446	144	571	258	1017	8:00 pm	209	777	131	512	340	1289
8:15 am	115	452	135	586	250	1038	8:15 pm	200	774	132	517	332	1291
8:30 am	104	431	141	600	245	1031	8:30 pm	191	779	127	513	318	1292
8:45 am	113	455	151	640	264	1095	8:45 pm	177	801	122	524	299	1325
9:00 am	120	468	159	649	279	1117	9:00 pm	206	810	136	521	342	1331
9:15 am	94	513	149	662	243	1175	9:15 pm	205	822	128	473	333	1295
9:30 am	128	574	181	678	309	1252	9:30 pm	213	805	138	469	351	1274
9:45 am	126	610	160	670	286	1280	9:45 pm	186	750	119	420	305	1170
10:00 am	165	609	172	663	337	1272	10:00 pm	218	753	88	394	306	1147
10:15 am	155	584	165	673	320	1257	10:15 pm	188	736	124	389	312	1125
10:30 am	164	583	173	638	337	1221	10:30 pm	158	770	89	330	247	1100
10:45 am	125	576	153	622	278	1198	10:45 pm	189	784	93	307	282	1091
11:00 am	140	627	182	595	322	1222	11:00 pm	201	697	83	258	284	955
11:15 am	154	654	130	578	284	1232	11:15 pm	222		65		287	
11:30 am	157	665	157	590	314	1255	11:30 pm	172		66		238	
11:45 am	176	670	126	600	302	1270	11:45 pm	102		44		146	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	23801	9:45 am	1280	5:15 pm	1396
N/B	13236	11:45 am	670	7:00 pm	846
S/B	10565	9:30 am	678	5:15 pm	627

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: 8S5-8S9
Page: 1

Count Date: 11/09/2006 12:00 a Thursday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	116	430	36	108	152	538	12:00 pm	191	862	230	866	421	1728
12:15 am	108	418	28	93	136	511	12:15 pm	193	918	230	908	423	1826
12:30 am	98	384	24	98	122	482	12:30 pm	220	957	202	890	422	1847
12:45 am	108	357	20	100	128	457	12:45 pm	258	1009	204	928	462	1937
1:00 am	104	298	21	119	125	417	1:00 pm	247	1014	272	942	519	1956
1:15 am	74	256	33	130	107	386	1:15 pm	232	1029	212	894	444	1923
1:30 am	71	222	26	129	97	351	1:30 pm	272	1123	240	904	512	2027
1:45 am	49	195	39	157	88	352	1:45 pm	263	1167	218	872	481	2039
2:00 am	62	181	32	172	94	353	2:00 pm	262	1282	224	902	486	2184
2:15 am	40	177	32	206	72	383	2:15 pm	326	1437	222	877	548	2314
2:30 am	44	193	54	258	98	451	2:30 pm	316	1533	208	869	524	2402
2:45 am	35	211	54	316	89	527	2:45 pm	378	1728	248	887	626	2615
3:00 am	58	233	66	420	124	653	3:00 pm	417	1820	199	896	616	2716
3:15 am	56	228	84	604	140	832	3:15 pm	422	1894	214	894	636	2788
3:30 am	62	226	112	846	174	1072	3:30 pm	511	2053	226	918	737	2971
3:45 am	57	211	158	1233	215	1444	3:45 pm	470	2098	257	892	727	2990
4:00 am	53	207	250	1689	303	1896	4:00 pm	491	2219	197	851	688	3070
4:15 am	54	222	326	1927	380	2149	4:15 pm	581	2352	238	848	819	3200
4:30 am	47	239	499	2046	546	2285	4:30 pm	556	2424	200	815	756	3239
4:45 am	53	266	614	2069	667	2335	4:45 pm	591	2505	216	799	807	3304
5:00 am	68	309	488	1969	556	2278	5:00 pm	624	2552	194	760	818	3312
5:15 am	71	363	445	1991	516	2354	5:15 pm	653	2543	205	742	858	3285
5:30 am	74	394	522	2039	596	2433	5:30 pm	637	2442	184	669	821	3111
5:45 am	96	468	514	1965	610	2433	5:45 pm	638	2385	177	618	815	3003
6:00 am	122	563	510	1933	632	2496	6:00 pm	615	2316	176	565	791	2881
6:15 am	102	637	493	1889	595	2526	6:15 pm	552	2227	132	515	684	2742
6:30 am	148	695	448	1841	596	2536	6:30 pm	580	2195	133	491	713	2686
6:45 am	191	718	482	1808	673	2526	6:45 pm	569	2037	124	462	693	2499
7:00 am	196	689	466	1732	662	2421	7:00 pm	526	1892	126	431	652	2323
7:15 am	160	715	445	1630	605	2345	7:15 pm	520	1782	108	390	628	2172
7:30 am	171	749	415	1593	586	2342	7:30 pm	422	1586	104	374	526	1960
7:45 am	162	758	406	1573	568	2331	7:45 pm	424	1492	93	361	517	1853
8:00 am	222	798	364	1495	586	2293	8:00 pm	416	1374	85	359	501	1733
8:15 am	194	756	408	1457	602	2213	8:15 pm	324	1275	92	372	416	1647
8:30 am	180	760	395	1362	575	2122	8:30 pm	328	1188	91	372	419	1560
8:45 am	202	795	328	1272	530	2067	8:45 pm	306	1147	91	365	397	1512
9:00 am	180	825	326	1257	506	2082	9:00 pm	317	1081	98	360	415	1441
9:15 am	198	880	313	1279	511	2159	9:15 pm	237	962	92	354	329	1316
9:30 am	215	910	305	1305	520	2215	9:30 pm	287	913	84	340	371	1253
9:45 am	232	901	313	1306	545	2207	9:45 pm	240	813	86	320	326	1133
10:00 am	235	895	348	1303	583	2198	10:00 pm	198	765	92	286	290	1051
10:15 am	228	845	339	1208	567	2053	10:15 pm	188	744	78	270	266	1014
10:30 am	206	797	306	1089	512	1886	10:30 pm	187	706	64	248	251	954
10:45 am	226	773	310	995	536	1768	10:45 pm	192	681	52	228	244	909
11:00 am	185	757	253	896	438	1653	11:00 pm	177	607	76	210	253	817
11:15 am	180	763	220	873	400	1636	11:15 pm	150		56		206	
11:30 am	182	776	212	883	394	1659	11:30 pm	162		44		206	
11:45 am	210	814	211	873	421	1687	11:45 pm	118		34		152	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	44490	6:30 am	2536	5:00 pm	3312
N/B	23969	9:30 am	910	5:00 pm	2552
S/B	20521	4:45 am	2069	1:00 pm	942

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: 8S5-8S9
Page: 1

Count Date: 11/10/2006 12:00 a Friday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	116	430	36	108	152	538	12:00 pm	288	1136	264	1106	552	2242
12:15 am	108	418	28	93	136	511	12:15 pm	304	1134	262	1154	566	2288
12:30 am	98	384	24	98	122	482	12:30 pm	272	1104	270	1215	542	2319
12:45 am	108	357	20	100	128	457	12:45 pm	272	1124	310	1245	582	2369
1:00 am	104	298	21	119	125	417	1:00 pm	286	1201	312	1219	598	2420
1:15 am	74	256	33	130	107	386	1:15 pm	274	1247	323	1171	597	2418
1:30 am	71	222	26	129	97	351	1:30 pm	292	1349	300	1179	592	2528
1:45 am	49	195	39	157	88	352	1:45 pm	349	1449	284	1183	633	2632
2:00 am	62	181	32	172	94	353	2:00 pm	332	1548	264	1213	596	2761
2:15 am	40	177	32	206	72	383	2:15 pm	376	1640	331	1219	707	2859
2:30 am	44	193	54	258	98	451	2:30 pm	392	1714	304	1182	696	2896
2:45 am	35	211	54	316	89	527	2:45 pm	448	1805	314	1177	762	2982
3:00 am	58	233	66	420	124	653	3:00 pm	424	1839	270	1125	694	2964
3:15 am	56	228	84	604	140	832	3:15 pm	450	1928	294	1102	744	3030
3:30 am	62	226	112	846	174	1072	3:30 pm	483	2040	299	1080	782	3120
3:45 am	57	211	158	1233	215	1444	3:45 pm	482	2120	262	1066	744	3186
4:00 am	53	207	250	1689	303	1896	4:00 pm	513	2212	247	1070	760	3282
4:15 am	54	222	326	1927	380	2149	4:15 pm	562	2312	272	1078	834	3390
4:30 am	47	239	499	2046	546	2285	4:30 pm	563	2361	285	1065	848	3426
4:45 am	53	266	614	2069	667	2335	4:45 pm	574	2361	266	1038	840	3399
5:00 am	68	309	488	1969	556	2278	5:00 pm	613	2374	255	1026	868	3400
5:15 am	71	363	445	1991	516	2354	5:15 pm	611	2295	259	1013	870	3308
5:30 am	74	394	522	2039	596	2433	5:30 pm	563	2174	258	1000	821	3174
5:45 am	96	468	514	1965	610	2433	5:45 pm	587	2181	254	997	841	3178
6:00 am	122	563	510	1933	632	2496	6:00 pm	534	2156	242	949	776	3105
6:15 am	102	637	493	1889	595	2526	6:15 pm	490	2174	246	915	736	3089
6:30 am	148	695	448	1841	596	2536	6:30 pm	570	2180	255	835	825	3015
6:45 am	191	718	482	1808	673	2526	6:45 pm	562	2054	206	772	768	2826
7:00 am	196	689	466	1732	662	2421	7:00 pm	552	1882	208	710	760	2592
7:15 am	160	715	445	1630	605	2345	7:15 pm	496	1724	166	660	662	2384
7:30 am	171	749	415	1593	586	2342	7:30 pm	444	1596	192	633	636	2229
7:45 am	162	758	406	1573	568	2331	7:45 pm	390	1490	144	569	534	2059
8:00 am	222	798	364	1495	586	2293	8:00 pm	394	1410	158	585	552	1995
8:15 am	194	756	408	1457	602	2213	8:15 pm	368	1307	139	556	507	1863
8:30 am	180	760	395	1362	575	2122	8:30 pm	338	1202	128	551	466	1753
8:45 am	202	795	328	1272	530	2067	8:45 pm	310	1110	160	569	470	1679
9:00 am	180	825	326	1257	506	2082	9:00 pm	291	1042	129	527	420	1569
9:15 am	198	880	313	1279	511	2159	9:15 pm	263	987	134	508	397	1495
9:30 am	215	910	305	1305	520	2215	9:30 pm	246	952	146	498	392	1450
9:45 am	232	901	313	1306	545	2207	9:45 pm	242	905	118	442	360	1347
10:00 am	235	895	348	1303	583	2198	10:00 pm	236	881	110	382	346	1263
10:15 am	228	906	339	1252	567	2158	10:15 pm	228	868	124	338	352	1206
10:30 am	206	908	306	1219	512	2127	10:30 pm	199	824	90	272	289	1096
10:45 am	226	928	310	1193	536	2121	10:45 pm	218	825	58	234	276	1059
11:00 am	246	944	297	1155	543	2099	11:00 pm	223	813	66	208	289	1021
11:15 am	230	986	306	1122	536	2108	11:15 pm	184		58		242	
11:30 am	226	1060	280	1078	506	2138	11:30 pm	200		52		252	
11:45 am	242	1106	272	1068	514	2174	11:45 pm	206		32		238	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	48338	6:30 am	2536	4:30 pm	3426
N/B	24866	11:45 am	1106	5:00 pm	2374
S/B	23472	4:45 am	2069	12:45 pm	1245

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: 8S5-8S9
Page: 1

Count Date: 11/11/2006 12:00 a Saturday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	184	592	45	136	229	728	12:00 pm	244	1008	270	1150	514	2158
12:15 am	144	494	43	119	187	613	12:15 pm	222	1026	276	1160	498	2186
12:30 am	144	447	18	108	162	555	12:30 pm	262	1092	280	1182	542	2274
12:45 am	120	389	30	122	150	511	12:45 pm	280	1108	324	1212	604	2320
1:00 am	86	339	28	120	114	459	1:00 pm	262	1122	280	1169	542	2291
1:15 am	97	321	32	106	129	427	1:15 pm	288	1167	298	1164	586	2331
1:30 am	86	274	32	106	118	380	1:30 pm	278	1179	310	1208	588	2387
1:45 am	70	242	28	108	98	350	1:45 pm	294	1199	281	1209	575	2408
2:00 am	68	218	14	115	82	333	2:00 pm	307	1260	275	1216	582	2476
2:15 am	50	200	32	150	82	350	2:15 pm	300	1281	342	1235	642	2516
2:30 am	54	190	34	158	88	348	2:30 pm	298	1353	311	1192	609	2545
2:45 am	46	192	35	187	81	379	2:45 pm	355	1409	288	1169	643	2578
3:00 am	50	198	49	244	99	442	3:00 pm	328	1432	294	1165	622	2597
3:15 am	40	186	40	339	80	525	3:15 pm	372	1454	299	1164	671	2618
3:30 am	56	184	63	404	119	588	3:30 pm	354	1446	288	1192	642	2638
3:45 am	52	170	92	482	144	652	3:45 pm	378	1433	284	1202	662	2635
4:00 am	38	165	144	578	182	743	4:00 pm	350	1439	293	1257	643	2696
4:15 am	38	171	105	630	143	801	4:15 pm	364	1467	327	1252	691	2719
4:30 am	42	203	141	712	183	915	4:30 pm	341	1430	298	1245	639	2675
4:45 am	47	215	188	754	235	969	4:45 pm	384	1463	339	1258	723	2721
5:00 am	44	226	196	755	240	981	5:00 pm	378	1439	288	1211	666	2650
5:15 am	70	259	187	800	257	1059	5:15 pm	327	1399	320	1200	647	2599
5:30 am	54	291	183	893	237	1184	5:30 pm	374	1445	311	1148	685	2593
5:45 am	58	334	189	980	247	1314	5:45 pm	360	1382	292	1054	652	2436
6:00 am	77	382	241	1075	318	1457	6:00 pm	338	1306	277	984	615	2290
6:15 am	102	431	280	1124	382	1555	6:15 pm	373	1266	268	888	641	2154
6:30 am	97	432	270	1168	367	1600	6:30 pm	311	1161	217	834	528	1995
6:45 am	106	459	284	1164	390	1623	6:45 pm	284	1122	222	789	506	1911
7:00 am	126	489	290	1170	416	1659	7:00 pm	298	1100	181	774	479	1874
7:15 am	103	527	324	1162	427	1689	7:15 pm	268	1058	214	793	482	1851
7:30 am	124	556	266	1191	390	1747	7:30 pm	272	1002	172	757	444	1759
7:45 am	136	580	290	1247	426	1827	7:45 pm	262	958	207	769	469	1727
8:00 am	164	636	282	1265	446	1901	8:00 pm	256	917	200	720	456	1637
8:15 am	132	653	353	1297	485	1950	8:15 pm	212	870	178	714	390	1584
8:30 am	148	689	322	1255	470	1944	8:30 pm	228	849	184	693	412	1542
8:45 am	192	703	308	1221	500	1924	8:45 pm	221	826	158	691	379	1517
9:00 am	181	705	314	1187	495	1892	9:00 pm	209	813	194	691	403	1504
9:15 am	168	745	311	1153	479	1898	9:15 pm	191	800	157	645	348	1445
9:30 am	162	777	288	1146	450	1923	9:30 pm	205	819	182	614	387	1433
9:45 am	194	815	274	1155	468	1970	9:45 pm	208	842	158	543	366	1385
10:00 am	221	829	280	1159	501	1988	10:00 pm	196	802	148	490	344	1292
10:15 am	200	832	304	1157	504	1989	10:15 pm	210	822	126	444	336	1266
10:30 am	200	868	297	1149	497	2017	10:30 pm	228	810	111	420	339	1230
10:45 am	208	886	278	1131	486	2017	10:45 pm	168	785	105	407	273	1192
11:00 am	224	937	278	1135	502	2072	11:00 pm	216	785	102	339	318	1124
11:15 am	236	957	296	1127	532	2084	11:15 pm	198		102		300	
11:30 am	218	943	279	1107	497	2050	11:30 pm	203		98		301	
11:45 am	259	987	282	1108	541	2095	11:45 pm	168		37		205	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	39244	11:45 am	2095	4:45 pm	2721
N/B	19139	11:45 am	987	4:15 pm	1467
S/B	20105	8:15 am	1297	4:45 pm	1258

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: 8S5-8S9
Page: 1

Count Date: 11/12/2006 12:00 a Sunday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	164	595	62	216	226	811	12:00 pm	228	985	291	1125	519	2110
12:15 am	132	531	66	196	198	727	12:15 pm	260	1022	266	1151	526	2173
12:30 am	150	493	44	170	194	663	12:30 pm	232	1022	276	1187	508	2209
12:45 am	149	433	44	153	193	586	12:45 pm	265	1033	292	1215	557	2248
1:00 am	100	346	42	135	142	481	1:00 pm	265	1030	317	1265	582	2295
1:15 am	94	303	40	127	134	430	1:15 pm	260	997	302	1226	562	2223
1:30 am	90	266	27	130	117	396	1:30 pm	243	997	304	1255	547	2252
1:45 am	62	242	26	133	88	375	1:45 pm	262	1000	342	1259	604	2259
2:00 am	57	201	34	129	91	330	2:00 pm	232	1026	278	1189	510	2215
2:15 am	57	160	43	123	100	283	2:15 pm	260	1062	331	1241	591	2303
2:30 am	66	113	30	112	96	225	2:30 pm	246	1084	308	1208	554	2292
2:45 am	21	108	22	116	43	224	2:45 pm	288	1104	272	1185	560	2289
3:00 am	16	183	28	125	44	308	3:00 pm	268	1083	330	1190	598	2273
3:15 am	10	208	32	151	42	359	3:15 pm	282	1099	298	1152	580	2251
3:30 am	61	229	34	176	95	405	3:30 pm	266	1075	285	1168	551	2243
3:45 am	96	189	31	193	127	382	3:45 pm	267	1083	277	1247	544	2330
4:00 am	41	127	54	236	95	363	4:00 pm	284	1138	292	1334	576	2472
4:15 am	31	124	57	252	88	376	4:15 pm	258	1170	314	1400	572	2570
4:30 am	21	119	51	275	72	394	4:30 pm	274	1209	364	1414	638	2623
4:45 am	34	147	74	306	108	453	4:45 pm	322	1272	364	1360	686	2632
5:00 am	38	154	70	330	108	484	5:00 pm	316	1276	358	1352	674	2628
5:15 am	26	158	80	378	106	536	5:15 pm	297	1258	328	1272	625	2530
5:30 am	49	188	82	415	131	603	5:30 pm	337	1252	310	1258	647	2510
5:45 am	41	211	98	465	139	676	5:45 pm	326	1211	356	1236	682	2447
6:00 am	42	245	118	481	160	726	6:00 pm	298	1200	278	1141	576	2341
6:15 am	56	272	117	509	173	781	6:15 pm	291	1232	314	1095	605	2327
6:30 am	72	304	132	578	204	882	6:30 pm	296	1210	288	998	584	2208
6:45 am	75	332	114	609	189	941	6:45 pm	315	1158	261	930	576	2088
7:00 am	69	382	146	680	215	1062	7:00 pm	330	1138	232	868	562	2006
7:15 am	88	432	186	722	274	1154	7:15 pm	269	1091	217	818	486	1909
7:30 am	100	498	163	713	263	1211	7:30 pm	244	1084	220	805	464	1889
7:45 am	125	546	185	776	310	1322	7:45 pm	295	1060	199	765	494	1825
8:00 am	119	547	188	789	307	1336	8:00 pm	283	991	182	738	465	1729
8:15 am	154	568	177	828	331	1396	8:15 pm	262	886	204	728	466	1614
8:30 am	148	548	226	903	374	1451	8:30 pm	220	820	180	680	400	1500
8:45 am	126	570	198	933	324	1503	8:45 pm	226	786	172	631	398	1417
9:00 am	140	627	227	1028	367	1655	9:00 pm	178	739	172	583	350	1322
9:15 am	134	655	252	1069	386	1724	9:15 pm	196	721	156	523	352	1244
9:30 am	170	705	256	1127	426	1832	9:30 pm	186	667	131	459	317	1126
9:45 am	183	668	293	1129	476	1797	9:45 pm	179	635	124	400	303	1035
10:00 am	168	682	268	892	436	1574	10:00 pm	160	552	112	362	272	914
10:15 am	184	698	310	704	494	1402	10:15 pm	142	508	92	311	234	819
10:30 am	133	664	258	732	391	1396	10:30 pm	154	460	72	291	226	751
10:45 am	197	715	56	761	253	1476	10:45 pm	96	400	86	272	182	672
11:00 am	184	716	80	981	264	1697	11:00 pm	116	408	61	214	177	622
11:15 am	150	760	338	1192	488	1952	11:15 pm	94		72		166	
11:30 am	184	870	287	1120	471	1990	11:30 pm	94		53		147	
11:45 am	198	918	276	1109	474	2027	11:45 pm	104		28		132	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	33754	11:45 am	2027	4:45 pm	2632
N/B	16371	11:45 am	918	5:00 pm	1276
S/B	17383	11:15 am	1192	4:30 pm	1414

Run Date *09/27/2007*
Run Time *11:20 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: 8S5-8S9
Page: 1

Count Date: 11/13/2006 12:00 a Monday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	74	220	32	139	106	359	12:00 pm	198	834	218	954	416	1788
12:15 am	63	196	35	131	98	327	12:15 pm	218	831	242	934	460	1765
12:30 am	37	177	44	120	81	297	12:30 pm	214	843	232	946	446	1789
12:45 am	46	182	28	102	74	284	12:45 pm	204	891	262	918	466	1809
1:00 am	50	160	24	105	74	265	1:00 pm	195	940	198	901	393	1841
1:15 am	44	142	24	112	68	254	1:15 pm	230	1031	254	899	484	1930
1:30 am	42	117	26	132	68	249	1:30 pm	262	1109	204	845	466	1954
1:45 am	24	94	31	151	55	245	1:45 pm	253	1116	245	887	498	2003
2:00 am	32	90	31	180	63	270	2:00 pm	286	1227	196	897	482	2124
2:15 am	19	82	44	225	63	307	2:15 pm	308	1349	200	924	508	2273
2:30 am	19	81	45	265	64	346	2:30 pm	269	1504	246	939	515	2443
2:45 am	20	91	60	352	80	443	2:45 pm	364	1656	255	915	619	2571
3:00 am	24	125	76	526	100	651	3:00 pm	408	1744	223	868	631	2612
3:15 am	18	145	84	778	102	923	3:15 pm	463	1860	215	851	678	2711
3:30 am	29	171	132	1136	161	1307	3:30 pm	421	1963	222	846	643	2809
3:45 am	54	201	234	1617	288	1818	3:45 pm	452	2054	208	826	660	2880
4:00 am	44	197	328	2093	372	2290	4:00 pm	524	2179	206	806	730	2985
4:15 am	44	227	442	2418	486	2645	4:15 pm	566	2239	210	814	776	3053
4:30 am	59	245	613	2628	672	2873	4:30 pm	512	2317	202	775	714	3092
4:45 am	50	292	710	2706	760	2998	4:45 pm	577	2387	188	743	765	3130
5:00 am	74	323	653	2638	727	2961	5:00 pm	584	2418	214	700	798	3118
5:15 am	62	351	652	2539	714	2890	5:15 pm	644	2392	171	636	815	3028
5:30 am	106	414	691	2376	797	2790	5:30 pm	582	2310	170	591	752	2901
5:45 am	81	476	642	2210	723	2686	5:45 pm	608	2324	145	553	753	2877
6:00 am	102	549	554	2100	656	2649	6:00 pm	558	2248	150	538	708	2786
6:15 am	125	639	489	2070	614	2709	6:15 pm	562	2221	126	478	688	2699
6:30 am	168	672	525	2103	693	2775	6:30 pm	596	2121	132	457	728	2578
6:45 am	154	658	532	2028	686	2686	6:45 pm	532	1933	130	408	662	2341
7:00 am	192	720	524	1920	716	2640	7:00 pm	531	1817	90	363	621	2180
7:15 am	158	699	522	1812	680	2511	7:15 pm	462	1616	105	357	567	1973
7:30 am	154	733	450	1644	604	2377	7:30 pm	408	1457	83	346	491	1803
7:45 am	216	745	424	1581	640	2326	7:45 pm	416	1298	85	329	501	1627
8:00 am	171	689	416	1531	587	2220	8:00 pm	330	1116	84	332	414	1448
8:15 am	192	678	354	1443	546	2121	8:15 pm	303	1028	94	346	397	1374
8:30 am	166	641	387	1431	553	2072	8:30 pm	249	914	66	339	315	1253
8:45 am	160	647	374	1342	534	1989	8:45 pm	234	867	88	355	322	1222
9:00 am	160	665	328	1227	488	1892	9:00 pm	242	810	98	331	340	1141
9:15 am	155	667	342	1150	497	1817	9:15 pm	189	790	87	305	276	1095
9:30 am	172	733	298	1052	470	1785	9:30 pm	202	784	82	290	284	1074
9:45 am	178	745	259	997	437	1742	9:45 pm	177	718	64	243	241	961
10:00 am	162	743	251	987	413	1730	10:00 pm	222	683	72	235	294	918
10:15 am	221	770	244	986	465	1756	10:15 pm	183	607	72	219	255	826
10:30 am	184	753	243	957	427	1710	10:30 pm	136	544	35	176	171	720
10:45 am	176	787	249	947	425	1734	10:45 pm	142	514	56	166	198	680
11:00 am	189	824	250	953	439	1777	11:00 pm	146	485	56	140	202	625
11:15 am	204	833	215	921	419	1754	11:15 pm	120		29		149	
11:30 am	218	847	233	948	451	1795	11:30 pm	106		25		131	
11:45 am	213	843	255	947	468	1790	11:45 pm	113		30		143	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	43270	4:45 am	2998	4:45 pm	3130
N/B	21806	11:30 am	847	5:00 pm	2418
S/B	21464	4:45 am	2706	12:00 pm	954

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: L82-L85
Page: 1

Count Date: 03/07/2006 12:00 a Tuesday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	109	396	17	64	126	460	12:00 pm	224	925	210	889	434	1814
12:15 am	98	435	14	71	112	506	12:15 pm	235	889	229	895	464	1784
12:30 am	98	503	19	83	117	586	12:30 pm	236	868	230	899	466	1767
12:45 am	91	535	14	86	105	621	12:45 pm	230	866	220	890	450	1756
1:00 am	148	579	24	101	172	680	1:00 pm	188	904	216	865	404	1769
1:15 am	166	542	26	115	192	657	1:15 pm	214	976	233	871	447	1847
1:30 am	130	470	22	132	152	602	1:30 pm	234	1064	221	840	455	1904
1:45 am	135	429	29	146	164	575	1:45 pm	268	1148	195	831	463	1979
2:00 am	111	405	38	163	149	568	2:00 pm	260	1260	222	830	482	2090
2:15 am	94	380	43	195	137	575	2:15 pm	302	1380	202	808	504	2188
2:30 am	89	372	36	244	125	616	2:30 pm	318	1512	212	786	530	2298
2:45 am	111	381	46	345	157	726	2:45 pm	380	1642	194	800	574	2442
3:00 am	86	386	70	493	156	879	3:00 pm	380	1760	200	832	580	2592
3:15 am	86	420	92	735	178	1155	3:15 pm	434	1876	180	830	614	2706
3:30 am	98	444	137	1053	235	1497	3:30 pm	448	2001	226	836	674	2837
3:45 am	116	393	194	1502	310	1895	3:45 pm	498	2105	226	808	724	2913
4:00 am	120	335	312	2064	432	2399	4:00 pm	496	2195	198	762	694	2957
4:15 am	110	278	410	2472	520	2750	4:15 pm	559	2281	186	764	745	3045
4:30 am	47	221	586	2746	633	2967	4:30 pm	552	2370	198	748	750	3118
4:45 am	58	249	756	2900	814	3149	4:45 pm	588	2402	180	730	768	3132
5:00 am	63	297	720	2879	783	3176	5:00 pm	582	2436	200	706	782	3142
5:15 am	53	334	684	2789	737	3123	5:15 pm	648	2459	170	676	818	3135
5:30 am	75	433	740	2687	815	3120	5:30 pm	584	2405	180	650	764	3055
5:45 am	106	543	735	2520	841	3063	5:45 pm	622	2449	156	578	778	3027
6:00 am	100	635	630	2397	730	3032	6:00 pm	605	2397	170	554	775	2951
6:15 am	152	707	582	2307	734	3014	6:15 pm	594	2316	144	493	738	2809
6:30 am	185	741	573	2326	758	3067	6:30 pm	628	2246	108	438	736	2684
6:45 am	198	766	612	2237	810	3003	6:45 pm	570	1992	132	447	702	2439
7:00 am	172	772	540	2135	712	2907	7:00 pm	524	1800	109	388	633	2188
7:15 am	186	774	601	2028	787	2802	7:15 pm	524	1655	89	369	613	2024
7:30 am	210	770	484	1843	694	2613	7:30 pm	374	1445	117	358	491	1803
7:45 am	204	750	510	1705	714	2455	7:45 pm	378	1371	73	327	451	1698
8:00 am	174	714	433	1593	607	2307	8:00 pm	379	1245	90	338	469	1583
8:15 am	182	720	416	1508	598	2228	8:15 pm	314	1123	78	344	392	1467
8:30 am	190	722	346	1430	536	2152	8:30 pm	300	1056	86	366	386	1422
8:45 am	168	698	398	1425	566	2123	8:45 pm	252	1000	84	353	336	1353
9:00 am	180	706	348	1299	528	2005	9:00 pm	257	966	96	363	353	1329
9:15 am	184	706	338	1187	522	1893	9:15 pm	247	918	100	354	347	1272
9:30 am	166	680	341	1149	507	1829	9:30 pm	244	869	73	320	317	1189
9:45 am	176	687	272	1070	448	1757	9:45 pm	218	823	94	305	312	1128
10:00 am	180	694	236	1027	416	1721	10:00 pm	209	755	87	273	296	1028
10:15 am	158	670	300	1039	458	1709	10:15 pm	198	721	66	244	264	965
10:30 am	173	656	262	967	435	1623	10:30 pm	198	669	58	219	256	888
10:45 am	183	681	229	945	412	1626	10:45 pm	150	609	62	199	212	808
11:00 am	156	685	248	928	404	1613	11:00 pm	175	597	58	163	233	760
11:15 am	144	753	228	890	372	1643	11:15 pm	146		41		187	
11:30 am	198	844	240	891	438	1735	11:30 pm	138		38		176	
11:45 am	187	882	212	881	399	1763	11:45 pm	138		26		164	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	45950	5:00 am	3176	5:00 pm	3142
N/B	23844	11:45 am	882	5:15 pm	2459
S/B	22106	4:45 am	2900	12:30 pm	899

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: L82-L85
Page: 1

Count Date: 03/08/2006 12:00 a Wednesday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	109	396	17	64	126	460	12:00 pm	153	831	230	938	383	1769
12:15 am	98	435	14	71	112	506	12:15 pm	224	912	236	912	460	1824
12:30 am	98	503	19	83	117	586	12:30 pm	230	940	238	906	468	1846
12:45 am	91	535	14	86	105	621	12:45 pm	224	931	234	890	458	1821
1:00 am	148	579	24	101	172	680	1:00 pm	234	963	204	918	438	1881
1:15 am	166	542	26	115	192	657	1:15 pm	252	991	230	930	482	1921
1:30 am	130	470	22	132	152	602	1:30 pm	221	1007	222	953	443	1960
1:45 am	135	429	29	146	164	575	1:45 pm	256	1087	262	952	518	2039
2:00 am	111	405	38	163	149	568	2:00 pm	262	1185	216	887	478	2072
2:15 am	94	380	43	195	137	575	2:15 pm	268	1293	253	893	521	2186
2:30 am	89	372	36	244	125	616	2:30 pm	301	1457	221	846	522	2303
2:45 am	111	381	46	345	157	726	2:45 pm	354	1590	197	844	551	2434
3:00 am	86	386	70	493	156	879	3:00 pm	370	1746	222	886	592	2632
3:15 am	86	420	92	735	178	1155	3:15 pm	432	1912	206	888	638	2800
3:30 am	98	444	137	1053	235	1497	3:30 pm	434	2114	219	874	653	2988
3:45 am	116	393	194	1502	310	1895	3:45 pm	510	2264	239	851	749	3115
4:00 am	120	335	312	2064	432	2399	4:00 pm	536	2402	224	808	760	3210
4:15 am	110	278	410	2472	520	2750	4:15 pm	634	2470	192	768	826	3238
4:30 am	47	221	586	2746	633	2967	4:30 pm	584	2590	196	770	780	3360
4:45 am	58	249	756	2900	814	3149	4:45 pm	648	2719	196	776	844	3495
5:00 am	63	297	720	2879	783	3176	5:00 pm	604	2767	184	756	788	3523
5:15 am	53	334	684	2789	737	3123	5:15 pm	754	2797	194	733	948	3530
5:30 am	75	433	740	2687	815	3120	5:30 pm	713	2645	202	695	915	3340
5:45 am	106	543	735	2520	841	3063	5:45 pm	696	2505	176	649	872	3154
6:00 am	100	635	630	2397	730	3032	6:00 pm	634	2348	161	631	795	2979
6:15 am	152	707	582	2307	734	3014	6:15 pm	602	2193	156	602	758	2795
6:30 am	185	741	573	2326	758	3067	6:30 pm	573	2053	156	542	729	2595
6:45 am	198	766	612	2237	810	3003	6:45 pm	539	1916	158	478	697	2394
7:00 am	172	772	540	2135	712	2907	7:00 pm	479	1749	132	430	611	2179
7:15 am	186	774	601	2028	787	2802	7:15 pm	462	1646	96	388	558	2034
7:30 am	210	770	484	1843	694	2613	7:30 pm	436	1516	92	401	528	1917
7:45 am	204	750	510	1705	714	2455	7:45 pm	372	1389	110	399	482	1788
8:00 am	174	714	433	1593	607	2307	8:00 pm	376	1305	90	405	466	1710
8:15 am	182	720	416	1508	598	2228	8:15 pm	332	1204	109	429	441	1633
8:30 am	190	722	346	1430	536	2152	8:30 pm	309	1113	90	420	399	1533
8:45 am	168	698	398	1425	566	2123	8:45 pm	288	1033	116	424	404	1457
9:00 am	180	706	348	1299	528	2005	9:00 pm	275	963	114	402	389	1365
9:15 am	184	706	338	1187	522	1893	9:15 pm	241	926	100	375	341	1301
9:30 am	166	680	341	1149	507	1829	9:30 pm	229	891	94	363	323	1254
9:45 am	176	687	272	1070	448	1757	9:45 pm	218	846	94	330	312	1176
10:00 am	180	694	236	1027	416	1721	10:00 pm	238	786	87	312	325	1098
10:15 am	158	670	300	1039	458	1709	10:15 pm	206	694	88	283	294	977
10:30 am	173	656	262	967	435	1623	10:30 pm	184	630	61	239	245	869
10:45 am	183	681	229	945	412	1626	10:45 pm	158	584	76	210	234	794
11:00 am	156	685	248	928	404	1613	11:00 pm	146	564	58	168	204	732
11:15 am	144	682	228	910	372	1592	11:15 pm	142		44		186	
11:30 am	198	762	240	918	438	1680	11:30 pm	138		32		170	
11:45 am	187	794	212	916	399	1710	11:45 pm	138		34		172	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	46897	5:00 am	3176	5:15 pm	3530
N/B	24213	11:45 am	794	5:15 pm	2797
S/B	22684	4:45 am	2900	1:30 pm	953

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: L82-L85
Page: 1

Count Date: 03/09/2006 12:00 a Thursday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	134	541	26	94	160	635	12:00 pm	198	883	196	920	394	1803
12:15 am	100	579	22	84	122	663	12:15 pm	227	949	262	932	489	1881
12:30 am	123	599	22	95	145	694	12:30 pm	232	948	198	902	430	1850
12:45 am	184	612	24	101	208	713	12:45 pm	226	956	264	958	490	1914
1:00 am	172	553	16	109	188	662	1:00 pm	264	968	208	896	472	1864
1:15 am	120	493	33	131	153	624	1:15 pm	226	990	232	929	458	1919
1:30 am	136	481	28	143	164	624	1:30 pm	240	1100	254	914	494	2014
1:45 am	125	443	32	152	157	595	1:45 pm	238	1161	202	897	440	2058
2:00 am	112	430	38	160	150	590	2:00 pm	286	1269	241	919	527	2188
2:15 am	108	420	45	188	153	608	2:15 pm	336	1399	217	924	553	2323
2:30 am	98	393	37	230	135	623	2:30 pm	301	1528	237	937	538	2465
2:45 am	112	408	40	339	152	747	2:45 pm	346	1693	224	942	570	2635
3:00 am	102	408	66	493	168	901	3:00 pm	416	1873	246	986	662	2859
3:15 am	81	447	87	757	168	1204	3:15 pm	465	1984	230	932	695	2916
3:30 am	113	444	146	1084	259	1528	3:30 pm	466	2175	242	927	708	3102
3:45 am	112	385	194	1545	306	1930	3:45 pm	526	2337	268	907	794	3244
4:00 am	141	313	330	2085	471	2398	4:00 pm	527	2431	192	828	719	3259
4:15 am	78	232	414	2514	492	2746	4:15 pm	656	2556	225	847	881	3403
4:30 am	54	212	607	2812	661	3024	4:30 pm	628	2574	222	823	850	3397
4:45 am	40	232	734	2923	774	3155	4:45 pm	620	2596	189	791	809	3387
5:00 am	60	279	759	2916	819	3195	5:00 pm	652	2630	211	780	863	3410
5:15 am	58	331	712	2785	770	3116	5:15 pm	674	2581	201	749	875	3330
5:30 am	74	413	718	2690	792	3103	5:30 pm	650	2505	190	690	840	3195
5:45 am	87	545	727	2560	814	3105	5:45 pm	654	2483	178	670	832	3153
6:00 am	112	666	628	2420	740	3086	6:00 pm	603	2399	180	638	783	3037
6:15 am	140	741	617	2398	757	3139	6:15 pm	598	2329	142	575	740	2904
6:30 am	206	794	588	2313	794	3107	6:30 pm	628	2238	170	567	798	2805
6:45 am	208	778	587	2225	795	3003	6:45 pm	570	2004	146	497	716	2501
7:00 am	187	762	606	2120	793	2882	7:00 pm	533	1850	117	447	650	2297
7:15 am	193	757	532	1974	725	2731	7:15 pm	507	1702	134	412	641	2114
7:30 am	190	744	500	1856	690	2600	7:30 pm	394	1549	100	376	494	1925
7:45 am	192	742	482	1682	674	2424	7:45 pm	416	1477	96	377	512	1854
8:00 am	182	720	460	1530	642	2250	8:00 pm	385	1316	82	393	467	1709
8:15 am	180	731	414	1430	594	2161	8:15 pm	354	1197	98	407	452	1604
8:30 am	188	735	326	1326	514	2061	8:30 pm	322	1106	101	407	423	1513
8:45 am	170	699	330	1338	500	2037	8:45 pm	255	1006	112	380	367	1386
9:00 am	193	719	360	1304	553	2023	9:00 pm	266	991	96	340	362	1331
9:15 am	184	711	310	1210	494	1921	9:15 pm	263	997	98	338	361	1335
9:30 am	152	720	338	1184	490	1904	9:30 pm	222	942	74	318	296	1260
9:45 am	190	720	296	1138	486	1858	9:45 pm	240	911	72	308	312	1219
10:00 am	185	708	266	1103	451	1811	10:00 pm	272	847	94	292	366	1139
10:15 am	193	710	284	1099	477	1809	10:15 pm	208	744	78	256	286	1000
10:30 am	152	691	292	1062	444	1753	10:30 pm	191	680	64	221	255	901
10:45 am	178	723	261	988	439	1711	10:45 pm	176	636	56	193	232	829
11:00 am	187	731	262	951	449	1682	11:00 pm	169	614	58	165	227	779
11:15 am	174	742	247	885	421	1627	11:15 pm	144		43		187	
11:30 am	184	795	218	900	402	1695	11:30 pm	147		36		183	
11:45 am	186	843	224	880	410	1723	11:45 pm	154		28		182	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	47790	5:00 am	3195	5:00 pm	3410
N/B	24901	11:45 am	843	5:00 pm	2630
S/B	22889	4:45 am	2923	3:00 pm	986

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: L82-L85
Page: 1

Count Date: 03/10/2006 12:00 a Friday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	102	513	18	106	120	619	12:00 pm	310	1144	212	901	522	2045
12:15 am	104	618	28	117	132	735	12:15 pm	236	1137	185	895	421	2032
12:30 am	97	669	28	113	125	782	12:30 pm	292	1221	226	956	518	2177
12:45 am	210	713	32	123	242	836	12:45 pm	306	1249	278	987	584	2236
1:00 am	207	636	29	117	236	753	1:00 pm	303	1291	206	941	509	2232
1:15 am	155	541	24	116	179	657	1:15 pm	320	1388	246	939	566	2327
1:30 am	141	496	38	122	179	618	1:30 pm	320	1562	257	949	577	2511
1:45 am	133	450	26	138	159	588	1:45 pm	348	1844	232	942	580	2786
2:00 am	112	427	28	156	140	583	2:00 pm	400	2102	204	942	604	3044
2:15 am	110	411	30	197	140	608	2:15 pm	494	2320	256	974	750	3294
2:30 am	95	397	54	243	149	640	2:30 pm	602	2528	250	948	852	3476
2:45 am	110	427	44	326	154	753	2:45 pm	606	2671	232	924	838	3595
3:00 am	96	423	69	481	165	904	3:00 pm	618	2715	236	944	854	3659
3:15 am	96	383	76	715	172	1098	3:15 pm	702	2873	230	970	932	3843
3:30 am	125	355	137	1043	262	1398	3:30 pm	745	2825	226	950	971	3775
3:45 am	106	275	199	1449	305	1724	3:45 pm	650	2744	252	964	902	3708
4:00 am	56	207	303	1972	359	2179	4:00 pm	776	2789	262	918	1038	3707
4:15 am	68	199	404	2395	472	2594	4:15 pm	654	2705	210	858	864	3563
4:30 am	45	187	543	2705	588	2892	4:30 pm	664	2852	240	802	904	3654
4:45 am	38	197	722	2740	760	2937	4:45 pm	695	3012	206	700	901	3712
5:00 am	48	237	726	2604	774	2841	5:00 pm	692	3141	202	662	894	3803
5:15 am	56	285	714	2448	770	2733	5:15 pm	801	3201	154	620	955	3821
5:30 am	55	367	578	2280	633	2647	5:30 pm	824	2971	138	610	962	3581
5:45 am	78	503	586	2332	664	2835	5:45 pm	824	2711	168	592	992	3303
6:00 am	96	613	570	2293	666	2906	6:00 pm	752	2506	160	564	912	3070
6:15 am	138	709	546	2278	684	2987	6:15 pm	571	2340	144	517	715	2857
6:30 am	191	771	630	2283	821	3054	6:30 pm	564	2343	120	473	684	2816
6:45 am	188	770	547	2159	735	2929	6:45 pm	619	2287	140	470	759	2757
7:00 am	192	784	555	2069	747	2853	7:00 pm	586	2030	113	409	699	2439
7:15 am	200	784	551	1926	751	2710	7:15 pm	574	1782	100	392	674	2174
7:30 am	190	800	506	1811	696	2611	7:30 pm	508	1530	117	372	625	1902
7:45 am	202	810	457	1697	659	2507	7:45 pm	362	1274	79	336	441	1610
8:00 am	192	806	412	1583	604	2389	8:00 pm	338	1164	96	345	434	1509
8:15 am	216	802	436	1493	652	2295	8:15 pm	322	1036	80	351	402	1387
8:30 am	200	790	392	1371	592	2161	8:30 pm	252	943	81	343	333	1286
8:45 am	198	760	343	1253	541	2013	8:45 pm	252	904	88	335	340	1239
9:00 am	188	746	322	1190	510	1936	9:00 pm	210	800	102	311	312	1111
9:15 am	204	746	314	1166	518	1912	9:15 pm	229	732	72	275	301	1007
9:30 am	170	749	274	1084	444	1833	9:30 pm	213	684	73	269	286	953
9:45 am	184	779	280	1086	464	1865	9:45 pm	148	623	64	250	212	873
10:00 am	188	806	298	1057	486	1863	10:00 pm	142	575	66	238	208	813
10:15 am	207	852	232	1033	439	1885	10:15 pm	181	530	66	229	247	759
10:30 am	200	906	276	1069	476	1975	10:30 pm	152	452	54	225	206	677
10:45 am	211	978	251	1019	462	1997	10:45 pm	100	391	52	229	152	620
11:00 am	234	1037	274	993	508	2030	11:00 pm	97	379	57	215	154	594
11:15 am	261	1113	268	931	529	2044	11:15 pm	103		62		165	
11:30 am	272	1088	226	848	498	1936	11:30 pm	91		58		149	
11:45 am	270	1108	225	848	495	1956	11:45 pm	88		38		126	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	49882	6:30 am	3054	3:15 pm	3843
N/B	27871	11:15 am	1113	5:15 pm	3201
S/B	22011	4:45 am	2740	12:45 pm	987

