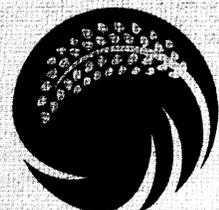
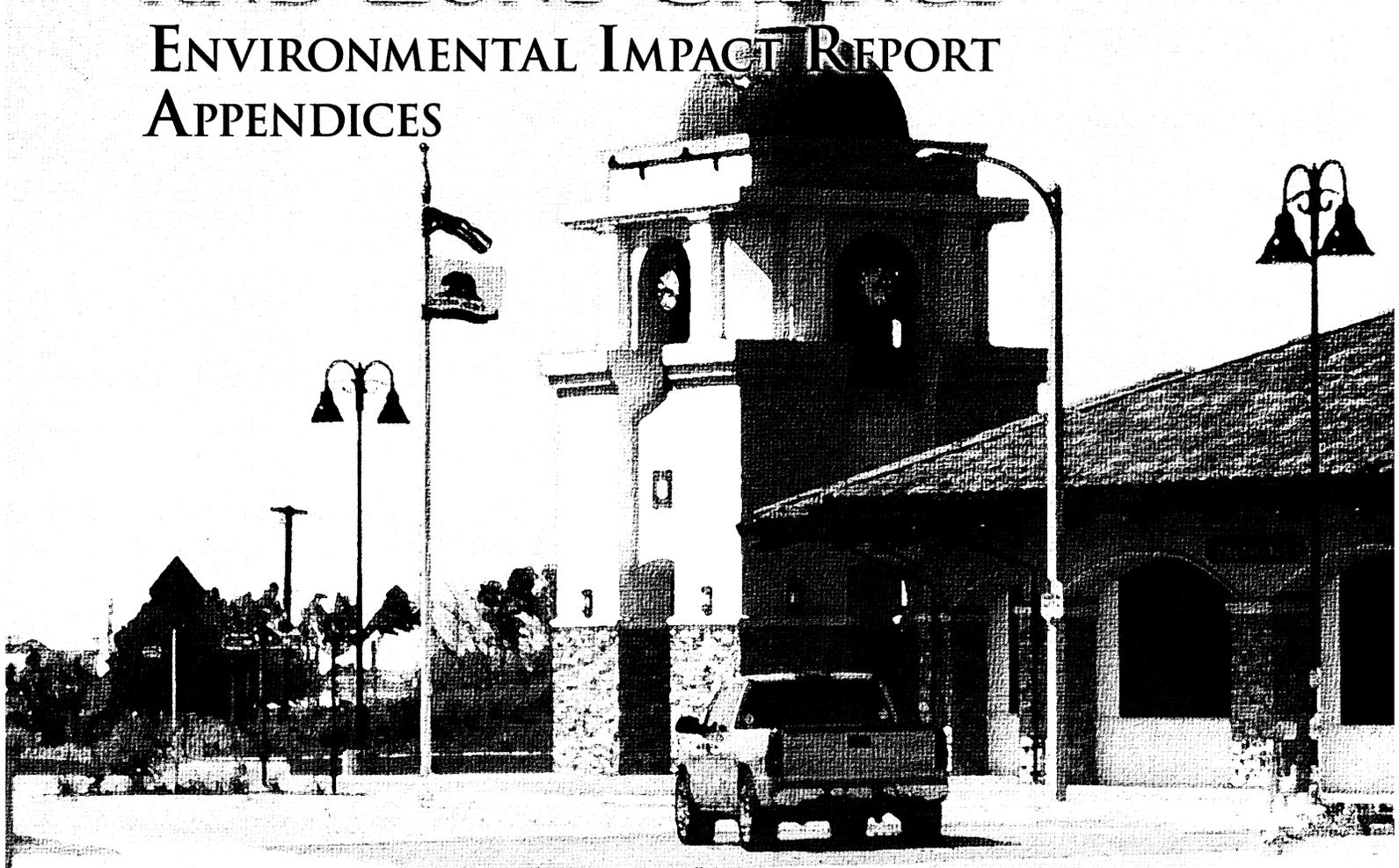


Final • June 2007

PALMDALE TRANSIT VILLAGE  
SPECIFIC PLAN / GENERAL  
PLAN AMENDMENT  
AND ZONE CHANGE  
ENVIRONMENTAL IMPACT REPORT  
APPENDICES



LEAD AGENCY:  
CITY OF PALMDALE

PREPARED BY:  
RBF CONSULTING

Administrative Draft EIR Completed:	November 27, 2006
Preliminary Draft Completed:	March 16, 2007
Public Review Draft EIR Completed:	April 23, 2007
Final EIR Completed:	June 11, 2007

**FINAL  
ENVIRONMENTAL IMPACT REPORT  
APPENDICES**

**PALMDALE TRANSIT VILLAGE  
Specific Plan/GENERAL PLAN AMENDMENT  
AND ZONE CHANGE**

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**SCH NO. 2006081052**

Lead Agency:

**CITY OF PALMDALE**  
Community Development Department  
38250 Sierra Highway  
Palmdale, California 93550  
**Contact: Ms. Donna Fairchild**  
661.267.5200

Prepared by:

**RBF CONSULTING**  
14725 Alton Parkway  
Irvine, California 92618-2069  
**Contacts: Mr. Glenn Lajoie, AICP, and Ms. Starla Hack**  
949.472.3505

JUNE 2007

JN 10-104580



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- 15.1 Initial Study and Notice of Preparation
- 15.2 Notice of Preparation Comment Letters
- 15.3 Traffic Impact Analysis
- 15.4 Air Quality Data
- 15.5 Cultural Resources Assessment
- 15.6 Biological Resources
- 15.7 Water Supply Assessment
- 15.8 Correspondence



## **15.1 INITIAL STUDY/NOTICE OF PREPARATION**



# NOTICE OF COMPLETION

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 (916) 445-0613

See Note Below – SCH#

**Project Title:** Palmdale Transit Village Specific Plan EIR

**Lead Agency:** City of Palmdale  
**Street Address:** 38250 Sierra Highway  
**City:** Palmdale

**Contact Person:** Sharon Kozdrey  
**Phone:** 661.267.5200  
**County:** Los Angeles

**Project Location:**

**County:** Los Angeles    **City/Nearest Community:** Palmdale  
**Cross Streets:** Sierra Highway/Technology Drive/Avenue Q-3    **Zip Code:** 93550    **Total Acres:** 110  
**Assessor's Parcel No.:** -    **Section:**    **Twp:**    **Range:**    **Base:**  
**Within** State Hwy. #: SR-14    **Waterways:**  
**2 Miles:** Airports: Air Force Plant 42    **Railways:** Metrolink    **Schools:**