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: G04-G09
Page: 1

Count Date: 02/08/2006 12:00 a Wednesday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	120	418	22	90	142	508	12:00 pm	192	833	244	950	436	1783
12:15 am	100	376	24	96	124	472	12:15 pm	228	859	226	942	454	1801
12:30 am	102	354	20	96	122	450	12:30 pm	192	871	229	970	421	1841
12:45 am	96	297	24	102	120	399	12:45 pm	221	931	251	994	472	1925
1:00 am	78	261	28	110	106	371	1:00 pm	218	978	236	986	454	1964
1:15 am	78	234	24	116	102	350	1:15 pm	240	1017	254	1022	494	2039
1:30 am	45	192	26	134	71	326	1:30 pm	252	1057	253	1003	505	2060
1:45 am	60	181	32	176	92	357	1:45 pm	268	1145	243	954	511	2099
2:00 am	51	173	34	196	85	369	2:00 pm	257	1245	272	932	529	2177
2:15 am	36	171	42	227	78	398	2:15 pm	280	1382	235	876	515	2258
2:30 am	34	187	68	267	102	454	2:30 pm	340	1321	204	866	544	2187
2:45 am	52	217	52	312	104	529	2:45 pm	368	1233	221	932	589	2165
3:00 am	49	256	65	466	114	722	3:00 pm	394	1195	216	924	610	2119
3:15 am	52	275	82	731	134	1006	3:15 pm	219	1155	225	922	444	2077
3:30 am	64	279	113	1060	177	1339	3:30 pm	252	1412	270	911	522	2323
3:45 am	91	302	206	1571	297	1873	3:45 pm	330	1728	213	787	543	2515
4:00 am	68	295	330	2076	398	2371	4:00 pm	354	2084	214	773	568	2857
4:15 am	56	311	411	2476	467	2787	4:15 pm	476	2378	214	736	690	3114
4:30 am	87	332	624	2795	711	3127	4:30 pm	568	2639	146	684	714	3323
4:45 am	84	345	711	2891	795	3236	4:45 pm	686	2779	199	708	885	3487
5:00 am	84	363	730	2890	814	3253	5:00 pm	648	2809	177	649	825	3458
5:15 am	77	403	730	2832	807	3235	5:15 pm	737	2870	162	650	899	3520
5:30 am	100	462	720	2670	820	3132	5:30 pm	708	2793	170	642	878	3435
5:45 am	102	543	710	2550	812	3093	5:45 pm	716	2769	140	584	856	3353
6:00 am	124	641	672	2418	796	3059	6:00 pm	709	2656	178	572	887	3228
6:15 am	136	691	568	2311	704	3002	6:15 pm	660	2570	154	508	814	3078
6:30 am	181	739	600	2328	781	3067	6:30 pm	684	2552	112	458	796	3010
6:45 am	200	811	578	2234	778	3045	6:45 pm	603	2419	128	448	731	2867
7:00 am	174	842	565	2136	739	2978	7:00 pm	623	2206	114	412	737	2618
7:15 am	184	879	585	2034	769	2913	7:15 pm	642	2007	104	384	746	2391
7:30 am	253	886	506	1841	759	2727	7:30 pm	551	1711	102	378	653	2089
7:45 am	231	829	480	1711	711	2540	7:45 pm	390	1460	92	359	482	1819
8:00 am	211	764	463	1608	674	2372	8:00 pm	424	1364	86	350	510	1714
8:15 am	191	737	392	1539	583	2276	8:15 pm	346	1242	98	372	444	1614
8:30 am	196	720	376	1523	572	2243	8:30 pm	300	1105	83	392	383	1497
8:45 am	166	727	377	1447	543	2174	8:45 pm	294	1033	83	391	377	1424
9:00 am	184	744	394	1378	578	2122	9:00 pm	302	985	108	376	410	1361
9:15 am	174	750	376	1262	550	2012	9:15 pm	209	909	118	402	327	1311
9:30 am	203	820	300	1168	503	1988	9:30 pm	228	922	82	364	310	1286
9:45 am	183	808	308	1114	491	1922	9:45 pm	246	886	68	364	314	1250
10:00 am	190	819	278	1020	468	1839	10:00 pm	226	828	134	352	360	1180
10:15 am	244	813	282	1005	526	1818	10:15 pm	222	805	80	275	302	1080
10:30 am	191	741	246	927	437	1668	10:30 pm	192	737	82	245	274	982
10:45 am	194	747	214	918	408	1665	10:45 pm	188	673	56	205	244	878
11:00 am	184	691	263	937	447	1628	11:00 pm	203	603	57	175	260	778
11:15 am	172	699	204	918	376	1617	11:15 pm	154		50		204	
11:30 am	197	755	237	940	434	1695	11:30 pm	128		42		170	
11:45 am	138	750	233	932	371	1682	11:45 pm	118		26		144	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	46829	5:00 am	3253	5:15 pm	3520
N/B	24053	7:30 am	886	5:15 pm	2870
S/B	22776	4:45 am	2891	1:15 pm	1022

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: G04-G09
Page: 1

Count Date: 02/09/2006 12:00 a Thursday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	120	418	22	90	142	508	12:00 pm	184	863	230	871	414	1734
12:15 am	100	376	24	96	124	472	12:15 pm	228	871	208	862	436	1733
12:30 am	102	354	20	96	122	450	12:30 pm	241	885	199	878	440	1763
12:45 am	96	297	24	102	120	399	12:45 pm	210	872	234	890	444	1762
1:00 am	78	261	28	110	106	371	1:00 pm	192	920	221	912	413	1832
1:15 am	78	234	24	116	102	350	1:15 pm	242	999	224	897	466	1896
1:30 am	45	192	26	134	71	326	1:30 pm	228	1046	211	875	439	1921
1:45 am	60	181	32	176	92	357	1:45 pm	258	1118	256	921	514	2039
2:00 am	51	173	34	196	85	369	2:00 pm	271	1210	206	885	477	2095
2:15 am	36	171	42	227	78	398	2:15 pm	289	1303	202	887	491	2190
2:30 am	34	187	68	267	102	454	2:30 pm	300	1438	257	913	557	2351
2:45 am	52	217	52	312	104	529	2:45 pm	350	1568	220	882	570	2450
3:00 am	49	256	65	466	114	722	3:00 pm	364	1676	208	885	572	2561
3:15 am	52	275	82	731	134	1006	3:15 pm	424	1844	228	893	652	2737
3:30 am	64	279	113	1060	177	1339	3:30 pm	430	1998	226	863	656	2861
3:45 am	91	302	206	1571	297	1873	3:45 pm	458	2144	223	805	681	2949
4:00 am	68	295	330	2076	398	2371	4:00 pm	532	2260	216	752	748	3012
4:15 am	56	311	411	2476	467	2787	4:15 pm	578	2332	198	717	776	3049
4:30 am	87	332	624	2795	711	3127	4:30 pm	576	2446	168	723	744	3169
4:45 am	84	345	711	2891	795	3236	4:45 pm	574	2554	170	731	744	3285
5:00 am	84	363	730	2890	814	3253	5:00 pm	604	2580	181	735	785	3315
5:15 am	77	403	730	2832	807	3235	5:15 pm	692	2632	204	708	896	3340
5:30 am	100	462	720	2670	820	3132	5:30 pm	684	2550	176	671	860	3221
5:45 am	102	543	710	2550	812	3093	5:45 pm	600	2507	174	619	774	3126
6:00 am	124	641	672	2418	796	3059	6:00 pm	656	2469	154	574	810	3043
6:15 am	136	691	568	2311	704	3002	6:15 pm	610	2357	167	541	777	2898
6:30 am	181	739	600	2328	781	3067	6:30 pm	641	2173	124	478	765	2651
6:45 am	200	811	578	2234	778	3045	6:45 pm	562	2102	129	462	691	2564
7:00 am	174	842	565	2136	739	2978	7:00 pm	544	1988	121	425	665	2413
7:15 am	184	879	585	2034	769	2913	7:15 pm	426	1830	104	396	530	2226
7:30 am	253	886	506	1841	759	2727	7:30 pm	570	1764	108	380	678	2144
7:45 am	231	829	480	1711	711	2540	7:45 pm	448	1512	92	360	540	1872
8:00 am	211	764	463	1608	674	2372	8:00 pm	386	1336	92	371	478	1707
8:15 am	191	737	392	1539	583	2276	8:15 pm	360	1214	88	363	448	1577
8:30 am	196	720	376	1523	572	2243	8:30 pm	318	1143	88	359	406	1502
8:45 am	166	727	377	1447	543	2174	8:45 pm	272	1083	103	351	375	1434
9:00 am	184	744	394	1378	578	2122	9:00 pm	264	1067	84	330	348	1397
9:15 am	174	750	376	1262	550	2012	9:15 pm	289	1064	84	310	373	1374
9:30 am	203	820	300	1168	503	1988	9:30 pm	258	957	80	308	338	1265
9:45 am	183	808	308	1114	491	1922	9:45 pm	256	889	82	280	338	1169
10:00 am	190	819	278	1020	468	1839	10:00 pm	261	839	64	249	325	1088
10:15 am	244	824	282	1028	526	1852	10:15 pm	182	753	82	237	264	990
10:30 am	191	755	246	980	437	1735	10:30 pm	190	727	52	199	242	926
10:45 am	194	771	214	970	408	1741	10:45 pm	206	667	51	182	257	849
11:00 am	195	781	286	987	481	1768	11:00 pm	175	613	52	157	227	770
11:15 am	175	770	234	931	409	1701	11:15 pm	156		44		200	
11:30 am	207	823	236	905	443	1728	11:30 pm	130		35		165	
11:45 am	204	857	231	868	435	1725	11:45 pm	152		26		178	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	46699	5:00 am	3253	5:15 pm	3340
N/B	24178	7:30 am	886	5:15 pm	2632
S/B	22521	4:45 am	2891	1:45 pm	921

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: G04-G09
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Count Date: 02/10/2006 12:00 a Friday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	125	399	40	101	165	500	12:00 pm	252	1032	238	986	490	2018
12:15 am	86	330	16	95	102	425	12:15 pm	240	1061	264	984	504	2045
12:30 am	104	322	26	111	130	433	12:30 pm	264	1093	254	985	518	2078
12:45 am	84	271	19	111	103	382	12:45 pm	276	1129	230	1005	506	2134
1:00 am	56	229	34	136	90	365	1:00 pm	281	1211	236	1030	517	2241
1:15 am	78	231	32	144	110	375	1:15 pm	272	1282	265	1052	537	2334
1:30 am	53	203	26	160	79	363	1:30 pm	300	1350	274	1047	574	2397
1:45 am	42	199	44	194	86	393	1:45 pm	358	1436	255	1017	613	2453
2:00 am	58	213	42	197	100	410	2:00 pm	352	1464	258	980	610	2444
2:15 am	50	215	48	231	98	446	2:15 pm	340	1574	260	929	600	2503
2:30 am	49	248	60	281	109	529	2:30 pm	386	1714	244	907	630	2621
2:45 am	56	258	47	346	103	604	2:45 pm	386	1800	218	895	604	2695
3:00 am	60	274	76	485	136	759	3:00 pm	462	1910	207	920	669	2830
3:15 am	83	308	98	715	181	1023	3:15 pm	480	2005	238	972	718	2977
3:30 am	59	301	125	996	184	1297	3:30 pm	472	2157	232	944	704	3101
3:45 am	72	300	186	1411	258	1711	3:45 pm	496	2280	243	945	739	3225
4:00 am	94	293	306	1966	400	2259	4:00 pm	557	2444	259	899	816	3343
4:15 am	76	250	379	2400	455	2650	4:15 pm	632	2493	210	842	842	3335
4:30 am	58	252	540	2723	598	2975	4:30 pm	595	2547	233	864	828	3411
4:45 am	65	293	741	2858	806	3151	4:45 pm	660	2648	197	833	857	3481
5:00 am	51	302	740	2701	791	3003	5:00 pm	606	2700	202	854	808	3554
5:15 am	78	371	702	2538	780	2909	5:15 pm	686	2760	232	876	918	3636
5:30 am	99	439	675	2405	774	2844	5:30 pm	696	2744	202	854	898	3598
5:45 am	74	535	584	2324	658	2859	5:45 pm	712	2674	218	855	930	3529
6:00 am	120	722	577	2329	697	3051	6:00 pm	666	2616	224	800	890	3416
6:15 am	146	810	569	2314	715	3124	6:15 pm	670	2554	210	756	880	3310
6:30 am	195	864	594	2295	789	3159	6:30 pm	626	2532	203	700	829	3232
6:45 am	261	896	589	2204	850	3100	6:45 pm	654	2448	163	643	817	3091
7:00 am	208	822	562	2055	770	2877	7:00 pm	604	2348	180	612	784	2960
7:15 am	200	744	550	1944	750	2688	7:15 pm	648	2201	154	564	802	2765
7:30 am	227	740	503	1798	730	2538	7:30 pm	542	1970	146	530	688	2500
7:45 am	187	689	440	1703	627	2392	7:45 pm	554	1810	132	474	686	2284
8:00 am	130	780	451	1647	581	2427	8:00 pm	457	1688	132	450	589	2138
8:15 am	196	831	404	1566	600	2397	8:15 pm	417	1686	120	436	537	2122
8:30 am	176	831	408	1484	584	2315	8:30 pm	382	1591	90	442	472	2033
8:45 am	278	897	384	1350	662	2247	8:45 pm	432	1499	108	449	540	1948
9:00 am	181	835	370	1235	551	2070	9:00 pm	455	1357	118	459	573	1816
9:15 am	196	813	322	1157	518	1970	9:15 pm	322	1182	126	465	448	1647
9:30 am	242	799	274	1119	516	1918	9:30 pm	290	1089	97	443	387	1532
9:45 am	216	739	269	1107	485	1846	9:45 pm	290	1067	118	430	408	1497
10:00 am	159	723	292	1064	451	1787	10:00 pm	280	1041	124	378	404	1419
10:15 am	182	748	284	1018	466	1766	10:15 pm	229	957	104	337	333	1294
10:30 am	182	773	262	995	444	1768	10:30 pm	268	952	84	277	352	1229
10:45 am	200	813	226	979	426	1792	10:45 pm	264	881	66	251	330	1132
11:00 am	184	839	246	987	430	1826	11:00 pm	196	813	83	224	279	1037
11:15 am	207	907	261	979	468	1886	11:15 pm	224		44		268	
11:30 am	222	940	246	982	468	1922	11:30 pm	197		58		255	
11:45 am	226	982	234	990	460	1972	11:45 pm	196		39		235	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	50550	6:30 am	3159	5:15 pm	3636
N/B	27055	11:45 am	982	5:15 pm	2760
S/B	23495	4:45 am	2858	1:15 pm	1052

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: G04-G09
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Count Date: 02/11/2006 12:00 a Saturday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	172	602	52	180	224	782	12:00 pm	263	1067	272	1063	535	2130
12:15 am	164	530	56	174	220	704	12:15 pm	242	1060	266	1056	508	2116
12:30 am	131	464	42	170	173	634	12:30 pm	260	1112	268	1092	528	2204
12:45 am	135	409	30	174	165	583	12:45 pm	302	1156	257	1092	559	2248
1:00 am	100	344	46	183	146	527	1:00 pm	256	1157	265	1091	521	2248
1:15 am	98	310	52	193	150	503	1:15 pm	294	1200	302	1081	596	2281
1:30 am	76	288	46	175	122	463	1:30 pm	304	1188	268	1039	572	2227
1:45 am	70	269	39	165	109	434	1:45 pm	303	1210	256	1003	559	2213
2:00 am	66	259	56	164	122	423	2:00 pm	299	1239	255	1007	554	2246
2:15 am	76	234	34	150	110	384	2:15 pm	282	1304	260	996	542	2300
2:30 am	57	209	36	156	93	365	2:30 pm	326	1336	232	979	558	2315
2:45 am	60	194	38	186	98	380	2:45 pm	332	1379	260	1014	592	2393
3:00 am	41	198	42	220	83	418	3:00 pm	364	1407	244	978	608	2385
3:15 am	51	185	40	317	91	502	3:15 pm	314	1375	243	997	557	2372
3:30 am	42	160	66	408	108	568	3:30 pm	369	1435	267	996	636	2431
3:45 am	64	166	72	474	136	640	3:45 pm	360	1468	224	985	584	2453
4:00 am	28	162	139	602	167	764	4:00 pm	332	1505	263	1017	595	2522
4:15 am	26	184	131	688	157	872	4:15 pm	374	1536	242	982	616	2518
4:30 am	48	222	132	786	180	1008	4:30 pm	402	1528	256	1006	658	2534
4:45 am	60	230	200	850	260	1080	4:45 pm	397	1464	256	1002	653	2466
5:00 am	50	235	225	880	275	1115	5:00 pm	363	1459	228	1002	591	2461
5:15 am	64	281	229	887	293	1168	5:15 pm	366	1432	266	996	632	2428
5:30 am	56	297	196	936	252	1233	5:30 pm	338	1396	252	986	590	2382
5:45 am	65	337	230	984	295	1321	5:45 pm	392	1415	256	938	648	2353
6:00 am	96	416	232	1026	328	1442	6:00 pm	336	1397	222	905	558	2302
6:15 am	80	446	278	1136	358	1582	6:15 pm	330	1383	256	871	586	2254
6:30 am	96	502	244	1186	340	1688	6:30 pm	357	1354	204	803	561	2157
6:45 am	144	551	272	1266	416	1817	6:45 pm	374	1305	223	765	597	2070
7:00 am	126	556	342	1320	468	1876	7:00 pm	322	1204	188	700	510	1904
7:15 am	136	626	328	1312	464	1938	7:15 pm	301	1152	188	658	489	1810
7:30 am	145	686	324	1288	469	1974	7:30 pm	308	1109	166	602	474	1711
7:45 am	149	737	326	1313	475	2050	7:45 pm	273	1071	158	572	431	1643
8:00 am	196	784	334	1271	530	2055	8:00 pm	270	1077	146	580	416	1657
8:15 am	196	784	304	1201	500	1985	8:15 pm	258	1042	132	581	390	1623
8:30 am	196	802	349	1233	545	2035	8:30 pm	270	1058	136	583	406	1641
8:45 am	196	790	284	1170	480	1960	8:45 pm	279	1034	166	573	445	1607
9:00 am	196	801	264	1178	460	1979	9:00 pm	235	961	147	527	382	1488
9:15 am	214	829	336	1192	550	2021	9:15 pm	274	934	134	486	408	1420
9:30 am	184	811	286	1154	470	1965	9:30 pm	246	885	126	462	372	1347
9:45 am	207	838	292	1160	499	1998	9:45 pm	206	885	120	442	326	1327
10:00 am	224	843	278	1132	502	1975	10:00 pm	208	881	106	432	314	1313
10:15 am	196	838	298	1143	494	1981	10:15 pm	225	893	110	426	335	1319
10:30 am	211	906	292	1150	503	2056	10:30 pm	246	880	106	403	352	1283
10:45 am	212	947	264	1122	476	2069	10:45 pm	202	818	110	379	312	1197
11:00 am	219	1003	289	1108	508	2111	11:00 pm	220	780	100	331	320	1111
11:15 am	264	1047	305	1091	569	2138	11:15 pm	212		87		299	
11:30 am	252	1025	264	1052	516	2077	11:30 pm	184		82		266	
11:45 am	268	1033	250	1056	518	2089	11:45 pm	164		62		226	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	39234	11:15 am	2138	4:30 pm	2534
N/B	20337	11:15 am	1047	4:15 pm	1536
S/B	18897	7:00 am	1320	12:30 pm	1092

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: G04-G09
Page: 1

Count Date: 02/12/2006 12:00 a Sunday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	160	568	54	172	214	740	12:00 pm	202	875	286	1159	488	2034
12:15 am	144	509	52	151	196	660	12:15 pm	220	901	302	1137	522	2038
12:30 am	162	465	28	139	190	604	12:30 pm	240	918	290	1129	530	2047
12:45 am	102	393	38	141	140	534	12:45 pm	213	910	281	1111	494	2021
1:00 am	101	355	33	139	134	494	1:00 pm	228	953	264	1115	492	2068
1:15 am	100	329	40	141	140	470	1:15 pm	237	957	294	1155	531	2112
1:30 am	90	293	30	133	120	426	1:30 pm	232	970	272	1157	504	2127
1:45 am	64	271	36	127	100	398	1:45 pm	256	1008	285	1177	541	2185
2:00 am	75	249	35	111	110	360	2:00 pm	232	1045	304	1202	536	2247
2:15 am	64	218	32	98	96	316	2:15 pm	250	1037	296	1196	546	2233
2:30 am	68	202	24	95	92	297	2:30 pm	270	1062	292	1206	562	2268
2:45 am	42	180	20	98	62	278	2:45 pm	293	1037	310	1212	603	2249
3:00 am	44	186	22	108	66	294	3:00 pm	224	1032	298	1202	522	2234
3:15 am	48	174	29	142	77	316	3:15 pm	275	1082	306	1234	581	2316
3:30 am	46	152	27	176	73	328	3:30 pm	245	1055	298	1220	543	2275
3:45 am	48	135	30	213	78	348	3:45 pm	288	1090	300	1151	588	2241
4:00 am	32	103	56	245	88	348	4:00 pm	274	1120	330	1117	604	2237
4:15 am	26	101	63	279	89	380	4:15 pm	248	1117	292	1086	540	2203
4:30 am	29	115	64	301	93	416	4:30 pm	280	1107	229	1090	509	2197
4:45 am	16	126	62	325	78	451	4:45 pm	318	1117	266	1141	584	2258
5:00 am	30	154	90	339	120	493	5:00 pm	271	1059	299	1165	570	2224
5:15 am	40	178	85	355	125	533	5:15 pm	238	1060	296	1150	534	2210
5:30 am	40	192	88	382	128	574	5:30 pm	290	1087	280	1127	570	2214
5:45 am	44	228	76	406	120	634	5:45 pm	260	1079	290	1120	550	2199
6:00 am	54	299	106	430	160	729	6:00 pm	272	1081	284	1126	556	2207
6:15 am	54	339	112	434	166	773	6:15 pm	265	1081	273	1081	538	2162
6:30 am	76	407	112	464	188	871	6:30 pm	282	1106	273	1020	555	2126
6:45 am	115	483	100	501	215	984	6:45 pm	262	1060	296	995	558	2055
7:00 am	94	493	110	560	204	1053	7:00 pm	272	1024	239	907	511	1931
7:15 am	122	551	142	625	264	1176	7:15 pm	290	1024	212	862	502	1886
7:30 am	152	569	149	681	301	1250	7:30 pm	236	1026	248	818	484	1844
7:45 am	125	569	159	736	284	1305	7:45 pm	226	1060	208	726	434	1786
8:00 am	152	583	175	776	327	1359	8:00 pm	272	1063	194	700	466	1763
8:15 am	140	576	198	835	338	1411	8:15 pm	292	1037	168	640	460	1677
8:30 am	152	584	204	891	356	1475	8:30 pm	270	981	156	600	426	1581
8:45 am	139	599	199	921	338	1520	8:45 pm	229	916	182	576	411	1492
9:00 am	145	638	234	986	379	1624	9:00 pm	246	879	134	488	380	1367
9:15 am	148	655	254	1021	402	1676	9:15 pm	236	797	128	462	364	1259
9:30 am	167	686	234	1049	401	1735	9:30 pm	205	724	132	428	337	1152
9:45 am	178	709	264	1122	442	1831	9:45 pm	192	675	94	365	286	1040
10:00 am	162	708	269	1133	431	1841	10:00 pm	164	623	108	349	272	972
10:15 am	179	734	282	1140	461	1874	10:15 pm	163	617	94	291	257	908
10:30 am	190	735	307	1134	497	1869	10:30 pm	156	569	69	267	225	836
10:45 am	177	751	275	1119	452	1870	10:45 pm	140	525	78	222	218	747
11:00 am	188	815	276	1102	464	1917	11:00 pm	158	489	50	184	208	673
11:15 am	180	829	276	1112	456	1941	11:15 pm	115		70		185	
11:30 am	206	869	292	1138	498	2007	11:30 pm	112		24		136	
11:45 am	241	903	258	1136	499	2039	11:45 pm	104		40		144	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	33209	11:45 am	2039	3:15 pm	2316
N/B	16394	11:45 am	903	4:00 pm	1120
S/B	16815	10:15 am	1140	3:15 pm	1234

Run Date *09/27/2007*
Run Time *11:21 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: G04-G09
Page: 1

Count Date: 02/13/2006 12:00 a Monday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	92	278	38	119	130	397	12:00 pm	268	1186	276	1061	544	2247
12:15 am	70	220	27	109	97	329	12:15 pm	272	1198	256	1040	528	2238
12:30 am	60	194	28	103	88	297	12:30 pm	299	1240	276	1052	575	2292
12:45 am	56	156	26	117	82	273	12:45 pm	347	1255	253	1066	600	2321
1:00 am	34	128	28	126	62	254	1:00 pm	280	1220	255	1070	535	2290
1:15 am	44	122	21	138	65	260	1:15 pm	314	1254	268	1025	582	2279
1:30 am	22	108	42	157	64	265	1:30 pm	314	1320	290	993	604	2313
1:45 am	28	112	35	157	63	269	1:45 pm	312	1381	257	911	569	2292
2:00 am	28	103	40	159	68	262	2:00 pm	314	1483	210	876	524	2359
2:15 am	30	91	40	197	70	288	2:15 pm	380	1588	236	895	616	2483
2:30 am	26	89	42	245	68	334	2:30 pm	375	1664	208	884	583	2548
2:45 am	19	77	37	337	56	414	2:45 pm	414	1721	222	894	636	2615
3:00 am	16	98	78	514	94	612	3:00 pm	419	1737	229	922	648	2659
3:15 am	28	126	88	756	116	882	3:15 pm	456	1844	225	891	681	2735
3:30 am	14	141	134	1102	148	1243	3:30 pm	432	1980	218	899	650	2879
3:45 am	40	193	214	1541	254	1734	3:45 pm	430	2170	250	862	680	3032
4:00 am	44	245	320	2083	364	2328	4:00 pm	526	2362	198	796	724	3158
4:15 am	43	307	434	2485	477	2792	4:15 pm	592	2490	233	762	825	3252
4:30 am	66	324	573	2803	639	3127	4:30 pm	622	2510	181	707	803	3217
4:45 am	92	364	756	2944	848	3308	4:45 pm	622	2366	184	696	806	3062
5:00 am	106	392	722	2901	828	3293	5:00 pm	654	2380	164	708	818	3088
5:15 am	60	369	752	2804	812	3173	5:15 pm	612	2407	178	720	790	3127
5:30 am	106	405	714	2614	820	3019	5:30 pm	478	2351	170	698	648	3049
5:45 am	120	458	713	2505	833	2963	5:45 pm	636	2396	196	674	832	3070
6:00 am	83	532	625	2396	708	2928	6:00 pm	681	2328	176	590	857	2918
6:15 am	96	613	562	2383	658	2996	6:15 pm	556	2109	156	537	712	2646
6:30 am	159	687	605	2407	764	3094	6:30 pm	523	2004	146	496	669	2500
6:45 am	194	744	604	2296	798	3040	6:45 pm	568	1895	112	460	680	2355
7:00 am	164	768	612	2158	776	2926	7:00 pm	462	1737	123	462	585	2199
7:15 am	170	778	586	2012	756	2790	7:15 pm	451	1666	115	425	566	2091
7:30 am	216	810	494	1859	710	2669	7:30 pm	414	1627	110	402	524	2029
7:45 am	218	801	466	1791	684	2592	7:45 pm	410	1603	114	383	524	1986
8:00 am	174	806	466	1667	640	2473	8:00 pm	391	1561	86	359	477	1920
8:15 am	202	850	433	1581	635	2431	8:15 pm	412	1502	92	371	504	1873
8:30 am	207	858	426	1510	633	2368	8:30 pm	390	1480	91	391	481	1871
8:45 am	223	902	342	1406	565	2308	8:45 pm	368	1472	90	382	458	1854
9:00 am	218	917	380	1431	598	2348	9:00 pm	332	1441	98	374	430	1815
9:15 am	210	921	362	1367	572	2288	9:15 pm	390	1415	112	381	502	1796
9:30 am	251	915	322	1332	573	2247	9:30 pm	382	1240	82	362	464	1602
9:45 am	238	871	367	1350	605	2221	9:45 pm	337	1062	82	348	419	1410
10:00 am	222	893	316	1265	538	2158	10:00 pm	306	881	105	320	411	1201
10:15 am	204	933	327	1223	531	2156	10:15 pm	215	735	93	267	308	1002
10:30 am	207	1021	340	1162	547	2183	10:30 pm	204	666	68	220	272	886
10:45 am	260	1052	282	1116	542	2168	10:45 pm	156	602	54	187	210	789
11:00 am	262	1074	274	1116	536	2190	11:00 pm	160	556	52	153	212	709
11:15 am	292	1080	266	1118	558	2198	11:15 pm	146		46		192	
11:30 am	238	1060	294	1108	532	2168	11:30 pm	140		35		175	
11:45 am	282	1121	282	1090	564	2211	11:45 pm	110		20		130	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	48732	4:45 am	3308	4:15 pm	3252
N/B	25106	11:45 am	1121	4:30 pm	2510
S/B	23626	4:45 am	2944	1:00 pm	1070

Run Date *09/27/2007*
Run Time *11:22 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: B75-B76
Page: 1

Count Date: 01/18/2006 12:00 a Wednesday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	107	403	30	95	137	498	12:00 pm	189	828	234	900	423	1728
12:15 am	98	355	22	110	120	465	12:15 pm	184	835	218	886	402	1721
12:30 am	108	321	22	116	130	437	12:30 pm	206	884	202	890	408	1774
12:45 am	90	261	21	122	111	383	12:45 pm	249	911	246	926	495	1837
1:00 am	59	221	45	135	104	356	1:00 pm	196	888	220	964	416	1852
1:15 am	64	206	28	128	92	334	1:15 pm	233	950	222	992	455	1942
1:30 am	48	204	28	130	76	334	1:30 pm	233	1041	238	994	471	2035
1:45 am	50	190	34	134	84	324	1:45 pm	226	1138	284	959	510	2097
2:00 am	44	178	38	152	82	330	2:00 pm	258	1276	248	880	506	2156
2:15 am	62	176	30	195	92	371	2:15 pm	324	1396	224	866	548	2262
2:30 am	34	150	32	259	66	409	2:30 pm	330	1507	203	860	533	2367
2:45 am	38	172	52	357	90	529	2:45 pm	364	1617	205	925	569	2542
3:00 am	42	192	81	489	123	681	3:00 pm	378	1695	234	974	612	2669
3:15 am	36	190	94	714	130	904	3:15 pm	435	1797	218	976	653	2773
3:30 am	56	210	130	997	186	1207	3:30 pm	440	2011	268	964	708	2975
3:45 am	58	196	184	1409	242	1605	3:45 pm	442	2173	254	882	696	3055
4:00 am	40	184	306	1961	346	2145	4:00 pm	480	2331	236	837	716	3168
4:15 am	56	206	377	2381	433	2587	4:15 pm	649	2467	206	799	855	3266
4:30 am	42	188	542	2700	584	2888	4:30 pm	602	2449	186	811	788	3260
4:45 am	46	250	736	2780	782	3030	4:45 pm	600	2493	209	799	809	3292
5:00 am	62	304	726	2672	788	2976	5:00 pm	616	2510	198	720	814	3230
5:15 am	38	339	696	2586	734	2925	5:15 pm	631	2536	218	672	849	3208
5:30 am	104	413	622	2432	726	2845	5:30 pm	646	2477	174	622	820	3099
5:45 am	100	503	628	2374	728	2877	5:45 pm	617	2395	130	564	747	2959
6:00 am	97	584	640	2350	737	2934	6:00 pm	642	2306	150	548	792	2854
6:15 am	112	665	542	2255	654	2920	6:15 pm	572	2122	168	512	740	2634
6:30 am	194	745	564	2273	758	3018	6:30 pm	564	2138	116	452	680	2590
6:45 am	181	745	604	2209	785	2954	6:45 pm	528	1994	114	426	642	2420
7:00 am	178	778	545	2059	723	2837	7:00 pm	458	1860	114	409	572	2269
7:15 am	192	786	560	1980	752	2766	7:15 pm	588	1800	108	346	696	2146
7:30 am	194	790	500	1840	694	2630	7:30 pm	420	1536	90	304	510	1840
7:45 am	214	804	454	1722	668	2526	7:45 pm	394	1421	97	288	491	1709
8:00 am	186	771	466	1598	652	2369	8:00 pm	398	1277	51	289	449	1566
8:15 am	196	757	420	1483	616	2240	8:15 pm	324	1133	66	324	390	1457
8:30 am	208	771	382	1504	590	2275	8:30 pm	305	1053	74	368	379	1421
8:45 am	181	723	330	1609	511	2332	8:45 pm	250	946	98	376	348	1322
9:00 am	172	728	351	1650	523	2378	9:00 pm	254	883	86	365	340	1248
9:15 am	210	698	441	1613	651	2311	9:15 pm	244	863	110	367	354	1230
9:30 am	160	673	487	1540	647	2213	9:30 pm	198	825	82	335	280	1160
9:45 am	186	649	371	1339	557	1988	9:45 pm	187	822	87	297	274	1119
10:00 am	142	610	314	1270	456	1880	10:00 pm	234	805	88	277	322	1082
10:15 am	185	604	368	1292	553	1896	10:15 pm	206	723	78	247	284	970
10:30 am	136	595	286	1216	422	1811	10:30 pm	195	665	44	218	239	883
10:45 am	147	646	302	1206	449	1852	10:45 pm	170	592	67	201	237	793
11:00 am	136	669	336	1162	472	1831	11:00 pm	152	572	58	166	210	738
11:15 am	176	722	292	1060	468	1782	11:15 pm	148		49		197	
11:30 am	187	730	276	986	463	1716	11:30 pm	122		27		149	
11:45 am	170	749	258	912	428	1661	11:45 pm	150		32		182	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	45775	4:45 am	3030	4:45 pm	3292
N/B	22853	7:45 am	804	5:15 pm	2536
S/B	22922	4:45 am	2780	1:30 pm	994

Run Date *09/27/2007*
Run Time *11:22 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: B75-B76
Page: 1

Count Date: 01/19/2006 12:00 a Thursday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	107	403	30	95	137	498	12:00 pm	197	824	314	1250	511	2074
12:15 am	98	355	22	110	120	465	12:15 pm	175	841	286	1274	461	2115
12:30 am	108	321	22	116	130	437	12:30 pm	228	904	316	1282	544	2186
12:45 am	90	261	21	122	111	383	12:45 pm	224	922	334	1330	558	2252
1:00 am	59	221	45	135	104	356	1:00 pm	214	944	338	1325	552	2269
1:15 am	64	206	28	128	92	334	1:15 pm	238	1002	294	1287	532	2289
1:30 am	48	204	28	130	76	334	1:30 pm	246	1072	364	1325	610	2397
1:45 am	50	190	34	134	84	324	1:45 pm	246	1124	329	1261	575	2385
2:00 am	44	178	38	152	82	330	2:00 pm	272	1222	300	1260	572	2482
2:15 am	62	176	30	195	92	371	2:15 pm	308	1348	332	1288	640	2636
2:30 am	34	150	32	259	66	409	2:30 pm	298	1496	300	1314	598	2810
2:45 am	38	172	52	357	90	529	2:45 pm	344	1662	328	1330	672	2992
3:00 am	42	192	81	489	123	681	3:00 pm	398	1807	328	1374	726	3181
3:15 am	36	190	94	714	130	904	3:15 pm	456	1913	358	1388	814	3301
3:30 am	56	210	130	997	186	1207	3:30 pm	464	2063	316	1319	780	3382
3:45 am	58	196	184	1409	242	1605	3:45 pm	489	2125	372	1331	861	3456
4:00 am	40	184	306	1961	346	2145	4:00 pm	504	2124	342	1252	846	3376
4:15 am	56	206	377	2381	433	2587	4:15 pm	606	2228	289	1234	895	3462
4:30 am	42	188	542	2700	584	2888	4:30 pm	526	2278	328	1249	854	3527
4:45 am	46	250	736	2780	782	3030	4:45 pm	488	2470	293	1189	781	3659
5:00 am	62	304	726	2672	788	2976	5:00 pm	608	2700	324	1126	932	3826
5:15 am	38	339	696	2586	734	2925	5:15 pm	656	2815	304	1039	960	3854
5:30 am	104	413	622	2432	726	2845	5:30 pm	718	2818	268	973	986	3791
5:45 am	100	503	628	2374	728	2877	5:45 pm	718	2728	230	899	948	3627
6:00 am	97	584	640	2350	737	2934	6:00 pm	723	2626	237	851	960	3477
6:15 am	112	665	542	2255	654	2920	6:15 pm	659	2452	238	776	897	3228
6:30 am	194	745	564	2273	758	3018	6:30 pm	628	2230	194	660	822	2890
6:45 am	181	745	604	2209	785	2954	6:45 pm	616	1976	182	626	798	2602
7:00 am	178	778	545	2059	723	2837	7:00 pm	549	1726	162	592	711	2318
7:15 am	192	786	560	1980	752	2766	7:15 pm	437	1579	122	561	559	2140
7:30 am	194	790	500	1840	694	2630	7:30 pm	374	1494	160	599	534	2093
7:45 am	214	804	454	1722	668	2526	7:45 pm	366	1425	148	611	514	2036
8:00 am	186	771	466	1598	652	2369	8:00 pm	402	1405	131	613	533	2018
8:15 am	196	757	420	1483	616	2240	8:15 pm	352	1279	160	604	512	1883
8:30 am	208	771	382	1504	590	2275	8:30 pm	305	1190	172	604	477	1794
8:45 am	181	723	330	1609	511	2332	8:45 pm	346	1121	150	578	496	1699
9:00 am	172	728	351	1650	523	2378	9:00 pm	276	1011	122	558	398	1569
9:15 am	210	698	441	1613	651	2311	9:15 pm	263	949	160	550	423	1499
9:30 am	160	673	487	1540	647	2213	9:30 pm	236	872	146	514	382	1386
9:45 am	186	649	371	1339	557	1988	9:45 pm	236	838	130	442	366	1280
10:00 am	142	610	314	1270	456	1880	10:00 pm	214	786	114	386	328	1172
10:15 am	185	604	368	1292	553	1896	10:15 pm	186	743	124	344	310	1087
10:30 am	136	595	286	1216	422	1811	10:30 pm	202	708	74	284	276	992
10:45 am	147	646	302	1206	449	1852	10:45 pm	184	655	74	288	258	943
11:00 am	136	669	336	1162	472	1831	11:00 pm	171	612	72	256	243	868
11:15 am	176	730	292	1140	468	1870	11:15 pm	151		64		215	
11:30 am	187	729	276	1134	463	1863	11:30 pm	149		78		227	
11:45 am	170	770	258	1174	428	1944	11:45 pm	141		42		183	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	49845	4:45 am	3030	5:15 pm	3854
N/B	23409	7:45 am	804	5:30 pm	2818
S/B	26436	4:45 am	2780	3:15 pm	1388

Run Date *09/27/2007*
Run Time *11:22 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: 2N7-2O0
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Count Date: 08/09/2005 12:00 a Tuesday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	24	109	128	424	152	533	12:00 pm	210	841	152	706	362	1547
12:15 am	34	109	111	378	145	487	12:15 pm	211	875	173	744	384	1619
12:30 am	33	103	101	334	134	437	12:30 pm	207	888	192	778	399	1666
12:45 am	18	96	84	295	102	391	12:45 pm	213	915	189	783	402	1698
1:00 am	24	99	82	260	106	359	1:00 pm	244	939	190	826	434	1765
1:15 am	28	105	67	217	95	322	1:15 pm	224	907	207	902	431	1809
1:30 am	26	135	62	186	88	321	1:30 pm	234	900	197	951	431	1851
1:45 am	21	158	49	169	70	327	1:45 pm	237	864	232	1024	469	1888
2:00 am	30	184	39	158	69	342	2:00 pm	212	818	266	1101	478	1919
2:15 am	58	231	36	148	94	379	2:15 pm	217	832	256	1167	473	1999
2:30 am	49	279	45	174	94	453	2:30 pm	198	813	270	1313	468	2126
2:45 am	47	350	38	205	85	555	2:45 pm	191	792	309	1474	500	2266
3:00 am	77	489	29	195	106	684	3:00 pm	226	828	332	1606	558	2434
3:15 am	106	733	62	194	168	927	3:15 pm	198	798	402	1750	600	2548
3:30 am	120	993	76	171	196	1164	3:30 pm	177	770	431	1925	608	2695
3:45 am	186	1420	28	149	214	1569	3:45 pm	227	771	441	2047	668	2818
4:00 am	321	1837	28	176	349	2013	4:00 pm	196	744	476	2161	672	2905
4:15 am	366	2168	39	202	405	2370	4:15 pm	170	729	577	2212	747	2941
4:30 am	547	2441	54	232	601	2673	4:30 pm	178	724	553	2351	731	3075
4:45 am	603	2478	55	267	658	2745	4:45 pm	200	718	555	2365	755	3083
5:00 am	652	2466	54	311	706	2777	5:00 pm	181	679	527	2418	708	3097
5:15 am	639	2382	69	368	708	2750	5:15 pm	165	668	716	2454	881	3122
5:30 am	584	2344	89	463	673	2807	5:30 pm	172	683	567	2261	739	2944
5:45 am	591	2340	99	532	690	2872	5:45 pm	161	643	608	2202	769	2845
6:00 am	568	2377	111	585	679	2962	6:00 pm	170	623	563	2103	733	2726
6:15 am	601	2350	164	612	765	2962	6:15 pm	180	580	523	2018	703	2598
6:30 am	580	2273	158	599	738	2872	6:30 pm	132	503	508	1949	640	2452
6:45 am	628	2194	152	590	780	2784	6:45 pm	141	441	509	1816	650	2257
7:00 am	541	1997	138	632	679	2629	7:00 pm	127	420	478	1704	605	2124
7:15 am	524	1881	151	676	675	2557	7:15 pm	103	402	454	1566	557	1968
7:30 am	501	1740	149	705	650	2445	7:30 pm	70	397	375	1401	445	1798
7:45 am	431	1603	194	700	625	2303	7:45 pm	120	423	397	1353	517	1776
8:00 am	425	1500	182	713	607	2213	8:00 pm	109	421	340	1210	449	1631
8:15 am	383	1409	180	685	563	2094	8:15 pm	98	413	289	1157	387	1570
8:30 am	364	1350	144	649	508	1999	8:30 pm	96	417	327	1133	423	1550
8:45 am	328	1279	207	659	535	1938	8:45 pm	118	433	254	1056	372	1489
9:00 am	334	1241	154	639	488	1880	9:00 pm	101	383	287	1062	388	1445
9:15 am	324	1147	144	598	468	1745	9:15 pm	102	382	265	987	367	1369
9:30 am	293	1069	154	601	447	1670	9:30 pm	112	364	250	917	362	1281
9:45 am	290	990	187	587	477	1577	9:45 pm	68	336	260	873	328	1209
10:00 am	240	930	113	543	353	1473	10:00 pm	100	344	212	823	312	1167
10:15 am	246	910	147	582	393	1492	10:15 pm	84	291	195	790	279	1081
10:30 am	214	914	140	592	354	1506	10:30 pm	84	260	206	760	290	1020
10:45 am	230	916	143	603	373	1519	10:45 pm	76	214	210	710	286	924
11:00 am	220	908	152	637	372	1545	11:00 pm	47	168	179	641	226	809
11:15 am	250	898	157	637	407	1535	11:15 pm	53		165		218	
11:30 am	216	859	151	653	367	1512	11:30 pm	38		156		194	
11:45 am	222	850	177	694	399	1544	11:45 pm	30		141		171	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	42979	6:00 am	2962	5:15 pm	3122
N/B	21345	4:45 am	2478	1:00 pm	939
S/B	21634	8:00 am	713	5:15 pm	2454