**Document Type: (Check one)**

- |   |  |                                    |   |                                     |  |
|---|--|------------------------------------|---|-------------------------------------|--|
| <u>CEQA</u>                             |  | <u>NEPA</u>                        |   | <u>OTHER</u>                        |  |
| <input checked="" type="checkbox"/> NOP | <input type="checkbox"/> Supplement/Subsequent | <input type="checkbox"/> NOI       | <input type="checkbox"/> Joint Document | <input type="checkbox"/> Early Cons | <input type="checkbox"/> Prior EIR (SCH #) |
| <input type="checkbox"/> Neg Dec        | <input type="checkbox"/> Other:                | <input type="checkbox"/> EA        | <input type="checkbox"/> Final Document | <input type="checkbox"/> Draft EIR  | <input type="checkbox"/> Other:            |
|   |  | <input type="checkbox"/> Draft EIS |   |                                     |  |
|   |  | <input type="checkbox"/> FONSI     |   |                                     |  |

**Local Action Type: (Check all that apply)**

- |   |   |   |   |
|---|---|---|---|
| <input type="checkbox"/> General Plan Update            | <input checked="" type="checkbox"/> Specific Plan | <input checked="" type="checkbox"/> Rezone                                  | <input type="checkbox"/> Annexation     |
| <input checked="" type="checkbox"/> General Plan Amend. | <input type="checkbox"/> Master Plan              | <input type="checkbox"/> Prezone  | <input type="checkbox"/> Redevelopment  |
| <input type="checkbox"/> General Plan Element           | <input type="checkbox"/> Planned Unit Dev.        | <input type="checkbox"/> Use Permit   | <input type="checkbox"/> Coastal Permit |
| <input type="checkbox"/> Community Plan                 | <input type="checkbox"/> Site Plan                | <input type="checkbox"/> Land Division subdivision parcel, tract maps etc.) | <input type="checkbox"/> Other:         |

**Development Type: (Check all that apply)**

- |   | Units/Sq Ft          | Acres | Employees | Type  |
|---|----------------------|-------|-----------|---|
| <input checked="" type="checkbox"/> Residential | Up to 1,027 units    |       |           | <input type="checkbox"/> Water Facilities   |
| <input checked="" type="checkbox"/> Office      | Up to 446,000 sq.ft. |       |           | <input type="checkbox"/> Transportation     |
| <input checked="" type="checkbox"/> Commercial  | Up to 49,000 sq.ft.  |       |           | <input type="checkbox"/> Mining    Mineral: |
| <input type="checkbox"/> Industrial             |                      |       |           | <input type="checkbox"/> Power    Watts     |
| <input type="checkbox"/> Educational            |                      |       |           | <input type="checkbox"/> Waste Treatment    |
| <input type="checkbox"/> Recreational           |                      |       |           | <input type="checkbox"/> Hazardous Waste    |
| <input type="checkbox"/> Other                  |                      |       |           | <input type="checkbox"/> Other:             |

**Project Issues Discussed in Document: (Check all that apply)**

- |   |  |   |   |
|---|--|---|---|
| <input checked="" type="checkbox"/> Aesthetics/Visual   | <input checked="" type="checkbox"/> Flood Plain/Flooding       | <input checked="" type="checkbox"/> Schools/Universities    | <input checked="" type="checkbox"/> Water Quality             |
| <input checked="" type="checkbox"/> Agricultural Land   | <input checked="" type="checkbox"/> Forest Land/Fire Hazard    | <input type="checkbox"/> Septic Systems                     | <input checked="" type="checkbox"/> Water Supply/Ground Water |
| <input checked="" type="checkbox"/> Air Quality         | <input checked="" type="checkbox"/> Geologic/Seismic           | <input checked="" type="checkbox"/> Sewer Capacity          | <input checked="" type="checkbox"/> Wetland/Riparian          |
| <input checked="" type="checkbox"/> Archaeo/History     | <input checked="" type="checkbox"/> Minerals                   | <input checked="" type="checkbox"/> Soil Erosion/Compaction | <input checked="" type="checkbox"/> Wildlife                  |
| <input type="checkbox"/> Coastal Zone                   | <input checked="" type="checkbox"/> Noise                      | <input checked="" type="checkbox"/> Solid Waste             | <input checked="" type="checkbox"/> Growth Inducing           |
| <input checked="" type="checkbox"/> Drainage Absorption | <input checked="" type="checkbox"/> Population Housing Balance | <input checked="" type="checkbox"/> Toxic/Hazardous         | <input checked="" type="checkbox"/> Land Use                  |
| <input checked="" type="checkbox"/> Economic/Jobs       | <input checked="" type="checkbox"/> Public Services/Facilities | <input checked="" type="checkbox"/> Traffic/Circulation     | <input checked="" type="checkbox"/> Cumulative Effects        |
| <input type="checkbox"/> Fiscal                         | <input checked="" type="checkbox"/> Recreation/Parks           | <input checked="" type="checkbox"/> Vegetation              | <input type="checkbox"/> Other:                               |

**Present Land Use/Zoning/General Plan Designation:** residential, commercial, industrial, public and vacant land uses/Business Park (BP), Commercial Manufacturing (CM), Industrial (IND) and Medium Residential (MR)/Light Industrial (M-1), Planned Industrial (M-4), Service Commercial (C-5), Medium Residential (R-2) and Multi-Family Residential (R-3).

**Project Description:** The project proposes a General Plan Amendment and Zone Change that would amend the General Plan Land Use and Zone Maps to reflect adoption of the Palmdale Transit Village Specific Plan. Development of the specific plan would result in a transit-oriented village near the City's newly constructed Metrolink train and AVTA bus transfer station. The area could potentially be developed with up to 1,027 new housing units, 40,000 square feet of stand alone neighborhood retail uses, 93,000 square feet of neighborhood retail mixed use, 353,000 square feet of stand alone low rise office and 93,000 square feet of low rise mixed-use offices uses. Development would also involve circulation improvements including a pedestrian bridge traversing the Union Pacific Railroad Tracks and landscaping.

Reviewing Agencies Checklist

- Resources Agency
- Boating & Waterways
- Coastal Commission
- Coastal Conservancy
- Colorado River Board
- Conservation
- S Fish & Game
- Forestry
- Office of Historic Preservation
- Parks & Recreation
- Reclamation
- S.F. Bay Conservation & Development Comm.
- Water Resources (DWR)
- Business, Transportation & Housing**
- Aeronautics
- California Highway Patrol
- S CALTRANS District
- Dept. of Transportation Planning (Hq)
- S Housing & Community Development
- Food & Agriculture**
- Health & Welfare**
- Health Services
- State Consumer Services**
- General Services
- OLA (Schools)

**KEY**  
 S = Document Sent by Lead Agency  
 X = Suggested Distribution

- S **Cal-EPA**
- Air Resources Board
- APCD/AQMD
- California Waste Management Board
- SWRCB: Clean Water Grants
- SWRCB: Delta Unit
- SWRCB: Water Quality
- SWRCB: Water Rights
- S Regional WQCB
- Youth & Adult Corrections**
- Corrections
- Independent Commissions & Offices**
- Energy Commission
- S Native American Heritage Commission
- Public Utilities Commission
- Santa Monica Mountains Conservancy
- State Lands Commission
- Tahoe Regional Planning Agency
- Other:

**Public Review Period** (to be filled in by lead agency)

**Starting Date:** August 10, 2006      **Ending Date:** September 8, 2006

**Signature:** Starla Hack      **Date:** 8-8-06

**Lead Agency:** (Complete if applicable)  
 Consulting Firm: RBF Consulting  
 Address: 14725 Alton Parkway  
 City/State/Zip: Irvine, California 92618  
 Contact: Starla Hack  
 Phone: 949-855-5771

**For SCH Use Only:**  
 Date Received at SCH:  
 Date Review Starts:  
 Date to Agencies:  
 Date to SCH:  
**Clearance Date:**  
 Notes:

**Applicant:**



# PALMDALE

*a place to call home*

## NOTICE OF PREPARATION

JAMES C. LEDFORD, JR.  
*Mayor*

MIKE DISPENZA  
*Mayor Pro Tem*

STEVEN D. HOFBAUER  
*Councilmember*

STEPHEN KNIGHT  
*Councilmember*

TOM LACKEY  
*Councilmember*

**TO:** Agencies, Organizations and Interested Parties

**SUBJECT:** Notice of Preparation of a Draft Environmental Impact Report in Compliance with Title 14, Section 15082(a) of the California Code of Regulations

The City of Palmdale is the lead agency under the California Environmental Quality Act (CEQA) in the preparation of the Environmental Impact Report (EIR) for the project identified below. We request the view of your agency as to the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by the City when considering any permits that your agency must issue or for any other approval for the project.

**AGENCIES:** The City requests your agency's views on the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project, in accordance with California Code of Regulations, Title 14, Section 15082(b).

**ORGANIZATIONS AND INTERESTED PARTIES:** The City requests your comments and concerns regarding the environmental issues associated with construction and operation of the proposed project.

**PROJECT TITLE:** Palmdale Transit Village Specific Plan EIR

**PROJECT LOCATION:** The project is approximately 110 acres generally located between Technology Drive and Avenue Q-3 and between 3<sup>rd</sup> Street East and the Metrolink Railroad tracks adjacent to Sierra Highway.

**PROJECT DESCRIPTION:** The City of Palmdale is the Lead Agency for the proposed Palmdale Transit Village Specific Plan, a planned development for approximately 110 acres of land as a compact, transit-oriented village within easy walking distance of the City's newly constructed Metrolink train and AVTA bus transfer station.

The project proposes a General Plan Amendment (GPA) 05-01 and Zone Change (ZC) 05-01 that would amend the General Plan Land Use and Zoning Maps from Industrial, Commercial, Business Park and Residential designations to reflect adoption of the Palmdale Transit Village Specific Plan.

With adoption of the Palmdale Transit Village Specific Plan, the area could potentially be developed with up to 1,027 new housing units, as follows: 44 single-family/duplex units on small lots, 34 single-family/duplex units surrounding common courtyard areas, 192 townhouse units, up to 725 multi-family units and approximately 32 mixed use-residential units. The project may also include up to 40,000 square feet of stand alone neighborhood retail uses, 9,000 square feet of neighborhood retail mixed-use, 353,000 square feet of stand alone low rise office use and 93,000 square feet of low rise mixed-use office uses, primarily located along the west side of 6th Street East and in close proximity to the train station and AVTA bus transfer station.

38300 Sierra Highway

Palmdale, CA 93550-4798

Tel: 661/267-5100

Fax: 661/267-5122

TDD: 661/267-5167

*Auxiliary aids provided for  
communication accessibility*

*on 72 hours' notice and request.*

In the long term, the existing parking for the train station may be replaced by a new parking structure to be located directly north of the Metrolink station. It is anticipated that the Palmdale Transit Village Specific Plan project would be built in several phases over time. It is expected that development of this site would primarily be by private developers; although, some public or public-private development could potentially occur as well.

**POTENTIAL ENVIRONMENTAL EFFECTS:** The attached Initial Study describes the potential environmental effects of the proposed project. An EIR will be prepared to evaluate the project's potential impacts on the environment and analyze alternatives.

**PUBLIC REVIEW PERIOD:** The City has made this Notice of Preparation (NOP) and Initial Study available for public review and comment pursuant to California Code of Regulations, Title 14, Section 15082(b). Your response must be sent as soon as possible but **not later than 30 days after receipt of this notice**. All comments must be submitted in writing to the address below. The comment period during which the City will receive comments on the Notice of Preparation is:

**Starting Date:** August 10, 2006

**Ending Date:** September 8, 2006

**RESPONSES AND COMMENTS:** Please indicate a contact person for your agency or organization and send your responses and comments to:

Sharon Kozdrey, Senior Planner  
City of Palmdale  
38300 N. Sierra Highway  
Palmdale, California 93550

**SCOPING MEETING:** As part of the CEQA process, the City will hold a public scoping meeting at the date and time listed below. You are welcome to attend and present environmental information that you believe should be addressed in the EIR:

**Date:** Thursday, August 31, 2006

**Time:** 1:30 p.m.

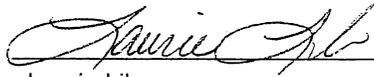
**Location:** City of Palmdale, Development Services Building  
Main Conference Room  
38250 N. Sierra Highway  
Palmdale, California 93550

**DOCUMENT AVAILABILITY:** The NOP and Initial Study are available for public review at the locations listed below during regular business hours:

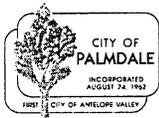
- Palmdale City Hall, 38300 N. Sierra Highway
- City of Palmdale Library, 700 East Palmdale Boulevard

If you require additional information please contact Sharon Kozdrey at (661) 267-5200

Date: 8-7-06

Signature:   
Laurie Lile

Title: Director of Planning



## City of Palmdale Initial Study Questionnaire

Application No.: Specific Plan 05-01  
General Plan Amendment 05-01  
Zone Change 05-01

Name of applicant: City of Palmdale

Location of project: The site contains approximately 110 acres generally located between Technology Drive and Avenue Q-3 and between 3<sup>rd</sup> Street East and the Metrolink Railroad tracks adjacent to Sierra Highway.