Run Date *09/27/2007*
Run Time *11:22 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: 2N7-2O0
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Count Date: 08/10/2005 12:00 a Wednesday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	24	109	128	424	152	533	12:00 pm	233	906	173	812	406	1718
12:15 am	34	109	111	378	145	487	12:15 pm	250	908	186	859	436	1767
12:30 am	33	103	101	334	134	437	12:30 pm	226	932	214	897	440	1829
12:45 am	18	96	84	295	102	391	12:45 pm	197	951	239	887	436	1838
1:00 am	24	99	82	260	106	359	1:00 pm	235	969	220	860	455	1829
1:15 am	28	105	67	217	95	322	1:15 pm	274	968	224	877	498	1845
1:30 am	26	135	62	186	88	321	1:30 pm	245	904	204	908	449	1812
1:45 am	21	158	49	169	70	327	1:45 pm	215	882	212	1009	427	1891
2:00 am	30	184	39	158	69	342	2:00 pm	234	876	237	1192	471	2068
2:15 am	58	231	36	148	94	379	2:15 pm	210	875	255	1326	465	2201
2:30 am	49	279	45	174	94	453	2:30 pm	223	858	305	1452	528	2310
2:45 am	47	350	38	205	85	555	2:45 pm	209	847	395	1569	604	2416
3:00 am	77	489	29	195	106	684	3:00 pm	233	842	371	1657	604	2499
3:15 am	106	733	62	194	168	927	3:15 pm	193	830	381	1798	574	2628
3:30 am	120	993	76	171	196	1164	3:30 pm	212	839	422	1997	634	2836
3:45 am	186	1420	28	149	214	1569	3:45 pm	204	827	483	2098	687	2925
4:00 am	321	1837	28	176	349	2013	4:00 pm	221	792	512	2214	733	3006
4:15 am	366	2168	39	202	405	2370	4:15 pm	202	777	580	2340	782	3117
4:30 am	547	2441	54	232	601	2673	4:30 pm	200	781	523	2440	723	3221
4:45 am	603	2478	55	267	658	2745	4:45 pm	169	742	599	2531	768	3273
5:00 am	652	2466	54	311	706	2777	5:00 pm	206	730	638	2510	844	3240
5:15 am	639	2382	69	368	708	2750	5:15 pm	206	696	680	2457	886	3153
5:30 am	584	2344	89	463	673	2807	5:30 pm	161	633	614	2434	775	3067
5:45 am	591	2340	99	532	690	2872	5:45 pm	157	609	578	2438	735	3047
6:00 am	568	2377	111	585	679	2962	6:00 pm	172	594	585	2354	757	2948
6:15 am	601	2350	164	612	765	2962	6:15 pm	143	550	657	2263	800	2813
6:30 am	580	2273	158	599	738	2872	6:30 pm	137	532	618	2102	755	2634
6:45 am	628	2194	152	590	780	2784	6:45 pm	142	506	494	1869	636	2375
7:00 am	541	1997	138	632	679	2629	7:00 pm	128	465	494	1744	622	2209
7:15 am	524	1881	151	676	675	2557	7:15 pm	125	451	496	1625	621	2076
7:30 am	501	1740	149	705	650	2445	7:30 pm	111	464	385	1493	496	1957
7:45 am	431	1603	194	700	625	2303	7:45 pm	101	464	369	1420	470	1884
8:00 am	425	1500	182	713	607	2213	8:00 pm	114	484	375	1375	489	1859
8:15 am	383	1419	180	683	563	2102	8:15 pm	138	505	364	1268	502	1773
8:30 am	364	1346	144	653	508	1999	8:30 pm	111	514	312	1168	423	1682
8:45 am	328	1272	207	681	535	1953	8:45 pm	121	534	324	1091	445	1625
9:00 am	344	1189	152	644	496	1833	9:00 pm	135	548	268	1025	403	1573
9:15 am	310	1085	150	656	460	1741	9:15 pm	147	542	264	969	411	1511
9:30 am	290	993	172	675	462	1668	9:30 pm	131	498	235	913	366	1411
9:45 am	245	978	170	649	415	1627	9:45 pm	135	446	258	884	393	1330
10:00 am	240	971	164	643	404	1614	10:00 pm	129	389	212	809	341	1198
10:15 am	218	989	169	641	387	1630	10:15 pm	103	331	208	769	311	1100
10:30 am	275	1009	146	662	421	1671	10:30 pm	79	280	206	741	285	1021
10:45 am	238	979	164	701	402	1680	10:45 pm	78	238	183	726	261	964
11:00 am	258	977	162	700	420	1677	11:00 pm	71	205	172	682	243	887
11:15 am	238	952	190	711	428	1663	11:15 pm	52		180		232	
11:30 am	245	964	185	707	430	1671	11:30 pm	37		191		228	
11:45 am	236	945	163	736	399	1681	11:45 pm	45		139		184	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	44670	6:00 am	2962	4:45 pm	3273
N/B	21995	4:45 am	2478	1:00 pm	969
S/B	22675	11:45 am	736	4:45 pm	2531

Run Date *09/27/2007*
Run Time *11:22 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

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Count Date: 08/11/2005 12:00 a Thursday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	40	123	140	498	180	621	12:00 pm	212	834	187	714	399	1548
12:15 am	31	111	128	479	159	590	12:15 pm	220	863	170	737	390	1600
12:30 am	25	120	117	422	142	542	12:30 pm	214	868	181	789	395	1657
12:45 am	27	112	113	381	140	493	12:45 pm	188	886	176	849	364	1735
1:00 am	28	119	121	325	149	444	1:00 pm	241	927	210	905	451	1832
1:15 am	40	135	71	270	111	405	1:15 pm	225	931	222	950	447	1881
1:30 am	17	140	76	248	93	388	1:30 pm	232	937	241	993	473	1930
1:45 am	34	167	57	217	91	384	1:45 pm	229	917	232	1041	461	1958
2:00 am	44	190	66	199	110	389	2:00 pm	245	905	255	1145	500	2050
2:15 am	45	226	49	169	94	395	2:15 pm	231	872	265	1259	496	2131
2:30 am	44	277	45	180	89	457	2:30 pm	212	871	289	1388	501	2259
2:45 am	57	369	39	189	96	558	2:45 pm	217	845	336	1536	553	2381
3:00 am	80	513	36	190	116	703	3:00 pm	212	856	369	1671	581	2527
3:15 am	96	738	60	212	156	950	3:15 pm	230	881	394	1833	624	2714
3:30 am	136	1039	54	196	190	1235	3:30 pm	186	844	437	2015	623	2859
3:45 am	201	1428	40	187	241	1615	3:45 pm	228	827	471	2165	699	2992
4:00 am	305	1870	58	197	363	2067	4:00 pm	237	802	531	2280	768	3082
4:15 am	397	2187	44	197	441	2384	4:15 pm	193	732	576	2361	769	3093
4:30 am	525	2381	45	216	570	2597	4:30 pm	169	725	587	2392	756	3117
4:45 am	643	2415	50	254	693	2669	4:45 pm	203	720	586	2462	789	3182
5:00 am	622	2366	58	304	680	2670	5:00 pm	167	668	612	2537	779	3205
5:15 am	591	2362	63	350	654	2712	5:15 pm	186	669	607	2518	793	3187
5:30 am	559	2388	83	413	642	2801	5:30 pm	164	634	657	2524	821	3158
5:45 am	594	2472	100	511	694	2983	5:45 pm	151	623	661	2494	812	3117
6:00 am	618	2457	104	588	722	3045	6:00 pm	168	607	593	2345	761	2952
6:15 am	617	2390	126	620	743	3010	6:15 pm	151	574	613	2274	764	2848
6:30 am	643	2305	181	655	824	2960	6:30 pm	153	537	627	2239	780	2776
6:45 am	579	2130	177	625	756	2755	6:45 pm	135	498	512	2012	647	2510
7:00 am	551	1989	136	660	687	2649	7:00 pm	135	493	522	1928	657	2421
7:15 am	532	1866	161	701	693	2567	7:15 pm	114	473	578	1816	692	2289
7:30 am	468	1719	151	703	619	2422	7:30 pm	114	497	400	1618	514	2115
7:45 am	438	1624	212	738	650	2362	7:45 pm	130	516	428	1552	558	2068
8:00 am	428	1544	177	671	605	2215	8:00 pm	115	503	410	1481	525	1984
8:15 am	385	1458	163	635	548	2093	8:15 pm	138	519	380	1405	518	1924
8:30 am	373	1372	186	633	559	2005	8:30 pm	133	500	334	1341	467	1841
8:45 am	358	1303	145	629	503	1932	8:45 pm	117	470	357	1267	474	1737
9:00 am	342	1201	141	643	483	1844	9:00 pm	131	452	334	1163	465	1615
9:15 am	299	1118	161	659	460	1777	9:15 pm	119	430	316	1058	435	1488
9:30 am	304	1100	182	638	486	1738	9:30 pm	103	406	260	964	363	1370
9:45 am	256	1013	159	639	415	1652	9:45 pm	99	368	253	927	352	1295
10:00 am	259	1007	157	634	416	1641	10:00 pm	109	349	229	857	338	1206
10:15 am	281	993	140	642	421	1635	10:15 pm	95	302	222	786	317	1088
10:30 am	217	928	183	668	400	1596	10:30 pm	65	262	223	744	288	1006
10:45 am	250	951	154	670	404	1621	10:45 pm	80	241	183	684	263	925
11:00 am	245	901	165	683	410	1584	11:00 pm	62	203	158	652	220	855
11:15 am	216	868	166	705	382	1573	11:15 pm	55		180		235	
11:30 am	240	872	185	709	425	1581	11:30 pm	44		163		207	
11:45 am	200	846	167	705	367	1551	11:45 pm	42		151		193	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	45149	6:00 am	3045	5:00 pm	3205
N/B	21879	5:45 am	2472	1:30 pm	937
S/B	23270	7:45 am	738	5:00 pm	2537

Run Date *09/27/2007*
Run Time *11:22 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

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Count Date: 08/12/2005 12:00 a Friday Condition: : Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	37	151	156	495	193	646	12:00 pm	236	949	212	859	448	1808
12:15 am	44	147	96	438	140	585	12:15 pm	272	981	194	926	466	1907
12:30 am	32	142	130	421	162	563	12:30 pm	213	961	221	996	434	1957
12:45 am	38	134	113	355	151	489	12:45 pm	228	974	232	1082	460	2056
1:00 am	33	128	99	291	132	419	1:00 pm	268	994	279	1126	547	2120
1:15 am	39	136	79	245	118	381	1:15 pm	252	992	264	1155	516	2147
1:30 am	24	141	64	210	88	351	1:30 pm	226	985	307	1231	533	2216
1:45 am	32	173	49	189	81	362	1:45 pm	248	987	276	1269	524	2256
2:00 am	41	202	53	187	94	389	2:00 pm	266	981	308	1382	574	2363
2:15 am	44	243	44	176	88	419	2:15 pm	245	954	340	1509	585	2463
2:30 am	56	302	43	197	99	499	2:30 pm	228	957	345	1611	573	2568
2:45 am	61	362	47	211	108	573	2:45 pm	242	972	389	1778	631	2750
3:00 am	82	492	42	227	124	719	3:00 pm	239	983	435	1909	674	2892
3:15 am	103	725	65	245	168	970	3:15 pm	248	995	442	1996	690	2991
3:30 am	116	1012	57	236	173	1248	3:30 pm	243	958	512	2105	755	3063
3:45 am	191	1410	63	244	254	1654	3:45 pm	253	937	520	2186	773	3123
4:00 am	315	1783	60	258	375	2041	4:00 pm	251	898	522	2178	773	3076
4:15 am	390	2092	56	258	446	2350	4:15 pm	211	863	551	2222	762	3085
4:30 am	514	2302	65	275	579	2577	4:30 pm	222	862	593	2322	815	3184
4:45 am	564	2343	77	298	641	2641	4:45 pm	214	824	512	2317	726	3141
5:00 am	624	2346	60	326	684	2672	5:00 pm	216	801	566	2409	782	3210
5:15 am	600	2321	73	400	673	2721	5:15 pm	210	777	651	2406	861	3183
5:30 am	555	2292	88	446	643	2738	5:30 pm	184	749	588	2294	772	3043
5:45 am	567	2311	105	531	672	2842	5:45 pm	191	743	604	2336	795	3079
6:00 am	599	2365	134	614	733	2979	6:00 pm	192	737	563	2217	755	2954
6:15 am	571	2285	119	643	690	2928	6:15 pm	182	696	539	2201	721	2897
6:30 am	574	2250	173	673	747	2923	6:30 pm	178	672	630	2204	808	2876
6:45 am	621	2187	188	661	809	2848	6:45 pm	185	627	485	2083	670	2710
7:00 am	519	2020	163	705	682	2725	7:00 pm	151	591	547	2022	698	2613
7:15 am	536	1925	149	730	685	2655	7:15 pm	158	580	542	1913	700	2493
7:30 am	511	1820	161	742	672	2562	7:30 pm	133	578	509	1758	642	2336
7:45 am	454	1719	232	777	686	2496	7:45 pm	149	593	424	1640	573	2233
8:00 am	424	1576	188	735	612	2311	8:00 pm	140	612	438	1613	578	2225
8:15 am	431	1480	161	738	592	2218	8:15 pm	156	608	387	1539	543	2147
8:30 am	410	1344	196	749	606	2093	8:30 pm	148	593	391	1533	539	2126
8:45 am	311	1198	190	714	501	1912	8:45 pm	168	583	397	1494	565	2077
9:00 am	328	1178	191	702	519	1880	9:00 pm	136	530	364	1414	500	1944
9:15 am	295	1090	172	705	467	1795	9:15 pm	141	504	381	1342	522	1846
9:30 am	264	1036	161	709	425	1745	9:30 pm	138	502	352	1238	490	1740
9:45 am	291	1036	178	732	469	1768	9:45 pm	115	467	317	1166	432	1633
10:00 am	240	976	194	771	434	1747	10:00 pm	110	445	292	1101	402	1546
10:15 am	241	978	176	781	417	1759	10:15 pm	139	395	277	1046	416	1441
10:30 am	264	1022	184	804	448	1826	10:30 pm	103	332	280	994	383	1326
10:45 am	231	996	217	800	448	1796	10:45 pm	93	290	252	916	345	1206
11:00 am	242	1023	204	797	446	1820	11:00 pm	60	229	237	863	297	1092
11:15 am	285	1017	199	805	484	1822	11:15 pm	76		225		301	
11:30 am	238	1004	180	800	418	1804	11:30 pm	61		202		263	
11:45 am	258	979	214	841	472	1820	11:45 pm	32		199		231	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	48191	6:00 am	2979	5:00 pm	3210
N/B	22990	6:00 am	2365	3:15 pm	995
S/B	25201	11:45 am	841	5:00 pm	2409

Run Date *09/27/2007*
Run Time *11:23 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Y47
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Count Date: 08/24/2004 12:00 a Tuesday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	118	415	24	97	142	512	12:00 pm	184	859	211	766	395	1625
12:15 am	104	393	30	101	134	494	12:15 pm	203	908	190	821	393	1729
12:30 am	102	351	21	94	123	445	12:30 pm	224	976	190	896	414	1872
12:45 am	91	309	22	102	113	411	12:45 pm	248	979	175	938	423	1917
1:00 am	96	252	28	105	124	357	1:00 pm	233	946	266	973	499	1919
1:15 am	62	197	23	110	85	307	1:15 pm	271	967	265	943	536	1910
1:30 am	60	183	29	117	89	300	1:30 pm	227	970	232	908	459	1878
1:45 am	34	159	25	134	59	293	1:45 pm	215	1054	210	897	425	1951
2:00 am	41	170	33	171	74	341	2:00 pm	254	1133	236	913	490	2046
2:15 am	48	181	30	210	78	391	2:15 pm	274	1256	230	936	504	2192
2:30 am	36	183	46	269	82	452	2:30 pm	311	1409	221	949	532	2358
2:45 am	45	209	62	325	107	534	2:45 pm	294	1505	226	946	520	2451
3:00 am	52	224	72	411	124	635	3:00 pm	377	1626	259	983	636	2609
3:15 am	50	215	89	582	139	797	3:15 pm	427	1720	243	965	670	2685
3:30 am	62	214	102	797	164	1011	3:30 pm	407	1779	218	983	625	2762
3:45 am	60	300	148	1050	208	1350	3:45 pm	415	1839	263	1031	678	2870
4:00 am	43	452	243	1349	286	1801	4:00 pm	471	1920	241	1006	712	2926
4:15 am	49	821	304	1459	353	2280	4:15 pm	486	1946	261	1052	747	2998
4:30 am	148	1091	355	1597	503	2688	4:30 pm	467	1974	266	1135	733	3109
4:45 am	212	1285	447	1638	659	2923	4:45 pm	496	2050	238	1141	734	3191
5:00 am	412	1436	353	1631	765	3067	5:00 pm	497	2108	287	1130	784	3238
5:15 am	319	1316	442	1637	761	2953	5:15 pm	514	2085	344	1084	858	3169
5:30 am	342	1262	396	1463	738	2725	5:30 pm	543	2071	272	996	815	3067
5:45 am	363	1183	440	1263	803	2446	5:45 pm	554	2048	227	939	781	2987
6:00 am	292	1092	359	1138	651	2230	6:00 pm	474	1978	241	881	715	2859
6:15 am	265	1108	268	1136	533	2244	6:15 pm	500	1982	256	793	756	2775
6:30 am	263	1297	196	1298	459	2595	6:30 pm	520	1947	215	686	735	2633
6:45 am	272	1323	315	1547	587	2870	6:45 pm	484	1769	169	570	653	2339
7:00 am	308	1333	357	1570	665	2903	7:00 pm	478	1562	153	515	631	2077
7:15 am	454	1234	430	1561	884	2795	7:15 pm	465	1603	149	468	614	2071
7:30 am	289	1007	445	1448	734	2455	7:30 pm	342	1486	99	424	441	1910
7:45 am	282	977	338	1286	620	2263	7:45 pm	277	1469	114	447	391	1916
8:00 am	209	927	348	1279	557	2206	8:00 pm	519	1487	106	435	625	1922
8:15 am	227	946	317	1201	544	2147	8:15 pm	348	1208	105	422	453	1630
8:30 am	259	909	283	1149	542	2058	8:30 pm	325	1161	122	396	447	1557
8:45 am	232	829	331	1165	563	1994	8:45 pm	295	1055	102	350	397	1405
9:00 am	228	770	270	1064	498	1834	9:00 pm	240	1009	93	325	333	1334
9:15 am	190	759	265	992	455	1751	9:15 pm	301	979	79	306	380	1285
9:30 am	179	780	299	972	478	1752	9:30 pm	219	884	76	287	295	1171
9:45 am	173	776	230	893	403	1669	9:45 pm	249	852	77	279	326	1131
10:00 am	217	761	198	860	415	1621	10:00 pm	210	781	74	242	284	1023
10:15 am	211	750	245	888	456	1638	10:15 pm	206	758	60	213	266	971
10:30 am	175	703	220	853	395	1556	10:30 pm	187	691	68	200	255	891
10:45 am	158	735	197	856	355	1591	10:45 pm	178	611	40	167	218	778
11:00 am	206	796	226	903	432	1699	11:00 pm	187	559	45	146	232	705
11:15 am	164	774	210	888	374	1662	11:15 pm	139		47		186	
11:30 am	207	813	223	868	430	1681	11:30 pm	107		35		142	
11:45 am	219	830	244	835	463	1665	11:45 pm	126		19		145	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	43489	5:00 am	3067	5:00 pm	3238
N/B	24596	5:00 am	1436	5:00 pm	2108
S/B	18893	4:45 am	1638	4:45 pm	1141

Run Date *09/27/2007*
Run Time *11:23 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Historical
Page: 1

Count Date: 04/08/2003 12:00 a Tuesday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	60	197	22	92	82	289	12:00 pm	216	886	190	797	406	1683
12:15 am	37	181	23	95	60	276	12:15 pm	216	937	198	780	414	1717
12:30 am	57	190	30	97	87	287	12:30 pm	201	994	199	753	400	1747
12:45 am	43	162	17	105	60	267	12:45 pm	253	1098	210	726	463	1824
1:00 am	44	152	25	126	69	278	1:00 pm	267	1169	173	701	440	1870
1:15 am	46	135	25	158	71	293	1:15 pm	273	1247	171	689	444	1936
1:30 am	29	123	38	214	67	337	1:30 pm	305	1371	172	680	477	2051
1:45 am	33	137	38	262	71	399	1:45 pm	324	1450	185	668	509	2118
2:00 am	27	153	57	352	84	505	2:00 pm	345	1583	161	633	506	2216
2:15 am	34	158	81	517	115	675	2:15 pm	397	1724	162	627	559	2351
2:30 am	43	165	86	688	129	853	2:30 pm	384	1910	160	620	544	2530
2:45 am	49	174	128	981	177	1155	2:45 pm	457	2071	150	590	607	2661
3:00 am	32	173	222	1407	254	1580	3:00 pm	486	2193	155	591	641	2784
3:15 am	41	208	252	1889	293	2097	3:15 pm	583	2270	155	579	738	2849
3:30 am	52	224	379	2368	431	2592	3:30 pm	545	2291	130	558	675	2849
3:45 am	48	234	554	2584	602	2818	3:45 pm	579	2312	151	573	730	2885
4:00 am	67	265	704	2573	771	2838	4:00 pm	563	2243	143	550	706	2793
4:15 am	57	297	731	2491	788	2788	4:15 pm	604	2243	134	513	738	2756
4:30 am	62	335	595	2402	657	2737	4:30 pm	566	2164	145	516	711	2680
4:45 am	79	390	543	2452	622	2842	4:45 pm	510	2158	128	477	638	2635
5:00 am	99	465	622	2487	721	2952	5:00 pm	563	2087	106	449	669	2536
5:15 am	95	514	642	2426	737	2940	5:15 pm	525	1923	137	456	662	2379
5:30 am	117	586	645	2235	762	2821	5:30 pm	560	1780	106	393	666	2173
5:45 am	154	609	578	2053	732	2662	5:45 pm	439	1624	100	375	539	1999
6:00 am	148	617	561	1933	709	2550	6:00 pm	399	1517	113	368	512	1885
6:15 am	167	647	451	1746	618	2393	6:15 pm	382	1374	74	338	456	1712
6:30 am	140	682	463	1671	603	2353	6:30 pm	404	1255	88	341	492	1596
6:45 am	162	721	458	1549	620	2270	6:45 pm	332	1120	93	332	425	1452
7:00 am	178	743	374	1365	552	2108	7:00 pm	256	1036	83	315	339	1351
7:15 am	202	719	376	1291	578	2010	7:15 pm	263	1009	77	291	340	1300
7:30 am	179	669	341	1215	520	1884	7:30 pm	269	939	79	287	348	1226
7:45 am	184	670	274	1130	458	1800	7:45 pm	248	853	76	278	324	1131
8:00 am	154	652	300	1090	454	1742	8:00 pm	229	812	59	267	288	1079
8:15 am	152	657	300	993	452	1650	8:15 pm	193	750	73	275	266	1025
8:30 am	180	627	256	929	436	1556	8:30 pm	183	727	70	260	253	987
8:45 am	166	617	234	873	400	1490	8:45 pm	207	728	65	237	272	965
9:00 am	159	600	203	819	362	1419	9:00 pm	167	674	67	214	234	888
9:15 am	122	624	236	809	358	1433	9:15 pm	170	657	58	209	228	866
9:30 am	170	662	200	747	370	1409	9:30 pm	184	611	47	208	231	819
9:45 am	149	681	180	716	329	1397	9:45 pm	153	548	42	197	195	745
10:00 am	183	726	193	707	376	1433	10:00 pm	150	509	62	187	212	696
10:15 am	160	729	174	742	334	1471	10:15 pm	124	460	57	142	181	602
10:30 am	189	779	169	772	358	1551	10:30 pm	121	425	36	109	157	534
10:45 am	194	808	171	768	365	1576	10:45 pm	114	399	32	95	146	494
11:00 am	186	826	228	807	414	1633	11:00 pm	101	361	17	87	118	448
11:15 am	210	856	204	769	414	1625	11:15 pm	89		24		113	
11:30 am	218	862	165	763	383	1625	11:30 pm	95		22		117	
11:45 am	212	845	210	797	422	1642	11:45 pm	76		24		100	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	39556	5:00 am	2952	3:45 pm	2885
N/B	20639	11:30 am	862	3:45 pm	2312
S/B	18917	3:45 am	2584	12:00 pm	797

Run Date *09/27/2007*
Run Time *11:23 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Historical
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Count Date: 04/09/2003 12:00 a Wednesday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	60	197	22	92	82	289	12:00 pm	208	882	165	774	373	1656
12:15 am	37	181	23	95	60	276	12:15 pm	232	959	204	814	436	1773
12:30 am	57	190	30	97	87	287	12:30 pm	201	988	193	821	394	1809
12:45 am	43	162	17	105	60	267	12:45 pm	241	1056	212	803	453	1859
1:00 am	44	152	25	126	69	278	1:00 pm	285	1159	205	756	490	1915
1:15 am	46	135	25	158	71	293	1:15 pm	261	1234	211	743	472	1977
1:30 am	29	123	38	214	67	337	1:30 pm	269	1384	175	724	444	2108
1:45 am	33	137	38	262	71	399	1:45 pm	344	1506	165	733	509	2239
2:00 am	27	153	57	352	84	505	2:00 pm	360	1627	192	724	552	2351
2:15 am	34	158	81	517	115	675	2:15 pm	411	1716	192	687	603	2403
2:30 am	43	165	86	688	129	853	2:30 pm	391	1900	184	628	575	2528
2:45 am	49	174	128	981	177	1155	2:45 pm	465	2091	156	589	621	2680
3:00 am	32	173	222	1407	254	1580	3:00 pm	449	2199	155	588	604	2787
3:15 am	41	208	252	1889	293	2097	3:15 pm	595	2326	133	598	728	2924
3:30 am	52	224	379	2368	431	2592	3:30 pm	582	2363	145	616	727	2979
3:45 am	48	234	554	2584	602	2818	3:45 pm	573	2359	155	613	728	2972
4:00 am	67	265	704	2573	771	2838	4:00 pm	576	2332	165	579	741	2911
4:15 am	57	297	731	2491	788	2788	4:15 pm	632	2350	151	529	783	2879
4:30 am	62	335	595	2402	657	2737	4:30 pm	578	2253	142	502	720	2755
4:45 am	79	390	543	2452	622	2842	4:45 pm	546	2217	121	465	667	2682
5:00 am	99	465	622	2487	721	2952	5:00 pm	594	2177	115	454	709	2631
5:15 am	95	514	642	2426	737	2940	5:15 pm	535	2031	124	467	659	2498
5:30 am	117	586	645	2235	762	2821	5:30 pm	542	1889	105	443	647	2332
5:45 am	154	609	578	2053	732	2662	5:45 pm	506	1692	110	423	616	2115
6:00 am	148	617	561	1933	709	2550	6:00 pm	448	1523	128	382	576	1905
6:15 am	167	647	451	1746	618	2393	6:15 pm	393	1391	100	332	493	1723
6:30 am	140	682	463	1671	603	2353	6:30 pm	345	1250	85	327	430	1577
6:45 am	162	721	458	1549	620	2270	6:45 pm	337	1199	69	313	406	1512
7:00 am	178	743	374	1365	552	2108	7:00 pm	316	1104	78	344	394	1448
7:15 am	202	719	376	1291	578	2010	7:15 pm	252	1011	95	358	347	1369
7:30 am	179	669	341	1215	520	1884	7:30 pm	294	994	71	363	365	1357
7:45 am	184	670	274	1130	458	1800	7:45 pm	242	883	100	374	342	1257
8:00 am	154	652	300	1090	454	1742	8:00 pm	223	834	92	338	315	1172
8:15 am	152	649	300	1016	452	1665	8:15 pm	235	781	100	306	335	1087
8:30 am	180	661	256	933	436	1594	8:30 pm	183	704	82	287	265	991
8:45 am	166	643	234	877	400	1520	8:45 pm	193	694	64	269	257	963
9:00 am	151	666	226	872	377	1538	9:00 pm	170	656	60	255	230	911
9:15 am	164	688	217	835	381	1523	9:15 pm	158	622	81	236	239	858
9:30 am	162	739	200	813	362	1552	9:30 pm	173	600	64	199	237	799
9:45 am	189	756	229	792	418	1548	9:45 pm	155	530	50	179	205	709
10:00 am	173	767	189	765	362	1532	10:00 pm	136	484	41	160	177	644
10:15 am	215	782	195	797	410	1579	10:15 pm	136	443	44	142	180	585
10:30 am	179	765	179	843	358	1608	10:30 pm	103	396	44	115	147	511
10:45 am	200	825	202	866	402	1691	10:45 pm	109	385	31	86	140	471
11:00 am	188	826	221	841	409	1667	11:00 pm	95	354	23	75	118	429
11:15 am	198	846	241	785	439	1631	11:15 pm	89		17		106	
11:30 am	239	880	202	748	441	1628	11:30 pm	92		15		107	
11:45 am	201	842	177	739	378	1581	11:45 pm	78		20		98	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	40339	5:00 am	2952	3:30 pm	2979
N/B	21007	11:30 am	880	3:30 pm	2363
S/B	19332	3:45 am	2584	12:30 pm	821

Run Date *09/27/2007*
Run Time *11:23 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Historical
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Count Date: 04/10/2003 12:00 a Thursday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	71	234	26	89	97	323	12:00 pm	236	925	167	791	403	1716
12:15 am	53	218	26	88	79	306	12:15 pm	226	933	218	819	444	1752
12:30 am	69	208	15	91	84	299	12:30 pm	212	982	215	797	427	1779
12:45 am	41	180	22	109	63	289	12:45 pm	251	1073	191	743	442	1816
1:00 am	55	169	25	132	80	301	1:00 pm	244	1154	195	754	439	1908
1:15 am	43	141	29	164	72	305	1:15 pm	275	1246	196	706	471	1952
1:30 am	41	131	33	207	74	338	1:30 pm	303	1399	161	678	464	2077
1:45 am	30	130	45	257	75	387	1:45 pm	332	1513	202	678	534	2191
2:00 am	27	141	57	348	84	489	2:00 pm	336	1640	147	650	483	2290
2:15 am	33	146	72	529	105	675	2:15 pm	428	1772	168	650	596	2422
2:30 am	40	161	83	739	123	900	2:30 pm	417	1900	161	667	578	2567
2:45 am	41	162	136	1037	177	1199	2:45 pm	459	2064	174	651	633	2715
3:00 am	32	187	238	1429	270	1616	3:00 pm	468	2160	147	641	615	2801
3:15 am	48	208	282	1876	330	2084	3:15 pm	556	2275	185	644	741	2919
3:30 am	41	228	381	2316	422	2544	3:30 pm	581	2361	145	598	726	2959
3:45 am	66	252	528	2524	594	2776	3:45 pm	555	2337	164	592	719	2929
4:00 am	53	246	685	2635	738	2881	4:00 pm	583	2350	150	565	733	2915
4:15 am	68	285	722	2609	790	2894	4:15 pm	642	2358	139	553	781	2911
4:30 am	65	296	589	2455	654	2751	4:30 pm	557	2243	139	560	696	2803
4:45 am	60	357	639	2452	699	2809	4:45 pm	568	2245	137	542	705	2787
5:00 am	92	453	659	2346	751	2799	5:00 pm	591	2185	138	501	729	2686
5:15 am	79	511	568	2266	647	2777	5:15 pm	527	2059	146	462	673	2521
5:30 am	126	582	586	2237	712	2819	5:30 pm	559	1958	121	409	680	2367
5:45 am	156	643	533	2111	689	2754	5:45 pm	508	1768	96	389	604	2157
6:00 am	150	641	579	1991	729	2632	6:00 pm	465	1591	99	384	564	1975
6:15 am	150	648	539	1805	689	2453	6:15 pm	426	1416	93	366	519	1782
6:30 am	187	662	460	1661	647	2323	6:30 pm	369	1266	101	372	470	1638
6:45 am	154	647	413	1511	567	2158	6:45 pm	331	1154	91	338	422	1492
7:00 am	157	692	393	1409	550	2101	7:00 pm	290	1081	81	315	371	1396
7:15 am	164	706	395	1268	559	1974	7:15 pm	276	1040	99	309	375	1349
7:30 am	172	717	310	1171	482	1888	7:30 pm	257	1006	67	293	324	1299
7:45 am	199	704	311	1125	510	1829	7:45 pm	258	938	68	296	326	1234
8:00 am	171	643	252	1050	423	1693	8:00 pm	249	881	75	297	324	1178
8:15 am	175	597	298	1019	473	1616	8:15 pm	242	814	83	307	325	1121
8:30 am	159	597	264	933	423	1530	8:30 pm	189	774	70	283	259	1057
8:45 am	138	613	236	850	374	1463	8:45 pm	201	769	69	275	270	1044
9:00 am	125	647	221	764	346	1411	9:00 pm	182	757	85	254	267	1011
9:15 am	175	718	212	778	387	1496	9:15 pm	202	734	59	219	261	953
9:30 am	175	704	181	782	356	1486	9:30 pm	184	641	62	203	246	844
9:45 am	172	702	150	789	322	1491	9:45 pm	189	578	48	173	237	751
10:00 am	196	718	235	830	431	1548	10:00 pm	159	508	50	154	209	662
10:15 am	161	709	216	775	377	1484	10:15 pm	109	456	43	134	152	590
10:30 am	173	737	188	747	361	1484	10:30 pm	121	452	32	117	153	569
10:45 am	188	777	191	716	379	1493	10:45 pm	119	422	29	108	148	530
11:00 am	187	782	180	745	367	1527	11:00 pm	107	383	30	93	137	476
11:15 am	189	831	188	732	377	1563	11:15 pm	105		26		131	
11:30 am	213	868	157	762	370	1630	11:30 pm	91		23		114	
11:45 am	193	867	220	820	413	1687	11:45 pm	80		14		94	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	40335	4:15 am	2894	3:30 pm	2959
N/B	21168	11:30 am	868	3:30 pm	2361
S/B	19167	4:00 am	2635	12:15 pm	819

Run Date *09/27/2007*
Run Time *11:23 AM*

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900 S. Fremont Ave.
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Count Date: 04/11/2003 12:00 a Friday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	63	205	15	89	78	294	12:00 pm	280	1120	218	900	498	2020
12:15 am	54	214	24	98	78	312	12:15 pm	250	1132	252	913	502	2045
12:30 am	47	209	24	103	71	312	12:30 pm	283	1250	214	878	497	2128
12:45 am	41	203	26	123	67	326	12:45 pm	307	1305	216	862	523	2167
1:00 am	72	199	24	137	96	336	1:00 pm	292	1388	231	854	523	2242
1:15 am	49	159	29	164	78	323	1:15 pm	368	1510	217	814	585	2324
1:30 am	41	149	44	195	85	344	1:30 pm	338	1600	198	778	536	2378
1:45 am	37	142	40	222	77	364	1:45 pm	390	1793	208	763	598	2556
2:00 am	32	156	51	310	83	466	2:00 pm	414	1909	191	744	605	2653
2:15 am	39	160	60	471	99	631	2:15 pm	458	2047	181	749	639	2796
2:30 am	34	163	71	650	105	813	2:30 pm	531	2153	183	723	714	2876
2:45 am	51	190	128	960	179	1150	2:45 pm	506	2230	189	720	695	2950
3:00 am	36	182	212	1347	248	1529	3:00 pm	552	2323	196	718	748	3041
3:15 am	42	195	239	1800	281	1995	3:15 pm	564	2398	155	661	719	3059
3:30 am	61	211	381	2267	442	2478	3:30 pm	608	2460	180	675	788	3135
3:45 am	43	231	515	2456	558	2687	3:45 pm	599	2467	187	682	786	3149
4:00 am	49	253	665	2570	714	2823	4:00 pm	627	2464	139	642	766	3106
4:15 am	58	290	706	2516	764	2806	4:15 pm	626	2423	169	635	795	3058
4:30 am	81	322	570	2349	651	2671	4:30 pm	615	2340	187	634	802	2974
4:45 am	65	375	629	2311	694	2686	4:45 pm	596	2329	147	562	743	2891
5:00 am	86	437	611	2212	697	2649	5:00 pm	586	2286	132	544	718	2830
5:15 am	90	484	539	2143	629	2627	5:15 pm	543	2196	168	549	711	2745
5:30 am	134	538	532	2121	666	2659	5:30 pm	604	2123	115	498	719	2621
5:45 am	127	556	530	2026	657	2582	5:45 pm	553	1965	129	480	682	2445
6:00 am	133	621	542	1882	675	2503	6:00 pm	496	1805	137	453	633	2258
6:15 am	144	671	517	1738	661	2409	6:15 pm	470	1714	117	427	587	2141
6:30 am	152	728	437	1551	589	2279	6:30 pm	446	1574	97	422	543	1996
6:45 am	192	753	386	1436	578	2189	6:45 pm	393	1464	102	397	495	1861
7:00 am	183	763	398	1339	581	2102	7:00 pm	405	1393	111	408	516	1801
7:15 am	201	774	330	1208	531	1982	7:15 pm	330	1261	112	396	442	1657
7:30 am	177	744	322	1140	499	1884	7:30 pm	336	1196	72	397	408	1593
7:45 am	202	746	289	1062	491	1808	7:45 pm	322	1113	113	426	435	1539
8:00 am	194	743	267	991	461	1734	8:00 pm	273	1017	99	411	372	1428
8:15 am	171	764	262	948	433	1712	8:15 pm	265	952	113	433	378	1385
8:30 am	179	817	244	911	423	1728	8:30 pm	253	903	101	410	354	1313
8:45 am	199	817	218	880	417	1697	8:45 pm	226	843	98	388	324	1231
9:00 am	215	821	224	854	439	1675	9:00 pm	208	778	121	354	329	1132
9:15 am	224	830	225	825	449	1655	9:15 pm	216	781	90	291	306	1072
9:30 am	179	819	213	799	392	1618	9:30 pm	193	730	79	256	272	986
9:45 am	203	814	192	800	395	1614	9:45 pm	161	692	64	225	225	917
10:00 am	224	829	195	836	419	1665	10:00 pm	211	697	58	205	269	902
10:15 am	213	848	199	833	412	1681	10:15 pm	165	600	55	174	220	774
10:30 am	174	852	214	831	388	1683	10:30 pm	155	555	48	155	203	710
10:45 am	218	899	228	795	446	1694	10:45 pm	166	487	44	132	210	619
11:00 am	243	930	192	762	435	1692	11:00 pm	114	435	27	112	141	547
11:15 am	217	967	197	788	414	1755	11:15 pm	120		36		156	
11:30 am	221	1000	178	843	399	1843	11:30 pm	87		25		112	
11:45 am	249	1062	195	879	444	1941	11:45 pm	114		24		138	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	43428	4:00 am	2823	3:45 pm	3149
N/B	23754	11:45 am	1062	3:45 pm	2467
S/B	19674	4:00 am	2570	12:15 pm	913

Run Date *09/27/2007*
Run Time *11:23 AM*

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Count Date: 04/12/2003 12:00 a Saturday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	81	295	28	84	109	379	12:00 pm	228	1039	215	847	443	1886
12:15 am	68	276	17	77	85	353	12:15 pm	270	1094	204	820	474	1914
12:30 am	74	266	14	79	88	345	12:30 pm	251	1100	222	827	473	1927
12:45 am	72	233	25	94	97	327	12:45 pm	290	1118	206	791	496	1909
1:00 am	62	209	21	96	83	305	1:00 pm	283	1125	188	767	471	1892
1:15 am	58	197	19	119	77	316	1:15 pm	276	1104	211	784	487	1888
1:30 am	41	183	29	137	70	320	1:30 pm	269	1131	186	766	455	1897
1:45 am	48	174	27	147	75	321	1:45 pm	297	1141	182	785	479	1926
2:00 am	50	188	44	166	94	354	2:00 pm	262	1137	205	803	467	1940
2:15 am	44	162	37	200	81	362	2:15 pm	303	1150	193	798	496	1948
2:30 am	32	154	39	257	71	411	2:30 pm	279	1153	205	790	484	1943
2:45 am	62	162	46	295	108	457	2:45 pm	293	1224	200	766	493	1990
3:00 am	24	162	78	352	102	514	3:00 pm	275	1282	200	785	475	2067
3:15 am	36	179	94	440	130	619	3:15 pm	306	1301	185	767	491	2068
3:30 am	40	176	77	520	117	696	3:30 pm	350	1292	181	761	531	2053
3:45 am	62	192	103	613	165	805	3:45 pm	351	1233	219	766	570	1999
4:00 am	41	184	166	673	207	857	4:00 pm	294	1189	182	699	476	1888
4:15 am	33	207	174	706	207	913	4:15 pm	297	1193	179	703	476	1896
4:30 am	56	235	170	776	226	1011	4:30 pm	291	1201	186	676	477	1877
4:45 am	54	279	163	822	217	1101	4:45 pm	307	1146	152	631	459	1777
5:00 am	64	320	199	897	263	1217	5:00 pm	298	1122	186	618	484	1740
5:15 am	61	369	244	980	305	1349	5:15 pm	305	1083	152	578	457	1661
5:30 am	100	438	216	1036	316	1474	5:30 pm	236	1045	141	580	377	1625
5:45 am	95	488	238	1077	333	1565	5:45 pm	283	1051	139	559	422	1610
6:00 am	113	560	282	1085	395	1645	6:00 pm	259	1012	146	549	405	1561
6:15 am	130	643	300	1073	430	1716	6:15 pm	267	969	154	526	421	1495
6:30 am	150	673	257	1031	407	1704	6:30 pm	242	943	120	487	362	1430
6:45 am	167	709	246	1013	413	1722	6:45 pm	244	923	129	476	373	1399
7:00 am	196	756	270	992	466	1748	7:00 pm	216	910	123	462	339	1372
7:15 am	160	762	258	976	418	1738	7:15 pm	241	880	115	446	356	1326
7:30 am	186	785	239	936	425	1721	7:30 pm	222	826	109	434	331	1260
7:45 am	214	804	225	921	439	1725	7:45 pm	231	786	115	445	346	1231
8:00 am	202	777	254	910	456	1687	8:00 pm	186	733	107	421	293	1154
8:15 am	183	786	218	867	401	1653	8:15 pm	187	727	103	404	290	1131
8:30 am	205	820	224	873	429	1693	8:30 pm	182	727	120	385	302	1112
8:45 am	187	812	214	885	401	1697	8:45 pm	178	684	91	339	269	1023
9:00 am	211	839	211	877	422	1716	9:00 pm	180	700	90	314	270	1014
9:15 am	217	847	224	880	441	1727	9:15 pm	187	693	84	288	271	981
9:30 am	197	831	236	895	433	1726	9:30 pm	139	660	74	267	213	927
9:45 am	214	873	206	885	420	1758	9:45 pm	194	679	66	240	260	919
10:00 am	219	869	214	896	433	1765	10:00 pm	173	645	64	219	237	864
10:15 am	201	885	239	905	440	1790	10:15 pm	154	602	63	190	217	792
10:30 am	239	912	226	908	465	1820	10:30 pm	158	582	47	159	205	741
10:45 am	210	896	217	934	427	1830	10:45 pm	160	531	45	135	205	666
11:00 am	235	972	223	911	458	1883	11:00 pm	130	485	35	122	165	607
11:15 am	228	965	242	903	470	1868	11:15 pm	134		32		166	
11:30 am	223	1007	252	865	475	1872	11:30 pm	107		23		130	
11:45 am	286	1035	194	835	480	1870	11:45 pm	114		32		146	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	32055	11:00 am	1883	3:15 pm	2068
N/B	17510	11:45 am	1035	3:15 pm	1301
S/B	14545	6:00 am	1085	12:00 pm	847