Existing General Plan: BP (Business Park), IND (Industrial), CM (Commercial Manufacturing), MR (Medium Residential 6.1-10 dwelling units per acre) and MFR (Multi-Family Residential 10.1-16 dwelling units per acre)

Proposed General Plan Land use designation: Palmdale Transit Village Specific Plan

Existing Zoning: M-1 (Light Industrial), M-4 (Planned Industrial), C-5 (Service Commercial), R-2 (Medium Residential) and R-3 (Multi-Family Residential)

Proposed Zoning: Palmdale Transit Village Specific Plan

Present land use: Land north of Avenue Q contains the City's new Transportation Center, a newly constructed continuation high school at 6<sup>th</sup> Street East, an older single-family neighborhood consisting of approximately 40 homes, a small mobile home park, an industrial use and vacant land. Land south of Avenue Q is developed primarily with commercial uses along 6<sup>th</sup> Street East and with single-family and attached housing located west of 6<sup>th</sup> Street East. Vacant lots are interspersed throughout. Land adjacent to the west side of 3<sup>rd</sup> Street East between the City's Desert Sands Park and Avenue Q at one time contained single family homes that were in a dilapidated condition and have since been demolished.

Initial Study  
Palmdale Transit Village Specific Plan  
General Plan Amendment 05-01  
Zone Change 05-01  
Page 2

**Locational Maps:**



Initial Study  
Palmdale Transit Village Specific Plan (SP –05-01)  
General Plan Amendment 05-01  
Zone Change 05-01  
Page 3

**I. Applicability of the Initial Study**

A. Is the proposed action a “project” as defined by CEQA?

Yes  No

1. If the project qualifies for one of the Categorical Exemptions listed in Section 6.C. of the City’s CEQA Guidelines, is there a reasonable possibility that the activity will have a significant effect due to special circumstances?  Yes  No  N/A

**II. Initial Study Review**

A. Does the project require a 30-day State Clearinghouse review?

Yes  No

1. There is a State “responsible agency”.
2. There is a State “trustee agency”.
3. The project is of area-wide significance.

**III. Project Assessment**

A. Project Description: The City of Palmdale is the Lead Agency for the proposed Palmdale Transit Village Specific Plan, a planned development for approximately 110 acres of land as a compact, transit-oriented village within easy walking distance of the City’s newly constructed Metrolink train and AVTA bus transfer station. The project site is located south of Technology Drive, generally north of Avenue Q-3 and east of 3<sup>rd</sup> Street East, and west of the Metrolink railroad tracks and 6<sup>th</sup> Street East.

The project proposes a General Plan Amendment (GPA) 05-01 and Zone Change (ZC) 05-01 that would amend the General Plan Land Use and Zoning Maps from Industrial, Commercial, Business Park and Residential designations to reflect adoption of the Palmdale Transit Village Specific Plan.

Initial Study  
Palmdale Transit Village Specific Plan (SP –05-01)  
General Plan Amendment 05-01  
Zone Change 05-01  
Page 4

With adoption of the Palmdale Transit Village Specific Plan, the area could potentially be developed with up to 1,027 new housing units, as follows: 44 single-family/duplex units on small lots, 34 single-family/duplex units surrounding common courtyard areas, 192 townhouse units, up to 725 multi-family units and approximately 32 mixed use-residential units. The project may also include up to 40,000 square feet of stand alone neighborhood retail uses, 9,000 square feet of neighborhood retail mixed-use, 353,000 square feet of stand alone low rise office use and 93,000 square feet of low rise mixed-use office uses, primarily located along the west side of 6<sup>th</sup> Street East and in close proximity to the train station and AVTA bus transfer station.

In the long term, the existing parking for the train station may be replaced by a new parking structure to be located directly north of the Metrolink station. It is anticipated that the Palmdale Transit Village Specific Plan project would be built in several phases over time. It is expected that development of this site would primarily be by private developers; although, some public or public-private development could potentially occur as well.

- B. Description of the Project Site: Most of the area surrounding the new Metrolink train station is vacant, with the exception of an older single family neighborhood located along both sides of Avenue P-14. The residential neighborhood consists of approximately 40 homes, the majority of which are owner occupied. An older mobile home park, situated on the north side of Avenue Q east of 3<sup>rd</sup> Street East, is within unincorporated County territory. A row of lots fronting along the west side of 3<sup>rd</sup> Street East, north of Avenue Q to Desert Sands Park, is a site that had once contained several single-family homes that have since been demolished. A newly constructed continuation high school exists at the northwest corner of 6<sup>th</sup> Street East and Avenue Q. The site also contains a few scattered businesses along 6<sup>th</sup> Street East south of Avenue Q, as well as attached housing and some single family homes west of the 6<sup>th</sup> Street East business area. The project site is essentially flat and has been disturbed by present and past human occupation with no remaining native vegetation.

Initial Study  
 Palmdale Transit Village Specific Plan (SP -05-01)  
 General Plan Amendment 05-01  
 Zone Change 05-01  
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C. Surrounding Land Uses:

North: Vacant and industrial land  
 East: Union Pacific and Metrolink railroad tracks  
 South: Scattered business and attached single family homes  
 West: Single family homes

D. Is the proposed project consistent with:

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
City of Palmdale General Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Applicable Specific Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
City of Palmdale Zoning Ordinance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air Quality Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Congestion Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Regional Comprehensive Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E. Have any of the following studies been submitted?

- |  |   |
|--|---|
| <input type="checkbox"/> Geology Report                            | <input type="checkbox"/> Historical Report                              |
| <input type="checkbox"/> Hydrology Report                          | <input type="checkbox"/> Archaeological Report                          |
| <input type="checkbox"/> Soils Report                              | <input type="checkbox"/> Paleontological Study                          |
| <input type="checkbox"/> Traffic Study                             | <input type="checkbox"/> Line of Sight Exhibits                         |
| <input type="checkbox"/> Noise Study                               | <input type="checkbox"/> Visual Analysis                                |
| <input type="checkbox"/> Biological Study                          | <input type="checkbox"/> Slope Map                                      |
| <input type="checkbox"/> Native Vegetation<br>Preservation Plan    | <input type="checkbox"/> Fiscal Impact Analysis                         |
| <input type="checkbox"/> Solid Waste<br>Generation Report          | <input type="checkbox"/> Air Quality Report                             |
| <input type="checkbox"/> Public Services/<br>Infrastructure Report | <input type="checkbox"/> Hazardous Materials/<br>Waste                  |
|  | <input checked="" type="checkbox"/> Burrowing Owl<br>Habitat Assessment |

Initial Study  
Palmdale Transit Village Specific Plan (SP -05-01)  
General Plan Amendment 05-01  
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Page 6

**IV. Determination**

On the basis of this initial evaluation:

I find that the proposed project MAY have a significant effect on the environment, and a focused environmental impact report is required to address the following issues:

1. Land Use
2. Traffic and Circulation
3. Air Quality
4. Cultural Resources
5. Water Supply
6. School Impacts

I find that the proposed project MAY have a significant effect(s) 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, if the effect is a "potentially significant impact" or "potentially significant unless mitigated". An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

This initial study was prepared by:

Sharon Kozdrey, Senior Planner

8-3-06  
Date



Laurie Lile  
Director of Planning

Initial Study  
Palmdale Transit Village Specific Plan (SP –05-01)  
General Plan Amendment 05-01  
Zone Change 05-01  
Page 7

**V. Earlier Analysis**

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or (mitigated) negative declaration. In this case, a discussion should identify the following:

A. Earlier analyses used.

City of Palmdale General Plan FEIR, (SCH No. 87120908) prepared for the City of Palmdale by Michael Brandman Associates, and certified by the Palmdale City Council (Resolution No. 93-10) on January 25, 1993. This document was prepared to analyze the potential impacts from full build-out of the City's General Plan, including the provision of roadways, infrastructure and development of urban uses. The General Plan EIR anticipated that significant impacts to air quality, loss of open space, seismic related risks, biological resources, jobs/housing balance, traffic impacts at 11 roadway links and cumulative impacts to groundwater resources would occur with implementation of the City's General Plan. All other impacts were found to be mitigatable to a level of insignificance through the mitigation measures imposed under the EIR and implementation measures contained within the General Plan. A copy of this EIR is available for review at the City of Palmdale Planning Department.

Initial Study  
 Palmdale Transit Village Specific Plan (SP 05-01)  
 General Plan Amendment 05-01  
 Zone Change 05-01  
 Page 8

	Potentially Significant Unless Mitigation Incorporated	Potentially Significant Less Than Significant Impact	No Impact
--	--	--	--------------

**VI. Evaluation of Environmental Impacts**

**A. Earth:**

Based on the geotechnical or soils study for the project, review by the City's Engineering Department, and/or the General Plan Update:

**1. Soils**

a. Are there any areas of potential differential settlement on the project site that could significantly impact development of the proposed project?

b. Is the site in an area of high shrink/swell (hydrocompaction) potential that could significantly impact development of the proposed project?

c. Is the site in an area of potential subsidence?

d. Will the project result in a significant increase in wind or water erosion of soils, either on- or off-site?

e. Could the project result in siltation deposition, or erosion that may modify a stream channel, or adversely affect downstream flood control facilities?

Initial Study  
 Palmdale Transit Village Specific Plan (SP 05-01)  
 General Plan Amendment 05-01  
 Zone Change 05-01  
 Page 9

<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

In accordance with the City of Palmdale General Plan Safety Element, the project site is not located in an area where settlement, shrink/swell or substantial subsidence is anticipated to occur. Soil reports for existing development in the area did not disclose any geologic conditions that would preclude future development as envisioned by the plan. The Palmdale Transit Village Specific Plan consists of land use and circulation planning along with an accompanying general plan land use map and zone change. No specific entitlements are proposed under this current project. Once development is proposed, the City will be provided with a detailed evaluation of geotechnical and seismic conditions at the sites of proposed structures and slope modifications within the Palmdale Transit Village Specific Plan area. California-licensed geologists or engineers shall prepare these reports as part of the site design for future development projects. Therefore, there will be no significant effect on the environment from earth resources as a result of adoption of the Palmdale Transit Village Specific Plan, GPA or ZC.

2. Earthquakes

Based on the Alquist-Priolo Earthquake Fault Zoning Map (as amended 1994) and California Division of Mines and Geology Special Publication 42 (1997), or the geotechnical report for the project site:

a. Is the site in a fault rupture hazard zone?  Yes  No

If yes:

i. Is there an active or potentially active fault on the project site?  Yes  No

Initial Study  
 Palmdale Transit Village Specific Plan (SP 05-01)  
 General Plan Amendment 05-01  
 Zone Change 05-01  
 Page 10

	Potentially Significant <u>Impact</u>	Potentially Significant Unless Mitigation <u>Incorporated</u>	Potentially Significant Less Than Significant <u>Impact</u>	No <u>Impact</u>
--	---	---	---	---------------------

ii. Does the project include a school, emergency or public facility, day care center, nursing home, or high rise building?  Yes  No

b. Is the site in a zone subject to seismic ground shaking, ground failure, or liquefaction?

Review of the Alquist-Priolo Special Studies Zone Act Maps/Fault-Rupture Hazard Zones determined that the project area is not within a fault rupture hazard zone. The San Andres Fault traverses the southernmost portion of the City, approximately 2.25 miles from the project site. Additionally, several fault traces extend from the primary fault within the San Andreas Rift Zone. According to General Plan Exhibit S-3, Earthquake Fault Zones, the project site is located in Zone 1 for seismic shaking. Zone 1 represents an area that would be exposed to the most intense seismic ground shaking. The project site would be subject to intense ground shaking during a major earthquake along the San Andreas Fault. The intensity of the ground shaking would depend upon the magnitude of the earthquake, distance to the epicenter and the geology of the area between the epicenter and the project area. Future development associated with adoption of the Palmdale Transit Village Specific Plan will be designed in compliance with Uniform Building Code (UBC) Standards. Adherence to standard engineering practices and design criteria relative to seismic and geologic hazards in accordance with the UBC will reduce impacts to less than significant.

According to General Plan Exhibit PS-1, Aquifers and Groundwater Surface, the groundwater level at the site is in excess of 100 feet below the surface and U.S.G.S. Seismic Hazards Maps for the project area reflect no potential for liquefaction. Therefore, because of the depth to groundwater level it is not anticipated that the project site is subject to

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liquefaction. Additionally, future development on the site would be required to comply with the design requirements established by the UBC, further minimizing potential damage due to seismic shaking. Therefore, fault rupture, ground shaking and liquefaction do not constitute the potential for a significant impact on the environment.

3. Slopes

Based on the U.S.G.S. Topographic Map, the slope map submitted for the project, the geotechnical report for the project, and/or a site inspection:

a. Does the project site contain slopes of 10% or greater?

b. Is any significant modification of major landforms proposed?

c. Is the project in an area of landslide risk, or are landslides present on the project site?

d. Will project grading create slopes, on- or off-site, that could be subject to landslides, mudslides, or erosion?

The project site is essentially flat and according to U.S.G.S. quadrangle maps the site gently slopes to the northeast. There is no risk from

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landslides, mudslides or erosion; therefore, the project does not result in a significant impact on the environment due to slopes.