Run Date *09/27/2007*
Run Time *11:23 AM*

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900 S. Fremont Ave.
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Count Date: 04/13/2003 12:00 a Sunday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	99	318	22	72	121	390	12:00 pm	193	792	238	896	431	1688
12:15 am	74	276	22	76	96	352	12:15 pm	184	801	226	892	410	1693
12:30 am	82	269	17	80	99	349	12:30 pm	204	800	206	900	410	1700
12:45 am	63	239	11	87	74	326	12:45 pm	211	793	226	901	437	1694
1:00 am	57	214	26	96	83	310	1:00 pm	202	776	234	890	436	1666
1:15 am	67	204	26	89	93	293	1:15 pm	183	793	234	896	417	1689
1:30 am	52	167	24	82	76	249	1:30 pm	197	829	207	852	404	1681
1:45 am	38	140	20	72	58	212	1:45 pm	194	865	215	894	409	1759
2:00 am	47	130	19	76	66	206	2:00 pm	219	905	240	891	459	1796
2:15 am	30	106	19	92	49	198	2:15 pm	219	904	190	899	409	1803
2:30 am	25	107	14	119	39	226	2:30 pm	233	922	249	910	482	1832
2:45 am	28	105	24	137	52	242	2:45 pm	234	912	212	887	446	1799
3:00 am	23	106	35	175	58	281	3:00 pm	218	901	248	876	466	1777
3:15 am	31	107	46	203	77	310	3:15 pm	237	881	201	837	438	1718
3:30 am	23	106	32	243	55	349	3:30 pm	223	870	226	855	449	1725
3:45 am	29	119	62	263	91	382	3:45 pm	223	858	201	828	424	1686
4:00 am	24	122	63	279	87	401	4:00 pm	198	836	209	833	407	1669
4:15 am	30	132	86	296	116	428	4:15 pm	226	830	219	804	445	1634
4:30 am	36	148	52	297	88	445	4:30 pm	211	801	199	781	410	1582
4:45 am	32	173	78	321	110	494	4:45 pm	201	809	206	758	407	1567
5:00 am	34	229	80	325	114	554	5:00 pm	192	810	180	714	372	1524
5:15 am	46	290	87	350	133	640	5:15 pm	197	803	196	729	393	1532
5:30 am	61	347	76	370	137	717	5:30 pm	219	790	176	707	395	1497
5:45 am	88	418	82	384	170	802	5:45 pm	202	732	162	727	364	1459
6:00 am	95	440	105	389	200	829	6:00 pm	185	700	195	729	380	1429
6:15 am	103	475	107	382	210	857	6:15 pm	184	697	174	695	358	1392
6:30 am	132	501	90	418	222	919	6:30 pm	161	700	196	707	357	1407
6:45 am	110	504	87	468	197	972	6:45 pm	170	718	164	647	334	1365
7:00 am	130	526	98	508	228	1034	7:00 pm	182	742	161	636	343	1378
7:15 am	129	500	143	542	272	1042	7:15 pm	187	725	186	632	373	1357
7:30 am	135	519	140	556	275	1075	7:30 pm	179	691	136	578	315	1269
7:45 am	132	518	127	594	259	1112	7:45 pm	194	677	153	590	347	1267
8:00 am	104	544	132	650	236	1194	8:00 pm	165	636	157	538	322	1174
8:15 am	148	610	157	704	305	1314	8:15 pm	153	601	132	493	285	1094
8:30 am	134	643	178	760	312	1403	8:30 pm	165	557	148	462	313	1019
8:45 am	158	701	183	786	341	1487	8:45 pm	153	518	101	404	254	922
9:00 am	170	717	186	804	356	1521	9:00 pm	130	481	112	385	242	866
9:15 am	181	729	213	849	394	1578	9:15 pm	109	457	101	366	210	823
9:30 am	192	747	204	834	396	1581	9:30 pm	126	447	90	335	216	782
9:45 am	174	757	201	845	375	1602	9:45 pm	116	386	82	298	198	684
10:00 am	182	785	231	831	413	1616	10:00 pm	106	357	93	254	199	611
10:15 am	199	813	198	806	397	1619	10:15 pm	99	305	70	207	169	512
10:30 am	202	823	215	849	417	1672	10:30 pm	65	270	53	175	118	445
10:45 am	202	826	187	886	389	1712	10:45 pm	87	244	38	140	125	384
11:00 am	210	810	206	936	416	1746	11:00 pm	54	198	46	125	100	323
11:15 am	209	793	241	968	450	1761	11:15 pm	64		38		102	
11:30 am	205	768	252	953	457	1721	11:30 pm	39		18		57	
11:45 am	186	767	237	907	423	1674	11:45 pm	41		23		64	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	25983	11:15 am	1761	2:30 pm	1832
N/B	13075	10:45 am	826	2:30 pm	922
S/B	12908	11:15 am	968	2:30 pm	910

Run Date *09/27/2007*
Run Time *11:23 AM*

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Count Date: 04/14/2003 12:00 a Monday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	42	120	31	104	73	224	12:00 pm	191	736	143	623	334	1359
12:15 am	29	105	32	120	61	225	12:15 pm	187	736	163	623	350	1359
12:30 am	28	95	22	134	50	229	12:30 pm	178	795	177	603	355	1398
12:45 am	21	84	19	162	40	246	12:45 pm	180	889	140	573	320	1462
1:00 am	27	87	47	183	74	270	1:00 pm	191	1008	143	565	334	1573
1:15 am	19	83	46	201	65	284	1:15 pm	246	1128	143	569	389	1697
1:30 am	17	83	50	252	67	335	1:30 pm	272	1225	147	552	419	1777
1:45 am	24	87	40	298	64	385	1:45 pm	299	1332	132	536	431	1868
2:00 am	23	87	65	408	88	495	2:00 pm	311	1394	147	542	458	1936
2:15 am	19	83	97	573	116	656	2:15 pm	343	1469	126	539	469	2008
2:30 am	21	90	96	777	117	867	2:30 pm	379	1598	131	558	510	2156
2:45 am	24	89	150	1061	174	1150	2:45 pm	361	1712	138	561	499	2273
3:00 am	19	96	230	1368	249	1464	3:00 pm	386	1841	144	567	530	2408
3:15 am	26	111	301	1774	327	1885	3:15 pm	472	1872	145	523	617	2395
3:30 am	20	130	380	2119	400	2249	3:30 pm	493	2015	134	508	627	2523
3:45 am	31	165	457	2343	488	2508	3:45 pm	490	2024	144	487	634	2511
4:00 am	34	195	636	2513	670	2708	4:00 pm	417	2049	100	452	517	2501
4:15 am	45	244	646	2450	691	2694	4:15 pm	615	2119	130	465	745	2584
4:30 am	55	282	604	2286	659	2568	4:30 pm	502	2029	113	446	615	2475
4:45 am	61	307	627	2154	688	2461	4:45 pm	515	2061	109	468	624	2529
5:00 am	83	355	573	1981	656	2336	5:00 pm	487	1979	113	452	600	2431
5:15 am	83	368	482	1830	565	2198	5:15 pm	525	1904	111	433	636	2337
5:30 am	80	409	472	1722	552	2131	5:30 pm	534	1811	135	399	669	2210
5:45 am	109	434	454	1633	563	2067	5:45 pm	433	1606	93	329	526	1935
6:00 am	96	449	422	1507	518	1956	6:00 pm	412	1445	94	304	506	1749
6:15 am	124	482	374	1410	498	1892	6:15 pm	432	1266	77	284	509	1550
6:30 am	105	501	383	1334	488	1835	6:30 pm	329	1043	65	275	394	1318
6:45 am	124	552	328	1229	452	1781	6:45 pm	272	885	68	279	340	1164
7:00 am	129	588	325	1124	454	1712	7:00 pm	233	792	74	331	307	1123
7:15 am	143	608	298	1021	441	1629	7:15 pm	209	708	68	328	277	1036
7:30 am	156	573	278	947	434	1520	7:30 pm	171	661	69	332	240	993
7:45 am	160	559	223	889	383	1448	7:45 pm	179	601	120	320	299	921
8:00 am	149	508	222	872	371	1380	8:00 pm	149	552	71	253	220	805
8:15 am	108	500	224	790	332	1290	8:15 pm	162	557	72	250	234	807
8:30 am	142	521	220	731	362	1252	8:30 pm	111	540	57	229	168	769
8:45 am	109	514	206	678	315	1192	8:45 pm	130	566	53	219	183	785
9:00 am	141	562	140	650	281	1212	9:00 pm	154	556	68	200	222	756
9:15 am	129	560	165	657	294	1217	9:15 pm	145	500	51	169	196	669
9:30 am	135	588	167	648	302	1236	9:30 pm	137	468	47	145	184	613
9:45 am	157	615	178	645	335	1260	9:45 pm	120	433	34	132	154	565
10:00 am	139	597	147	622	286	1219	10:00 pm	98	400	37	121	135	521
10:15 am	157	651	156	616	313	1267	10:15 pm	113	403	27	108	140	511
10:30 am	162	655	164	638	326	1293	10:30 pm	102	349	34	93	136	442
10:45 am	139	658	155	625	294	1283	10:45 pm	87	323	23	78	110	401
11:00 am	193	711	141	606	334	1317	11:00 pm	101	323	24	74	125	397
11:15 am	161	709	178	608	339	1317	11:15 pm	59		12		71	
11:30 am	165	735	151	593	316	1328	11:30 pm	76		19		95	
11:45 am	192	748	136	619	328	1367	11:45 pm	87		19		106	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	33852	4:00 am	2708	4:15 pm	2584
N/B	17430	11:45 am	748	4:15 pm	2119
S/B	16422	4:00 am	2513	12:00 pm	623

Run Date *09/27/2007*
Run Time *11:23 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

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Count Date: 03/12/2003 12:00 a Wednesday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	88	348	54	135	142	483	12:00 pm	182	740	187	762	369	1502
12:15 am	95	306	26	104	121	410	12:15 pm	179	755	191	781	370	1536
12:30 am	100	268	27	103	127	371	12:30 pm	194	775	193	798	387	1573
12:45 am	65	222	28	103	93	325	12:45 pm	185	792	191	814	376	1606
1:00 am	46	192	23	90	69	282	1:00 pm	197	838	206	824	403	1662
1:15 am	57	195	25	99	82	294	1:15 pm	199	901	208	820	407	1721
1:30 am	54	174	27	104	81	278	1:30 pm	211	939	209	829	420	1768
1:45 am	35	149	15	133	50	282	1:45 pm	231	1009	201	812	432	1821
2:00 am	49	147	32	170	81	317	2:00 pm	260	1069	202	772	462	1841
2:15 am	36	125	30	209	66	334	2:15 pm	237	1189	217	784	454	1973
2:30 am	29	130	56	264	85	394	2:30 pm	281	1336	192	744	473	2080
2:45 am	33	138	52	315	85	453	2:45 pm	291	1486	161	722	452	2208
3:00 am	27	157	71	418	98	575	3:00 pm	380	1638	214	725	594	2363
3:15 am	41	184	85	593	126	777	3:15 pm	384	1777	177	689	561	2466
3:30 am	37	190	107	804	144	994	3:30 pm	431	1857	170	675	601	2532
3:45 am	52	209	155	1159	207	1368	3:45 pm	443	1922	164	667	607	2589
4:00 am	54	201	246	1622	300	1823	4:00 pm	519	1981	178	664	697	2645
4:15 am	47	220	296	2110	343	2330	4:15 pm	464	1987	163	678	627	2665
4:30 am	56	245	462	2514	518	2759	4:30 pm	496	2143	162	683	658	2826
4:45 am	44	267	618	2728	662	2995	4:45 pm	502	2253	161	654	663	2907
5:00 am	73	307	734	2799	807	3106	5:00 pm	525	2385	192	638	717	3023
5:15 am	72	314	700	2796	772	3110	5:15 pm	620	2422	168	602	788	3024
5:30 am	78	346	676	2696	754	3042	5:30 pm	606	2357	133	574	739	2931
5:45 am	84	399	689	2564	773	2963	5:45 pm	634	2327	145	564	779	2891
6:00 am	80	463	731	2411	811	2874	6:00 pm	562	2144	156	530	718	2674
6:15 am	104	523	600	2227	704	2750	6:15 pm	555	1996	140	474	695	2470
6:30 am	131	543	544	2139	675	2682	6:30 pm	576	1871	123	417	699	2288
6:45 am	148	566	536	2030	684	2596	6:45 pm	451	1623	111	391	562	2014
7:00 am	140	592	547	1937	687	2529	7:00 pm	414	1459	100	361	514	1820
7:15 am	124	609	512	1750	636	2359	7:15 pm	430	1351	83	334	513	1685
7:30 am	154	658	435	1588	589	2246	7:30 pm	328	1160	97	313	425	1473
7:45 am	174	694	443	1518	617	2212	7:45 pm	287	1070	81	294	368	1364
8:00 am	157	704	360	1340	517	2044	8:00 pm	306	980	73	310	379	1290
8:15 am	173	695	350	1305	523	2000	8:15 pm	239	865	62	330	301	1195
8:30 am	190	671	365	1222	555	1893	8:30 pm	238	821	78	347	316	1168
8:45 am	184	657	265	1112	449	1769	8:45 pm	197	751	97	322	294	1073
9:00 am	148	602	325	1072	473	1674	9:00 pm	191	756	93	272	284	1028
9:15 am	149	581	267	981	416	1562	9:15 pm	195	738	79	260	274	998
9:30 am	176	550	255	932	431	1482	9:30 pm	168	704	53	262	221	966
9:45 am	129	539	225	911	354	1450	9:45 pm	202	684	47	261	249	945
10:00 am	127	602	234	876	361	1478	10:00 pm	173	620	81	268	254	888
10:15 am	118	671	218	829	336	1500	10:15 pm	161	572	81	245	242	817
10:30 am	165	729	234	841	399	1570	10:30 pm	148	501	52	199	200	700
10:45 am	192	729	190	791	382	1520	10:45 pm	138	441	54	185	192	626
11:00 am	196	701	187	790	383	1491	11:00 pm	125	402	58	153	183	555
11:15 am	176	687	230	790	406	1477	11:15 pm	90		35		125	
11:30 am	165	690	184	751	349	1441	11:30 pm	88		38		126	
11:45 am	164	719	189	760	353	1479	11:45 pm	99		22		121	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	39967	5:15 am	3110	5:15 pm	3024
N/B	20028	10:30 am	729	5:15 pm	2422
S/B	19939	5:00 am	2799	1:30 pm	829

Run Date *09/27/2007*
Run Time *11:23 AM*

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900 S. Fremont Ave.
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Count Date: 03/13/2003 12:00 a Thursday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	88	348	54	135	142	483	12:00 pm	177	710	216	803	393	1513
12:15 am	95	306	26	104	121	410	12:15 pm	154	751	196	773	350	1524
12:30 am	100	268	27	103	127	371	12:30 pm	173	816	188	804	361	1620
12:45 am	65	222	28	103	93	325	12:45 pm	206	870	203	851	409	1721
1:00 am	46	192	23	90	69	282	1:00 pm	218	900	186	857	404	1757
1:15 am	57	195	25	99	82	294	1:15 pm	219	881	227	883	446	1764
1:30 am	54	174	27	104	81	278	1:30 pm	227	969	235	838	462	1807
1:45 am	35	149	15	133	50	282	1:45 pm	236	1059	209	812	445	1871
2:00 am	49	147	32	170	81	317	2:00 pm	199	1179	212	784	411	1963
2:15 am	36	125	30	209	66	334	2:15 pm	307	1378	182	752	489	2130
2:30 am	29	130	56	264	85	394	2:30 pm	317	1446	209	749	526	2195
2:45 am	33	138	52	315	85	453	2:45 pm	356	1429	181	739	537	2168
3:00 am	27	157	71	418	98	575	3:00 pm	398	1407	180	740	578	2147
3:15 am	41	184	85	593	126	777	3:15 pm	375	1446	179	718	554	2164
3:30 am	37	190	107	804	144	994	3:30 pm	300	1661	199	683	499	2344
3:45 am	52	209	155	1159	207	1368	3:45 pm	334	1969	182	641	516	2610
4:00 am	54	201	246	1622	300	1823	4:00 pm	437	2268	158	620	595	2888
4:15 am	47	220	296	2110	343	2330	4:15 pm	590	2466	144	659	734	3125
4:30 am	56	245	462	2514	518	2759	4:30 pm	608	2576	157	668	765	3244
4:45 am	44	267	618	2728	662	2995	4:45 pm	633	2636	161	656	794	3292
5:00 am	73	307	734	2799	807	3106	5:00 pm	635	2593	197	633	832	3226
5:15 am	72	314	700	2796	772	3110	5:15 pm	700	2509	153	588	853	3097
5:30 am	78	346	676	2696	754	3042	5:30 pm	668	2329	145	572	813	2901
5:45 am	84	399	689	2564	773	2963	5:45 pm	590	2170	138	542	728	2712
6:00 am	80	463	731	2411	811	2874	6:00 pm	551	2020	152	513	703	2533
6:15 am	104	523	600	2227	704	2750	6:15 pm	520	1849	137	470	657	2319
6:30 am	131	543	544	2139	675	2682	6:30 pm	509	1745	115	422	624	2167
6:45 am	148	566	536	2030	684	2596	6:45 pm	440	1570	109	393	549	1963
7:00 am	140	592	547	1937	687	2529	7:00 pm	380	1432	109	351	489	1783
7:15 am	124	609	512	1750	636	2359	7:15 pm	416	1371	89	320	505	1691
7:30 am	154	658	435	1588	589	2246	7:30 pm	334	1164	86	301	420	1465
7:45 am	174	694	443	1518	617	2212	7:45 pm	302	1056	67	296	369	1352
8:00 am	157	704	360	1340	517	2044	8:00 pm	319	960	78	312	397	1272
8:15 am	173	695	350	1305	523	2000	8:15 pm	209	869	70	322	279	1191
8:30 am	190	671	365	1222	555	1893	8:30 pm	226	833	81	319	307	1152
8:45 am	184	657	265	1112	449	1769	8:45 pm	206	811	83	300	289	1111
9:00 am	148	602	325	1072	473	1674	9:00 pm	228	768	88	276	316	1044
9:15 am	149	613	267	960	416	1573	9:15 pm	173	709	67	253	240	962
9:30 am	176	647	255	893	431	1540	9:30 pm	204	714	62	250	266	964
9:45 am	129	630	225	841	354	1471	9:45 pm	163	665	59	243	222	908
10:00 am	159	689	213	823	372	1512	10:00 pm	169	647	65	228	234	875
10:15 am	183	705	200	803	383	1508	10:15 pm	178	634	64	213	242	847
10:30 am	159	688	203	805	362	1493	10:30 pm	155	560	55	181	210	741
10:45 am	188	722	207	807	395	1529	10:45 pm	145	504	44	159	189	663
11:00 am	175	702	193	828	368	1530	11:00 pm	156	468	50	155	206	623
11:15 am	166	704	202	851	368	1555	11:15 pm	104		32		136	
11:30 am	193	692	205	845	398	1537	11:30 pm	99		33		132	
11:45 am	168	672	228	828	396	1500	11:45 pm	109		40		149	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	40373	5:15 am	3110	4:45 pm	3292
N/B	20456	10:45 am	722	4:45 pm	2636
S/B	19917	5:00 am	2799	1:15 pm	883

Run Date *09/27/2007*
Run Time *11:23 AM*

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900 S. Fremont Ave.
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Count Date: 03/14/2003 12:00 a Friday
Condition:
Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	90	328	31	96	121	424	12:00 pm	246	993	225	886	471	1879
12:15 am	79	293	30	80	109	373	12:15 pm	231	984	208	895	439	1879
12:30 am	95	263	18	71	113	334	12:30 pm	270	1020	253	904	523	1924
12:45 am	64	208	17	72	81	280	12:45 pm	246	1034	200	871	446	1905
1:00 am	55	175	15	77	70	252	1:00 pm	237	1070	234	878	471	1948
1:15 am	49	151	21	95	70	246	1:15 pm	267	1157	217	861	484	2018
1:30 am	40	134	19	107	59	241	1:30 pm	284	1265	220	852	504	2117
1:45 am	31	133	22	123	53	256	1:45 pm	282	1367	207	854	489	2221
2:00 am	31	147	33	146	64	293	2:00 pm	324	1458	217	849	541	2307
2:15 am	32	142	33	169	65	311	2:15 pm	375	1564	208	839	583	2403
2:30 am	39	147	35	209	74	356	2:30 pm	386	1622	222	873	608	2495
2:45 am	45	146	45	270	90	416	2:45 pm	373	1685	202	872	575	2557
3:00 am	26	161	56	386	82	547	3:00 pm	430	1853	207	906	637	2759
3:15 am	37	189	73	556	110	745	3:15 pm	433	1981	242	884	675	2865
3:30 am	38	195	96	738	134	933	3:30 pm	449	2123	221	836	670	2959
3:45 am	60	220	161	1071	221	1291	3:45 pm	541	2277	236	824	777	3101
4:00 am	54	212	226	1444	280	1656	4:00 pm	558	2348	185	776	743	3124
4:15 am	43	218	255	1963	298	2181	4:15 pm	575	2408	194	816	769	3224
4:30 am	63	239	429	2405	492	2644	4:30 pm	603	2460	209	825	812	3285
4:45 am	52	234	534	2683	586	2917	4:45 pm	612	2492	188	792	800	3284
5:00 am	60	238	745	2816	805	3054	5:00 pm	618	2499	225	810	843	3309
5:15 am	64	257	697	2664	761	2921	5:15 pm	627	2456	203	757	830	3213
5:30 am	58	258	707	2534	765	2792	5:30 pm	635	2336	176	723	811	3059
5:45 am	56	325	667	2378	723	2703	5:45 pm	619	2243	206	686	825	2929
6:00 am	79	401	593	2265	672	2666	6:00 pm	575	2100	172	626	747	2726
6:15 am	65	454	567	2080	632	2534	6:15 pm	507	2027	169	572	676	2599
6:30 am	125	549	551	1729	676	2278	6:30 pm	542	2036	139	548	681	2584
6:45 am	132	599	554	1666	686	2265	6:45 pm	476	1912	146	530	622	2442
7:00 am	132	648	408	1483	540	2131	7:00 pm	502	1824	118	485	620	2309
7:15 am	160	686	216	1495	376	2181	7:15 pm	516	1668	145	470	661	2138
7:30 am	175	695	488	1618	663	2313	7:30 pm	418	1482	121	435	539	1917
7:45 am	181	703	371	1430	552	2133	7:45 pm	388	1326	101	420	489	1746
8:00 am	170	704	420	1358	590	2062	8:00 pm	346	1233	103	444	449	1677
8:15 am	169	728	339	1206	508	1934	8:15 pm	330	1145	110	460	440	1605
8:30 am	183	745	300	1184	483	1929	8:30 pm	262	1077	106	441	368	1518
8:45 am	182	781	299	1141	481	1922	8:45 pm	295	1020	125	423	420	1443
9:00 am	194	781	268	1060	462	1841	9:00 pm	258	923	119	413	377	1336
9:15 am	186	753	317	1037	503	1790	9:15 pm	262	864	91	412	353	1276
9:30 am	219	787	257	949	476	1736	9:30 pm	205	808	88	420	293	1228
9:45 am	182	814	218	935	400	1749	9:45 pm	198	830	115	390	313	1220
10:00 am	166	803	245	925	411	1728	10:00 pm	199	803	118	321	317	1124
10:15 am	220	818	229	890	449	1708	10:15 pm	206	784	99	255	305	1039
10:30 am	246	800	243	882	489	1682	10:30 pm	227	731	58	215	285	946
10:45 am	171	746	208	881	379	1627	10:45 pm	171	637	46	195	217	832
11:00 am	181	779	210	870	391	1649	11:00 pm	180	608	52	183	232	791
11:15 am	202	844	221	885	423	1729	11:15 pm	153		59		212	
11:30 am	192	873	242	872	434	1745	11:30 pm	133		38		171	
11:45 am	204	951	197	883	401	1834	11:45 pm	142		34		176	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	43592	5:00 am	3054	5:00 pm	3309
N/B	23089	11:45 am	951	5:00 pm	2499
S/B	20503	5:00 am	2816	3:00 pm	906

Run Date *09/27/2007*
Run Time *11:23 AM*

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900 S. Fremont Ave.
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Count Date: 03/15/2003 12:00 a Saturday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	107	429	31	105	138	534	12:00 pm	167	737	190	746	357	1483
12:15 am	112	396	31	98	143	494	12:15 pm	175	773	179	742	354	1515
12:30 am	117	347	18	87	135	434	12:30 pm	180	814	206	729	386	1543
12:45 am	93	304	25	84	118	388	12:45 pm	215	843	171	694	386	1537
1:00 am	74	270	24	74	98	344	1:00 pm	203	815	186	681	389	1496
1:15 am	63	237	20	68	83	305	1:15 pm	216	828	166	633	382	1461
1:30 am	74	218	15	73	89	291	1:30 pm	209	864	171	648	380	1512
1:45 am	59	185	15	87	74	272	1:45 pm	187	905	158	642	345	1547
2:00 am	41	173	18	98	59	271	2:00 pm	216	919	138	668	354	1587
2:15 am	44	178	25	121	69	299	2:15 pm	252	911	181	690	433	1601
2:30 am	41	169	29	136	70	305	2:30 pm	250	873	165	683	415	1556
2:45 am	47	177	26	149	73	326	2:45 pm	201	820	184	689	385	1509
3:00 am	46	174	41	188	87	362	3:00 pm	208	879	160	666	368	1545
3:15 am	35	153	40	228	75	381	3:15 pm	214	955	174	675	388	1630
3:30 am	49	163	42	276	91	439	3:30 pm	197	1020	171	705	368	1725
3:45 am	44	146	65	340	109	486	3:45 pm	260	1047	161	711	421	1758
4:00 am	25	135	81	398	106	533	4:00 pm	284	1068	169	720	453	1788
4:15 am	45	156	88	459	133	615	4:15 pm	279	1058	204	700	483	1758
4:30 am	32	157	106	539	138	696	4:30 pm	224	1028	177	645	401	1673
4:45 am	33	173	123	586	156	759	4:45 pm	281	1042	170	607	451	1649
5:00 am	46	185	142	614	188	799	5:00 pm	274	970	149	594	423	1564
5:15 am	46	198	168	677	214	875	5:15 pm	249	908	149	558	398	1466
5:30 am	48	231	153	725	201	956	5:30 pm	238	855	139	538	377	1393
5:45 am	45	262	151	783	196	1045	5:45 pm	209	826	157	503	366	1329
6:00 am	59	331	205	851	264	1182	6:00 pm	212	808	113	481	325	1289
6:15 am	79	389	216	893	295	1282	6:15 pm	196	799	129	480	325	1279
6:30 am	79	416	211	921	290	1337	6:30 pm	209	796	104	459	313	1255
6:45 am	114	475	219	968	333	1443	6:45 pm	191	749	135	444	326	1193
7:00 am	117	494	247	960	364	1454	7:00 pm	203	713	112	398	315	1111
7:15 am	106	522	244	951	350	1473	7:15 pm	193	643	108	394	301	1037
7:30 am	138	555	258	965	396	1520	7:30 pm	162	598	89	380	251	978
7:45 am	133	569	211	928	344	1497	7:45 pm	155	593	89	399	244	992
8:00 am	145	556	238	936	383	1492	8:00 pm	133	563	108	397	241	960
8:15 am	139	546	258	893	397	1439	8:15 pm	148	554	94	385	242	939
8:30 am	152	528	221	865	373	1393	8:30 pm	157	536	108	370	265	906
8:45 am	120	532	219	828	339	1360	8:45 pm	125	522	87	338	212	860
9:00 am	135	570	195	810	330	1380	9:00 pm	124	529	96	313	220	842
9:15 am	121	582	230	796	351	1378	9:15 pm	130	541	79	286	209	827
9:30 am	156	630	184	765	340	1395	9:30 pm	143	530	76	263	219	793
9:45 am	158	618	201	744	359	1362	9:45 pm	132	521	62	237	194	758
10:00 am	147	639	181	734	328	1373	10:00 pm	136	534	69	242	205	776
10:15 am	169	665	199	749	368	1414	10:15 pm	119	536	56	223	175	759
10:30 am	144	642	163	733	307	1375	10:30 pm	134	544	50	215	184	759
10:45 am	179	694	191	807	370	1501	10:45 pm	145	515	67	201	212	716
11:00 am	173	718	196	789	369	1507	11:00 pm	138	516	50	170	188	686
11:15 am	146	712	183	783	329	1495	11:15 pm	127		48		175	
11:30 am	196	741	237	779	433	1520	11:30 pm	105		36		141	
11:45 am	203	725	173	748	376	1473	11:45 pm	146		36		182	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	26358	7:30 am	1520	4:00 pm	1788
N/B	13725	11:30 am	741	4:00 pm	1068
S/B	12633	6:45 am	968	12:00 pm	746

Run Date *09/27/2007*
Run Time *11:23 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Historical
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Count Date: 03/16/2003 12:00 a Sunday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	115	332	35	84	150	416	12:00 pm	188	745	212	870	400	1615
12:15 am	72	275	19	72	91	347	12:15 pm	205	759	190	862	395	1621
12:30 am	75	255	15	75	90	330	12:30 pm	182	746	241	892	423	1638
12:45 am	70	223	15	72	85	295	12:45 pm	170	751	227	849	397	1600
1:00 am	58	194	23	69	81	263	1:00 pm	202	792	204	889	406	1681
1:15 am	52	188	22	62	74	250	1:15 pm	192	808	220	956	412	1764
1:30 am	43	169	12	54	55	223	1:30 pm	187	830	198	978	385	1808
1:45 am	41	164	12	60	53	224	1:45 pm	211	849	267	1032	478	1881
2:00 am	52	154	16	58	68	212	2:00 pm	218	850	271	977	489	1827
2:15 am	33	131	14	66	47	197	2:15 pm	214	868	242	980	456	1848
2:30 am	38	142	18	72	56	214	2:30 pm	206	867	252	980	458	1847
2:45 am	31	138	10	79	41	217	2:45 pm	212	883	212	974	424	1857
3:00 am	29	130	24	96	53	226	3:00 pm	236	912	274	1031	510	1943
3:15 am	44	124	20	106	64	230	3:15 pm	213	885	242	1028	455	1913
3:30 am	34	101	25	139	59	240	3:30 pm	222	938	246	1041	468	1979
3:45 am	23	80	27	156	50	236	3:45 pm	241	934	269	1016	510	1950
4:00 am	23	76	34	181	57	257	4:00 pm	209	917	271	986	480	1903
4:15 am	21	74	53	213	74	287	4:15 pm	266	933	255	953	521	1886
4:30 am	13	77	42	228	55	305	4:30 pm	218	898	221	931	439	1829
4:45 am	19	104	52	247	71	351	4:45 pm	224	888	239	925	463	1813
5:00 am	21	107	66	274	87	381	5:00 pm	225	876	238	902	463	1778
5:15 am	24	116	68	284	92	400	5:15 pm	231	851	233	895	464	1746
5:30 am	40	137	61	292	101	429	5:30 pm	208	816	215	866	423	1682
5:45 am	22	148	79	293	101	441	5:45 pm	212	817	216	831	428	1648
6:00 am	30	193	76	298	106	491	6:00 pm	200	825	231	821	431	1646
6:15 am	45	224	76	329	121	553	6:15 pm	196	777	204	776	400	1553
6:30 am	51	266	62	365	113	631	6:30 pm	209	724	180	767	389	1491
6:45 am	67	309	84	403	151	712	6:45 pm	220	743	206	762	426	1505
7:00 am	61	354	107	428	168	782	7:00 pm	152	735	186	732	338	1467
7:15 am	87	417	112	443	199	860	7:15 pm	143	797	195	726	338	1523
7:30 am	94	462	100	471	194	933	7:30 pm	228	854	175	710	403	1564
7:45 am	112	469	109	514	221	983	7:45 pm	212	804	176	685	388	1489
8:00 am	124	481	122	581	246	1062	8:00 pm	214	767	180	669	394	1436
8:15 am	132	490	140	626	272	1116	8:15 pm	200	705	179	611	379	1316
8:30 am	101	482	143	678	244	1160	8:30 pm	178	675	150	581	328	1256
8:45 am	124	531	176	711	300	1242	8:45 pm	175	636	160	549	335	1185
9:00 am	133	535	167	736	300	1271	9:00 pm	152	598	122	539	274	1137
9:15 am	124	546	192	744	316	1290	9:15 pm	170	557	149	513	319	1070
9:30 am	150	569	176	750	326	1319	9:30 pm	139	499	118	477	257	976
9:45 am	128	577	201	785	329	1362	9:45 pm	137	462	150	450	287	912
10:00 am	144	626	175	793	319	1419	10:00 pm	111	415	96	363	207	778
10:15 am	147	680	198	846	345	1526	10:15 pm	112	378	113	332	225	710
10:30 am	158	715	211	859	369	1574	10:30 pm	102	354	91	275	193	629
10:45 am	177	739	209	887	386	1626	10:45 pm	90	328	63	234	153	562
11:00 am	198	782	228	898	426	1680	11:00 pm	74	286	65	204	139	490
11:15 am	182	772	211	882	393	1654	11:15 pm	88		56		144	
11:30 am	182	795	239	861	421	1656	11:30 pm	76		50		126	
11:45 am	220	795	220	863	440	1658	11:45 pm	48		33		81	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	26161	11:00 am	1680	3:30 pm	1979
N/B	12682	11:30 am	795	3:30 pm	938
S/B	13479	11:00 am	898	3:30 pm	1041

Run Date *09/27/2007*
Run Time *11:24 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Report ID: Historical
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Count Date: 03/17/2003 12:00 a Monday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	57	213	29	97	86	310	12:00 pm	162	679	155	731	317	1410
12:15 am	59	187	26	90	85	277	12:15 pm	180	701	204	750	384	1451
12:30 am	63	155	21	85	84	240	12:30 pm	169	742	161	728	330	1470
12:45 am	34	118	21	85	55	203	12:45 pm	168	753	211	775	379	1528
1:00 am	31	105	22	97	53	202	1:00 pm	184	786	174	761	358	1547
1:15 am	27	95	21	107	48	202	1:15 pm	221	806	182	753	403	1559
1:30 am	26	82	21	118	47	200	1:30 pm	180	808	208	771	388	1579
1:45 am	21	68	33	139	54	207	1:45 pm	201	877	197	779	398	1656
2:00 am	21	70	32	147	53	217	2:00 pm	204	953	166	765	370	1718
2:15 am	14	60	32	191	46	251	2:15 pm	223	1119	200	763	423	1882
2:30 am	12	59	42	235	54	294	2:30 pm	249	1258	216	739	465	1997
2:45 am	23	78	41	301	64	379	2:45 pm	277	1430	183	706	460	2136
3:00 am	11	70	76	438	87	508	3:00 pm	370	1609	164	692	534	2301
3:15 am	13	85	76	634	89	719	3:15 pm	362	1734	176	699	538	2433
3:30 am	31	105	108	827	139	932	3:30 pm	421	1909	183	681	604	2590
3:45 am	15	108	178	1176	193	1284	3:45 pm	456	2045	169	659	625	2704
4:00 am	26	134	272	1585	298	1719	4:00 pm	495	2114	171	647	666	2761
4:15 am	33	166	269	2024	302	2190	4:15 pm	537	2121	158	643	695	2764
4:30 am	34	184	457	2447	491	2631	4:30 pm	557	2220	161	640	718	2860
4:45 am	41	203	587	2703	628	2906	4:45 pm	525	2230	157	658	682	2888
5:00 am	58	216	711	2817	769	3033	5:00 pm	502	2256	167	638	669	2894
5:15 am	51	230	692	2800	743	3030	5:15 pm	636	2201	155	617	791	2818
5:30 am	53	266	713	2657	766	2923	5:30 pm	567	2085	179	618	746	2703
5:45 am	54	366	701	2491	755	2857	5:45 pm	551	2023	137	552	688	2575
6:00 am	72	425	694	2310	766	2735	6:00 pm	447	1893	146	518	593	2411
6:15 am	87	481	549	2137	636	2618	6:15 pm	520	1854	156	466	676	2320
6:30 am	153	509	547	2042	700	2551	6:30 pm	505	1754	113	407	618	2161
6:45 am	113	506	520	1915	633	2421	6:45 pm	421	1570	103	354	524	1924
7:00 am	128	559	521	1822	649	2381	7:00 pm	408	1444	94	345	502	1789
7:15 am	115	581	454	1699	569	2280	7:15 pm	420	1307	97	314	517	1621
7:30 am	150	624	420	1589	570	2213	7:30 pm	321	1108	60	297	381	1405
7:45 am	166	644	427	1499	593	2143	7:45 pm	295	995	94	315	389	1310
8:00 am	150	636	398	1351	548	1987	8:00 pm	271	905	63	286	334	1191
8:15 am	158	647	344	1236	502	1883	8:15 pm	221	818	80	299	301	1117
8:30 am	170	595	330	1160	500	1755	8:30 pm	208	751	78	272	286	1023
8:45 am	158	565	279	1051	437	1616	8:45 pm	205	678	65	254	270	932
9:00 am	161	574	283	998	444	1572	9:00 pm	184	639	76	237	260	876
9:15 am	106	542	268	937	374	1479	9:15 pm	154	615	53	226	207	841
9:30 am	140	578	221	883	361	1461	9:30 pm	135	590	60	245	195	835
9:45 am	167	587	226	862	393	1449	9:45 pm	166	607	48	235	214	842
10:00 am	129	594	222	851	351	1445	10:00 pm	160	560	65	225	225	785
10:15 am	142	622	214	805	356	1427	10:15 pm	129	524	72	206	201	730
10:30 am	149	618	200	790	349	1408	10:30 pm	152	521	50	175	202	696
10:45 am	174	627	215	770	389	1397	10:45 pm	119	462	38	160	157	622
11:00 am	157	635	176	719	333	1354	11:00 pm	124	458	46	141	170	599
11:15 am	138	640	199	698	337	1338	11:15 pm	126		41		167	
11:30 am	158	682	180	703	338	1385	11:30 pm	93		35		128	
11:45 am	182	693	164	684	346	1377	11:45 pm	115		19		134	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	37745	5:00 am	3033	5:00 pm	2894
N/B	18527	11:45 am	693	5:00 pm	2256
S/B	19218	5:00 am	2817	1:45 pm	779

Run Date *09/27/2007*
Run Time *11:24 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Historical
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Count Date: 07/10/2002 12:00 a Wednesday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	97	353	52	149	149	502	12:00 pm	163	725	146	497	309	1222
12:15 am	96	316	33	129	129	445	12:15 pm	186	759	104	546	290	1305
12:30 am	82	276	39	131	121	407	12:30 pm	185	811	109	608	294	1419
12:45 am	78	250	25	112	103	362	12:45 pm	191	807	138	672	329	1479
1:00 am	60	218	32	118	92	336	1:00 pm	197	845	195	700	392	1545
1:15 am	56	197	35	121	91	318	1:15 pm	238	906	166	678	404	1584
1:30 am	56	179	20	120	76	299	1:30 pm	181	912	173	704	354	1616
1:45 am	46	155	31	141	77	296	1:45 pm	229	1112	166	691	395	1803
2:00 am	39	145	35	151	74	296	2:00 pm	258	1409	173	660	431	2069
2:15 am	38	131	34	182	72	313	2:15 pm	244	1745	192	607	436	2352
2:30 am	32	132	41	232	73	364	2:30 pm	381	2143	160	553	541	2696
2:45 am	36	142	41	293	77	435	2:45 pm	526	2211	135	559	661	2770
3:00 am	25	157	66	413	91	570	3:00 pm	594	2117	120	584	714	2701
3:15 am	39	191	84	582	123	773	3:15 pm	642	2044	138	594	780	2638
3:30 am	42	187	102	767	144	954	3:30 pm	449	1967	166	591	615	2558
3:45 am	51	181	161	1093	212	1274	3:45 pm	432	2037	160	573	592	2610
4:00 am	59	171	235	1508	294	1679	4:00 pm	521	2155	130	555	651	2710
4:15 am	35	182	269	1942	304	2124	4:15 pm	565	2174	135	571	700	2745
4:30 am	36	210	428	2361	464	2571	4:30 pm	519	2205	148	562	667	2767
4:45 am	41	254	576	2602	617	2856	4:45 pm	550	2263	142	565	692	2828
5:00 am	70	308	669	2686	739	2994	5:00 pm	540	2332	146	540	686	2872
5:15 am	63	315	688	2694	751	3009	5:15 pm	596	2442	126	518	722	2960
5:30 am	80	368	669	2606	749	2974	5:30 pm	577	2485	151	485	728	2970
5:45 am	95	413	660	2500	755	2913	5:45 pm	619	2611	117	453	736	3064
6:00 am	77	422	677	2370	754	2792	6:00 pm	650	2591	124	443	774	3034
6:15 am	116	469	600	2251	716	2720	6:15 pm	639	2639	93	419	732	3058
6:30 am	125	491	563	2141	688	2632	6:30 pm	703	2540	119	401	822	2941
6:45 am	104	507	530	2036	634	2543	6:45 pm	599	2211	107	390	706	2601
7:00 am	124	592	558	1927	682	2519	7:00 pm	698	1911	100	387	798	2298
7:15 am	138	642	490	1751	628	2393	7:15 pm	540	1504	75	426	615	1930
7:30 am	141	660	458	1641	599	2301	7:30 pm	374	1212	108	482	482	1694
7:45 am	189	710	421	1446	610	2156	7:45 pm	299	1064	104	461	403	1525
8:00 am	174	703	382	1345	556	2048	8:00 pm	291	1001	139	445	430	1446
8:15 am	156	707	380	1248	536	1955	8:15 pm	248	918	131	408	379	1326
8:30 am	191	719	263	1149	454	1868	8:30 pm	226	896	87	383	313	1279
8:45 am	182	656	320	1126	502	1782	8:45 pm	236	873	88	378	324	1251
9:00 am	178	627	285	1042	463	1669	9:00 pm	208	831	102	384	310	1215
9:15 am	168	606	281	955	449	1561	9:15 pm	226	775	106	386	332	1161
9:30 am	128	599	240	860	368	1459	9:30 pm	203	714	82	398	285	1112
9:45 am	153	631	236	825	389	1456	9:45 pm	194	698	94	381	288	1079
10:00 am	157	642	198	767	355	1409	10:00 pm	152	648	104	355	256	1003
10:15 am	161	614	186	757	347	1371	10:15 pm	165	667	118	306	283	973
10:30 am	160	599	205	764	365	1363	10:30 pm	187	625	65	235	252	860
10:45 am	164	632	178	724	342	1356	10:45 pm	144	549	68	206	212	755
11:00 am	129	632	188	733	317	1365	11:00 pm	171	515	55	164	226	679
11:15 am	146	666	193	691	339	1357	11:15 pm	123		47		170	
11:30 am	193	706	165	602	358	1308	11:30 pm	111		36		147	
11:45 am	164	698	187	546	351	1244	11:45 pm	110		26		136	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	40973	5:15 am	3009	5:45 pm	3064
N/B	22050	8:30 am	719	6:15 pm	2639
S/B	18923	5:15 am	2694	1:30 pm	704

Run Date *09/27/2007*
Run Time *11:24 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Report ID: Historical
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Count Date: 07/11/2002 12:00 a Thursday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	97	353	52	149	149	502	12:00 pm	164	736	173	767	337	1503
12:15 am	96	316	33	129	129	445	12:15 pm	203	785	211	817	414	1602
12:30 am	82	276	39	131	121	407	12:30 pm	187	781	193	841	380	1622
12:45 am	78	250	25	112	103	362	12:45 pm	182	827	190	839	372	1666
1:00 am	60	218	32	118	92	336	1:00 pm	213	880	223	856	436	1736
1:15 am	56	197	35	121	91	318	1:15 pm	199	908	235	833	434	1741
1:30 am	56	179	20	120	76	299	1:30 pm	233	972	191	811	424	1783
1:45 am	46	155	31	141	77	296	1:45 pm	235	1047	207	818	442	1865
2:00 am	39	145	35	151	74	296	2:00 pm	241	1116	200	791	441	1907
2:15 am	38	131	34	182	72	313	2:15 pm	263	1259	213	778	476	2037
2:30 am	32	132	41	232	73	364	2:30 pm	308	1396	198	765	506	2161
2:45 am	36	142	41	293	77	435	2:45 pm	304	1493	180	753	484	2246
3:00 am	25	157	66	413	91	570	3:00 pm	384	1644	187	784	571	2428
3:15 am	39	191	84	582	123	773	3:15 pm	400	1701	200	779	600	2480
3:30 am	42	187	102	767	144	954	3:30 pm	405	1815	186	747	591	2562
3:45 am	51	181	161	1093	212	1274	3:45 pm	455	1962	211	723	666	2685
4:00 am	59	171	235	1508	294	1679	4:00 pm	441	2072	182	681	623	2753
4:15 am	35	182	269	1942	304	2124	4:15 pm	514	2232	168	673	682	2905
4:30 am	36	210	428	2361	464	2571	4:30 pm	552	2368	162	657	714	3025
4:45 am	41	254	576	2602	617	2856	4:45 pm	565	2405	169	653	734	3058
5:00 am	70	308	669	2686	739	2994	5:00 pm	601	2406	174	630	775	3036
5:15 am	63	315	688	2694	751	3009	5:15 pm	650	2361	152	589	802	2950
5:30 am	80	368	669	2606	749	2974	5:30 pm	589	2253	158	586	747	2839
5:45 am	95	413	660	2500	755	2913	5:45 pm	566	2237	146	577	712	2814
6:00 am	77	422	677	2370	754	2792	6:00 pm	556	2139	133	566	689	2705
6:15 am	116	469	600	2251	716	2720	6:15 pm	542	2036	149	574	691	2610
6:30 am	125	491	563	2141	688	2632	6:30 pm	573	1962	149	538	722	2500
6:45 am	104	507	530	2036	634	2543	6:45 pm	468	1744	135	518	603	2262
7:00 am	124	592	558	1927	682	2519	7:00 pm	453	1667	141	500	594	2167
7:15 am	138	642	490	1751	628	2393	7:15 pm	468	1540	113	482	581	2022
7:30 am	141	660	458	1641	599	2301	7:30 pm	355	1366	129	479	484	1845
7:45 am	189	710	421	1446	610	2156	7:45 pm	391	1279	117	449	508	1728
8:00 am	174	703	382	1345	556	2048	8:00 pm	326	1136	123	419	449	1555
8:15 am	156	707	380	1248	536	1955	8:15 pm	294	1026	110	393	404	1419
8:30 am	191	719	263	1149	454	1868	8:30 pm	268	948	99	371	367	1319
8:45 am	182	656	320	1126	502	1782	8:45 pm	248	882	87	374	335	1256
9:00 am	178	627	285	1042	463	1669	9:00 pm	216	821	97	378	313	1199
9:15 am	168	598	281	996	449	1594	9:15 pm	216	794	88	375	304	1169
9:30 am	128	589	240	927	368	1516	9:30 pm	202	740	102	388	304	1128
9:45 am	153	623	236	863	389	1486	9:45 pm	187	734	91	359	278	1093
10:00 am	149	607	239	812	388	1419	10:00 pm	189	725	94	332	283	1057
10:15 am	159	646	212	777	371	1423	10:15 pm	162	638	101	300	263	938
10:30 am	162	659	176	785	338	1444	10:30 pm	196	583	73	251	269	834
10:45 am	137	685	185	801	322	1486	10:45 pm	178	525	64	222	242	747
11:00 am	188	729	204	817	392	1546	11:00 pm	102	493	62	197	164	690
11:15 am	172	705	220	786	392	1491	11:15 pm	107		52		159	
11:30 am	188	736	192	777	380	1513	11:30 pm	138		44		182	
11:45 am	181	735	201	778	382	1513	11:45 pm	146		39		185	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	41106	5:15 am	3009	4:45 pm	3058
N/B	20867	11:30 am	736	5:00 pm	2406
S/B	20239	5:15 am	2694	1:00 pm	856

Run Date *09/27/2007*
Run Time *11:24 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Count Date: 07/12/2002 12:00 a Friday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	158	536	37	117	195	653	12:00 pm	230	969	205	806	435	1775
12:15 am	123	465	25	106	148	571	12:15 pm	226	969	195	816	421	1785
12:30 am	130	430	26	108	156	538	12:30 pm	248	995	204	877	452	1872
12:45 am	125	387	29	112	154	499	12:45 pm	265	1007	202	882	467	1889
1:00 am	87	308	26	119	113	427	1:00 pm	230	1019	215	897	445	1916
1:15 am	88	244	27	119	115	363	1:15 pm	252	1088	256	929	508	2017
1:30 am	87	197	30	134	117	331	1:30 pm	260	1134	209	893	469	2027
1:45 am	46	145	36	136	82	281	1:45 pm	277	1228	217	896	494	2124
2:00 am	23	146	26	134	49	280	2:00 pm	299	1337	247	869	546	2206
2:15 am	41	163	42	182	83	345	2:15 pm	298	1468	220	843	518	2311
2:30 am	35	158	32	224	67	382	2:30 pm	354	1616	212	885	566	2501
2:45 am	47	181	34	322	81	503	2:45 pm	386	1685	190	917	576	2602
3:00 am	40	178	74	436	114	614	3:00 pm	430	1787	221	926	651	2713
3:15 am	36	189	84	583	120	772	3:15 pm	446	1869	262	914	708	2783
3:30 am	58	186	130	758	188	944	3:30 pm	423	1970	244	855	667	2825
3:45 am	44	184	148	1027	192	1211	3:45 pm	488	2090	199	821	687	2911
4:00 am	51	211	221	1400	272	1611	4:00 pm	512	2165	209	808	721	2973
4:15 am	33	217	259	1830	292	2047	4:15 pm	547	2219	203	800	750	3019
4:30 am	56	304	399	2199	455	2503	4:30 pm	543	2345	210	807	753	3152
4:45 am	71	350	521	2433	592	2783	4:45 pm	563	2337	186	793	749	3130
5:00 am	57	409	651	2578	708	2987	5:00 pm	566	2312	201	813	767	3125
5:15 am	120	465	628	2524	748	2989	5:15 pm	673	2346	210	824	883	3170
5:30 am	102	478	633	2519	735	2997	5:30 pm	535	2248	196	784	731	3032
5:45 am	130	513	666	2484	796	2997	5:45 pm	538	2184	206	780	744	2964
6:00 am	113	515	597	2356	710	2871	6:00 pm	600	2073	212	737	812	2810
6:15 am	133	526	623	2276	756	2802	6:15 pm	575	1969	170	715	745	2684
6:30 am	137	569	598	2166	735	2735	6:30 pm	471	1906	192	713	663	2619
6:45 am	132	632	538	1966	670	2598	6:45 pm	427	1943	163	697	590	2640
7:00 am	124	691	517	1899	641	2590	7:00 pm	496	1954	190	696	686	2650
7:15 am	176	752	513	1756	689	2508	7:15 pm	512	1931	168	650	680	2581
7:30 am	200	762	398	1641	598	2403	7:30 pm	508	1815	176	632	684	2447
7:45 am	191	747	471	1583	662	2330	7:45 pm	438	1601	162	585	600	2186
8:00 am	185	735	374	1449	559	2184	8:00 pm	473	1452	144	552	617	2004
8:15 am	186	728	398	1413	584	2141	8:15 pm	396	1268	150	543	546	1811
8:30 am	185	734	340	1267	525	2001	8:30 pm	294	1165	129	502	423	1667
8:45 am	179	743	337	1193	516	1936	8:45 pm	289	1148	129	525	418	1673
9:00 am	178	733	338	1111	516	1844	9:00 pm	289	1124	135	511	424	1635
9:15 am	192	728	252	1043	444	1771	9:15 pm	293	1065	109	515	402	1580
9:30 am	194	724	266	1010	460	1734	9:30 pm	277	981	152	559	429	1540
9:45 am	169	754	255	961	424	1715	9:45 pm	265	920	115	511	380	1431
10:00 am	173	772	270	946	443	1718	10:00 pm	230	867	139	479	369	1346
10:15 am	188	800	219	906	407	1706	10:15 pm	209	844	153	424	362	1268
10:30 am	224	799	217	932	441	1731	10:30 pm	216	812	104	341	320	1153
10:45 am	187	787	240	950	427	1737	10:45 pm	212	786	83	309	295	1095
11:00 am	201	844	230	933	431	1777	11:00 pm	207	735	84	285	291	1020
11:15 am	187	873	245	908	432	1781	11:15 pm	177		70		247	
11:30 am	212	912	235	858	447	1770	11:30 pm	190		72		262	
11:45 am	244	948	223	827	467	1775	11:45 pm	161		59		220	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	45729	5:30 am	2997	5:15 pm	3170
N/B	23872	11:45 am	948	5:15 pm	2346
S/B	21857	5:00 am	2578	1:15 pm	929

Run Date *09/27/2007*
Run Time *11:24 AM*

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900 S. Fremont Ave.
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Count Date: 07/13/2002 12:00 a Saturday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	170	578	47	193	217	771	12:00 pm	214	994	288	1002	502	1996
12:15 am	139	492	51	185	190	677	12:15 pm	237	1005	272	957	509	1962
12:30 am	134	425	53	166	187	591	12:30 pm	253	1027	213	902	466	1929
12:45 am	135	370	42	142	177	512	12:45 pm	290	1004	229	923	519	1927
1:00 am	84	305	39	126	123	431	1:00 pm	225	969	243	907	468	1876
1:15 am	72	263	32	115	104	378	1:15 pm	259	1000	217	869	476	1869
1:30 am	79	240	29	114	108	354	1:30 pm	230	1023	234	894	464	1917
1:45 am	70	206	26	126	96	332	1:45 pm	255	1090	213	888	468	1978
2:00 am	42	173	28	137	70	310	2:00 pm	256	1150	205	881	461	2031
2:15 am	49	178	31	157	80	335	2:15 pm	282	1246	242	922	524	2168
2:30 am	45	169	41	173	86	342	2:30 pm	297	1262	228	913	525	2175
2:45 am	37	170	37	199	74	369	2:45 pm	315	1275	206	929	521	2204
3:00 am	47	172	48	244	95	416	3:00 pm	352	1274	246	965	598	2239
3:15 am	40	155	47	303	87	458	3:15 pm	298	1220	233	941	531	2161
3:30 am	46	173	67	348	113	521	3:30 pm	310	1229	244	916	554	2145
3:45 am	39	166	82	394	121	560	3:45 pm	314	1237	242	901	556	2138
4:00 am	30	175	107	469	137	644	4:00 pm	298	1220	222	871	520	2091
4:15 am	58	208	92	558	150	766	4:15 pm	307	1210	208	879	515	2089
4:30 am	39	195	113	650	152	845	4:30 pm	318	1168	229	899	547	2067
4:45 am	48	229	157	726	205	955	4:45 pm	297	1172	212	874	509	2046
5:00 am	63	257	196	777	259	1034	5:00 pm	288	1149	230	855	518	2004
5:15 am	45	276	184	843	229	1119	5:15 pm	265	1141	228	829	493	1970
5:30 am	73	326	189	918	262	1244	5:30 pm	322	1132	204	813	526	1945
5:45 am	76	364	208	945	284	1309	5:45 pm	274	1082	193	801	467	1883
6:00 am	82	423	262	986	344	1409	6:00 pm	280	1048	204	799	484	1847
6:15 am	95	473	259	1000	354	1473	6:15 pm	256	973	212	764	468	1737
6:30 am	111	510	216	1002	327	1512	6:30 pm	272	1002	192	705	464	1707
6:45 am	135	578	249	1056	384	1634	6:45 pm	240	918	191	656	431	1574
7:00 am	132	603	276	1066	408	1669	7:00 pm	205	1044	169	613	374	1657
7:15 am	132	627	261	1072	393	1699	7:15 pm	285	1096	153	604	438	1700
7:30 am	179	686	270	1122	449	1808	7:30 pm	188	1019	143	598	331	1617
7:45 am	160	674	259	1121	419	1795	7:45 pm	366	1052	148	619	514	1671
8:00 am	156	704	282	1131	438	1835	8:00 pm	257	880	160	606	417	1486
8:15 am	191	730	311	1110	502	1840	8:15 pm	208	843	147	614	355	1457
8:30 am	167	690	269	1115	436	1805	8:30 pm	221	834	164	647	385	1481
8:45 am	190	717	269	1109	459	1826	8:45 pm	194	802	135	615	329	1417
9:00 am	182	705	261	1078	443	1783	9:00 pm	220	827	168	641	388	1468
9:15 am	151	711	316	1083	467	1794	9:15 pm	199	787	180	616	379	1403
9:30 am	194	744	263	1017	457	1761	9:30 pm	189	810	132	541	321	1351
9:45 am	178	753	238	1002	416	1755	9:45 pm	219	834	161	524	380	1358
10:00 am	188	782	266	1007	454	1789	10:00 pm	180	824	143	450	323	1274
10:15 am	184	793	250	1003	434	1796	10:15 pm	222	829	105	412	327	1241
10:30 am	203	804	248	1028	451	1832	10:30 pm	213	765	115	384	328	1149
10:45 am	207	794	243	1035	450	1829	10:45 pm	209	711	87	353	296	1064
11:00 am	199	821	262	1030	461	1851	11:00 pm	185	674	105	332	290	1006
11:15 am	195	836	275	1056	470	1892	11:15 pm	158		77		235	
11:30 am	193	878	255	1053	448	1931	11:30 pm	159		84		243	
11:45 am	234	938	238	1011	472	1949	11:45 pm	172		66		238	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	34917	11:45 am	1949	3:00 pm	2239
N/B	17751	11:45 am	938	2:45 pm	1275
S/B	17166	8:00 am	1131	12:00 pm	1002

Run Date *09/27/2007*
Run Time *11:24 AM*

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900 S. Fremont Ave.
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Count Date: 07/14/2002 12:00 a Sunday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	153	586	56	228	209	814	12:00 pm	161	729	237	902	398	1631
12:15 am	146	541	56	213	202	754	12:15 pm	200	773	230	916	430	1689
12:30 am	129	510	73	190	202	700	12:30 pm	183	750	213	912	396	1662
12:45 am	158	478	43	154	201	632	12:45 pm	185	758	222	943	407	1701
1:00 am	108	386	41	143	149	529	1:00 pm	205	773	251	975	456	1748
1:15 am	115	344	33	131	148	475	1:15 pm	177	768	226	963	403	1731
1:30 am	97	297	37	131	134	428	1:30 pm	191	778	244	979	435	1757
1:45 am	66	248	32	123	98	371	1:45 pm	200	799	254	1018	454	1817
2:00 am	66	239	29	127	95	366	2:00 pm	200	809	239	1010	439	1819
2:15 am	68	241	33	124	101	365	2:15 pm	187	818	242	1012	429	1830
2:30 am	48	220	29	115	77	335	2:30 pm	212	851	283	1045	495	1896
2:45 am	57	215	36	110	93	325	2:45 pm	210	864	246	1024	456	1888
3:00 am	68	195	26	123	94	318	3:00 pm	209	865	241	1038	450	1903
3:15 am	47	172	24	142	71	314	3:15 pm	220	855	275	1028	495	1883
3:30 am	43	152	24	159	67	311	3:30 pm	225	876	262	996	487	1872
3:45 am	37	138	49	193	86	331	3:45 pm	211	899	260	920	471	1819
4:00 am	45	145	45	201	90	346	4:00 pm	199	926	231	892	430	1818
4:15 am	27	136	41	228	68	364	4:15 pm	241	924	243	893	484	1817
4:30 am	29	153	58	274	87	427	4:30 pm	248	905	186	855	434	1760
4:45 am	44	166	57	284	101	450	4:45 pm	238	892	232	892	470	1784
5:00 am	36	168	72	314	108	482	5:00 pm	197	894	232	853	429	1747
5:15 am	44	194	87	335	131	529	5:15 pm	222	893	205	834	427	1727
5:30 am	42	222	68	345	110	567	5:30 pm	235	892	223	842	458	1734
5:45 am	46	270	87	381	133	651	5:45 pm	240	860	193	832	433	1692
6:00 am	62	339	93	411	155	750	6:00 pm	196	859	213	846	409	1705
6:15 am	72	379	97	442	169	821	6:15 pm	221	924	213	856	434	1780
6:30 am	90	404	104	467	194	871	6:30 pm	203	892	213	836	416	1728
6:45 am	115	428	117	481	232	909	6:45 pm	239	938	207	827	446	1765
7:00 am	102	422	124	494	226	916	7:00 pm	261	943	223	827	484	1770
7:15 am	97	433	122	517	219	950	7:15 pm	189	900	193	806	382	1706
7:30 am	114	475	118	556	232	1031	7:30 pm	249	943	204	830	453	1773
7:45 am	109	504	130	623	239	1127	7:45 pm	244	924	207	805	451	1729
8:00 am	113	538	147	667	260	1205	8:00 pm	218	899	202	786	420	1685
8:15 am	139	548	161	709	300	1257	8:15 pm	232	899	217	794	449	1693
8:30 am	143	531	185	768	328	1299	8:30 pm	230	888	179	768	409	1656
8:45 am	143	519	174	781	317	1300	8:45 pm	219	866	188	749	407	1615
9:00 am	123	550	189	816	312	1366	9:00 pm	218	860	210	733	428	1593
9:15 am	122	584	220	845	342	1429	9:15 pm	221	864	191	684	412	1548
9:30 am	131	672	198	859	329	1531	9:30 pm	208	801	160	644	368	1445
9:45 am	174	727	209	887	383	1614	9:45 pm	213	753	172	589	385	1342
10:00 am	157	717	218	905	375	1622	10:00 pm	222	670	161	541	383	1211
10:15 am	210	732	234	947	444	1679	10:15 pm	158	586	151	458	309	1044
10:30 am	186	700	226	934	412	1634	10:30 pm	160	571	105	383	265	954
10:45 am	164	692	227	963	391	1655	10:45 pm	130	529	124	343	254	872
11:00 am	172	705	260	953	432	1658	11:00 pm	138	491	78	283	216	774
11:15 am	178	694	221	930	399	1624	11:15 pm	143		76		219	
11:30 am	178	716	255	939	433	1655	11:30 pm	118		65		183	
11:45 am	177	721	217	897	394	1618	11:45 pm	92		64		156	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	29776	10:15 am	1679	3:00 pm	1903
N/B	14708	10:15 am	732	7:00 pm	943
S/B	15068	10:45 am	963	2:30 pm	1045

Run Date *09/27/2007*
Run Time *11:24 AM*

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Count Date: 07/15/2002 12:00 a Monday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	79	266	44	163	123	429	12:00 pm	176	777	216	871	392	1648
12:15 am	54	238	28	161	82	399	12:15 pm	171	794	234	863	405	1657
12:30 am	81	230	43	170	124	400	12:30 pm	211	842	201	858	412	1700
12:45 am	52	189	48	159	100	348	12:45 pm	219	858	220	881	439	1739
1:00 am	51	178	42	146	93	324	1:00 pm	193	823	208	861	401	1684
1:15 am	46	144	37	137	83	281	1:15 pm	219	901	229	900	448	1801
1:30 am	40	119	32	142	72	261	1:30 pm	227	921	224	871	451	1792
1:45 am	41	97	35	155	76	252	1:45 pm	184	938	200	852	384	1790
2:00 am	17	77	33	166	50	243	2:00 pm	271	1019	247	846	518	1865
2:15 am	21	85	42	216	63	301	2:15 pm	239	1149	200	787	439	1936
2:30 am	18	100	45	273	63	373	2:30 pm	244	1291	205	791	449	2082
2:45 am	21	119	46	341	67	460	2:45 pm	265	1461	194	791	459	2252
3:00 am	25	127	83	471	108	598	3:00 pm	401	1620	188	828	589	2448
3:15 am	36	132	99	626	135	758	3:15 pm	381	1729	204	847	585	2576
3:30 am	37	139	113	853	150	992	3:30 pm	414	1877	205	826	619	2703
3:45 am	29	140	176	1171	205	1311	3:45 pm	424	1994	231	804	655	2798
4:00 am	30	159	238	1582	268	1741	4:00 pm	510	2094	207	763	717	2857
4:15 am	43	183	326	1992	369	2175	4:15 pm	529	2010	183	754	712	2764
4:30 am	38	219	431	2365	469	2584	4:30 pm	531	2113	183	771	714	2884
4:45 am	48	273	587	2550	635	2823	4:45 pm	524	2111	190	765	714	2876
5:00 am	54	302	648	2702	702	3004	5:00 pm	426	2202	198	801	624	3003
5:15 am	79	348	699	2716	778	3064	5:15 pm	632	2400	200	789	832	3189
5:30 am	92	372	616	2579	708	2951	5:30 pm	529	2301	177	744	706	3045
5:45 am	77	393	739	2557	816	2950	5:45 pm	615	2291	226	740	841	3031
6:00 am	100	409	662	2356	762	2765	6:00 pm	624	2155	186	657	810	2812
6:15 am	103	437	562	2237	665	2674	6:15 pm	533	1988	155	626	688	2614
6:30 am	113	461	594	2161	707	2622	6:30 pm	519	1919	173	631	692	2550
6:45 am	93	488	538	2009	631	2497	6:45 pm	479	1820	143	595	622	2415
7:00 am	128	569	543	1895	671	2464	7:00 pm	457	1628	155	581	612	2209
7:15 am	127	586	486	1749	613	2335	7:15 pm	464	1467	160	574	624	2041
7:30 am	140	602	442	1607	582	2209	7:30 pm	420	1277	137	542	557	1819
7:45 am	174	630	424	1523	598	2153	7:45 pm	287	1106	129	540	416	1646
8:00 am	145	628	397	1364	542	1992	8:00 pm	296	1054	148	531	444	1585
8:15 am	143	644	344	1284	487	1928	8:15 pm	274	976	128	498	402	1474
8:30 am	168	636	358	1228	526	1864	8:30 pm	249	893	135	482	384	1375
8:45 am	172	647	265	1121	437	1768	8:45 pm	235	816	120	461	355	1277
9:00 am	161	627	317	1094	478	1721	9:00 pm	218	768	115	467	333	1235
9:15 am	135	640	288	988	423	1628	9:15 pm	191	721	112	443	303	1164
9:30 am	179	657	251	941	430	1598	9:30 pm	172	696	114	426	286	1122
9:45 am	152	620	238	914	390	1534	9:45 pm	187	696	126	402	313	1098
10:00 am	174	614	211	934	385	1548	10:00 pm	171	646	91	336	262	982
10:15 am	152	626	241	960	393	1586	10:15 pm	166	607	95	304	261	911
10:30 am	142	643	224	926	366	1569	10:30 pm	172	557	90	270	262	827
10:45 am	146	676	258	915	404	1591	10:45 pm	137	509	60	237	197	746
11:00 am	186	713	237	851	423	1564	11:00 pm	132	492	59	222	191	714
11:15 am	169	703	207	830	376	1533	11:15 pm	116		61		177	
11:30 am	175	705	213	857	388	1562	11:30 pm	124		57		181	
11:45 am	183	741	194	845	377	1586	11:45 pm	120		45		165	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	41435	5:15 am	3064	5:15 pm	3189
N/B	19947	11:45 am	741	5:15 pm	2400
S/B	21488	5:15 am	2716	1:15 pm	900

Run Date *09/27/2007*
Run Time *11:25 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Count Date: 06/12/2002 12:00 a Wednesday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	125	434	40	128	165	562	12:00 pm	197	786	199	844	396	1630
12:15 am	120	370	31	120	151	490	12:15 pm	177	803	224	862	401	1665
12:30 am	98	308	29	109	127	417	12:30 pm	195	845	209	864	404	1709
12:45 am	91	258	28	104	119	362	12:45 pm	217	865	212	895	429	1760
1:00 am	61	203	32	107	93	310	1:00 pm	214	890	217	879	431	1769
1:15 am	58	185	20	101	78	286	1:15 pm	219	923	226	873	445	1796
1:30 am	48	167	24	105	72	272	1:30 pm	215	962	240	858	455	1820
1:45 am	36	149	31	132	67	281	1:45 pm	242	1033	196	831	438	1864
2:00 am	43	143	26	156	69	299	2:00 pm	247	1115	211	862	458	1977
2:15 am	40	143	24	202	64	345	2:15 pm	258	1255	211	828	469	2083
2:30 am	30	132	51	277	81	409	2:30 pm	286	1434	213	842	499	2276
2:45 am	30	141	55	344	85	485	2:45 pm	324	1583	227	815	551	2398
3:00 am	43	153	72	461	115	614	3:00 pm	387	1703	177	783	564	2486
3:15 am	29	161	99	646	128	807	3:15 pm	437	1804	225	806	662	2610
3:30 am	39	184	118	824	157	1008	3:30 pm	435	1935	186	747	621	2682
3:45 am	42	182	172	1092	214	1274	3:45 pm	444	2060	195	723	639	2783
4:00 am	51	189	257	1441	308	1630	4:00 pm	488	2189	200	728	688	2917
4:15 am	52	181	277	1845	329	2026	4:15 pm	568	2306	166	705	734	3011
4:30 am	37	211	386	2245	423	2456	4:30 pm	560	2362	162	703	722	3065
4:45 am	49	267	521	2520	570	2787	4:45 pm	573	2428	200	696	773	3124
5:00 am	43	299	661	2705	704	3004	5:00 pm	605	2479	177	654	782	3133
5:15 am	82	345	677	2734	759	3079	5:15 pm	624	2491	164	615	788	3106
5:30 am	93	367	661	2643	754	3010	5:30 pm	626	2457	155	603	781	3060
5:45 am	81	407	706	2679	787	3086	5:45 pm	624	2473	158	575	782	3048
6:00 am	89	431	690	2600	779	3031	6:00 pm	617	2366	138	550	755	2916
6:15 am	104	469	586	2436	690	2905	6:15 pm	590	2175	152	549	742	2724
6:30 am	133	507	697	2365	830	2872	6:30 pm	642	1984	127	524	769	2508
6:45 am	105	559	627	2102	732	2661	6:45 pm	517	1711	133	522	650	2233
7:00 am	127	628	526	1931	653	2559	7:00 pm	426	1496	137	501	563	1997
7:15 am	142	683	515	1787	657	2470	7:15 pm	399	1353	127	484	526	1837
7:30 am	185	770	434	1626	619	2396	7:30 pm	369	1172	125	459	494	1631
7:45 am	174	776	456	1506	630	2282	7:45 pm	302	1049	112	446	414	1495
8:00 am	182	792	382	1376	564	2168	8:00 pm	283	971	120	448	403	1419
8:15 am	229	773	354	1347	583	2120	8:15 pm	218	883	102	452	320	1335
8:30 am	191	720	314	1307	505	2027	8:30 pm	246	840	112	454	358	1294
8:45 am	190	710	326	1223	516	1933	8:45 pm	224	815	114	466	338	1281
9:00 am	163	716	353	1119	516	1835	9:00 pm	195	769	124	456	319	1225
9:15 am	176	710	314	999	490	1709	9:15 pm	175	753	104	464	279	1217
9:30 am	181	717	230	911	411	1628	9:30 pm	221	748	124	460	345	1208
9:45 am	196	719	222	890	418	1609	9:45 pm	178	677	104	401	282	1078
10:00 am	157	680	233	846	390	1526	10:00 pm	179	654	132	368	311	1022
10:15 am	183	714	226	793	409	1507	10:15 pm	170	622	100	289	270	911
10:30 am	183	735	209	788	392	1523	10:30 pm	150	586	65	235	215	821
10:45 am	157	732	178	783	335	1515	10:45 pm	155	537	71	217	226	754
11:00 am	191	752	180	794	371	1546	11:00 pm	147	501	53	185	200	686
11:15 am	204	758	221	813	425	1571	11:15 pm	134		46		180	
11:30 am	180	731	204	816	384	1547	11:30 pm	101		47		148	
11:45 am	177	746	189	821	366	1567	11:45 pm	119		39		158	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	42261	5:45 am	3086	5:00 pm	3133
N/B	21339	8:00 am	792	5:15 pm	2491
S/B	20922	5:15 am	2734	12:45 pm	895

Run Date *09/27/2007*
Run Time *11:25 AM*

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Count Date: 06/13/2002 12:00 a Thursday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	125	434	40	128	165	562	12:00 pm	209	891	251	919	460	1810
12:15 am	120	370	31	120	151	490	12:15 pm	258	957	231	900	489	1857
12:30 am	98	308	29	109	127	417	12:30 pm	202	943	213	899	415	1842
12:45 am	91	258	28	104	119	362	12:45 pm	222	962	224	891	446	1853
1:00 am	61	203	32	107	93	310	1:00 pm	275	1028	232	886	507	1914
1:15 am	58	185	20	101	78	286	1:15 pm	244	1040	230	857	474	1897
1:30 am	48	167	24	105	72	272	1:30 pm	221	1090	205	861	426	1951
1:45 am	36	149	31	132	67	281	1:45 pm	288	1193	219	884	507	2077
2:00 am	43	143	26	156	69	299	2:00 pm	287	1240	203	895	490	2135
2:15 am	40	143	24	202	64	345	2:15 pm	294	1391	234	878	528	2269
2:30 am	30	132	51	277	81	409	2:30 pm	324	1546	228	881	552	2427
2:45 am	30	141	55	344	85	485	2:45 pm	335	1686	230	853	565	2539
3:00 am	43	153	72	461	115	614	3:00 pm	438	1785	186	804	624	2589
3:15 am	29	161	99	646	128	807	3:15 pm	449	1801	237	844	686	2645
3:30 am	39	184	118	824	157	1008	3:30 pm	464	1856	200	798	664	2654
3:45 am	42	182	172	1092	214	1274	3:45 pm	434	1829	181	782	615	2611
4:00 am	51	189	257	1441	308	1630	4:00 pm	454	1967	226	757	680	2724
4:15 am	52	181	277	1845	329	2026	4:15 pm	504	2133	191	714	695	2847
4:30 am	37	211	386	2245	423	2456	4:30 pm	437	2269	184	693	621	2962
4:45 am	49	267	521	2520	570	2787	4:45 pm	572	2443	156	682	728	3125
5:00 am	43	299	661	2705	704	3004	5:00 pm	620	2473	183	665	803	3138
5:15 am	82	345	677	2734	759	3079	5:15 pm	640	2446	170	634	810	3080
5:30 am	93	367	661	2643	754	3010	5:30 pm	611	2468	173	633	784	3101
5:45 am	81	407	706	2679	787	3086	5:45 pm	602	2488	139	590	741	3078
6:00 am	89	431	690	2600	779	3031	6:00 pm	593	2419	152	575	745	2994
6:15 am	104	469	586	2436	690	2905	6:15 pm	662	2359	169	550	831	2909
6:30 am	133	507	697	2365	830	2872	6:30 pm	631	2171	130	491	761	2662
6:45 am	105	559	627	2102	732	2661	6:45 pm	533	1932	124	476	657	2408
7:00 am	127	628	526	1931	653	2559	7:00 pm	533	1755	127	476	660	2231
7:15 am	142	683	515	1787	657	2470	7:15 pm	474	1559	110	477	584	2036
7:30 am	185	770	434	1626	619	2396	7:30 pm	392	1356	115	477	507	1833
7:45 am	174	776	456	1506	630	2282	7:45 pm	356	1222	124	472	480	1694
8:00 am	182	792	382	1376	564	2168	8:00 pm	337	1113	128	499	465	1612
8:15 am	229	773	354	1347	583	2120	8:15 pm	271	989	110	502	381	1491
8:30 am	191	720	314	1307	505	2027	8:30 pm	258	903	110	510	368	1413
8:45 am	190	710	326	1223	516	1933	8:45 pm	247	867	151	519	398	1386
9:00 am	163	716	353	1119	516	1835	9:00 pm	213	868	131	477	344	1345
9:15 am	176	689	314	990	490	1679	9:15 pm	185	834	118	464	303	1298
9:30 am	181	677	230	899	411	1576	9:30 pm	222	820	119	440	341	1260
9:45 am	196	679	222	914	418	1593	9:45 pm	248	761	109	428	357	1189
10:00 am	136	670	224	900	360	1570	10:00 pm	179	670	118	404	297	1074
10:15 am	164	712	223	902	387	1614	10:15 pm	171	617	94	335	265	952
10:30 am	183	731	245	891	428	1622	10:30 pm	163	540	107	298	270	838
10:45 am	187	737	208	864	395	1601	10:45 pm	157	480	85	240	242	720
11:00 am	178	726	226	883	404	1609	11:00 pm	126	430	49	203	175	633
11:15 am	183	757	212	908	395	1665	11:15 pm	94		57		151	
11:30 am	189	832	218	927	407	1759	11:30 pm	103		49		152	
11:45 am	176	845	227	922	403	1767	11:45 pm	107		48		155	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	43390	5:45 am	3086	5:00 pm	3138
N/B	22023	11:45 am	845	5:45 pm	2488
S/B	21367	5:15 am	2734	12:00 pm	919

Run Date *09/27/2007*
Run Time *11:25 AM*

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Count Date: 06/14/2002 12:00 a Friday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	118	439	41	141	159	580	12:00 pm	227	971	224	846	451	1817
12:15 am	101	426	32	137	133	563	12:15 pm	225	1047	232	856	457	1903
12:30 am	104	427	40	136	144	563	12:30 pm	277	1124	212	859	489	1983
12:45 am	116	419	28	120	144	539	12:45 pm	242	1162	178	889	420	2051
1:00 am	105	369	37	123	142	492	1:00 pm	303	1208	234	932	537	2140
1:15 am	102	297	31	121	133	418	1:15 pm	302	1252	235	934	537	2186
1:30 am	96	237	24	118	120	355	1:30 pm	315	1362	242	920	557	2282
1:45 am	66	181	31	131	97	312	1:45 pm	288	1432	221	925	509	2357
2:00 am	33	150	35	152	68	302	2:00 pm	347	1537	236	907	583	2444
2:15 am	42	145	28	176	70	321	2:15 pm	412	1658	221	916	633	2574
2:30 am	40	144	37	235	77	379	2:30 pm	385	1701	247	961	632	2662
2:45 am	35	141	52	301	87	442	2:45 pm	393	1723	203	975	596	2698
3:00 am	28	142	59	407	87	549	3:00 pm	468	1798	245	962	713	2760
3:15 am	41	148	87	572	128	720	3:15 pm	455	1835	266	964	721	2799
3:30 am	37	154	103	748	140	902	3:30 pm	407	1958	261	931	668	2889
3:45 am	36	165	158	1050	194	1215	3:45 pm	468	2182	190	884	658	3066
4:00 am	34	186	224	1414	258	1600	4:00 pm	505	2300	247	917	752	3217
4:15 am	47	209	263	1789	310	1998	4:15 pm	578	2381	233	895	811	3276
4:30 am	48	253	405	2131	453	2384	4:30 pm	631	2438	214	861	845	3299
4:45 am	57	281	522	2391	579	2672	4:45 pm	586	2481	223	844	809	3325
5:00 am	57	378	599	2581	656	2959	5:00 pm	586	2485	225	809	811	3294
5:15 am	91	450	605	2599	696	3049	5:15 pm	635	2528	199	750	834	3278
5:30 am	76	472	665	2562	741	3034	5:30 pm	674	2494	197	741	871	3235
5:45 am	154	545	712	2487	866	3032	5:45 pm	590	2416	188	741	778	3157
6:00 am	129	516	617	2379	746	2895	6:00 pm	629	2382	166	732	795	3114
6:15 am	113	552	568	2321	681	2873	6:15 pm	601	2232	190	732	791	2964
6:30 am	149	607	590	2270	739	2877	6:30 pm	596	2109	197	720	793	2829
6:45 am	125	636	604	2111	729	2747	6:45 pm	556	1976	179	698	735	2674
7:00 am	165	714	559	1931	724	2645	7:00 pm	479	1802	166	666	645	2468
7:15 am	168	727	517	1777	685	2504	7:15 pm	478	1735	178	673	656	2408
7:30 am	178	774	431	1651	609	2425	7:30 pm	463	1618	175	632	638	2250
7:45 am	203	789	424	1547	627	2336	7:45 pm	382	1414	147	571	529	1985
8:00 am	178	794	405	1453	583	2247	8:00 pm	412	1300	173	573	585	1873
8:15 am	215	815	391	1399	606	2214	8:15 pm	361	1163	137	521	498	1684
8:30 am	193	822	327	1308	520	2130	8:30 pm	259	1058	114	526	373	1584
8:45 am	208	817	330	1263	538	2080	8:45 pm	268	1057	149	551	417	1608
9:00 am	199	835	351	1188	550	2023	9:00 pm	275	1032	121	534	396	1566
9:15 am	222	847	300	1057	522	1904	9:15 pm	256	1022	142	584	398	1606
9:30 am	188	848	282	995	470	1843	9:30 pm	258	998	139	584	397	1582
9:45 am	226	863	255	945	481	1808	9:45 pm	243	984	132	548	375	1532
10:00 am	211	865	220	945	431	1810	10:00 pm	265	950	171	504	436	1454
10:15 am	223	908	238	946	461	1854	10:15 pm	232	927	142	414	374	1341
10:30 am	203	907	232	956	435	1863	10:30 pm	244	954	103	343	347	1297
10:45 am	228	962	255	937	483	1899	10:45 pm	209	952	88	297	297	1249
11:00 am	254	963	221	932	475	1895	11:00 pm	242	912	81	273	323	1185
11:15 am	222	936	248	935	470	1871	11:15 pm	259		71		330	
11:30 am	258	939	213	919	471	1858	11:30 pm	242		57		299	
11:45 am	229	958	250	918	479	1876	11:45 pm	169		64		233	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	47329	5:15 am	3049	4:45 pm	3325
N/B	25028	11:00 am	963	5:15 pm	2528
S/B	22301	5:15 am	2599	2:45 pm	975

Run Date *09/27/2007*
Run Time *11:25 AM*

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900 S. Fremont Ave.
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Count Date: 06/15/2002 12:00 a Saturday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	174	684	69	220	243	904	12:00 pm	254	1030	267	1031	521	2061
12:15 am	200	661	67	201	267	862	12:15 pm	255	1048	275	1007	530	2055
12:30 am	162	615	46	169	208	784	12:30 pm	248	1068	254	983	502	2051
12:45 am	148	574	38	166	186	740	12:45 pm	273	1105	235	966	508	2071
1:00 am	151	532	50	163	201	695	1:00 pm	272	1122	243	966	515	2088
1:15 am	154	478	35	139	189	617	1:15 pm	275	1104	251	972	526	2076
1:30 am	121	403	43	132	164	535	1:30 pm	285	1139	237	954	522	2093
1:45 am	106	379	35	135	141	514	1:45 pm	290	1177	235	953	525	2130
2:00 am	97	344	26	144	123	488	2:00 pm	254	1230	249	953	503	2183
2:15 am	79	286	28	161	107	447	2:15 pm	310	1285	233	938	543	2223
2:30 am	97	261	46	183	143	444	2:30 pm	323	1278	236	939	559	2217
2:45 am	71	191	44	190	115	381	2:45 pm	343	1300	235	929	578	2229
3:00 am	39	167	43	237	82	404	3:00 pm	309	1266	234	922	543	2188
3:15 am	54	175	50	284	104	459	3:15 pm	303	1243	234	956	537	2199
3:30 am	27	157	53	330	80	487	3:30 pm	345	1247	226	940	571	2187
3:45 am	47	185	91	392	138	577	3:45 pm	309	1188	228	929	537	2117
4:00 am	47	180	90	434	137	614	4:00 pm	286	1187	268	911	554	2098
4:15 am	36	177	96	542	132	719	4:15 pm	307	1179	218	872	525	2051
4:30 am	55	198	115	631	170	829	4:30 pm	286	1187	215	873	501	2060
4:45 am	42	219	133	720	175	939	4:45 pm	308	1173	210	881	518	2054
5:00 am	44	249	198	812	242	1061	5:00 pm	278	1124	229	883	507	2007
5:15 am	57	276	185	837	242	1113	5:15 pm	315	1157	219	858	534	2015
5:30 am	76	278	204	866	280	1144	5:30 pm	272	1134	223	864	495	1998
5:45 am	72	295	225	878	297	1173	5:45 pm	259	1136	212	843	471	1979
6:00 am	71	313	223	890	294	1203	6:00 pm	311	1165	204	806	515	1971
6:15 am	59	348	214	932	273	1280	6:15 pm	292	1129	225	791	517	1920
6:30 am	93	420	216	1006	309	1426	6:30 pm	274	1102	202	752	476	1854
6:45 am	90	473	237	1070	327	1543	6:45 pm	288	1032	175	736	463	1768
7:00 am	106	601	265	1101	371	1702	7:00 pm	275	966	189	717	464	1683
7:15 am	131	671	288	1121	419	1792	7:15 pm	265	911	186	702	451	1613
7:30 am	146	704	280	1101	426	1805	7:30 pm	204	888	186	685	390	1573
7:45 am	218	751	268	1069	486	1820	7:45 pm	222	830	156	639	378	1469
8:00 am	176	748	285	1049	461	1797	8:00 pm	220	779	174	653	394	1432
8:15 am	164	773	268	1029	432	1802	8:15 pm	242	760	169	643	411	1403
8:30 am	193	788	248	1029	441	1817	8:30 pm	146	709	140	630	286	1339
8:45 am	215	772	248	1042	463	1814	8:45 pm	171	768	170	624	341	1392
9:00 am	201	767	265	1052	466	1819	9:00 pm	201	780	164	640	365	1420
9:15 am	179	813	268	1037	447	1850	9:15 pm	191	800	156	647	347	1447
9:30 am	177	960	261	1067	438	2027	9:30 pm	205	806	134	642	339	1448
9:45 am	210	994	258	1077	468	2071	9:45 pm	183	818	186	608	369	1426
10:00 am	247	991	250	1073	497	2064	10:00 pm	221	838	171	516	392	1354
10:15 am	326	947	298	1082	624	2029	10:15 pm	197	829	151	467	348	1296
10:30 am	211	836	271	1044	482	1880	10:30 pm	217	775	100	416	317	1191
10:45 am	207	854	254	1034	461	1888	10:45 pm	203	704	94	391	297	1095
11:00 am	203	907	259	1054	462	1961	11:00 pm	212	684	122	371	334	1055
11:15 am	215	958	260	1062	475	2020	11:15 pm	143		100		243	
11:30 am	229	998	261	1077	490	2075	11:30 pm	146		75		221	
11:45 am	260	1017	274	1070	534	2087	11:45 pm	183		74		257	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	36252	11:45 am	2087	2:45 pm	2229
N/B	18654	11:45 am	1017	2:45 pm	1300
S/B	17598	7:15 am	1121	12:00 pm	1031