4. Quarry Zone

Based on a site inspection, the City's General Plan Land Use Map, and/or the Significant Gravel Resource Area Maps of the State Department of Mines and Geology:

- a. Would development of the project impede the extraction of significant mineral resource deposits?

According to Palmdale General Plan EIR Exhibit 3-19, Sand and Gravel Resource Area, the project site is not within a significant resource area for sand and gravel; therefore, this does not pose a significant impact on the environment.

B. Air:

Based on the criteria in the South Coast Air Quality Management Handbook for the Preparation of EIRs (1987), the Air Quality Study prepared for the proposed project, the South Coast Air Quality Management Plan, and EIR (1991), and/or the land use proposed:

1. Emissions

- a. Will the project result in significant air emissions or deterioration of ambient air quality either from stationary or mobile sources?

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b. Could the proposed project produce potentially toxic air emissions?

c. Will the project potentially result in the creation of objectionable odors?

d. Could the project result in the alteration of air movement, moisture or temperature, or any change in climate either locally or regionally?

Adoption of the Palmdale Transit Village Specific Plan, and related GPA and ZC would modify future land uses from primarily industrial uses located north of Avenue Q to moderate to high-density residential uses. South of Avenue Q, the proposed land use changes could result in increased residential density, as well as commercial retail uses that are not currently anticipated. The changes in land use could potentially result in increased air emissions generated by vehicles on site. By encouraging the use of public transportation systems, regional air quality effects from the project could reduce mobile source emissions, thereby having a beneficial impact on air emissions.

An air quality assessment will be prepared for the proposed project to determine the potential for quality impacts as a result of short-term construction emissions, long-term mobile emissions from trucks and vehicles traveling to and from the site once the project is operational and long-term stationary emissions from power and gas consumption and

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machinery and equipment on-site. The EIR will quantify potential project-related air quality impacts (both short- and long-term) and identify appropriate mitigation that would be effective in reducing pollutant emissions.

Future construction activity within the project area may generate detectable odors from heavy-duty equipment exhaust. However, this impact will be short-term in nature and cease upon completion. Vehicle emissions generated as a result of future development within the project would have a cumulative effect on greenhouse gases; however, development within the project site itself is not anticipated to result in any change in climate either locally or regionally. Proposed residential, retail and office uses are not anticipated to create objectionable odors affecting a substantial number of people, nor will it alter air movement or moisture.

The project involves adoption of the Palmdale Transit Village Specific Plan and related GPA and ZC. Future development of the Palmdale Transit Village Specific Plan will involve the construction of residential, commercial and office uses.

C. Water:

1. Natural Streams, Springs, and Wetlands

Based on the type of project, the U.S.G.S. Topographics Maps, the exhibits and studies submitted for the project, and/or a site inspection:

- a. Does the project site contain a blue-line stream, spring, seep, or wetland?

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b. Will the project include changes in the course or volume of water in a local stream or wetland, which require Department of Fish and Game or Army Corps of Engineers permits?

c. Will the project result in the loss of, or changes to, significant stands of riparian vegetation?

Adjacent to the easterly boundary of the Palmdale Transit Village Specific Plan area, along the west side of the railroad tracks, is a segment of the Ana Verde Creek, a blue-line stream, as shown on USGS Palmdale Quadrangle map, 1974. The Ana Verde Creek is an ephemeral wash that flows from south to north. The creek is now highly degraded as a result of previous construction of the railroad and associated maintenance activities. A section of the Ana Verde Creek was previously channelized with riprap lined banks and channel bottom and the bottom is now covered with silt deposits. In addition, a 630-foot box culvert storm drain and widening of 6<sup>th</sup> Street East were constructed in this area as a part of the Palmdale Transportation Center in 2005. Future development within the Palmdale Transit Village Specific Plan area is not anticipated to affect this section of the Ana Verde Creek since all the improvements have already been constructed; therefore, no significant impact on natural water features will occur as a result of this project.

2. Other Surface Waters

Based on a site inspection, and review of the Map of Aqueduct Facilities (Dept. of Water Resources, East Branch Hydrology Palmdale Area), and/or the General Plan:

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If the project is adjacent to or near the California Aqueduct:

a. Could the project result in a significant increase in runoff of storm or nuisance water toward the aqueduct?

b. Will the project be significantly affected by storm or nuisance water runoff flowing through aqueduct culverts or pools?

The project site is located downstream approximately three miles northeast of the California Aqueduct. A majority of the area has been developed and therefore the project would not increase stormwater runoff toward the aqueduct or be affected by runoff flowing through aqueduct culverts or pools. Therefore, this does not constitute a significant impact on the environment.

Based on a review of the General Plan and/or a site inspection:

c. Is the project located above Lake Palmdale where urban runoff could significantly impact the lake?

d. Is the project located in an inundation area below Lake Palmdale dams, or Littlerock Dam?

The project is not located within proximity to either Lake Palmdale or the Littlerock Dam, which could impact or be impacted by these bodies of

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water. Therefore, this does not constitute a significant impact on the environment.

Based on review of the FIRM Map, the Master Plan of Drainage and/or review by the Department of Public Works/Engineering:

e. Is the site in an area of flood hazard as shown on the FIRM Map, or as identified by the Engineering or Public Works Departments?

f. Will the project result in a significant increase in peak runoff that could increase flood hazard off-site?

g. Would development of the project impede the implementation of the City's Master Plan of Drainage or Drainage Management Plan?

As indicated on Flood Insurance Rate Map (FIRM), Community Panel 060144 0040 D, dated March 30, 1998, a portion of the project site is located in Zone AO (Depth 1 foot) flood plain. The project site is also located within the Anaverde Watershed as reflected in the City's Master Plan of Drainage and, as noted above, a portion of the project site is bordered on the east by a blue-line stream (USGS Palmdale Quadrangle, 1974). However, a 630-foot long box culvert storm drain has been constructed within the streambed alignment west of the Metrolink and Union Pacific Railroad tracks. Therefore, the potential for flood hazard associated with the blue line stream has been mitigated to an acceptable

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level. In addition, in accordance with City's Floodplain Management Ordinance, once proposed, new development will be required to reduce on-site runoff to 85% of peak flows. Hydrology reports will be required prior to subsequent project approvals, which will address potential flood hazard. Therefore, development within the Palmdale Transit Village Specific Plan area will not result in significant off-site drainage impacts, nor will existing flood hazard conditions significantly impact development.

- h. Will any aspect of the project result in discharge of materials into surface waters, or in any alteration of surface water quality, including but not limited to, temperature, dissolved oxygen, or turbidity?

- i. Will the project result in the significant alteration of the direction or rate of flow of groundwater?