Run Date *09/27/2007*
Run Time *11:25 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Count Date: 06/16/2002 12:00 a Sunday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	173	653	77	259	250	912	12:00 pm	213	925	280	1145	493	2070
12:15 am	177	592	66	220	243	812	12:15 pm	215	905	290	1169	505	2074
12:30 am	153	555	62	200	215	755	12:30 pm	263	953	283	1229	546	2182
12:45 am	150	497	54	178	204	675	12:45 pm	234	927	292	1234	526	2161
1:00 am	112	429	38	168	150	597	1:00 pm	193	914	304	1238	497	2152
1:15 am	140	428	46	167	186	595	1:15 pm	263	935	350	1237	613	2172
1:30 am	95	388	40	159	135	547	1:30 pm	237	912	288	1188	525	2100
1:45 am	82	375	44	155	126	530	1:45 pm	221	895	296	1166	517	2061
2:00 am	111	373	37	135	148	508	2:00 pm	214	892	303	1150	517	2042
2:15 am	100	344	38	129	138	473	2:15 pm	240	908	301	1130	541	2038
2:30 am	82	343	36	127	118	470	2:30 pm	220	913	266	1105	486	2018
2:45 am	80	358	24	133	104	491	2:45 pm	218	942	280	1124	498	2066
3:00 am	82	320	31	150	113	470	3:00 pm	230	969	283	1095	513	2064
3:15 am	99	266	36	160	135	426	3:15 pm	245	977	276	1084	521	2061
3:30 am	97	191	42	165	139	356	3:30 pm	249	950	285	1079	534	2029
3:45 am	42	122	41	169	83	291	3:45 pm	245	925	251	1116	496	2041
4:00 am	28	115	41	186	69	301	4:00 pm	238	961	272	1124	510	2085
4:15 am	24	108	41	205	65	313	4:15 pm	218	980	271	1179	489	2159
4:30 am	28	131	46	240	74	371	4:30 pm	224	984	322	1255	546	2239
4:45 am	35	138	58	255	93	393	4:45 pm	281	1052	259	1261	540	2313
5:00 am	21	158	60	277	81	435	5:00 pm	257	1003	327	1363	584	2366
5:15 am	47	201	76	296	123	497	5:15 pm	222	1000	347	1428	569	2428
5:30 am	35	228	61	312	96	540	5:30 pm	292	1065	328	1446	620	2511
5:45 am	55	254	80	337	135	591	5:45 pm	232	1052	361	1498	593	2550
6:00 am	64	296	79	365	143	661	6:00 pm	254	1114	392	1532	646	2646
6:15 am	74	327	92	387	166	714	6:15 pm	287	1168	365	1526	652	2694
6:30 am	61	370	86	399	147	769	6:30 pm	279	1213	380	1519	659	2732
6:45 am	97	421	108	428	205	849	6:45 pm	294	1230	395	1528	689	2758
7:00 am	95	436	101	454	196	890	7:00 pm	308	1285	386	1476	694	2761
7:15 am	117	474	104	507	221	981	7:15 pm	332	1241	358	1499	690	2740
7:30 am	112	494	115	563	227	1057	7:30 pm	296	1190	389	1547	685	2737
7:45 am	112	510	134	642	246	1152	7:45 pm	349	1169	343	1530	692	2699
8:00 am	133	610	154	708	287	1318	8:00 pm	264	1167	409	1527	673	2694
8:15 am	137	657	160	766	297	1423	8:15 pm	281	1164	406	1504	687	2668
8:30 am	128	675	194	822	322	1497	8:30 pm	275	1147	372	1449	647	2596
8:45 am	212	706	200	856	412	1562	8:45 pm	347	1176	340	1287	687	2463
9:00 am	180	671	212	899	392	1570	9:00 pm	261	1106	386	1145	647	2251
9:15 am	155	662	216	978	371	1640	9:15 pm	264	1143	351	947	615	2090
9:30 am	159	683	228	1055	387	1738	9:30 pm	304	1147	210	754	514	1901
9:45 am	177	715	243	1091	420	1806	9:45 pm	277	1077	198	702	475	1779
10:00 am	171	733	291	1144	462	1877	10:00 pm	298	984	188	628	486	1612
10:15 am	176	771	293	1111	469	1882	10:15 pm	268	851	158	548	426	1399
10:30 am	191	843	264	1095	455	1938	10:30 pm	234	768	158	502	392	1270
10:45 am	195	862	296	1104	491	1966	10:45 pm	184	686	124	413	308	1099
11:00 am	209	892	258	1096	467	1988	11:00 pm	165	632	108	351	273	983
11:15 am	248	896	277	1118	525	2014	11:15 pm	185		112		297	
11:30 am	210	863	273	1131	483	1994	11:30 pm	152		69		221	
11:45 am	225	916	288	1141	513	2057	11:45 pm	130		62		192	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	37253	11:45 am	2057	7:00 pm	2761
N/B	17638	11:45 am	916	7:00 pm	1285
S/B	19615	10:00 am	1144	7:30 pm	1547

Run Date *09/27/2007*
Run Time *11:25 AM*

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900 S. Fremont Ave.
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Count Date: 06/12/2002 12:00 a Wednesday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	125	434	40	128	165	562	12:00 pm	197	786	199	844	396	1630
12:15 am	120	370	31	120	151	490	12:15 pm	177	803	224	862	401	1665
12:30 am	98	308	29	109	127	417	12:30 pm	195	845	209	864	404	1709
12:45 am	91	258	28	104	119	362	12:45 pm	217	865	212	895	429	1760
1:00 am	61	203	32	107	93	310	1:00 pm	214	890	217	879	431	1769
1:15 am	58	185	20	101	78	286	1:15 pm	219	923	226	873	445	1796
1:30 am	48	167	24	105	72	272	1:30 pm	215	962	240	858	455	1820
1:45 am	36	149	31	132	67	281	1:45 pm	242	1033	196	831	438	1864
2:00 am	43	143	26	156	69	299	2:00 pm	247	1115	211	862	458	1977
2:15 am	40	143	24	202	64	345	2:15 pm	258	1255	211	828	469	2083
2:30 am	30	132	51	277	81	409	2:30 pm	286	1434	213	842	499	2276
2:45 am	30	141	55	344	85	485	2:45 pm	324	1583	227	815	551	2398
3:00 am	43	153	72	461	115	614	3:00 pm	387	1703	177	783	564	2486
3:15 am	29	161	99	646	128	807	3:15 pm	437	1804	225	806	662	2610
3:30 am	39	184	118	824	157	1008	3:30 pm	435	1935	186	747	621	2682
3:45 am	42	182	172	1092	214	1274	3:45 pm	444	2060	195	723	639	2783
4:00 am	51	189	257	1441	308	1630	4:00 pm	488	2189	200	728	688	2917
4:15 am	52	181	277	1845	329	2026	4:15 pm	568	2306	166	705	734	3011
4:30 am	37	211	386	2245	423	2456	4:30 pm	560	2362	162	703	722	3065
4:45 am	49	267	521	2520	570	2787	4:45 pm	573	2428	200	696	773	3124
5:00 am	43	299	661	2705	704	3004	5:00 pm	605	2479	177	654	782	3133
5:15 am	82	345	677	2734	759	3079	5:15 pm	624	2491	164	615	788	3106
5:30 am	93	367	661	2643	754	3010	5:30 pm	626	2457	155	603	781	3060
5:45 am	81	407	706	2679	787	3086	5:45 pm	624	2473	158	575	782	3048
6:00 am	89	431	690	2600	779	3031	6:00 pm	617	2366	138	550	755	2916
6:15 am	104	469	586	2436	690	2905	6:15 pm	590	2175	152	549	742	2724
6:30 am	133	507	697	2365	830	2872	6:30 pm	642	1984	127	524	769	2508
6:45 am	105	559	627	2102	732	2661	6:45 pm	517	1711	133	522	650	2233
7:00 am	127	628	526	1931	653	2559	7:00 pm	426	1496	137	501	563	1997
7:15 am	142	683	515	1787	657	2470	7:15 pm	399	1353	127	484	526	1837
7:30 am	185	770	434	1626	619	2396	7:30 pm	369	1172	125	459	494	1631
7:45 am	174	776	456	1506	630	2282	7:45 pm	302	1049	112	446	414	1495
8:00 am	182	792	382	1376	564	2168	8:00 pm	283	971	120	448	403	1419
8:15 am	229	773	354	1347	583	2120	8:15 pm	218	883	102	452	320	1335
8:30 am	191	720	314	1307	505	2027	8:30 pm	246	840	112	454	358	1294
8:45 am	190	710	326	1223	516	1933	8:45 pm	224	815	114	466	338	1281
9:00 am	163	716	353	1119	516	1835	9:00 pm	195	769	124	456	319	1225
9:15 am	176	710	314	999	490	1709	9:15 pm	175	753	104	464	279	1217
9:30 am	181	717	230	911	411	1628	9:30 pm	221	748	124	460	345	1208
9:45 am	196	719	222	890	418	1609	9:45 pm	178	677	104	401	282	1078
10:00 am	157	680	233	846	390	1526	10:00 pm	179	654	132	368	311	1022
10:15 am	183	714	226	793	409	1507	10:15 pm	170	622	100	289	270	911
10:30 am	183	735	209	788	392	1523	10:30 pm	150	586	65	235	215	821
10:45 am	157	732	178	783	335	1515	10:45 pm	155	537	71	217	226	754
11:00 am	191	752	180	794	371	1546	11:00 pm	147	501	53	185	200	686
11:15 am	204	758	221	813	425	1571	11:15 pm	134		46		180	
11:30 am	180	731	204	816	384	1547	11:30 pm	101		47		148	
11:45 am	177	746	189	821	366	1567	11:45 pm	119		39		158	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	42261	5:45 am	3086	5:00 pm	3133
N/B	21339	8:00 am	792	5:15 pm	2491
S/B	20922	5:15 am	2734	12:45 pm	895

Run Date *09/27/2007*
Run Time *11:25 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Count Date: 06/13/2002 12:00 a Thursday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	125	434	40	128	165	562	12:00 pm	209	891	251	919	460	1810
12:15 am	120	370	31	120	151	490	12:15 pm	258	957	231	900	489	1857
12:30 am	98	308	29	109	127	417	12:30 pm	202	943	213	899	415	1842
12:45 am	91	258	28	104	119	362	12:45 pm	222	962	224	891	446	1853
1:00 am	61	203	32	107	93	310	1:00 pm	275	1028	232	886	507	1914
1:15 am	58	185	20	101	78	286	1:15 pm	244	1040	230	857	474	1897
1:30 am	48	167	24	105	72	272	1:30 pm	221	1090	205	861	426	1951
1:45 am	36	149	31	132	67	281	1:45 pm	288	1193	219	884	507	2077
2:00 am	43	143	26	156	69	299	2:00 pm	287	1240	203	895	490	2135
2:15 am	40	143	24	202	64	345	2:15 pm	294	1391	234	878	528	2269
2:30 am	30	132	51	277	81	409	2:30 pm	324	1546	228	881	552	2427
2:45 am	30	141	55	344	85	485	2:45 pm	335	1686	230	853	565	2539
3:00 am	43	153	72	461	115	614	3:00 pm	438	1785	186	804	624	2589
3:15 am	29	161	99	646	128	807	3:15 pm	449	1801	237	844	686	2645
3:30 am	39	184	118	824	157	1008	3:30 pm	464	1856	200	798	664	2654
3:45 am	42	182	172	1092	214	1274	3:45 pm	434	1829	181	782	615	2611
4:00 am	51	189	257	1441	308	1630	4:00 pm	454	1967	226	757	680	2724
4:15 am	52	181	277	1845	329	2026	4:15 pm	504	2133	191	714	695	2847
4:30 am	37	211	386	2245	423	2456	4:30 pm	437	2269	184	693	621	2962
4:45 am	49	267	521	2520	570	2787	4:45 pm	572	2443	156	682	728	3125
5:00 am	43	299	661	2705	704	3004	5:00 pm	620	2473	183	665	803	3138
5:15 am	82	345	677	2734	759	3079	5:15 pm	640	2446	170	634	810	3080
5:30 am	93	367	661	2643	754	3010	5:30 pm	611	2468	173	633	784	3101
5:45 am	81	407	706	2679	787	3086	5:45 pm	602	2488	139	590	741	3078
6:00 am	89	431	690	2600	779	3031	6:00 pm	593	2419	152	575	745	2994
6:15 am	104	469	586	2436	690	2905	6:15 pm	662	2359	169	550	831	2909
6:30 am	133	507	697	2365	830	2872	6:30 pm	631	2171	130	491	761	2662
6:45 am	105	559	627	2102	732	2661	6:45 pm	533	1932	124	476	657	2408
7:00 am	127	628	526	1931	653	2559	7:00 pm	533	1755	127	476	660	2231
7:15 am	142	683	515	1787	657	2470	7:15 pm	474	1559	110	477	584	2036
7:30 am	185	770	434	1626	619	2396	7:30 pm	392	1356	115	477	507	1833
7:45 am	174	776	456	1506	630	2282	7:45 pm	356	1222	124	472	480	1694
8:00 am	182	792	382	1376	564	2168	8:00 pm	337	1113	128	499	465	1612
8:15 am	229	773	354	1347	583	2120	8:15 pm	271	989	110	502	381	1491
8:30 am	191	720	314	1307	505	2027	8:30 pm	258	903	110	510	368	1413
8:45 am	190	710	326	1223	516	1933	8:45 pm	247	867	151	519	398	1386
9:00 am	163	716	353	1119	516	1835	9:00 pm	213	868	131	477	344	1345
9:15 am	176	689	314	990	490	1679	9:15 pm	185	834	118	464	303	1298
9:30 am	181	677	230	899	411	1576	9:30 pm	222	820	119	440	341	1260
9:45 am	196	679	222	914	418	1593	9:45 pm	248	761	109	428	357	1189
10:00 am	136	670	224	900	360	1570	10:00 pm	179	670	118	404	297	1074
10:15 am	164	712	223	902	387	1614	10:15 pm	171	617	94	335	265	952
10:30 am	183	731	245	891	428	1622	10:30 pm	163	540	107	298	270	838
10:45 am	187	737	208	864	395	1601	10:45 pm	157	480	85	240	242	720
11:00 am	178	726	226	883	404	1609	11:00 pm	126	430	49	203	175	633
11:15 am	183	757	212	908	395	1665	11:15 pm	94		57		151	
11:30 am	189	832	218	927	407	1759	11:30 pm	103		49		152	
11:45 am	176	845	227	922	403	1767	11:45 pm	107		48		155	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	43390	5:45 am	3086	5:00 pm	3138
N/B	22023	11:45 am	845	5:45 pm	2488
S/B	21367	5:15 am	2734	12:00 pm	919

Run Date *09/27/2007*
Run Time *11:25 AM*

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Count Date: 06/14/2002 12:00 a Friday
Condition:
Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	118	439	41	141	159	580	12:00 pm	227	971	224	846	451	1817
12:15 am	101	426	32	137	133	563	12:15 pm	225	1047	232	856	457	1903
12:30 am	104	427	40	136	144	563	12:30 pm	277	1124	212	859	489	1983
12:45 am	116	419	28	120	144	539	12:45 pm	242	1162	178	889	420	2051
1:00 am	105	369	37	123	142	492	1:00 pm	303	1208	234	932	537	2140
1:15 am	102	297	31	121	133	418	1:15 pm	302	1252	235	934	537	2186
1:30 am	96	237	24	118	120	355	1:30 pm	315	1362	242	920	557	2282
1:45 am	66	181	31	131	97	312	1:45 pm	288	1432	221	925	509	2357
2:00 am	33	150	35	152	68	302	2:00 pm	347	1537	236	907	583	2444
2:15 am	42	145	28	176	70	321	2:15 pm	412	1658	221	916	633	2574
2:30 am	40	144	37	235	77	379	2:30 pm	385	1701	247	961	632	2662
2:45 am	35	141	52	301	87	442	2:45 pm	393	1723	203	975	596	2698
3:00 am	28	142	59	407	87	549	3:00 pm	468	1798	245	962	713	2760
3:15 am	41	148	87	572	128	720	3:15 pm	455	1835	266	964	721	2799
3:30 am	37	154	103	748	140	902	3:30 pm	407	1958	261	931	668	2889
3:45 am	36	165	158	1050	194	1215	3:45 pm	468	2182	190	884	658	3066
4:00 am	34	186	224	1414	258	1600	4:00 pm	505	2300	247	917	752	3217
4:15 am	47	209	263	1789	310	1998	4:15 pm	578	2381	233	895	811	3276
4:30 am	48	253	405	2131	453	2384	4:30 pm	631	2438	214	861	845	3299
4:45 am	57	281	522	2391	579	2672	4:45 pm	586	2481	223	844	809	3325
5:00 am	57	378	599	2581	656	2959	5:00 pm	586	2485	225	809	811	3294
5:15 am	91	450	605	2599	696	3049	5:15 pm	635	2528	199	750	834	3278
5:30 am	76	472	665	2562	741	3034	5:30 pm	674	2494	197	741	871	3235
5:45 am	154	545	712	2487	866	3032	5:45 pm	590	2416	188	741	778	3157
6:00 am	129	516	617	2379	746	2895	6:00 pm	629	2382	166	732	795	3114
6:15 am	113	552	568	2321	681	2873	6:15 pm	601	2232	190	732	791	2964
6:30 am	149	607	590	2270	739	2877	6:30 pm	596	2109	197	720	793	2829
6:45 am	125	636	604	2111	729	2747	6:45 pm	556	1976	179	698	735	2674
7:00 am	165	714	559	1931	724	2645	7:00 pm	479	1802	166	666	645	2468
7:15 am	168	727	517	1777	685	2504	7:15 pm	478	1735	178	673	656	2408
7:30 am	178	774	431	1651	609	2425	7:30 pm	463	1618	175	632	638	2250
7:45 am	203	789	424	1547	627	2336	7:45 pm	382	1414	147	571	529	1985
8:00 am	178	794	405	1453	583	2247	8:00 pm	412	1300	173	573	585	1873
8:15 am	215	815	391	1399	606	2214	8:15 pm	361	1163	137	521	498	1684
8:30 am	193	822	327	1308	520	2130	8:30 pm	259	1058	114	526	373	1584
8:45 am	208	817	330	1263	538	2080	8:45 pm	268	1057	149	551	417	1608
9:00 am	199	835	351	1188	550	2023	9:00 pm	275	1032	121	534	396	1566
9:15 am	222	847	300	1057	522	1904	9:15 pm	256	1022	142	584	398	1606
9:30 am	188	848	282	995	470	1843	9:30 pm	258	998	139	584	397	1582
9:45 am	226	863	255	945	481	1808	9:45 pm	243	984	132	548	375	1532
10:00 am	211	865	220	945	431	1810	10:00 pm	265	950	171	504	436	1454
10:15 am	223	908	238	946	461	1854	10:15 pm	232	927	142	414	374	1341
10:30 am	203	907	232	956	435	1863	10:30 pm	244	954	103	343	347	1297
10:45 am	228	962	255	937	483	1899	10:45 pm	209	952	88	297	297	1249
11:00 am	254	963	221	932	475	1895	11:00 pm	242	912	81	273	323	1185
11:15 am	222	936	248	935	470	1871	11:15 pm	259		71		330	
11:30 am	258	939	213	919	471	1858	11:30 pm	242		57		299	
11:45 am	229	958	250	918	479	1876	11:45 pm	169		64		233	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	47329	5:15 am	3049	4:45 pm	3325
N/B	25028	11:00 am	963	5:15 pm	2528
S/B	22301	5:15 am	2599	2:45 pm	975

Run Date *09/27/2007*
Run Time *11:25 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Count Date: 06/15/2002 12:00 a Saturday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	174	684	69	220	243	904	12:00 pm	254	1030	267	1031	521	2061
12:15 am	200	661	67	201	267	862	12:15 pm	255	1048	275	1007	530	2055
12:30 am	162	615	46	169	208	784	12:30 pm	248	1068	254	983	502	2051
12:45 am	148	574	38	166	186	740	12:45 pm	273	1105	235	966	508	2071
1:00 am	151	532	50	163	201	695	1:00 pm	272	1122	243	966	515	2088
1:15 am	154	478	35	139	189	617	1:15 pm	275	1104	251	972	526	2076
1:30 am	121	403	43	132	164	535	1:30 pm	285	1139	237	954	522	2093
1:45 am	106	379	35	135	141	514	1:45 pm	290	1177	235	953	525	2130
2:00 am	97	344	26	144	123	488	2:00 pm	254	1230	249	953	503	2183
2:15 am	79	286	28	161	107	447	2:15 pm	310	1285	233	938	543	2223
2:30 am	97	261	46	183	143	444	2:30 pm	323	1278	236	939	559	2217
2:45 am	71	191	44	190	115	381	2:45 pm	343	1300	235	929	578	2229
3:00 am	39	167	43	237	82	404	3:00 pm	309	1266	234	922	543	2188
3:15 am	54	175	50	284	104	459	3:15 pm	303	1243	234	956	537	2199
3:30 am	27	157	53	330	80	487	3:30 pm	345	1247	226	940	571	2187
3:45 am	47	185	91	392	138	577	3:45 pm	309	1188	228	929	537	2117
4:00 am	47	180	90	434	137	614	4:00 pm	286	1187	268	911	554	2098
4:15 am	36	177	96	542	132	719	4:15 pm	307	1179	218	872	525	2051
4:30 am	55	198	115	631	170	829	4:30 pm	286	1187	215	873	501	2060
4:45 am	42	219	133	720	175	939	4:45 pm	308	1173	210	881	518	2054
5:00 am	44	249	198	812	242	1061	5:00 pm	278	1124	229	883	507	2007
5:15 am	57	276	185	837	242	1113	5:15 pm	315	1157	219	858	534	2015
5:30 am	76	278	204	866	280	1144	5:30 pm	272	1134	223	864	495	1998
5:45 am	72	295	225	878	297	1173	5:45 pm	259	1136	212	843	471	1979
6:00 am	71	313	223	890	294	1203	6:00 pm	311	1165	204	806	515	1971
6:15 am	59	348	214	932	273	1280	6:15 pm	292	1129	225	791	517	1920
6:30 am	93	420	216	1006	309	1426	6:30 pm	274	1102	202	752	476	1854
6:45 am	90	473	237	1070	327	1543	6:45 pm	288	1032	175	736	463	1768
7:00 am	106	601	265	1101	371	1702	7:00 pm	275	966	189	717	464	1683
7:15 am	131	671	288	1121	419	1792	7:15 pm	265	911	186	702	451	1613
7:30 am	146	704	280	1101	426	1805	7:30 pm	204	888	186	685	390	1573
7:45 am	218	751	268	1069	486	1820	7:45 pm	222	830	156	639	378	1469
8:00 am	176	748	285	1049	461	1797	8:00 pm	220	779	174	653	394	1432
8:15 am	164	773	268	1029	432	1802	8:15 pm	242	760	169	643	411	1403
8:30 am	193	788	248	1029	441	1817	8:30 pm	146	709	140	630	286	1339
8:45 am	215	772	248	1042	463	1814	8:45 pm	171	768	170	624	341	1392
9:00 am	201	767	265	1052	466	1819	9:00 pm	201	780	164	640	365	1420
9:15 am	179	813	268	1037	447	1850	9:15 pm	191	800	156	647	347	1447
9:30 am	177	960	261	1067	438	2027	9:30 pm	205	806	134	642	339	1448
9:45 am	210	994	258	1077	468	2071	9:45 pm	183	818	186	608	369	1426
10:00 am	247	991	250	1073	497	2064	10:00 pm	221	838	171	516	392	1354
10:15 am	326	947	298	1082	624	2029	10:15 pm	197	829	151	467	348	1296
10:30 am	211	836	271	1044	482	1880	10:30 pm	217	775	100	416	317	1191
10:45 am	207	854	254	1034	461	1888	10:45 pm	203	704	94	391	297	1095
11:00 am	203	907	259	1054	462	1961	11:00 pm	212	684	122	371	334	1055
11:15 am	215	958	260	1062	475	2020	11:15 pm	143		100		243	
11:30 am	229	998	261	1077	490	2075	11:30 pm	146		75		221	
11:45 am	260	1017	274	1070	534	2087	11:45 pm	183		74		257	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	36252	11:45 am	2087	2:45 pm	2229
N/B	18654	11:45 am	1017	2:45 pm	1300
S/B	17598	7:15 am	1121	12:00 pm	1031

Run Date *09/27/2007*
Run Time *11:25 AM*

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900 S. Fremont Ave.
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Count Date: 06/16/2002 12:00 a Sunday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	173	653	77	259	250	912	12:00 pm	213	925	280	1145	493	2070
12:15 am	177	592	66	220	243	812	12:15 pm	215	905	290	1169	505	2074
12:30 am	153	555	62	200	215	755	12:30 pm	263	953	283	1229	546	2182
12:45 am	150	497	54	178	204	675	12:45 pm	234	927	292	1234	526	2161
1:00 am	112	429	38	168	150	597	1:00 pm	193	914	304	1238	497	2152
1:15 am	140	428	46	167	186	595	1:15 pm	263	935	350	1237	613	2172
1:30 am	95	388	40	159	135	547	1:30 pm	237	912	288	1188	525	2100
1:45 am	82	375	44	155	126	530	1:45 pm	221	895	296	1166	517	2061
2:00 am	111	373	37	135	148	508	2:00 pm	214	892	303	1150	517	2042
2:15 am	100	344	38	129	138	473	2:15 pm	240	908	301	1130	541	2038
2:30 am	82	343	36	127	118	470	2:30 pm	220	913	266	1105	486	2018
2:45 am	80	358	24	133	104	491	2:45 pm	218	942	280	1124	498	2066
3:00 am	82	320	31	150	113	470	3:00 pm	230	969	283	1095	513	2064
3:15 am	99	266	36	160	135	426	3:15 pm	245	977	276	1084	521	2061
3:30 am	97	191	42	165	139	356	3:30 pm	249	950	285	1079	534	2029
3:45 am	42	122	41	169	83	291	3:45 pm	245	925	251	1116	496	2041
4:00 am	28	115	41	186	69	301	4:00 pm	238	961	272	1124	510	2085
4:15 am	24	108	41	205	65	313	4:15 pm	218	980	271	1179	489	2159
4:30 am	28	131	46	240	74	371	4:30 pm	224	984	322	1255	546	2239
4:45 am	35	138	58	255	93	393	4:45 pm	281	1052	259	1261	540	2313
5:00 am	21	158	60	277	81	435	5:00 pm	257	1003	327	1363	584	2366
5:15 am	47	201	76	296	123	497	5:15 pm	222	1000	347	1428	569	2428
5:30 am	35	228	61	312	96	540	5:30 pm	292	1065	328	1446	620	2511
5:45 am	55	254	80	337	135	591	5:45 pm	232	1052	361	1498	593	2550
6:00 am	64	296	79	365	143	661	6:00 pm	254	1114	392	1532	646	2646
6:15 am	74	327	92	387	166	714	6:15 pm	287	1168	365	1526	652	2694
6:30 am	61	370	86	399	147	769	6:30 pm	279	1213	380	1519	659	2732
6:45 am	97	421	108	428	205	849	6:45 pm	294	1230	395	1528	689	2758
7:00 am	95	436	101	454	196	890	7:00 pm	308	1285	386	1476	694	2761
7:15 am	117	474	104	507	221	981	7:15 pm	332	1241	358	1499	690	2740
7:30 am	112	494	115	563	227	1057	7:30 pm	296	1190	389	1547	685	2737
7:45 am	112	510	134	642	246	1152	7:45 pm	349	1169	343	1530	692	2699
8:00 am	133	610	154	708	287	1318	8:00 pm	264	1167	409	1527	673	2694
8:15 am	137	657	160	766	297	1423	8:15 pm	281	1164	406	1504	687	2668
8:30 am	128	675	194	822	322	1497	8:30 pm	275	1147	372	1449	647	2596
8:45 am	212	706	200	856	412	1562	8:45 pm	347	1176	340	1287	687	2463
9:00 am	180	671	212	899	392	1570	9:00 pm	261	1106	386	1145	647	2251
9:15 am	155	662	216	978	371	1640	9:15 pm	264	1143	351	947	615	2090
9:30 am	159	683	228	1055	387	1738	9:30 pm	304	1147	210	754	514	1901
9:45 am	177	715	243	1091	420	1806	9:45 pm	277	1077	198	702	475	1779
10:00 am	171	733	291	1144	462	1877	10:00 pm	298	984	188	628	486	1612
10:15 am	176	771	293	1111	469	1882	10:15 pm	268	851	158	548	426	1399
10:30 am	191	843	264	1095	455	1938	10:30 pm	234	768	158	502	392	1270
10:45 am	195	862	296	1104	491	1966	10:45 pm	184	686	124	413	308	1099
11:00 am	209	892	258	1096	467	1988	11:00 pm	165	632	108	351	273	983
11:15 am	248	896	277	1118	525	2014	11:15 pm	185		112		297	
11:30 am	210	863	273	1131	483	1994	11:30 pm	152		69		221	
11:45 am	225	916	288	1141	513	2057	11:45 pm	130		62		192	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	37253	11:45 am	2057	7:00 pm	2761
N/B	17638	11:45 am	916	7:00 pm	1285
S/B	19615	10:00 am	1144	7:30 pm	1547

Run Date *09/27/2007*
Run Time *11:26 AM*

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900 S. Fremont Ave.
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Count Date: 03/14/2002 12:00 a Thursday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	114	375	21	82	135	457	12:00 pm	189	785	196	737	385	1522
12:15 am	85	316	20	80	105	396	12:15 pm	202	831	167	702	369	1533
12:30 am	101	289	25	97	126	386	12:30 pm	174	836	181	763	355	1599
12:45 am	75	247	16	98	91	345	12:45 pm	220	881	193	777	413	1658
1:00 am	55	214	19	103	74	317	1:00 pm	235	874	161	768	396	1642
1:15 am	58	190	37	114	95	304	1:15 pm	207	877	228	810	435	1687
1:30 am	59	172	26	109	85	281	1:30 pm	219	962	195	788	414	1750
1:45 am	42	158	21	120	63	278	1:45 pm	213	1021	184	770	397	1791
2:00 am	31	155	30	140	61	295	2:00 pm	238	1104	203	770	441	1874
2:15 am	40	167	32	177	72	344	2:15 pm	292	1240	206	756	498	1996
2:30 am	45	157	37	219	82	376	2:30 pm	278	1359	177	719	455	2078
2:45 am	39	147	41	271	80	418	2:45 pm	296	1495	184	705	480	2200
3:00 am	43	143	67	384	110	527	3:00 pm	374	1677	189	686	563	2363
3:15 am	30	132	74	543	104	675	3:15 pm	411	1756	169	638	580	2394
3:30 am	35	172	89	765	124	937	3:30 pm	414	1923	163	610	577	2533
3:45 am	35	179	154	1075	189	1254	3:45 pm	478	2051	165	606	643	2657
4:00 am	32	213	226	1476	258	1689	4:00 pm	453	2162	141	596	594	2758
4:15 am	70	244	296	1915	366	2159	4:15 pm	578	2303	141	614	719	2917
4:30 am	42	251	399	2261	441	2512	4:30 pm	542	2239	159	645	701	2884
4:45 am	69	267	555	2486	624	2753	4:45 pm	589	2289	155	610	744	2899
5:00 am	63	279	665	2649	728	2928	5:00 pm	594	2286	159	581	753	2867
5:15 am	77	305	642	2599	719	2904	5:15 pm	514	2189	172	556	686	2745
5:30 am	58	316	624	2514	682	2830	5:30 pm	592	2199	124	534	716	2733
5:45 am	81	402	718	2477	799	2879	5:45 pm	586	2203	126	532	712	2735
6:00 am	89	497	615	2347	704	2844	6:00 pm	497	2158	134	520	631	2678
6:15 am	88	532	557	2240	645	2772	6:15 pm	524	2210	150	464	674	2674
6:30 am	144	580	587	2175	731	2755	6:30 pm	596	2128	122	385	718	2513
6:45 am	176	594	588	2025	764	2619	6:45 pm	541	1888	114	357	655	2245
7:00 am	124	611	508	1860	632	2471	7:00 pm	549	1667	78	317	627	1984
7:15 am	136	672	492	1734	628	2406	7:15 pm	442	1418	71	324	513	1742
7:30 am	158	737	437	1589	595	2326	7:30 pm	356	1261	94	317	450	1578
7:45 am	193	790	423	1475	616	2265	7:45 pm	320	1149	74	291	394	1440
8:00 am	185	827	382	1384	567	2211	8:00 pm	300	1065	85	295	385	1360
8:15 am	201	824	347	1325	548	2149	8:15 pm	285	992	64	317	349	1309
8:30 am	211	823	323	1234	534	2057	8:30 pm	244	940	68	315	312	1255
8:45 am	230	800	332	1176	562	1976	8:45 pm	236	877	78	331	314	1208
9:00 am	182	751	323	1082	505	1833	9:00 pm	227	828	107	331	334	1159
9:15 am	200	755	256	1014	456	1769	9:15 pm	233	765	62	282	295	1047
9:30 am	188	744	265	1012	453	1756	9:30 pm	181	712	84	292	265	1004
9:45 am	181	765	238	974	419	1739	9:45 pm	187	697	78	258	265	955
10:00 am	186	789	255	957	441	1746	10:00 pm	164	648	58	234	222	882
10:15 am	189	763	254	878	443	1641	10:15 pm	180	629	72	210	252	839
10:30 am	209	751	227	806	436	1557	10:30 pm	166	579	50	168	216	747
10:45 am	205	715	221	769	426	1484	10:45 pm	138	525	54	155	192	680
11:00 am	160	691	176	741	336	1432	11:00 pm	145	502	34	123	179	625
11:15 am	177	720	182	761	359	1481	11:15 pm	130		30		160	
11:30 am	173	745	190	746	363	1491	11:30 pm	112		37		149	
11:45 am	181	746	193	737	374	1483	11:45 pm	115		22		137	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	40464	5:00 am	2928	4:15 pm	2917
N/B	21301	8:00 am	827	4:15 pm	2303
S/B	19163	5:00 am	2649	1:15 pm	810

Run Date *09/27/2007*
Run Time *11:26 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Historical
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Count Date: 03/15/2002 12:00 a Friday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	114	375	21	82	135	457	12:00 pm	255	1016	223	915	478	1931
12:15 am	85	316	20	80	105	396	12:15 pm	266	1055	230	926	496	1981
12:30 am	101	289	25	97	126	386	12:30 pm	252	1063	227	930	479	1993
12:45 am	75	247	16	98	91	345	12:45 pm	243	1101	235	937	478	2038
1:00 am	55	214	19	103	74	317	1:00 pm	294	1138	234	919	528	2057
1:15 am	58	190	37	114	95	304	1:15 pm	274	1148	234	880	508	2028
1:30 am	59	172	26	109	85	281	1:30 pm	290	1184	234	862	524	2046
1:45 am	42	158	21	120	63	278	1:45 pm	280	1286	217	830	497	2116
2:00 am	31	155	30	140	61	295	2:00 pm	304	1413	195	850	499	2263
2:15 am	40	167	32	177	72	344	2:15 pm	310	1570	216	863	526	2433
2:30 am	45	157	37	219	82	376	2:30 pm	392	1743	202	849	594	2592
2:45 am	39	147	41	271	80	418	2:45 pm	407	1830	237	825	644	2655
3:00 am	43	143	67	384	110	527	3:00 pm	461	1926	208	780	669	2706
3:15 am	30	132	74	543	104	675	3:15 pm	483	1976	202	774	685	2750
3:30 am	35	172	89	765	124	937	3:30 pm	479	2068	178	733	657	2801
3:45 am	35	179	154	1075	189	1254	3:45 pm	503	2154	192	748	695	2902
4:00 am	32	213	226	1476	258	1689	4:00 pm	511	2227	202	724	713	2951
4:15 am	70	244	296	1915	366	2159	4:15 pm	575	2316	161	714	736	3030
4:30 am	42	251	399	2261	441	2512	4:30 pm	565	2357	193	719	758	3076
4:45 am	69	267	555	2486	624	2753	4:45 pm	576	2419	168	678	744	3097
5:00 am	63	279	665	2649	728	2928	5:00 pm	600	2441	192	658	792	3099
5:15 am	77	305	642	2599	719	2904	5:15 pm	616	2440	166	627	782	3067
5:30 am	58	316	624	2514	682	2830	5:30 pm	627	2409	152	590	779	2999
5:45 am	81	402	718	2477	799	2879	5:45 pm	598	2397	148	569	746	2966
6:00 am	89	497	615	2347	704	2844	6:00 pm	599	2304	161	566	760	2870
6:15 am	88	532	557	2240	645	2772	6:15 pm	585	2231	129	558	714	2789
6:30 am	144	580	587	2175	731	2755	6:30 pm	615	2110	131	550	746	2660
6:45 am	176	594	588	2025	764	2619	6:45 pm	505	1880	145	517	650	2397
7:00 am	124	611	508	1860	632	2471	7:00 pm	526	1845	153	488	679	2333
7:15 am	136	672	492	1734	628	2406	7:15 pm	464	1761	121	433	585	2194
7:30 am	158	737	437	1589	595	2326	7:30 pm	385	1663	98	414	483	2077
7:45 am	193	790	423	1475	616	2265	7:45 pm	470	1588	116	378	586	1966
8:00 am	185	827	382	1384	567	2211	8:00 pm	442	1381	98	360	540	1741
8:15 am	201	824	347	1325	548	2149	8:15 pm	366	1212	102	364	468	1576
8:30 am	211	823	323	1234	534	2057	8:30 pm	310	1068	62	358	372	1426
8:45 am	230	800	332	1176	562	1976	8:45 pm	263	1010	98	388	361	1398
9:00 am	182	751	323	1082	505	1833	9:00 pm	273	988	102	392	375	1380
9:15 am	200	755	256	1014	456	1769	9:15 pm	222	928	96	424	318	1352
9:30 am	188	744	265	1012	453	1756	9:30 pm	252	926	92	427	344	1353
9:45 am	181	765	238	974	419	1739	9:45 pm	241	835	102	390	343	1225
10:00 am	186	789	255	957	441	1746	10:00 pm	213	747	134	332	347	1079
10:15 am	189	834	254	898	443	1732	10:15 pm	220	658	99	259	319	917
10:30 am	209	879	227	876	436	1755	10:30 pm	161	571	55	209	216	780
10:45 am	205	891	221	843	426	1734	10:45 pm	153	550	44	199	197	749
11:00 am	231	920	196	797	427	1717	11:00 pm	124	532	61	191	185	723
11:15 am	234	944	232	824	466	1768	11:15 pm	133		49		182	
11:30 am	221	976	194	822	415	1798	11:30 pm	140		45		185	
11:45 am	234	1007	175	855	409	1862	11:45 pm	135		36		171	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	44168	5:00 am	2928	5:00 pm	3099
N/B	23732	11:45 am	1007	5:00 pm	2441
S/B	20436	5:00 am	2649	12:45 pm	937

Run Date *09/27/2007*
Run Time *11:26 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Historical
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Count Date: 03/16/2002 12:00 a Saturday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord: .