Adoption of the Palmdale Transit Village Specific Plan and related GPA and ZC would not result in discharge of materials into surface waters since no site specific design or development is proposed in conjunction with the Palmdale Transit Village Specific Plan. Future development projects within this planning area will be evaluated for surface water impacts and standard water quality control measures will be incorporated into the project design. The possibility of future development altering the direction or rate of flow of ground water is highly unlikely given that ground water is located in excess of 100 feet below the surface as shown on General Plan Exhibit PS-1, Aquifers and Groundwater Surface. In addition, any new development would be required to connect to a public sanitary sewer system further minimizing potential groundwater impacts.

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Based on the type of project, project submittals and exhibits, and/or a site inspection:

- j. Could the project result in a change in the quantity or quality of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?
- k. Could the project result in a substantial reduction in the amount of water otherwise available for public water supplies?

As indicated above, groundwater is anticipated to be at a depth greater than 100 feet below the project surface; therefore, no impact to groundwater supply is expected to occur as a result of future development within the Palmdale Transit Village Specific Plan area. It is not anticipated that future development would require the commitment of large amounts of water for construction or operations that cannot be provided by the servicing water district. The Palmdale Water District, who obtains a portion of its water from groundwater supplies, has been requested to conduct a water supply assessment in accordance with SB 610. Therefore, potential impacts to water supply will be addressed within the EIR.

D. Plant Life:

Based on a site inspection, the biological report, and/or the Native Vegetation Preservation Plan submitted for the project:

- 1. Is there a significant stand of desert vegetation on the site that will be adversely impacted by the project?

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|----|--|--|------------------------------------|-------------------------------------|
|    |  | <input type="checkbox"/>   | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| 2. | Will the project result in a reduction of the numbers of any unique, rare, or endangered species of plants?  | <input type="checkbox"/>   | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| 3. | Will the project result in the introduction of invasive, non-native species of plants into an area; or will the project create a barrier to the normal replenishment of existing native plant species? | <input type="checkbox"/>   | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |
| 4. | Will the project result in a significant reduction in acreage of native vegetation?  | <input type="checkbox"/>   | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

The undeveloped portions of the project site have been previously disturbed by past agricultural activity and other human intrusion. On-site vegetation consists primarily of disturbed/ruderal vegetation. Due to the extremely disturbed condition of the project site, special status plant species are not present on the site; therefore, it is not anticipated that a significant impact will occur to plant life as a result of the project.

**E. Animal Life:**

Based on the burrowing owl survey prepared for the project and/or a site inspection: Will the proposal result in:

1. Will the project result in a significant loss of biological diversity?

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|   | <input type="checkbox"/>                      | <input type="checkbox"/>  | <input checked="" type="checkbox"/>         | <input type="checkbox"/>            |
| 2. Will the project result in the reduction of the numbers of any unique, rare, or endangered species of animals?   | <input type="checkbox"/>                      | <input type="checkbox"/>  | <input checked="" type="checkbox"/>         | <input type="checkbox"/>            |
| 3. Is the project located in a Significant Ecological Area where the introduction of animals associated with urbanization could adversely affect native species; or where the project will result in a barrier to the migration or movement of animals? | <input type="checkbox"/>                      | <input type="checkbox"/>  | <input type="checkbox"/>                    | <input checked="" type="checkbox"/> |
| 4. Will the project cause significant deterioration of, or loss of, existing fish or wildlife habitat?  | <input checked="" type="checkbox"/>           | <input type="checkbox"/>  | <input type="checkbox"/>                    | <input type="checkbox"/>            |

In accordance with Exhibit ER-5, Area Vegetation, of the City's General Plan, the project site is not located within a Significant Ecological Area. The project site is adjacent to an urbanized area and in the past portions of the project site have been developed or disturbed by agricultural use, development and/or other human disturbance. However, in the recent past, burrowing owl has been located on a site within a mile and a half of the Palmdale Transit Village Specific Plan. A biologist was contracted to survey the site for habitat that could support burrowing owl. BonTerra Consulting conducted the burrowing owl survey during the burrowing owl breeding season (March 1 through August 31). Suitable burrowing owl habitat and burrowing owl burrows were observed and focused owl surveys were initiated. A total of four surveys were conducted, the results of which were negative, no burrowing owls were observed. Therefore,

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based on this survey the potential for a negative impact to animal resources as a result of development within the Specific Plan is less than significant.

F. Noise:

1. If the project is residential or noise sensitive, will it expose people to severe noise levels because it is located:

a. adjacent to the Freeway?

b. within 200 feet of the railroad?

c. adjacent to an existing or future arterial street?

The project consists of planning for transit-oriented development within walking distance of the City's transportation center. This includes residential, commercial and office uses that would be affected by noise from railroad and Air Force Plant 42 operations. In 2002, a noise impact study was conducted for the Palmdale Transportation Center, a multi-modal transportation facility, to evaluate noise generated by these sources as well as traffic and other potential sources such as people closing car doors in the parking lot. Specifically, the study evaluated impacts to existing residents along Avenue P-14 and it was found that with construction of a six-foot sound wall along the rear property line shared with the station, potential noise impacts would be reduced to below the level of significance. The Palmdale Transit Village Specific

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Plan does not propose the placement of residential uses closer to the railroad tracks and train station than what was evaluated under the 2002 noise impact study. Therefore, it can be expected that any new residential development would be similarly impacted or even reduced with adherence to current building codes and use of dual pane windows.

As specific development projects are developed, project specific noise studies will be required to demonstrate that noise levels affecting future residents will not exceed General Plan thresholds. Therefore, this does not constitute a significant impact from noise sources.

2. Is the proposed project within the Plant 42 over-flight area, or the 65 CNEL boundaries?

As shown on General Plan Exhibit S-17, USAF Plant 42 Air Installation Compatible Use Zone (AICUZ), the northwest corner of the project site is located within Accident Potential Zone II (APZ II) of Air Force Plant 42's over-flight area. However, according to the CNEL noise contours illustrated in the Air Installation Compatible Use Zone Study for Air Force Plant 42 (2002), the project site is not located within a 65 CNEL noise contour. Aircraft noise is not expected to result in a significant impact on the project.

3. Will the project generate a noise level exceeding 65 CNEL at the project boundary after construction that could significantly impact an adjoining land use?

The Palmdale Transit Village Specific Plan consists of planned residential, commercial and office uses, which are not anticipated to generate noise in

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excess of 65 CNEL at the project boundary. The noise study prepared for the Palmdale Transportation Center in 2002, as discussed above, fully addressed the project as a noise source. Future development proposals within the Transit Village Specific Plan area will be evaluated for noise impacts on a case-by-case basis and appropriate mitigation measures will be applied if needed. Therefore, this does not constitute a significant noise impact.