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	116	521	28	89	144	610	12:00 pm	240	970	225	905	465	1875
12:15 am	149	581	23	82	172	663	12:15 pm	227	971	243	930	470	1901
12:30 am	97	515	24	71	121	586	12:30 pm	231	1020	215	928	446	1948
12:45 am	159	488	14	72	173	560	12:45 pm	272	1049	222	941	494	1990
1:00 am	176	389	21	80	197	469	1:00 pm	241	1070	250	934	491	2004
1:15 am	83	267	12	89	95	356	1:15 pm	276	1071	241	915	517	1986
1:30 am	70	248	25	98	95	346	1:30 pm	260	1068	228	880	488	1948
1:45 am	60	228	22	101	82	329	1:45 pm	293	1093	215	889	508	1982
2:00 am	54	213	30	97	84	310	2:00 pm	242	1069	231	914	473	1983
2:15 am	64	197	21	104	85	301	2:15 pm	273	1149	206	910	479	2059
2:30 am	50	189	28	131	78	320	2:30 pm	285	1180	237	915	522	2095
2:45 am	45	175	18	151	63	326	2:45 pm	269	1204	240	885	509	2089
3:00 am	38	173	37	211	75	384	3:00 pm	322	1229	227	854	549	2083
3:15 am	56	170	48	247	104	417	3:15 pm	304	1208	211	876	515	2084
3:30 am	36	138	48	284	84	422	3:30 pm	309	1219	207	895	516	2114
3:45 am	43	130	78	338	121	468	3:45 pm	294	1226	209	916	503	2142
4:00 am	35	117	73	411	108	528	4:00 pm	301	1249	249	907	550	2156
4:15 am	24	112	85	509	109	621	4:15 pm	315	1211	230	898	545	2109
4:30 am	28	138	102	578	130	716	4:30 pm	316	1174	228	875	544	2049
4:45 am	30	157	151	640	181	797	4:45 pm	317	1164	200	834	517	1998
5:00 am	30	201	171	678	201	879	5:00 pm	263	1227	240	825	503	2052
5:15 am	50	241	154	731	204	972	5:15 pm	278	1308	207	740	485	2048
5:30 am	47	295	164	771	211	1066	5:30 pm	306	1264	187	703	493	1967
5:45 am	74	363	189	835	263	1198	5:45 pm	380	1213	191	673	571	1886
6:00 am	70	441	224	865	294	1306	6:00 pm	344	1066	155	653	499	1719
6:15 am	104	485	194	931	298	1416	6:15 pm	234	981	170	696	404	1677
6:30 am	115	515	228	984	343	1499	6:30 pm	255	986	157	658	412	1644
6:45 am	152	576	219	1032	371	1608	6:45 pm	233	949	171	605	404	1554
7:00 am	114	608	290	1053	404	1661	7:00 pm	259	934	198	559	457	1493
7:15 am	134	663	247	1051	381	1714	7:15 pm	239	883	132	474	371	1357
7:30 am	176	743	276	1095	452	1838	7:30 pm	218	871	104	463	322	1334
7:45 am	184	778	240	1057	424	1835	7:45 pm	218	823	125	458	343	1281
8:00 am	169	796	288	1051	457	1847	8:00 pm	208	795	113	441	321	1236
8:15 am	214	830	291	1008	505	1838	8:15 pm	227	767	121	432	348	1199
8:30 am	211	816	238	996	449	1812	8:30 pm	170	695	99	421	269	1116
8:45 am	202	811	234	999	436	1810	8:45 pm	190	686	108	415	298	1101
9:00 am	203	834	245	1046	448	1880	9:00 pm	180	668	104	389	284	1057
9:15 am	200	821	279	1060	479	1881	9:15 pm	155	659	110	381	265	1040
9:30 am	206	828	241	1056	447	1884	9:30 pm	161	668	93	360	254	1028
9:45 am	225	861	281	1051	506	1912	9:45 pm	172	666	82	327	254	993
10:00 am	190	873	259	1016	449	1889	10:00 pm	171	638	96	302	267	940
10:15 am	207	912	275	1004	482	1916	10:15 pm	164	621	89	254	253	875
10:30 am	239	921	236	965	475	1886	10:30 pm	159	588	60	216	219	804
10:45 am	237	928	246	975	483	1903	10:45 pm	144	547	57	198	201	745
11:00 am	229	909	247	979	476	1888	11:00 pm	154	523	48	184	202	707
11:15 am	216	920	236	957	452	1877	11:15 pm	131		51		182	
11:30 am	246	931	246	964	492	1895	11:30 pm	118		42		160	
11:45 am	218	916	250	933	468	1849	11:45 pm	120		43		163	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	32956	10:15 am	1916	4:00 pm	2156
N/B	17513	11:30 am	931	5:15 pm	1308
S/B	15443	7:30 am	1095	12:45 pm	941

Run Date *09/27/2007*
Run Time *11:26 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Count Date: 03/17/2002 12:00 a Sunday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	118	404	37	114	155	518	12:00 pm	202	839	251	962	453	1801
12:15 am	96	371	35	97	131	468	12:15 pm	211	851	249	951	460	1802
12:30 am	101	334	21	75	122	409	12:30 pm	203	842	198	947	401	1789
12:45 am	89	297	21	80	110	377	12:45 pm	223	855	264	1019	487	1874
1:00 am	85	254	20	76	105	330	1:00 pm	214	831	240	1046	454	1877
1:15 am	59	221	13	90	72	311	1:15 pm	202	837	245	1070	447	1907
1:30 am	64	206	26	89	90	295	1:30 pm	216	853	270	1085	486	1938
1:45 am	46	197	17	86	63	283	1:45 pm	199	857	291	1100	490	1957
2:00 am	52	182	34	76	86	258	2:00 pm	220	874	264	1043	484	1917
2:15 am	44	172	12	70	56	242	2:15 pm	218	893	260	1056	478	1949
2:30 am	55	163	23	78	78	241	2:30 pm	220	901	285	1069	505	1970
2:45 am	31	135	7	79	38	214	2:45 pm	216	906	234	1075	450	1981
3:00 am	42	125	28	109	70	234	3:00 pm	239	918	277	1098	516	2016
3:15 am	35	103	20	110	55	213	3:15 pm	226	915	273	1118	499	2033
3:30 am	27	86	24	151	51	237	3:30 pm	225	921	291	1089	516	2010
3:45 am	21	79	37	164	58	243	3:45 pm	228	933	257	1067	485	2000
4:00 am	20	73	29	175	49	248	4:00 pm	236	956	297	1076	533	2032
4:15 am	18	84	61	202	79	286	4:15 pm	232	936	244	1016	476	1952
4:30 am	20	97	37	192	57	289	4:30 pm	237	924	269	1063	506	1987
4:45 am	15	108	48	216	63	324	4:45 pm	251	906	266	1061	517	1967
5:00 am	31	118	56	237	87	355	5:00 pm	216	895	237	1030	453	1925
5:15 am	31	137	51	265	82	402	5:15 pm	220	875	291	1034	511	1909
5:30 am	31	162	61	295	92	457	5:30 pm	219	836	267	956	486	1792
5:45 am	25	209	69	318	94	527	5:45 pm	240	806	235	914	475	1720
6:00 am	50	259	84	331	134	590	6:00 pm	196	809	241	870	437	1679
6:15 am	56	304	81	369	137	673	6:15 pm	181	860	213	818	394	1678
6:30 am	78	338	84	399	162	737	6:30 pm	189	890	225	762	414	1652
6:45 am	75	365	82	429	157	794	6:45 pm	243	882	191	700	434	1582
7:00 am	95	403	122	470	217	873	7:00 pm	247	858	189	710	436	1568
7:15 am	90	432	111	493	201	925	7:15 pm	211	867	157	692	368	1559
7:30 am	105	470	114	547	219	1017	7:30 pm	181	864	163	701	344	1565
7:45 am	113	479	123	586	236	1065	7:45 pm	219	882	201	694	420	1576
8:00 am	124	511	145	634	269	1145	8:00 pm	256	838	171	664	427	1502
8:15 am	128	544	165	664	293	1208	8:15 pm	208	756	166	643	374	1399
8:30 am	114	544	153	704	267	1248	8:30 pm	199	704	156	635	355	1339
8:45 am	145	600	171	755	316	1355	8:45 pm	175	661	171	608	346	1269
9:00 am	157	616	175	811	332	1427	9:00 pm	174	636	150	552	324	1188
9:15 am	128	610	205	855	333	1465	9:15 pm	156	585	158	535	314	1120
9:30 am	170	650	204	871	374	1521	9:30 pm	156	526	129	476	285	1002
9:45 am	161	664	227	885	388	1549	9:45 pm	150	457	115	437	265	894
10:00 am	151	688	219	890	370	1578	10:00 pm	123	389	133	388	256	777
10:15 am	168	714	221	880	389	1594	10:15 pm	97	345	99	348	196	693
10:30 am	184	729	218	888	402	1617	10:30 pm	87	316	90	313	177	629
10:45 am	185	738	232	899	417	1637	10:45 pm	82	289	66	269	148	558
11:00 am	177	759	209	915	386	1674	11:00 pm	79	261	93	225	172	486
11:15 am	183	784	229	957	412	1741	11:15 pm	68		64		132	
11:30 am	193	812	229	977	422	1789	11:30 pm	60		46		106	
11:45 am	206	822	248	946	454	1768	11:45 pm	54		22		76	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	27998	11:30 am	1789	3:15 pm	2033
N/B	13496	11:45 am	822	4:00 pm	956
S/B	14502	11:30 am	977	3:15 pm	1118

Run Date *09/27/2007*
Run Time *11:26 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Count Date: 02/13/2002 12:00 a Wednesday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	90	310	33	88	123	398	12:00 pm	179	770	187	676	366	1446
12:15 am	68	278	17	81	85	359	12:15 pm	191	747	170	692	361	1439
12:30 am	75	263	20	80	95	343	12:30 pm	193	765	160	693	353	1458
12:45 am	77	229	18	80	95	309	12:45 pm	207	786	159	716	366	1502
1:00 am	58	176	26	74	84	250	1:00 pm	156	802	203	720	359	1522
1:15 am	53	144	16	70	69	214	1:15 pm	209	909	171	694	380	1603
1:30 am	41	114	20	82	61	196	1:30 pm	214	951	183	694	397	1645
1:45 am	24	92	12	103	36	195	1:45 pm	223	1035	163	659	386	1694
2:00 am	26	96	22	133	48	229	2:00 pm	263	1133	177	622	440	1755
2:15 am	23	119	28	167	51	286	2:15 pm	251	1233	171	615	422	1848
2:30 am	19	133	41	198	60	331	2:30 pm	298	1357	148	604	446	1961
2:45 am	28	144	42	250	70	394	2:45 pm	321	1463	126	594	447	2057
3:00 am	49	135	56	383	105	518	3:00 pm	363	1562	170	629	533	2191
3:15 am	37	124	59	580	96	704	3:15 pm	375	1668	160	584	535	2252
3:30 am	30	117	93	784	123	901	3:30 pm	404	1860	138	548	542	2408
3:45 am	19	129	175	1118	194	1247	3:45 pm	420	2042	161	539	581	2581
4:00 am	38	144	253	1528	291	1672	4:00 pm	469	2219	125	514	594	2733
4:15 am	30	165	263	2025	293	2190	4:15 pm	567	2322	124	533	691	2855
4:30 am	42	197	427	2387	469	2584	4:30 pm	586	2342	129	546	715	2888
4:45 am	34	221	585	2629	619	2850	4:45 pm	597	2328	136	523	733	2851
5:00 am	59	265	750	2739	809	3004	5:00 pm	572	2312	144	493	716	2805
5:15 am	62	298	625	2611	687	2909	5:15 pm	587	2303	137	462	724	2765
5:30 am	66	301	669	2559	735	2860	5:30 pm	572	2205	106	440	678	2645
5:45 am	78	367	695	2402	773	2769	5:45 pm	581	2154	106	433	687	2587
6:00 am	92	404	622	2210	714	2614	6:00 pm	563	1971	113	409	676	2380
6:15 am	65	452	573	2057	638	2509	6:15 pm	489	1892	115	367	604	2259
6:30 am	132	519	512	1954	644	2473	6:30 pm	521	1808	99	310	620	2118
6:45 am	115	559	503	1851	618	2410	6:45 pm	398	1645	82	271	480	1916
7:00 am	140	587	469	1712	609	2299	7:00 pm	484	1540	71	260	555	1800
7:15 am	132	596	470	1636	602	2232	7:15 pm	405	1321	58	230	463	1551
7:30 am	172	637	409	1545	581	2182	7:30 pm	358	1191	60	233	418	1424
7:45 am	143	646	364	1421	507	2067	7:45 pm	293	1061	71	229	364	1290
8:00 am	149	645	393	1346	542	1991	8:00 pm	265	1014	41	231	306	1245
8:15 am	173	645	379	1192	552	1837	8:15 pm	275	944	61	265	336	1209
8:30 am	181	635	285	1019	466	1654	8:30 pm	228	845	56	276	284	1121
8:45 am	142	607	289	942	431	1549	8:45 pm	246	781	73	277	319	1058
9:00 am	149	628	239	825	388	1453	9:00 pm	195	699	75	276	270	975
9:15 am	163	626	206	764	369	1390	9:15 pm	176	637	72	280	248	917
9:30 am	153	611	208	745	361	1356	9:30 pm	164	627	57	265	221	892
9:45 am	163	630	172	714	335	1344	9:45 pm	164	594	72	246	236	840
10:00 am	147	613	178	666	325	1279	10:00 pm	133	579	79	200	212	779
10:15 am	148	649	187	643	335	1292	10:15 pm	166	563	57	149	223	712
10:30 am	172	678	177	608	349	1286	10:30 pm	131	482	38	121	169	603
10:45 am	146	679	124	576	270	1255	10:45 pm	149	461	26	108	175	569
11:00 am	183	692	155	639	338	1331	11:00 pm	117	422	28	105	145	527
11:15 am	177	688	152	671	329	1359	11:15 pm	85		29		114	
11:30 am	173	702	145	689	318	1391	11:30 pm	110		25		135	
11:45 am	159	722	187	704	346	1426	11:45 pm	110		23		133	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	37196	5:00 am	3004	4:30 pm	2888
N/B	19718	11:45 am	722	4:30 pm	2342
S/B	17478	5:00 am	2739	1:00 pm	720

Run Date *09/27/2007*
Run Time *11:26 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Historical
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Count Date: 02/14/2002 12:00 a Thursday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	90	310	33	88	123	398	12:00 pm	142	729	185	705	327	1434
12:15 am	68	278	17	81	85	359	12:15 pm	169	857	194	693	363	1550
12:30 am	75	263	20	80	95	343	12:30 pm	200	894	168	648	368	1542
12:45 am	77	229	18	80	95	309	12:45 pm	218	928	158	668	376	1596
1:00 am	58	176	26	74	84	250	1:00 pm	270	919	173	690	443	1609
1:15 am	53	144	16	70	69	214	1:15 pm	206	889	149	702	355	1591
1:30 am	41	114	20	82	61	196	1:30 pm	234	936	188	742	422	1678
1:45 am	24	92	12	103	36	195	1:45 pm	209	994	180	708	389	1702
2:00 am	26	96	22	133	48	229	2:00 pm	240	1104	185	683	425	1787
2:15 am	23	119	28	167	51	286	2:15 pm	253	1242	189	652	442	1894
2:30 am	19	133	41	198	60	331	2:30 pm	292	1427	154	606	446	2033
2:45 am	28	144	42	250	70	394	2:45 pm	319	1583	155	616	474	2199
3:00 am	49	135	56	383	105	518	3:00 pm	378	1709	154	635	532	2344
3:15 am	37	124	59	580	96	704	3:15 pm	438	1821	143	637	581	2458
3:30 am	30	117	93	784	123	901	3:30 pm	448	1901	164	642	612	2543
3:45 am	19	129	175	1118	194	1247	3:45 pm	445	1988	174	609	619	2597
4:00 am	38	144	253	1528	291	1672	4:00 pm	490	2111	156	590	646	2701
4:15 am	30	165	263	2025	293	2190	4:15 pm	518	2183	148	583	666	2766
4:30 am	42	197	427	2387	469	2584	4:30 pm	535	2257	131	543	666	2800
4:45 am	34	221	585	2629	619	2850	4:45 pm	568	2305	155	520	723	2825
5:00 am	59	265	750	2739	809	3004	5:00 pm	562	2294	149	479	711	2773
5:15 am	62	298	625	2611	687	2909	5:15 pm	592	2293	108	442	700	2735
5:30 am	66	301	669	2559	735	2860	5:30 pm	583	2214	108	433	691	2647
5:45 am	78	367	695	2402	773	2769	5:45 pm	557	2224	114	417	671	2641
6:00 am	92	404	622	2210	714	2614	6:00 pm	561	2179	112	388	673	2567
6:15 am	65	452	573	2057	638	2509	6:15 pm	513	2132	99	366	612	2498
6:30 am	132	519	512	1954	644	2473	6:30 pm	593	2091	92	329	685	2420
6:45 am	115	559	503	1851	618	2410	6:45 pm	512	1890	85	300	597	2190
7:00 am	140	587	469	1712	609	2299	7:00 pm	514	1743	90	292	604	2035
7:15 am	132	596	470	1636	602	2232	7:15 pm	472	1510	62	247	534	1757
7:30 am	172	637	409	1545	581	2182	7:30 pm	392	1296	63	246	455	1542
7:45 am	143	646	364	1421	507	2067	7:45 pm	365	1119	77	253	442	1372
8:00 am	149	645	393	1346	542	1991	8:00 pm	281	946	45	236	326	1182
8:15 am	173	645	379	1192	552	1837	8:15 pm	258	899	61	261	319	1160
8:30 am	181	635	285	1019	466	1654	8:30 pm	215	831	70	267	285	1098
8:45 am	142	607	289	942	431	1549	8:45 pm	192	802	60	251	252	1053
9:00 am	149	628	239	825	388	1453	9:00 pm	234	795	70	254	304	1049
9:15 am	163	626	206	764	369	1390	9:15 pm	190	755	67	262	257	1017
9:30 am	153	611	208	745	361	1356	9:30 pm	186	733	54	257	240	990
9:45 am	163	630	172	714	335	1344	9:45 pm	185	702	63	239	248	941
10:00 am	147	613	178	666	325	1279	10:00 pm	194	648	78	228	272	876
10:15 am	148	623	187	653	335	1276	10:15 pm	168	578	62	181	230	759
10:30 am	172	633	177	645	349	1278	10:30 pm	155	515	36	148	191	663
10:45 am	146	615	124	655	270	1270	10:45 pm	131	474	52	143	183	617
11:00 am	157	629	165	699	322	1328	11:00 pm	124	442	31	108	155	550
11:15 am	158	614	179	719	337	1333	11:15 pm	105		29		134	
11:30 am	154	625	187	734	341	1359	11:30 pm	114		31		145	
11:45 am	160	671	168	715	328	1386	11:45 pm	99		17		116	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	37942	5:00 am	3004	4:45 pm	2825
N/B	20251	11:45 am	671	4:45 pm	2305
S/B	17691	5:00 am	2739	1:30 pm	742

Run Date *09/27/2007*
Run Time *11:26 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Report ID: Historical
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Count Date: 02/15/2002 12:00 a Friday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	107	407	18	84	125	491	12:00 pm	220	987	207	780	427	1767
12:15 am	95	356	21	99	116	455	12:15 pm	249	1030	197	779	446	1809
12:30 am	101	315	16	97	117	412	12:30 pm	256	1059	198	764	454	1823
12:45 am	104	261	29	113	133	374	12:45 pm	262	1108	178	742	440	1850
1:00 am	56	201	33	100	89	301	1:00 pm	263	1160	206	716	469	1876
1:15 am	54	187	19	92	73	279	1:15 pm	278	1278	182	701	460	1979
1:30 am	47	165	32	102	79	267	1:30 pm	305	1374	176	699	481	2073
1:45 am	44	170	16	111	60	281	1:45 pm	314	1481	152	695	466	2176
2:00 am	42	166	25	138	67	304	2:00 pm	381	1524	191	710	572	2234
2:15 am	32	162	29	188	61	350	2:15 pm	374	1579	180	685	554	2264
2:30 am	52	172	41	227	93	399	2:30 pm	412	1706	172	686	584	2392
2:45 am	40	157	43	286	83	443	2:45 pm	357	1730	167	698	524	2428
3:00 am	38	171	75	394	113	565	3:00 pm	436	1906	166	679	602	2585
3:15 am	42	189	68	525	110	714	3:15 pm	501	2051	181	685	682	2736
3:30 am	37	178	100	730	137	908	3:30 pm	436	2169	184	700	620	2869
3:45 am	54	198	151	1038	205	1236	3:45 pm	533	2286	148	671	681	2957
4:00 am	56	204	206	1449	262	1653	4:00 pm	581	2375	172	698	753	3073
4:15 am	31	216	273	1898	304	2114	4:15 pm	619	2416	196	696	815	3112
4:30 am	57	255	408	2191	465	2446	4:30 pm	553	2426	155	656	708	3082
4:45 am	60	273	562	2434	622	2707	4:45 pm	622	2501	175	654	797	3155
5:00 am	68	288	655	2518	723	2806	5:00 pm	622	2514	170	636	792	3150
5:15 am	70	291	566	2399	636	2690	5:15 pm	629	2519	156	602	785	3121
5:30 am	75	322	651	2312	726	2634	5:30 pm	628	2466	153	595	781	3061
5:45 am	75	385	646	2205	721	2590	5:45 pm	635	2416	157	566	792	2982
6:00 am	71	427	536	2023	607	2450	6:00 pm	627	2364	136	516	763	2880
6:15 am	101	539	479	1933	580	2472	6:15 pm	576	2267	149	521	725	2788
6:30 am	138	618	544	1918	682	2536	6:30 pm	578	2262	124	473	702	2735
6:45 am	117	665	464	1779	581	2444	6:45 pm	583	2184	107	449	690	2633
7:00 am	183	739	446	1677	629	2416	7:00 pm	530	2068	141	433	671	2501
7:15 am	180	764	464	1583	644	2347	7:15 pm	571	1913	101	384	672	2297
7:30 am	185	796	405	1462	590	2258	7:30 pm	500	1650	100	369	600	2019
7:45 am	191	825	362	1377	553	2202	7:45 pm	467	1521	91	347	558	1868
8:00 am	208	844	352	1338	560	2182	8:00 pm	375	1463	92	322	467	1785
8:15 am	212	817	343	1262	555	2079	8:15 pm	308	1492	86	330	394	1822
8:30 am	214	772	320	1189	534	1961	8:30 pm	371	1585	78	326	449	1911
8:45 am	210	760	323	1055	533	1815	8:45 pm	409	1598	66	322	475	1920
9:00 am	181	741	276	930	457	1671	9:00 pm	404	1472	100	370	504	1842
9:15 am	167	804	270	847	437	1651	9:15 pm	401	1318	82	397	483	1715
9:30 am	202	824	186	769	388	1593	9:30 pm	384	1118	74	416	458	1534
9:45 am	191	810	198	741	389	1551	9:45 pm	283	976	114	421	397	1397
10:00 am	244	859	193	737	437	1596	10:00 pm	250	876	127	360	377	1236
10:15 am	187	834	192	755	379	1589	10:15 pm	201	796	101	300	302	1096
10:30 am	188	914	158	712	346	1626	10:30 pm	242	730	79	238	321	968
10:45 am	240	966	194	748	434	1714	10:45 pm	183	652	53	183	236	835
11:00 am	219	966	211	742	430	1708	11:00 pm	170	645	67	155	237	800
11:15 am	267	967	149	738	416	1705	11:15 pm	135		39		174	
11:30 am	240	949	194	786	434	1735	11:30 pm	164		24		188	
11:45 am	240	965	188	790	428	1755	11:45 pm	176		25		201	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	43872	5:00 am	2806	4:45 pm	3155
N/B	25367	11:15 am	967	5:15 pm	2519
S/B	18505	5:00 am	2518	12:00 pm	780

Run Date *09/27/2007*
Run Time *11:26 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
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Count Date: 02/16/2002 12:00 a Saturday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	137	459	20	79	157	538	12:00 pm	230	1096	223	792	453	1888
12:15 am	117	397	13	86	130	483	12:15 pm	276	1136	187	760	463	1896
12:30 am	107	353	20	104	127	457	12:30 pm	295	1129	191	769	486	1898
12:45 am	98	302	26	105	124	407	12:45 pm	295	1100	191	793	486	1893
1:00 am	75	265	27	103	102	368	1:00 pm	270	1095	191	810	461	1905
1:15 am	73	246	31	94	104	340	1:15 pm	269	1114	196	815	465	1929
1:30 am	56	224	21	73	77	297	1:30 pm	266	1099	215	827	481	1926
1:45 am	61	229	24	83	85	312	1:45 pm	290	1134	208	812	498	1946
2:00 am	56	213	18	79	74	292	2:00 pm	289	1133	196	801	485	1934
2:15 am	51	212	10	87	61	299	2:15 pm	254	1122	208	800	462	1922
2:30 am	61	197	31	109	92	306	2:30 pm	301	1152	200	786	501	1938
2:45 am	45	170	20	122	65	292	2:45 pm	289	1175	197	766	486	1941
3:00 am	55	154	26	185	81	339	3:00 pm	278	1188	195	770	473	1958
3:15 am	36	128	32	243	68	371	3:15 pm	284	1252	194	767	478	2019
3:30 am	34	126	44	287	78	413	3:30 pm	324	1291	180	782	504	2073
3:45 am	29	125	83	335	112	460	3:45 pm	302	1268	201	803	503	2071
4:00 am	29	134	84	376	113	510	4:00 pm	342	1274	192	805	534	2079
4:15 am	34	161	76	440	110	601	4:15 pm	323	1230	209	811	532	2041
4:30 am	33	181	92	502	125	683	4:30 pm	301	1213	201	803	502	2016
4:45 am	38	225	124	568	162	793	4:45 pm	308	1209	203	771	511	1980
5:00 am	56	267	148	629	204	896	5:00 pm	298	1195	198	750	496	1945
5:15 am	54	310	138	664	192	974	5:15 pm	306	1163	201	719	507	1882
5:30 am	77	355	158	716	235	1071	5:30 pm	297	1109	169	726	466	1835
5:45 am	80	393	185	739	265	1132	5:45 pm	294	1083	182	727	476	1810
6:00 am	99	456	183	772	282	1228	6:00 pm	266	1058	167	687	433	1745
6:15 am	99	519	190	820	289	1339	6:15 pm	252	1065	208	673	460	1738
6:30 am	115	607	181	857	296	1464	6:30 pm	271	1067	170	589	441	1656
6:45 am	143	691	218	886	361	1577	6:45 pm	269	1027	142	560	411	1587
7:00 am	162	733	231	924	393	1657	7:00 pm	273	951	153	506	426	1457
7:15 am	187	776	227	959	414	1735	7:15 pm	254	879	124	472	378	1351
7:30 am	199	794	210	974	409	1768	7:30 pm	231	763	141	459	372	1222
7:45 am	185	822	256	979	441	1801	7:45 pm	193	785	88	415	281	1200
8:00 am	205	835	266	924	471	1759	8:00 pm	201	791	119	439	320	1230
8:15 am	205	835	242	886	447	1721	8:15 pm	138	763	111	420	249	1183
8:30 am	227	828	215	879	442	1707	8:30 pm	253	831	97	417	350	1248
8:45 am	198	797	201	923	399	1720	8:45 pm	199	766	112	391	311	1157
9:00 am	205	815	228	923	433	1738	9:00 pm	173	727	100	336	273	1063
9:15 am	198	828	235	896	433	1724	9:15 pm	206	727	108	311	314	1038
9:30 am	196	863	259	886	455	1749	9:30 pm	188	700	71	264	259	964
9:45 am	216	963	201	825	417	1788	9:45 pm	160	676	57	263	217	939
10:00 am	218	1062	201	830	419	1892	10:00 pm	173	656	75	259	248	915
10:15 am	233	1108	225	867	458	1975	10:15 pm	179	636	61	244	240	880
10:30 am	296	1130	198	858	494	1988	10:30 pm	164	586	70	239	234	825
10:45 am	315	1105	206	885	521	1990	10:45 pm	140	556	53	208	193	764
11:00 am	264	1044	238	881	502	1925	11:00 pm	153	564	60	195	213	759
11:15 am	255	1010	216	866	471	1876	11:15 pm	129		56		185	
11:30 am	271	1031	225	837	496	1868	11:30 pm	134		39		173	
11:45 am	254	1055	202	803	456	1858	11:45 pm	148		40		188	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	32020	10:45 am	1990	4:00 pm	2079
N/B	18165	10:30 am	1130	3:30 pm	1291
S/B	13855	7:45 am	979	1:30 pm	827

Run Date *09/27/2007*
Run Time *11:26 AM*

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900 S. Fremont Ave.
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Count Date: 02/17/2002 12:00 a Sunday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	118	403	30	113	148	516	12:00 pm	186	775	211	833	397	1608
12:15 am	112	367	27	104	139	471	12:15 pm	201	796	198	802	399	1598
12:30 am	97	324	31	100	128	424	12:30 pm	193	775	227	812	420	1587
12:45 am	76	277	25	87	101	364	12:45 pm	195	794	197	802	392	1596
1:00 am	82	230	21	84	103	314	1:00 pm	207	804	180	795	387	1599
1:15 am	69	198	23	84	92	282	1:15 pm	180	770	208	850	388	1620
1:30 am	50	161	18	80	68	241	1:30 pm	212	786	217	826	429	1612
1:45 am	29	145	22	74	51	219	1:45 pm	205	775	190	848	395	1623
2:00 am	50	163	21	66	71	229	2:00 pm	173	782	235	890	408	1672
2:15 am	32	140	19	60	51	200	2:15 pm	196	821	184	876	380	1697
2:30 am	34	144	12	57	46	201	2:30 pm	201	817	239	923	440	1740
2:45 am	47	137	14	64	61	201	2:45 pm	212	841	232	889	444	1730
3:00 am	27	119	15	82	42	201	3:00 pm	212	860	221	879	433	1739
3:15 am	36	119	16	108	52	227	3:15 pm	192	841	231	909	423	1750
3:30 am	27	104	19	139	46	243	3:30 pm	225	866	205	921	430	1787
3:45 am	29	96	32	159	61	255	3:45 pm	231	842	222	972	453	1814
4:00 am	27	82	41	172	68	254	4:00 pm	193	827	251	973	444	1800
4:15 am	21	78	47	184	68	262	4:15 pm	217	858	243	929	460	1787
4:30 am	19	82	39	197	58	279	4:30 pm	201	817	256	928	457	1745
4:45 am	15	95	45	206	60	301	4:45 pm	216	788	223	919	439	1707
5:00 am	23	104	53	227	76	331	5:00 pm	224	779	207	900	431	1679
5:15 am	25	120	60	238	85	358	5:15 pm	176	753	242	914	418	1667
5:30 am	32	156	48	243	80	399	5:30 pm	172	764	247	886	419	1650
5:45 am	24	193	66	263	90	456	5:45 pm	207	767	204	841	411	1608
6:00 am	39	258	64	263	103	521	6:00 pm	198	775	221	833	419	1608
6:15 am	61	327	65	273	126	600	6:15 pm	187	786	214	795	401	1581
6:30 am	69	356	68	286	137	642	6:30 pm	175	789	202	734	377	1523
6:45 am	89	400	66	314	155	714	6:45 pm	215	798	196	713	411	1511
7:00 am	108	440	74	338	182	778	7:00 pm	209	738	183	665	392	1403
7:15 am	90	468	78	375	168	843	7:15 pm	190	690	153	646	343	1336
7:30 am	113	496	96	412	209	908	7:30 pm	184	670	181	621	365	1291
7:45 am	129	497	90	457	219	954	7:45 pm	155	644	148	610	303	1254
8:00 am	136	492	111	525	247	1017	8:00 pm	161	638	164	600	325	1238
8:15 am	118	491	115	584	233	1075	8:15 pm	170	626	128	570	298	1196
8:30 am	114	488	141	654	255	1142	8:30 pm	158	595	170	565	328	1160
8:45 am	124	536	158	709	282	1245	8:45 pm	149	563	138	512	287	1075
9:00 am	135	557	170	697	305	1254	9:00 pm	149	558	134	480	283	1038
9:15 am	115	580	185	689	300	1269	9:15 pm	139	533	123	474	262	1007
9:30 am	162	637	196	660	358	1297	9:30 pm	126	501	117	442	243	943
9:45 am	145	662	146	672	291	1334	9:45 pm	144	457	106	424	250	881
10:00 am	158	696	162	701	320	1397	10:00 pm	124	400	128	383	252	783
10:15 am	172	709	156	747	328	1456	10:15 pm	107	362	91	340	198	702
10:30 am	187	720	208	791	395	1511	10:30 pm	82	348	99	333	181	681
10:45 am	179	725	175	774	354	1499	10:45 pm	87	344	65	292	152	636
11:00 am	171	734	208	802	379	1536	11:00 pm	86	323	85	281	171	604
11:15 am	183	749	200	805	383	1554	11:15 pm	93		84		177	
11:30 am	192	767	191	803	383	1570	11:30 pm	78		58		136	
11:45 am	188	768	203	839	391	1607	11:45 pm	66		54		120	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	25119	11:45 am	1607	3:45 pm	1814
N/B	12537	11:45 am	768	3:30 pm	866
S/B	12582	11:45 am	839	4:00 pm	973

Run Date *09/27/2007*
Run Time *11:26 AM*

Los Angeles County Department of Public Works
900 S. Fremont Ave.
Machine Traffic Count

Report ID: Historical
Page: 1

Count Date: 02/18/2002 12:00 a Monday Condition: Location: SIERRA HIGHWAY S/O PEARBLOSSOM HIGHWAY
Align Coord:

	N/B		S/B		Total			N/B		S/B		Total	
Time	15'	Hour	15'	Hour	15'	Hour	Time	15'	Hour	15'	Hour	15'	Hour
12:00 am	56	197	27	115	83	312	12:00 pm	98	390	347	1283	445	1673
12:15 am	58	171	40	114	98	285	12:15 pm	97	396	295	1276	392	1672
12:30 am	44	145	32	101	76	246	12:30 pm	99	402	315	1341	414	1743
12:45 am	39	126	16	85	55	211	12:45 pm	96	410	326	1376	422	1786
1:00 am	30	113	26	97	56	210	1:00 pm	104	426	340	1414	444	1840
1:15 am	32	97	27	97	59	194	1:15 pm	103	426	360	1401	463	1827
1:30 am	25	86	16	97	41	183	1:30 pm	107	414	350	1407	457	1821
1:45 am	26	78	28	132	54	210	1:45 pm	112	425	364	1408	476	1833
2:00 am	14	65	26	159	40	224	2:00 pm	104	440	327	1454	431	1894
2:15 am	21	59	27	207	48	266	2:15 pm	91	464	366	1509	457	1973
2:30 am	17	60	51	253	68	313	2:30 pm	118	500	351	1557	469	2057
2:45 am	13	60	55	291	68	351	2:45 pm	127	507	410	1601	537	2108
3:00 am	8	53	74	359	82	412	3:00 pm	128	487	382	1590	510	2077
3:15 am	22	59	73	458	95	517	3:15 pm	127	515	414	1619	541	2134
3:30 am	17	62	89	568	106	630	3:30 pm	125	541	395	1675	520	2216
3:45 am	6	62	123	795	129	857	3:45 pm	107	560	399	1729	506	2289
4:00 am	14	86	173	1075	187	1161	4:00 pm	156	582	411	1846	567	2428
4:15 am	25	107	183	1402	208	1509	4:15 pm	153	426	470	1961	623	2387
4:30 am	17	125	316	1641	333	1766	4:30 pm	144	274	449	2072	593	2346
4:45 am	30	166	403	1816	433	1982	4:45 pm	129	130	516	2237	645	2367
5:00 am	35	177	500	1886	535	2063	5:00 pm	0	80	526	2292	526	2372
5:15 am	43	223	422	1854	465	2077	5:15 pm	1	189	581	2171	582	2360
5:30 am	58	239	491	1810	549	2049	5:30 pm	0	280	614	2009	614	2289
5:45 am	41	311	473	1669	514	1980	5:45 pm	79	368	571	1801	650	2169
6:00 am	81	378	468	1567	549	1945	6:00 pm	109	372	405	1587	514	1959
6:15 am	59	473	378	1457	437	1930	6:15 pm	92	335	419	1507	511	1842
6:30 am	130	560	350	1412	480	1972	6:30 pm	88	317	406	1377	494	1694
6:45 am	108	587	371	1410	479	1997	6:45 pm	83	292	357	1302	440	1594
7:00 am	176	644	358	1343	534	1987	7:00 pm	72	261	325	1206	397	1467
7:15 am	146	599	333	1323	479	1922	7:15 pm	74	229	289	1159	363	1388
7:30 am	157	591	348	1308	505	1899	7:30 pm	63	199	331	1091	394	1290
7:45 am	165	542	304	1243	469	1785	7:45 pm	52	176	261	961	313	1137
8:00 am	131	480	338	1229	469	1709	8:00 pm	40	155	278	920	318	1075
8:15 am	138	423	318	1200	456	1623	8:15 pm	44	148	221	873	265	1021
8:30 am	108	382	283	1217	391	1599	8:30 pm	40	141	201	880	241	1021
8:45 am	103	337	290	1209	393	1546	8:45 pm	31	124	220	881	251	1005
9:00 am	74	306	309	1214	383	1520	9:00 pm	33	112	231	852	264	964
9:15 am	97	293	335	1198	432	1491	9:15 pm	37	99	228	801	265	900
9:30 am	63	264	275	1209	338	1473	9:30 pm	23	84	202	752	225	836
9:45 am	72	282	295	1243	367	1525	9:45 pm	19	79	191	725	210	804
10:00 am	61	307	293	1257	354	1564	10:00 pm	20	74	180	676	200	750
10:15 am	68	335	346	1237	414	1572	10:15 pm	22	71	179	624	201	695
10:30 am	81	342	309	1231	390	1573	10:30 pm	18	57	175	544	193	601
10:45 am	97	355	309	1249	406	1604	10:45 pm	14	55	142	449	156	504
11:00 am	89	343	273	1262	362	1605	11:00 pm	17	50	128	397	145	447
11:15 am	75	352	340	1336	415	1688	11:15 pm	8		99		107	
11:30 am	94	374	327	1291	421	1665	11:30 pm	16		80		96	
11:45 am	85	379	322	1279	407	1658	11:45 pm	9		90		99	

24 Hour		AM Peak Hour		PM Peak Hour	
Direction	Volume	Time	Volume	Time	Volume
Total	33658	5:15 am	2077	4:00 pm	2428
N/B	6578	7:00 am	644	4:00 pm	582
S/B	27080	5:00 am	1886	5:00 pm	2292

Appendix B
Level-of-Service Calculations Worksheets
Existing & Future

HCS+: Multilane Highways Release 5.2

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Stephen Bise
Agency/Co: KOA Corporation
Date: 10/16/2007
Analysis Period: AM- Peak Hour
Highway: Sierra Hwy
From/To: SR-14 / Pearblossom Hwy
Jurisdiction: County of Los Angeles
Analysis Year: 2007
Project ID: Widen / realignment of Sierra Hwy to have 65mph design speed

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	0.0	ft	6.0	ft
Left edge	0.0	ft	0.0	ft
Total lateral clearance	0.0	ft	6.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	5.4	mph	1.3	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	54.6	mph	58.7	mph

VOLUME

Direction	1		2	
Volume, V	1597	vph	2456	vph
Peak-hour factor, PHF	0.95		0.95	
Peak 15-minute volume, v15	420		646	
Trucks and buses	15	%	15	%
Recreational vehicles	2	%	2	%
Terrain type	Grade		Grade	
Grade	-4.00	%	4.00	%
Segment length	0.90	mi	0.90	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		2.0	
Recreational vehicles PCE, ER	1.2		3.0	
Heavy vehicle adjustment, fHV	0.927		0.840	
Flow rate, vp	906	pcphpl	1538	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	906	pcphpl	1538	pcphpl
Free-flow speed, FFS	54.6	mph	58.7	mph
Avg. passenger-car travel speed, S	54.6	mph	58.2	mph
Level of service, LOS	B		D	
Density, D	16.6	pc/mi/ln	26.4	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

HCS+: Multilane Highways Release 5.2

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst: Stephen Bise
Agency/Co: KOA Corporation
Date: 10/16/2007
Analysis Period: PM- Peak Hour
Highway: Sierra Hwy
From/To: SR-14 / Pearblossom Hwy
Jurisdiction: County of Los Angeles
Analysis Year: 2007
Project ID: Widen / realignment of Sierra Hwy to have 65mph design speed

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	0.0	ft	6.0	ft
Left edge	0.0	ft	0.0	ft
Total lateral clearance	0.0	ft	6.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	5.4	mph	1.3	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	54.6	mph	58.7	mph

VOLUME

Direction	1		2	
Volume, V	2581	vph	1699	vph
Peak-hour factor, PHF	0.95		0.95	
Peak 15-minute volume, v15	679		447	
Trucks and buses	15	%	15	%
Recreational vehicles	2	%	2	%
Terrain type	Grade		Grade	
Grade	-4.00	%	4.00	%
Segment length	0.90	mi	0.90	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		2.0	
Recreational vehicles PCE, ER	1.2		3.0	
Heavy vehicle adjustment, fHV	0.927		0.840	
Flow rate, vp	1465	pcphpl	1064	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	1465	pcphpl	1064	pcphpl
Free-flow speed, FFS	54.6	mph	58.7	mph
Avg. passenger-car travel speed, S	54.4	mph	58.7	mph
Level of service, LOS	D		C	
Density, D	26.9	pc/mi/ln	18.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

HCS+: Multilane Highways Release 5.2

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Stephen Bise
Agency/Co:	KOA Corporation
Date:	10/16/2007
Analysis Period:	AM- Peak Hour
Highway:	Sierra Hwy
From/To:	SR-14 / Pearblossom Hwy
Jurisdiction:	County of Los Angeles
Analysis Year:	2010 (Alternative 1)
Project ID:	Widen / realignment of Sierra Hwy to have 65mph design speed

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1775	vph	2729	vph
Peak-hour factor, PHF	0.95		0.95	
Peak 15-minute volume, v15	467		718	
Trucks and buses	15	%	15	%
Recreational vehicles	2	%	2	%
Terrain type	Grade		Grade	
Grade	-4.00	%	4.00	%
Segment length	0.90	mi	0.90	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		2.0	
Recreational vehicles PCE, ER	1.2		3.0	
Heavy vehicle adjustment, fHV	0.927		0.840	
Flow rate, vp	1008	pcphpl	1709	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	1008	pcphpl	1709	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	58.6	mph
Level of service, LOS	B		D	
Density, D	16.8	pc/mi/ln	29.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

HCS+: Multilane Highways Release 5.2

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Stephen Bise
Agency/Co:	KOA Corporation
Date:	10/16/2007
Analysis Period:	PM- Peak Hour
Highway:	Sierra Hwy
From/To:	SR-14 / Pearblossom Hwy
Jurisdiction:	County of Los Angeles
Analysis Year:	2010 (Alternative 1)
Project ID:	Widen / realignment of Sierra Hwy to have 65mph design speed

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	2869	vph	1889	vph
Peak-hour factor, PHF	0.95		0.95	
Peak 15-minute volume, v15	755		497	
Trucks and buses	15	%	15	%
Recreational vehicles	2	%	2	%
Terrain type	Grade		Grade	
Grade	-4.00	%	4.00	%
Segment length	0.90	mi	0.90	mi
Number of lanes	2		2	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		2.0	
Recreational vehicles PCE, ER	1.2		3.0	
Heavy vehicle adjustment, fHV	0.927		0.840	
Flow rate, vp	1629	pcphpl	1183	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	1629	pcphpl	1183	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	59.0	mph	60.0	mph
Level of service, LOS	D		C	
Density, D	27.6	pc/mi/ln	19.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

HCS+: Multilane Highways Release 5.2

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Stephen Bise
Agency/Co:	KOA Corporation
Date:	10/16/2007
Analysis Period:	AM- Peak Hour
Highway:	Sierra Hwy
From/To:	SR-14 / Pearblossom Hwy
Jurisdiction:	County of Los Angeles
Analysis Year:	2010 (Alternative 2)
Project ID:	Widen / realignment of Sierra Hwy to have 65mph design speed

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	1775	vph	2729	vph
Peak-hour factor, PHF	0.95		0.95	
Peak 15-minute volume, v15	467		718	
Trucks and buses	15	%	15	%
Recreational vehicles	2	%	2	%
Terrain type	Grade		Grade	
Grade	-4.00	%	4.00	%
Segment length	0.90	mi	0.90	mi
Number of lanes	3		3	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		2.0	
Recreational vehicles PCE, ER	1.2		3.0	
Heavy vehicle adjustment, fHV	0.927		0.840	
Flow rate, vp	672	pcphpl	1139	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	672	pcphpl	1139	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		C	
Density, D	11.2	pc/mi/ln	19.0	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

HCS+: Multilane Highways Release 5.2

Phone: Fax:
E-mail:

OPERATIONAL ANALYSIS

Analyst:	Stephen Bise
Agency/Co:	KOA Corporation
Date:	10/16/2007
Analysis Period:	PM- Peak Hour
Highway:	Sierra Hwy
From/To:	SR-14 / Pearblossom Hwy
Jurisdiction:	County of Los Angeles
Analysis Year:	2010 (Alternative 2)
Project ID:	Widen / realignment of Sierra Hwy to have 65mph design speed

FREE-FLOW SPEED

Direction	1		2	
Lane width	12.0	ft	12.0	ft
Lateral clearance:				
Right edge	6.0	ft	6.0	ft
Left edge	6.0	ft	6.0	ft
Total lateral clearance	12.0	ft	12.0	ft
Access points per mile	0		0	
Median type	Divided		Divided	
Free-flow speed:	Base		Base	
FFS or BFFS	60.0	mph	60.0	mph
Lane width adjustment, FLW	0.0	mph	0.0	mph
Lateral clearance adjustment, FLC	0.0	mph	0.0	mph
Median type adjustment, FM	0.0	mph	0.0	mph
Access points adjustment, FA	0.0	mph	0.0	mph
Free-flow speed	60.0	mph	60.0	mph

VOLUME

Direction	1		2	
Volume, V	2869	vph	1889	vph
Peak-hour factor, PHF	0.95		0.95	
Peak 15-minute volume, v15	755		497	
Trucks and buses	15	%	15	%
Recreational vehicles	2	%	2	%
Terrain type	Grade		Grade	
Grade	-4.00	%	4.00	%
Segment length	0.90	mi	0.90	mi
Number of lanes	3		3	
Driver population adjustment, fP	1.00		1.00	
Trucks and buses PCE, ET	1.5		2.0	
Recreational vehicles PCE, ER	1.2		3.0	
Heavy vehicle adjustment, fHV	0.927		0.840	
Flow rate, vp	1086	pcphpl	788	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	1086	pcphpl	788	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	C		B	
Density, D	18.1	pc/mi/ln	13.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Appendix C
Radar Speed Survey
AASHTO / HDM Tables

Radar Speed Check

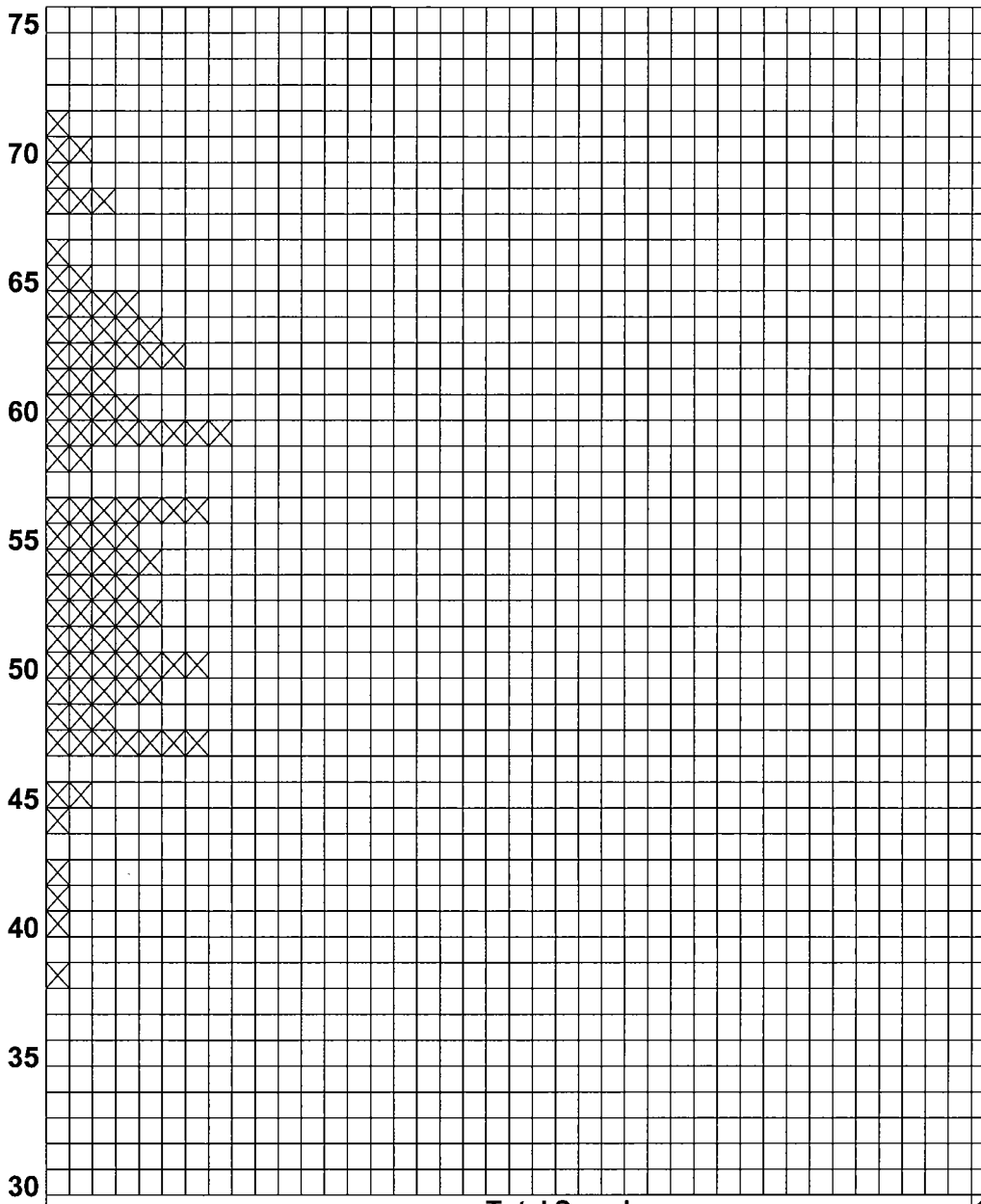
Los Angeles County Department of Public Works

Traffic and Lighting

Street Name: SIERRA HIGHWAY

Limits: PEARBLOSSOM HIGHWAY to RT 14 NBON/R (2) **TG:** 4376 D2

X=North /=South



#	%ea	cum.%
1	1.0%	100%
2	2.0%	99.0%
1	1.0%	97.0%
3	3.0%	96.0%
1	1.0%	93.0%
2	2.0%	92.0%
4	4.0%	90.0%
5	5.0%	86.0%
6	6.0%	81.0%
3	3.0%	75.0%
4	4.0%	72.0%
8	8.0%	68.0%
2	2.0%	60.0%
7	7.0%	58.0%
4	4.0%	51.0%
5	5.0%	47.0%
4	4.0%	42.0%
5	5.0%	38.0%
4	4.0%	33.0%
7	7.0%	29.0%
5	5.0%	22.0%
3	3.0%	17.0%
7	7.0%	14.0%
2	2.0%	7.0%
1	1.0%	5.0%
1	1.0%	4.0%
1	1.0%	3.0%
1	1.0%	2.0%
1	1.0%	1.0%
Total Samples	100	

Posted Speed:	50
Average Speed:	55.6
85th Percentile Speed:	63
50th Percentile Speed:	55
15th Percentile Speed:	48
10 MPH Pace:	47- 56
Number in Pace:	51
Percent in Pace:	51.0%

Date of Survey:	01/04/2006	Start Time:	13:00
Weather:	CLEAR	End Time:	13:30
Road Condition:	GOOD	Requested By:	R ORTEGA
Street Class.:		Observer:	A MCDONAL
Conditions not Apparent:	NORTH BOUND TRAFFIC ONLY		

Radar Speed Check

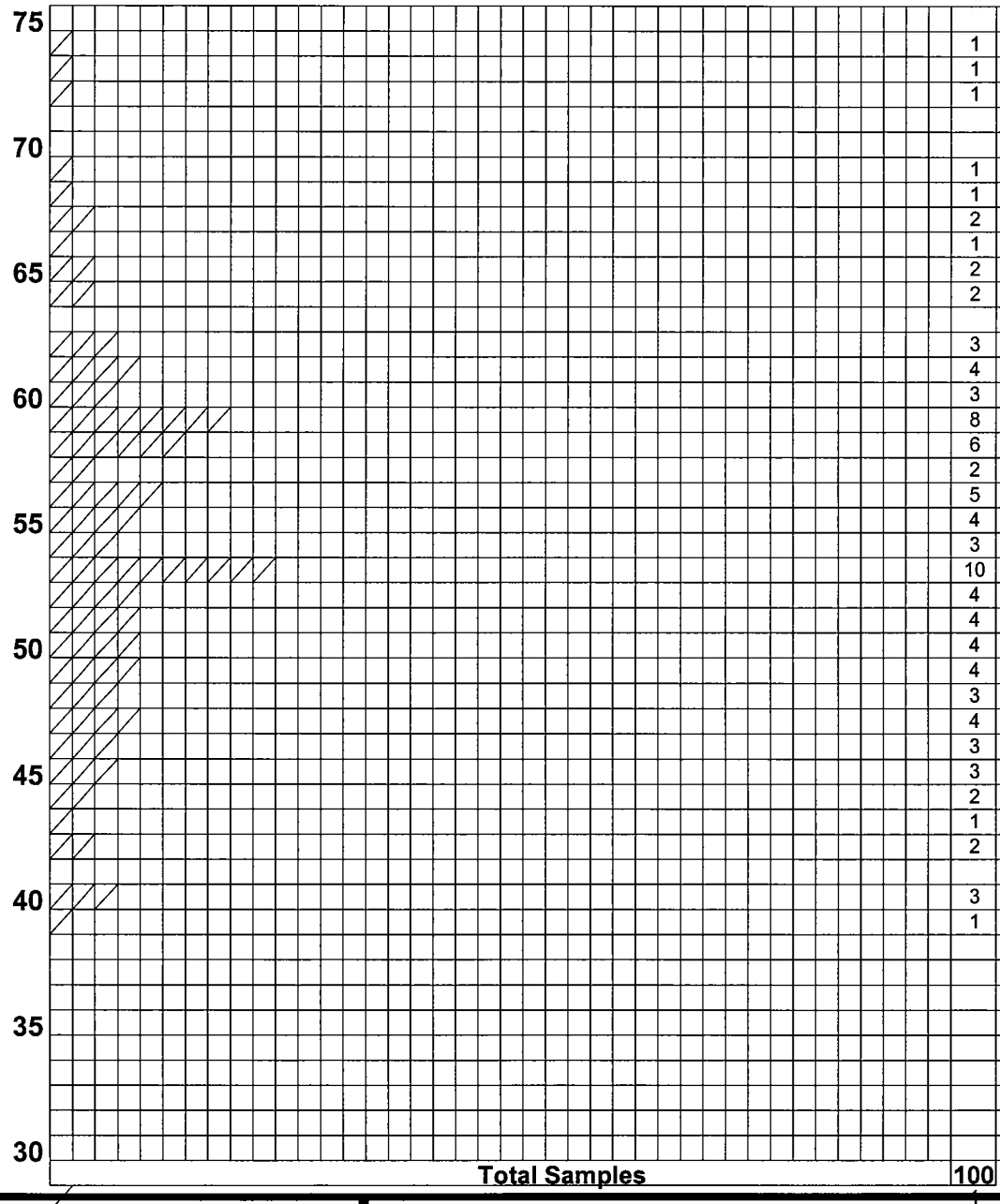
Los Angeles County Department of Public Works

Traffic and Lighting

Street Name: SIERRA HIGHWAY

Limits: PEARBLOSSOM HIGHWAY to RT 14 NBON/R (2) **TG:** 4376D2

X=North /=South



#	%ea	cum.%
1	1.0%	100%
1	1.0%	99.0%
1	1.0%	98.0%
1	1.0%	97.0%
1	1.0%	96.0%
2	2.0%	95.0%
1	1.0%	93.0%
2	2.0%	92.0%
2	2.0%	90.0%
3	3.0%	88.0%
4	4.0%	85.0%
3	3.0%	81.0%
8	8.0%	78.0%
6	6.0%	70.0%
2	2.0%	64.0%
5	5.0%	62.0%
4	4.0%	57.0%
3	3.0%	53.0%
10	10.0%	50.0%
4	4.0%	40.0%
4	4.0%	36.0%
4	4.0%	32.0%
4	4.0%	28.0%
3	3.0%	24.0%
4	4.0%	21.0%
3	3.0%	17.0%
3	3.0%	14.0%
2	2.0%	11.0%
1	1.0%	9.0%
2	2.0%	8.0%
3	3.0%	6.0%
1	1.0%	3.0%
Total Samples	**100**	

Posted Speed:	50
Average Speed:	53.9
85th Percentile Speed:	61
50th Percentile Speed:	53
15th Percentile Speed:	46
10 MPH Pace:	50- 59
Number in Pace:	50
Percent in Pace:	50.0%

Date of Survey:	03/13/2006	Start Time:	12:50
Weather:	Clear	End Time:	13:20
Road Condition:	Good	Requested By:	J MADRID
Street Class.:		Observer:	A MC DONAL
Conditions not Apparent:	SOUTH BOUND TRAFFIC ONLY		

Metric						US Customary					
Design Speed (km/h)	Maximum e (%)	Limiting Values of f	Total (e/100 + f)	Calculated Radius (m)	Rounded Radius (m)	Design Speed (mph)	Maximum e (%)	Limiting Values of f	Total (e/100 + f)	Calculated Radius (ft)	Rounded Radius (ft)
20	4.0	0.18	0.22	14.3	15	15	4.0	0.175	0.215	70.0	70
30	4.0	0.17	0.21	33.7	35	20	4.0	0.170	0.210	127.4	125
40	4.0	0.17	0.21	60.0	60	25	4.0	0.165	0.205	203.9	205
50	4.0	0.16	0.20	98.4	100	30	4.0	0.160	0.200	301.0	300
60	4.0	0.15	0.19	149.1	150	35	4.0	0.155	0.195	420.2	420
70	4.0	0.14	0.18	214.2	215	40	4.0	0.150	0.190	563.3	565
80	4.0	0.14	0.18	279.8	280	45	4.0	0.145	0.185	732.2	730
90	4.0	0.13	0.17	375.0	375	50	4.0	0.140	0.180	929.0	930
100	4.0	0.12	0.16	491.9	490	55	4.0	0.130	0.170	1190.2	1190
						60	4.0	0.120	0.160	1505.0	1505
20	6.0	0.18	0.24	13.1	15	15	6.0	0.175	0.235	64.0	65
30	6.0	0.17	0.23	30.8	30	20	6.0	0.170	0.230	116.3	115
40	6.0	0.17	0.23	54.7	55	25	6.0	0.165	0.225	185.8	185
50	6.0	0.16	0.22	89.4	90	30	6.0	0.160	0.220	273.6	275
60	6.0	0.15	0.21	134.9	135	35	6.0	0.155	0.215	381.1	380
70	6.0	0.14	0.20	192.8	195	40	6.0	0.150	0.210	509.6	510
80	6.0	0.14	0.20	251.8	250	45	6.0	0.145	0.205	660.7	660
90	6.0	0.13	0.19	335.5	335	50	6.0	0.140	0.200	836.1	835
100	6.0	0.12	0.18	437.2	435	55	6.0	0.130	0.190	1065.0	1065
110	6.0	0.11	0.17	560.2	560	60	6.0	0.120	0.180	1337.8	1340
120	6.0	0.09	0.15	755.5	755	65	6.0	0.110	0.170	1662.4	1660
130	6.0	0.08	0.14	950.0	950	70	6.0	0.100	0.160	2048.5	2050
						75	6.0	0.090	0.150	2508.4	2510
						80	6.0	0.080	0.140	3057.8	3060
20	8.0	0.18	0.28	12.1	10	15	8.0	0.175	0.255	59.0	60
30	8.0	0.17	0.25	28.3	30	20	8.0	0.170	0.250	107.0	105
40	8.0	0.17	0.25	50.4	50	25	8.0	0.185	0.245	170.8	170
50	8.0	0.16	0.24	82.0	80	30	8.0	0.160	0.240	250.8	250
60	8.0	0.15	0.23	123.2	125	35	8.0	0.155	0.235	348.7	350
70	8.0	0.14	0.22	175.3	175	40	8.0	0.150	0.230	465.3	465
80	8.0	0.14	0.22	228.9	230	45	8.0	0.145	0.225	502.0	500
90	8.0	0.13	0.21	303.6	305	50	8.0	0.140	0.220	760.1	760
100	8.0	0.12	0.20	393.5	395	55	8.0	0.130	0.210	963.5	965
110	8.0	0.11	0.19	501.2	500	60	8.0	0.120	0.200	1204.0	1205
120	8.0	0.09	0.17	666.6	665	65	8.0	0.110	0.190	1487.4	1485
130	8.0	0.08	0.18	831.3	830	70	8.0	0.100	0.180	1820.9	1820
						75	8.0	0.090	0.170	2213.3	2215
						80	8.0	0.080	0.160	2675.6	2675
20	10.0	0.18	0.28	11.2	10	15	10.0	0.175	0.275	54.7	55
30	10.0	0.17	0.27	26.2	25	20	10.0	0.170	0.270	99.1	100
40	10.0	0.17	0.27	46.6	45	25	10.0	0.165	0.265	157.8	160
50	10.0	0.16	0.26	75.7	75	30	10.0	0.160	0.280	231.5	230
60	10.0	0.15	0.25	113.3	115	35	10.0	0.155	0.255	321.3	320
70	10.0	0.14	0.24	160.7	160	40	10.0	0.150	0.250	428.1	430
80	10.0	0.14	0.24	209.9	210	45	10.0	0.145	0.245	552.9	555
90	10.0	0.13	0.23	277.2	275	50	10.0	0.140	0.240	696.8	695
100	10.0	0.12	0.22	357.7	360	55	10.0	0.130	0.230	879.7	880
110	10.0	0.11	0.21	453.5	455	60	10.0	0.120	0.220	1094.6	1095
120	10.0	0.09	0.19	596.5	595	65	10.0	0.110	0.210	1345.8	1345
130	10.0	0.08	0.18	738.9	740	70	10.0	0.100	0.200	1838.8	1840
						75	10.0	0.090	0.190	1980.3	1980
						80	10.0	0.080	0.180	2378.3	2380
20	12.0	0.18	0.30	10.5	10	15	12.0	0.175	0.295	51.0	50
30	12.0	0.17	0.29	24.4	25	20	12.0	0.170	0.290	92.3	90
40	12.0	0.17	0.29	43.4	45	25	12.0	0.165	0.285	146.7	145
50	12.0	0.16	0.28	70.3	70	30	12.0	0.160	0.280	215.0	215
60	12.0	0.15	0.27	104.9	105	35	12.0	0.155	0.275	298.0	300
70	12.0	0.14	0.26	148.3	150	40	12.0	0.150	0.270	396.4	395
80	12.0	0.14	0.26	193.7	195	45	12.0	0.145	0.265	511.1	510
90	12.0	0.13	0.25	255.0	255	50	12.0	0.140	0.260	643.2	845
100	12.0	0.12	0.24	327.9	330	55	12.0	0.130	0.250	809.4	810
110	12.0	0.11	0.23	414.0	415	60	12.0	0.120	0.240	1003.4	1005
120	12.0	0.09	0.21	539.7	540	65	12.0	0.110	0.230	1228.7	1230
130	12.0	0.08	0.20	665.0	665	70	12.0	0.100	0.220	1489.8	1490
						75	12.0	0.090	0.210	1791.7	1790
						80	12.0	0.080	0.200	2140.5	2140

Note: In recognition of safety considerations, use of e_{max} = 4.0% should be limited to urban conditions.

Exhibit 3-14. Minimum Radius for Design of Rural Highways, Urban Freeways, and High-Speed Urban Streets Using Limiting Values of e and f

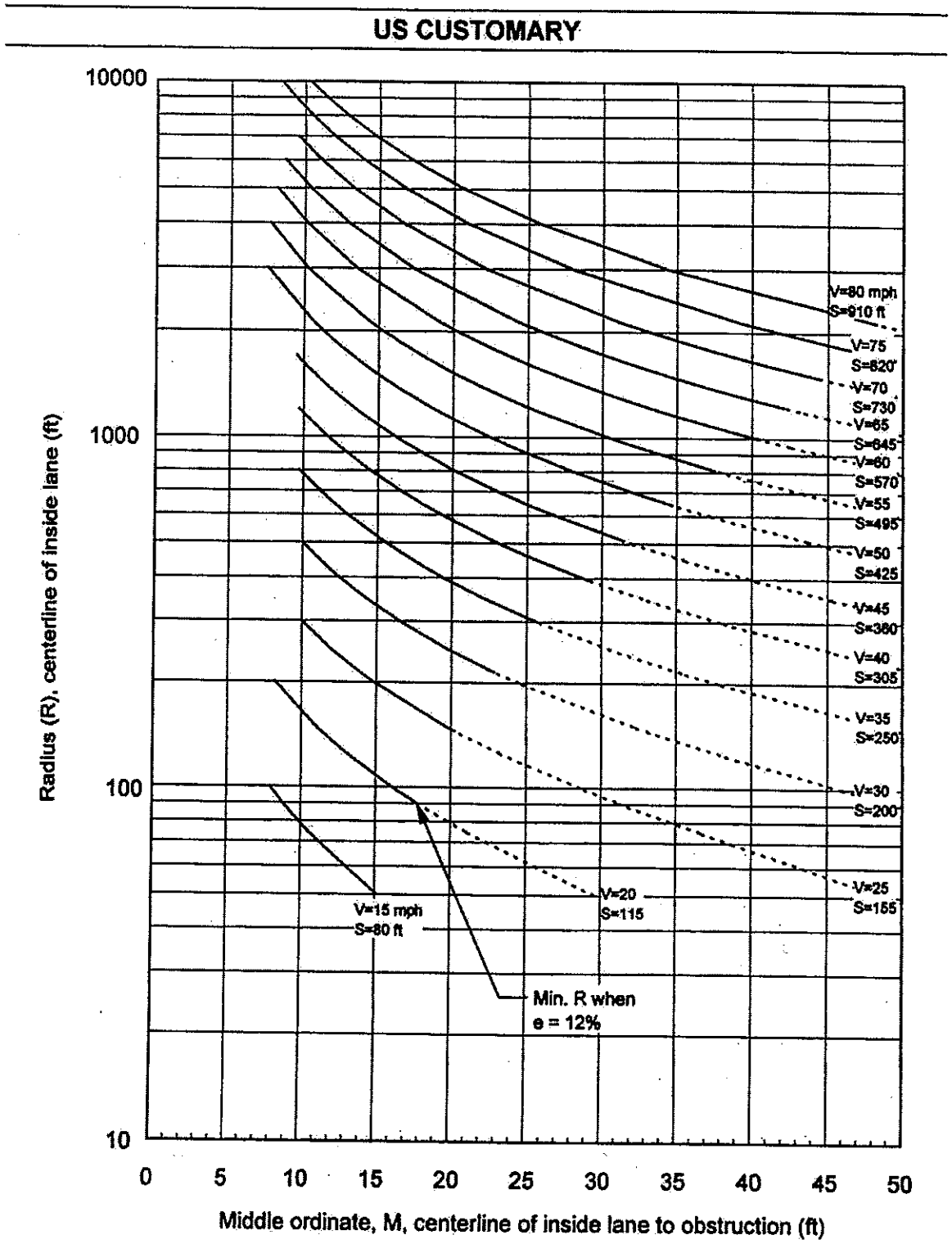
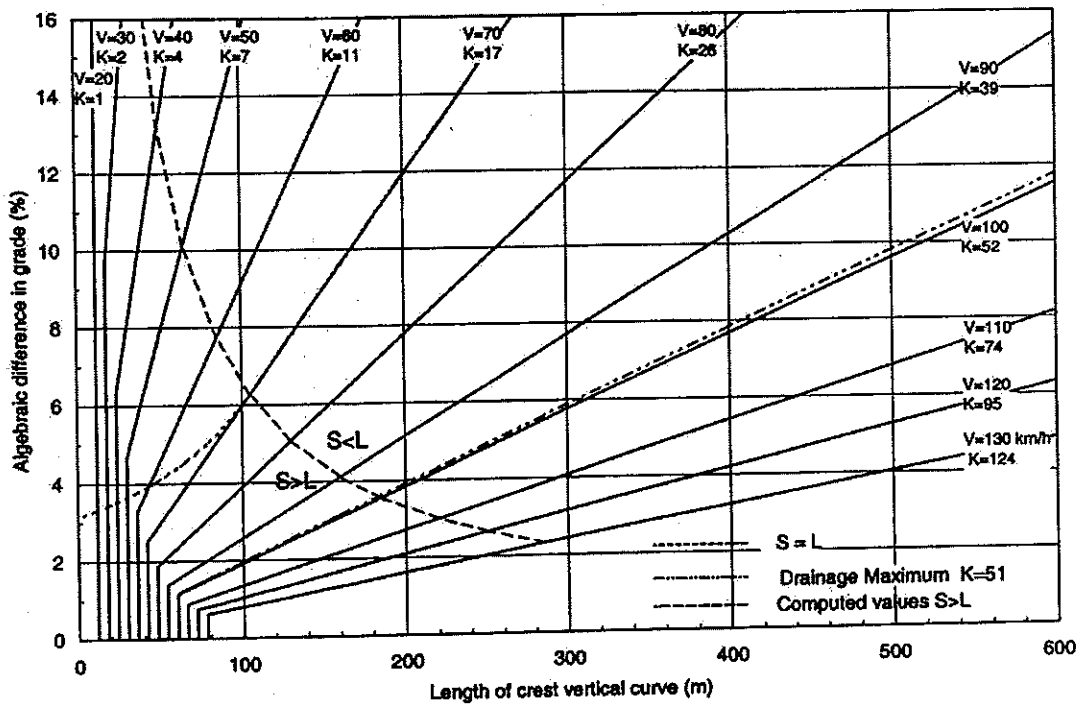


Exhibit 3-57. Design Controls for Stopping Sight Distance on Horizontal Curves (Continued)

METRIC



US CUSTOMARY

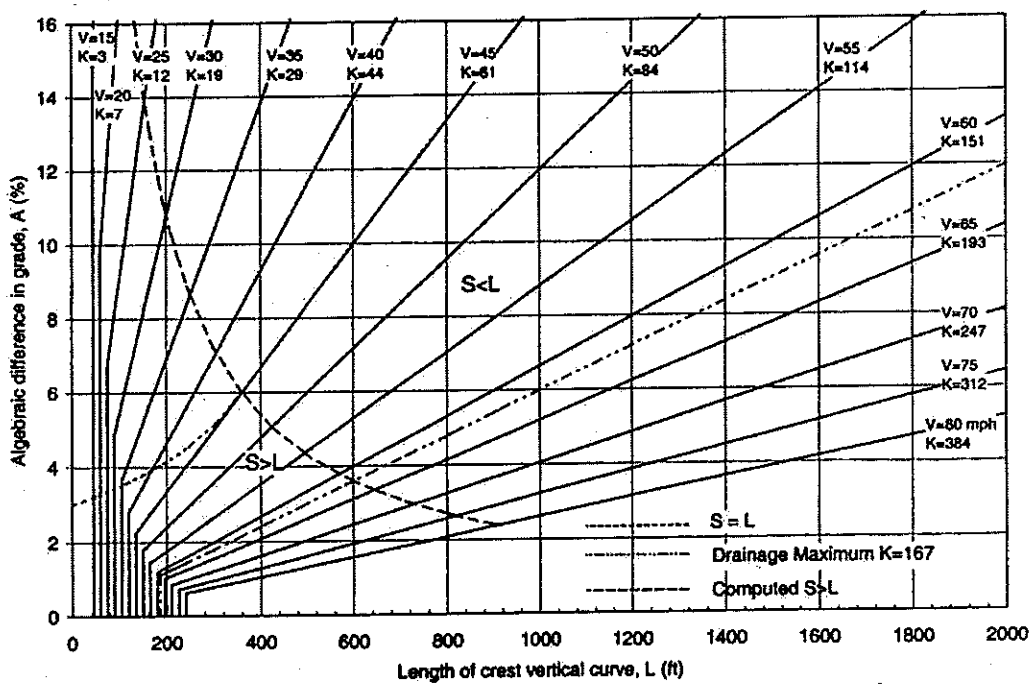


Exhibit 3-75. Design Controls for Crest Vertical Curves—Open Road Conditions

Table 202.2
Standard Superelevation Rates
(Superelevation in Feet per Foot for Curve Radius in Feet)

Ramps, 2-Lane Conventional Highways, Frontage Roads[1]		Freeways, Expressways, Multilane Conventional Highways		When Snow & Ice Conditions Prevail (Usually over 3,000 ft elevation)		Urban Roads (35 – 45 mph)		Urban Roads (less than 35 mph)	
For e_{max} = 0.12		For e_{max} = 0.10		For e_{max} = 0.08		For e_{max} = 0.06		For e_{max} = 0.04	
Range of	e	Range of	e	Range of	e	Range of	e	Range of	e
Curve Radii	Rate	Curve Radii	Rate	Curve Radii	Rate	Curve Radii	Rate	Curve Radii	Rate
Under 625	0.12								
625 – 849	0.11								
850 – 1,099	0.10	Under 1,100	0.10						
1,100 – 1,349	0.09	1,100 – 1,349	0.09						
1,350 – 1,599	0.08	1,350 – 1,599	0.08	Under 1,600	0.08				
1,600 – 1,899	0.07	1,600 – 1,899	0.07	1,600 – 1,899	0.07				
1,900 – 2,199	0.06	1,900 – 2,199	0.06	1,900 – 2,199	0.06	Under 600	0.06		
2,200 – 2,699	0.05	2,200 – 2,699	0.05	2,200 – 2,699	0.05	600 – 999	0.05		
2,700 – 3,499	0.04	2,700 – 3,499	0.04	2,700 – 3,499	0.04	1,000 – 1,499	0.04	Under 500	0.04
3,500 – 4,499	0.03	3,500 – 4,499	0.03	3,500 – 4,499	0.03	1,500 – 1,999	0.03	500 – 999	0.03
4,500 – 19,999	0.02	4,500 – 19,999	0.02	4,500 – 19,999	0.02	2,000 – 6,999	0.02	1,000 – 4,999	0.02
20,000 & over	(2)	20,000 & over	(2)	20,000 & over	(2)	7,000 & over	(2)	5,000 & over	(2)

Notes:

(1) For frontage roads under other jurisdictions see Index 202.7.

(2) Use standard crown section.

APPENDIX G

Noise Study Data

Table 1
TRAFFIC NOISE IMPACT
EXISTING YEAR 2007

FILE: NOISE-Sierra Hwy

Location: Sierra Highway: Between the SR14 Junction and Pearblossom Hwy

Vehicle Type	Traffic Volume 24-hr volume	Traffic Volume Equiv 1-hr	Noise Reference Level (15 meters	Noise Level (dB Ldn) Centerline Distance (feet) (meters) 100 / 30	215 / 66	430 / 131	460 / 140	800 / 244	990 / 302	4600 / 1402
EXISTING										
Autos	36671	3591	75.7	71.1	66.1	61.6	61.1	57.5	56.1	46.1
Med Trucks	1993	195	73.5	68.9	63.9	59.4	58.9	55.3	53.9	43.9
Hvy Trucks	1196	117	74.9	70.3	65.3	60.8	60.4	56.8	55.4	45.4
TOTAL	39860	3903	79.6	74.9	70.0	65.4	65.0	61.4	60.0	50.0

Average speed: 96.6 km/hr= 60.0 mi/hr

Time of day:		Fleet Mix	
70.0%	Day	92.0%	Autos
15.0%	Evening	5.0%	Medium Trucks
15.0%	Night	3.0%	Heavy Trucks
100.0%		100.0%	

Notes: Based on methods of Federal Highway Administration "Highway Traffic Noise Model", FHWA-RD-77-108, December, 1978.
Traffic data obtained fromKOA

MITIGATION MONITORING AND REPORTING PLAN

Sierra Highway–State Route 14 to Pearblossom Highway Widening Project Palmdale, Los Angeles County, California

State Clearinghouse No. 2007111050

Prepared For:

County of Los Angeles
Department of Public Works
Programs Development Division
900 South Fremont Avenue
Alhambra, California

Prepared By:

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Redlands, California

JUNE 2008

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INTRODUCTION

California Environmental Requirements

The California Environmental Quality Act (CEQA) requires that when a public agency completes an environmental document that includes measures to mitigate or avoid significant environmental effects, the public agency must adopt a Mitigation Monitoring and Reporting Plan (MMRP) for the changes to the project that it has adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The appropriate reporting or monitoring plan must be designed to ensure compliance during project implementation (Public Resources Code Section 21081.6).

The County of Los Angeles Department of Public Works (Public Works) would be the lead agency and would be responsible for monitoring of the implementation of all mitigation measures for the project. Monitoring will include: 1) verification that each mitigation measure has been implemented; 2) recordation of the actions taken to implement each mitigation measure; and 3) retention of records in the project file.

Program Objectives

The objectives of the MMRP for the Proposed Project include the following:

- To provide assurance and documentation that mitigation measures are implemented as planned;
- To collect analytical data to assist District administration in its determination of the effectiveness of the adopted mitigation measures;
- To report periodically regarding project compliance with mitigation measures, performance standards and/or other conditions; and
- To make available to the public, upon request, the District record of compliance with project mitigation measures.

Overview of the Project

The Proposed Project consists of a section of the Sierra Highway, located four (4) miles south of the City of Palmdale in unincorporated County of Los Angeles area. The Proposed Project is approximately a 0.80-mile section of the Sierra Highway, between the Antelope Valley Freeway Interchange and Sierra Highway and Pearblossom Highway intersection. This section of the highway runs parallel with the Union Pacific Railroad line.

The Proposed Project lies in the area commonly referred to as Antelope Valley. The Antelope Valley consists of 1,200 square miles of elevated desert terrain bounded by the San Gabriel Mountains on the south, Kern County to the North, and extending from Gorman on the west to the San Bernardino County on the east. The Antelope Valley contains a large portion of the Los Angeles National Forrest.

Organization of the Mitigation Monitoring Program

The following describes the various sections of the MMRP:

Introduction - Provides an overview of CEQA's monitoring and reporting requirements, program objectives, the project for which the program has been prepared, and the manner in which the mitigation monitoring program has been organized.

MMRP - Describes Public Works entities responsible for implementation of the mitigation monitoring plan, the plan scope, procedures for monitoring and reporting, public availability of documents, the process for making changes to the program, types of mitigation measures, and

the manner in which monitoring will be coordinated to ensure implementation of mitigation measures.

Mitigation Monitoring and Reporting Summary - Outlines the impacts and mitigation measures, responsible entities, and the timing for monitoring and reporting for each mitigation measure included in the plan. A form for actual use by Public Works and/or its assigned agents will be constructed from this information for each responsible entity.

Report Preparation - Lists the individuals involved in development of this MMRP.

DESCRIPTION OF PLAN

Mitigation Monitoring Procedures

This MMRP delegates responsibilities for monitoring the project, and also allows responsible Public Works entities flexibility and discretion in determining how best to monitor implementation. Monitoring procedures will vary according to the type of mitigation measure. The timing for monitoring and reporting is described in the monitoring and reporting summary table included as part of this program (see page No. 5). Adequate monitoring consists of demonstrating that monitoring procedures took place and that mitigation measures were implemented.

In order to enhance the effectiveness of the monitoring program, Public Works will utilize existing systems where appropriate. For instance, with any major construction project, the administration generally has at least one inspector assigned to monitor project construction. These inspectors are familiar with a broad range of regulatory issues and will provide first line oversight for much of the monitoring program.

Responsibilities of Public Works include identification of typical mitigation measure-related issues such as noisy equipment, dust, safety problems, etc. Any problems are generally corrected through directions to the contractors, or through other appropriate, established mechanisms. Internal reporting procedures are already in place to document any problems and to address broader implementation issues.

Reporting Procedures

Public Works would be responsible for monitoring and implementing the mitigation measures included in this monitoring plan.

Reporting consists of establishing a record that a mitigation measure is being implemented, and generally involves the following steps:

- Public Works distributes reporting forms to the appropriate company office (as indicated in the summary form) or employs the office's existing reporting process for verification of compliance.
- Responsible entities verify compliance by signing the monitoring and reporting form and/or documenting compliance using their own internal procedures when monitoring is triggered.
- Responsible entities provide Public Works with verification that monitoring has been conducted and ensure, as applicable, that mitigation measures have been implemented.
- Public Works prepares construction activities reports during the construction phase and incorporates project reports, as appropriate, into the periodic reports summarizing all Public Works mitigation monitoring efforts.

The reporting forms prepared by Public Works would document the implementation status of mitigation measures of the project. The progress reports describe the monitoring status of all project mitigation measures. Project reporting forms and periodic status reports will be available at Public Works.

Public Works would also be responsible for assisting their contractor with reporting responsibilities to ensure that they understand their charge and complete their reporting procedures accurately and on schedule.

Public Availability

All monitoring reporting forms, summaries, data sheets, and correction instructions related to the MMRP for Public Works, Sierra Highway–SR 14 to Pearblossom Highway Widening Project would be available for public review upon request at Public Works during normal business hours.

Program Changes

If minor changes are required to the MMRP, they would be made in accordance with CEQA and would be permitted after further review by Public Works. Such changes could include reassignment of monitoring and reporting responsibilities and/or redesign to make any appropriate improvements. No change would be permitted unless the mitigation monitoring and reporting plan continues to satisfy the requirements of Public Resources Code Section 21081.6.

Types of Mitigation Measures Being Monitored

The EIR for the Sierra Highway – SR 14 to Pearblossom Highway Widening Project is a "project-specific" evaluation as defined in the CEQA Guidelines.

The EIR recommends 19 project specific mitigation measures to reduce impacts related to biological resources and cultural resources during construction. Compliance with these mitigation measures will be accomplished through administrative controls over project planning and implementation, in this case, through incorporation of specific construction methods, and verification of construction in accordance with these special provisions. Monitoring would be accomplished as described previously under "Reporting Procedures" through verification and certification by personnel.

In general, implementation of the MMRP will require the following actions:

- Appropriate mitigation measures would be included in construction documents.
- Departments with reporting responsibilities would review the EIR, which provides general background information on the reasons for including specified mitigation measures.
- Problems or exceptions to compliance would be addressed by Public Works as appropriate.
- Periodic meetings may be held during project implementation to report on compliance with mitigation measures.

County of Los Angeles Department of Public Works, Sierra Highway – SR-14 Pearblossom Highway Widening Project
MITIGATION MONITORING AND REPORTING SUMMARY

Mitigation Measure	Enforcement Agency	Monitoring Phase	Implementation Phase		Verification of Compliance		
					Initials	Date	Comments
BIOLOGICAL							
BR-1: Public works shall minimize to the greatest extent feasible the area required for project construction, implementation, and operation.	Public Works	Construction	Pre-construction				
BR-2: Public Works shall retain qualified/permitted biologists as on-call service providers to recover and relocate any ground-dwelling special-status wildlife species encountered during construction.	Public Works	Pre-construction	Pre-construction				
BR-3: Public Works shall hire a qualified biological firm to provide environmental training to all personnel working onsite. The training shall include details on special-status species known to occur onsite or that could potentially occur onsite (i.e. burrowing owl and Mohave ground squirrel), a review of the state and federal laws that protect these species, avoidance measures, and implementation measures if a special-status species is encountered or killed. If a special-status species is encountered during any phase of construction, MM B-2 shall be implemented.	Public Works	Pre-construction	Pre-construction				

Mitigation Measure	Enforcement Agency	Monitoring Phase	Implementation Phase		Verification of Compliance		
					Initials	Date	Comments
BR-4: If an injured or dead special-status species is found during construction, Public Works shall cease all work within the immediate vicinity of the individual (i.e. within 100 feet). The Los Angeles County Planning Department, the appropriate on-call biologist, and the appropriate agency (i.e. USFWS and/or CDFG) shall also be contacted in this event before any further construction may continue in this area.	Public Works	Construction	Construction				
BR-5: Prior to any ground-disturbing activities, (i.e. mechanized clearing or rough grading), a qualified biologist(s) shall conduct a pre-construction sweep of the Proposed Project site to ensure that: • All special-status ground dwelling species are safely recovered and relocated to adjacent suitable habitat at least 200 feet from the limits of grading (depending on the species (i.e. Mohave ground squirrel), this may require the services of a permitted biologist). • All potential burrows are inspected for presence/absence of wildlife species. If presence is found, all species within the burrow(s) shall be safely recovered and relocated to adjacent suitable habitat at least 200 feet from the limits of grading (depending on the species (i.e. Mohave ground squirrel), this may require the services of a permitted biologist). If absence is found, the burrow(s) shall be collapsed to prevent potential inhabitance during construction.	Public Works	Pre-construction	Pre-construction				

Mitigation Measure	Enforcement Agency	Monitoring Phase	Implementation Phase		Verification of Compliance		
					Initials	Date	Comments
BR-6: Exclusionary fencing shall be installed and maintained around the limits of grading to prevent the inhabitance of wildlife during construction. Fencing shall be installed to a depth of at least six inches underground and extend at least eighteen inches aboveground. All fencing shall be properly maintained (i.e. daily perimeter checks to ensure integrity and the absence of burrows, openings, and other damage).	Public Works	Construction	Pre-construction				
BR-7: If initial grading and/or grubbing activities must occur during the bird breeding season (i.e. between February 1st and August 15th), a qualified biologist(s) shall conduct a preconstruction nesting bird survey for the presence/absence of nests within and adjacent to the Proposed Project site. The search area shall include a buffer area of up to 500 feet from the limits of grading. All nests of birds protected by the MBTA, FESA, CESA, and other regulations resulting from this survey shall be identified and located. (The start date of February 1st reflects the point when loggerhead shrikes, which have been identified onsite, begin to breed, and the end date of August 15th reflects the point when burrowing owls, which have a high potential to occur onsite, are generally considered to be done breeding for the year).	Public Works	Pre-construction	Pre-construction				

Mitigation Measure	Enforcement Agency	Monitoring Phase	Implementation Phase		Verification of Compliance		
					Initials	Date	Comments
BR-8: If protected nesting bird(s) are discovered within the preconstruction survey area, a buffer area appropriate to the species shall be established to avoid potential impacts to any protected species found during this survey. This buffer area may range from 200 feet for some passerines to 500 feet for some raptors and some other, more sensitive species (i.e. loggerhead shrike and Le Conte's thrasher). The USFWS and/or CDFG shall be consulted to identify the appropriate actions necessary to prevent impacts on the species. These actions may involve establishing an avoidance perimeter, the erection of sound walls, delays in construction, bio-monitoring of the nest, and/or bio-monitoring of the family group until it is determined that the nest has either failed or succeeded, at which time, all such preventative measures may be removed and construction shall be allowed to continue.	Public Works	Pre-construction	Pre-construction				
BR-9: If a burrowing owl(s) and its occupied burrow(s) are identified within the Proposed Project site and/or the surrounding 500-foot survey area during the preconstruction survey between February 1st and August 15th, the individual(s) must be avoided. A perimeter of at least 300 feet shall be established to prevent impacts to any identified burrowing owl(s) and corresponding burrow(s) within the Proposed Project site and the 500-foot area surrounding the limits of grading. All construction activities proposed within this buffer area must cease as long as the owl(s) remain in that area.	Public Works	Pre-construction	Pre-construction				

Mitigation Measure	Enforcement Agency	Monitoring Phase	Implementation Phase		Verification of Compliance		
					Initials	Date	Comments
BR-10: If a burrowing owl(s) and its occupied burrow(s) are identified within the Proposed Project site and/or the surrounding 500-foot survey area between August 16th and January 31st and initial grubbing and/or grading activities must occur during this time, the individual(s) must be passively relocated by a qualified biologist(s). The identified burrow(s) shall be closed once it is determined that the owl(s) have safely left the site by their own means. Once it has been determined that the burrow(s) are no longer active, the burrow(s) shall be permanently closed and monitored to ensure that re-occupancy does not occur. Passive relocation shall be performed as prescribed in the CDFG burrowing owl mitigation guidelines.	Public Works	Pre-construction	Pre-construction				

Mitigation Measure	Enforcement Agency	Monitoring Phase	Implementation Phase		Verification of Compliance		
					Initials	Date	Comments
BR-11: The lone Joshua tree identified on the Proposed Project site and its recruits shall be safely removed and transplanted at the edge of the right-of way for the new segment of roadway. This mitigation measure shall enhance the aesthetics of the new roadway, increase the localized population, and serve to protect this sensitive plant species. The chosen replanting sites shall incorporate the following components: • The mature individual shall be planted in its current orientation in similar soils at a similar distance from the new roadway as which it currently exists. All necessary precautions shall be implemented to ensure the safe removal and transplantation of this individual, including transplanting intact soils around the root mass. • The recruits identified at the base of this mature individual shall be safely separated from the parent plant and/or soils and transplanted elsewhere along the edge of the new right-of-way. The planting area shall mimic natural conditions where the recruits are removed from, and these transplanted recruits shall receive follow-up care (i.e. supplemental watering on an as-need basis) to ensure survival and growth. • A qualified biological firm shall conduct the replanting and monitoring efforts under an approved Joshua Tree Impact Plan by the CDFG and/or USFWS.	Public Works	Operation	Pre-construction				

Mitigation Measure	Enforcement Agency	Monitoring Phase	Implementation Phase		Verification of Compliance		
					Initials	Date	Comments
BR-12: If it is determined that the transplanted Joshua tree and/or its recruits die as a result of transplanting efforts or a lack of follow-up care, the number of dead individuals shall be mitigated at a 2:1 ratio within the right-of way for the new road segment.	Public Works	Operation	Operation				
BR-13: A Mojave Ground Squirrel trapping study shall be conducted prior to ground disturbance activities to determine if the species is present on the project site. If the species if found on the project site, the species shall be mitigated at a ratio of 1:1 ratio at a CDFG approved Mojave Ground Squirrel mitigation bank. If the species is not found on the project site, the loss of vegetation shall be mitigated according to MM BR-14.	Public Works	Operation	Pre-construction				
BR-14: All impacted acreage of Mojave Mixed Woody Scrub shall be mitigated through the purchase of off-site mitigation at a 1:1 ratio. Since 1.6 acres of this sensitive vegetation community occurs within the Proposed Project site, it is anticipated that no more than 1.6 acres of off-site mitigation will be necessary to satisfy this mitigation measure. The chosen site shall be located as close to the Proposed Project site as possible, and its various components (i.e. slope, species composition, elevation, etc.) shall be similar to the Mojave Mixed Woody Scrub that occurs on the Proposed Project site. The mitigation site shall be approved by the CDFG and the USFWS, and with the purchase of this mitigation site, all impacts to this sensitive vegetation community shall be considered less than significant.	Public Works	Operation	Operation				

Mitigation Measure	Enforcement Agency	Monitoring Phase	Implementation Phase		Verification of Compliance		
					Initials	Date	Comments
BR-15: All acreages of ephemeral watercourses impacted within the Proposed Project site shall be mitigated through the direct replacement of the watercourses on-site at a 1:1 ratio. 0.175 acres of CDFG jurisdictional ephemeral drainages and 0.095 acres of other waters occur within the Proposed Project site, it is anticipated that no more than 0.270 acres of on-site mitigation will be necessary to satisfy this mitigation measure. The mitigation site shall be approved by the CDFG and with the direct replacement of the watercourses being impacted; all impacts to the on-site ephemeral drainages shall be considered less than significant.	Public Works	Operation	Operation				
CULTURAL							
CR-1: In the event that any historical resources are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist.	Public Works	Construction	Construction				
CR-2: In the event that any subsurface archaeological deposits are unearthed during ground-disturbing construction activities, all activities must be suspended in the vicinity of the find until the deposit(s) are recorded and evaluated by a qualified archaeologist.	Public Works	Construction	Construction				

Mitigation Measure	Enforcement Agency	Monitoring Phase	Implementation Phase		Verification of Compliance		
					Initials	Date	Comments
CR-3: If paleontologic specimens are encountered during ground disturbance, a paleontological monitor must be empowered to identify, remove, document, and evaluate those specimens. Recovered specimens must be curated in a museum repository with permanent retrievable storage (e.g., San Bernardino County Museum). A report must be prepared with an appended itemized inventory of specimens, if any are recovered. Implementation of this mitigation measure would reduce the potential impact to a level that is less than significant.	Public Works	Construction	Construction				
CR-4: If human remains of any kind are found, all activities must cease immediately and a qualified archaeologist and the Los Angeles County Coroner must be notified. If the coroner determines the remains to be of Native American origin, he or she will notify the NAHC. The NAHC will then identify the most likely descendants to be consulted regarding treatment and/or repatriation of the remains.	Public Works	Construction	Construction				

Monitoring Triggers

1 Planning Stage (schematic design and design development)
2 Pre-Construction
3 Construction
4 Commencement of Operation
5 On-going through Project Operations

Responsible Entity

California Department of Fish and Game (CDFG)
County of Los Angeles Department of Public Works (Public Works)
Native American Heritage Commission (NAHC)
Regional Water Quality Control Board (RWQCB)
State Historic Preservation Officer (SHPO)

REPORT PREPARATION

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