G. Light or Glare:

Based on the type of project, and/or project submittals and exhibits:

1. Will the project produce significant new sources of light or glare that would disturb neighboring uses or significantly change the light environment visible from other areas of the City?

Development of some uses within the Palmdale Transit Village Specific Plan would change the existing environment from an undeveloped condition to a developed condition, resulting in increased light as seen from existing adjacent land uses. Future development within the Palmdale Transit Village Specific Plan area would be reviewed and required to comply with the City's Zoning Ordinance. The City's Zoning Ordinance requires light standards to be shielded to prevent off-site glare so that impacts from light and glare are minimized to the extent feasible. Therefore, this does not constitute a significant impact on the environment.

H. Land Use:

1. Will the project result in a substantial alteration of the present or planned land use of an area?

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|   | <input checked="" type="checkbox"/>           | <input type="checkbox"/>  | <input type="checkbox"/>                    | <input type="checkbox"/> |
| 2. Are adjoining or planned land uses greatly different from that of the proposed project so that a potentially substantial interface problem would be created? | <input type="checkbox"/>                      | <input type="checkbox"/>  | <input checked="" type="checkbox"/>         | <input type="checkbox"/> |
| 3. If the project is located within the Plant 42 AICUZ zone, does it conflict with the joint land use policies established for those zones?                     | <input type="checkbox"/>                      | <input type="checkbox"/>  | <input checked="" type="checkbox"/>         | <input type="checkbox"/> |

Transit-oriented development (TOD) would provide an opportunity for the City to link land use planning principles with the City's investment in its new transportation center. TOD supports increased transit ridership, helps relieve congestion and ultimately contributes to improved air quality by reducing automobile reliance. TOD can also improve access for existing residents in the area, as many of them already walk or utilize public transit for many of their daily trips. In conjunction with adoption of the Palmdale Transit Village Specific Plan, the project proposes to amend the land use and zoning designations for this approximately 110-acre site from primarily industrial and service-oriented commercial to residential, commercial and office land uses. In general, the current industrially designated land, located north of Avenue Q, would be changed to primarily residential uses and in the long term would change to commercial and office uses in close proximity to the transportation center. The area south of Avenue Q, along 6<sup>th</sup> Street East, land use and zoning designations would change from service commercial to mixed-use commercial and multi-family residential uses, located west of 6<sup>th</sup> Street East.

The uses proposed under the Palmdale Transit Village Specific Plan are not anticipated to create or result in a substantial interface problem with

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surrounding residential uses and would provide better consistency with existing residential uses north and south of Avenue Q than the existing industrial designations. Commercial uses contemplated would be supportive of residential uses and are not intended to draw customers from outside the immediate neighborhood, other than commuters using the train and bus stations. Office uses proposed are in close proximity to the train station and would provide a buffer for planned residential uses.

The existing residential uses along Avenue P-14 and the older mobile home park currently under L.A. County's jurisdiction are anticipated to transition over time to townhouse and multi-family residential uses that are compact and within easy walking distance of transit facilities. Should displacement of existing residents become necessary, all applicable regulations pertaining to relocation would be followed.

A portion of the project site is located within the Accident Potential Zone II of Air Force Plant 42. Although the zone is the least critical of the accidental zones, restriction to land uses within the area would be required. While it is not expected that a significant impact would occur as a result of development proposed under the Palmdale Transit Village Specific Plan, the focused EIR will analyze potential land use impacts, including land use compatibility, build out of the project site and relocation of existing residents and/or businesses.

I. Natural Resources:

1. Will the project result in a significant increase in the rate of use of any natural resources?

2. Will the project result in the substantial depletion of any non-renewable natural resources?

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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The proposed project will not engage in any direct activities designed to deplete natural resources. The construction of TOD within the Palmdale Transit Village Specific Plan will require the use of stone, sand, gravel, wood, metals and combinations of these and similar natural materials (resources) in their construction. The harvesting/mining of such resources has been approved through other agencies and the resulting products are anticipated to be available for buildout of this project. The amount of resources to be used is relatively insignificant. Therefore, development of the project site would not result in adverse impacts to the environment due to a significant depletion of natural resources.

J. Risk of Upset:

1. Will the project result in a risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals, or radiation) in the event of an accident or upset condition?

The State Department of Toxic Substance Control's Hazardous Waste and Substances Site List does not identify the project area as a known hazardous waste site. A plant nursery was at one time located on the north side of Avenue Q, between 3<sup>rd</sup> and 6<sup>th</sup> Streets East. Pesticides and/or other chemicals may have been used at this site, which could pose a potential health hazard; therefore, prior to development of the project site, a hazardous materials assessment will be required. Should contamination be identified as a result of that study, appropriate mitigation will be required for clean up of the site prior to construction.

In addition, future development proposals that include the use or handling of hazardous materials at California threshold reporting quantities or the

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use of any acutely hazardous materials would also trigger the preparation of a hazardous materials study. Therefore, development of this project site would not result in a significant adverse impact to the environment from explosion or release of hazardous substances.

2. Will the project result in possible interference with any emergency response plan or emergency evacuation plan?

General Plan Exhibit S-1, Evacuation Routes, identifies existing emergency evacuation routes on Palmdale Boulevard and on Rancho Vista Boulevard (located north and south, respectively, of the project boundary). It is not anticipated that the project would have the potential to result in interference with any emergency response or evacuation. The Palmdale Transit Village Specific Plan would involve circulation improvements within the area, including the extension of existing streets. It is anticipated that future development of the Palmdale Transit Village Specific Plan would improve circulation within the project area. Therefore, this does not constitute a significant impact on the environment.

3. Is the site included on any known State Hazardous Waste Site list?

As discussed above, review by planning staff of the State Department of Toxic Substance Control's Hazardous Waste and Substances Site List did not identify any known hazardous waste sites. Should a development proposal meet the above-described criteria for requesting hazardous materials studies, such studies will be evaluated prior to project approval. Therefore, this does not constitute a significant impact on the environment.

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4. Is the project within or adjacent to a high fire hazard area as shown in the General Plan, identified by the Los Angeles County Fire Department or based on a site inspection?

The project site is not located within proximity to a high fire hazard area as shown on Exhibit S-16, Wildfire Hazard Zones, of the General Plan Safety Element. Therefore, this does not constitute a significant impact on the environment.

K. Population:

Based on the type of project:

1. Will the project significantly alter the location, distribution, density, or growth rate of the human population of an area?

The project proposes adoption of the Palmdale Transit Village Specific Plan and associated GPA and ZC, allowing for development of residential, commercial and office uses at a greater intensity than currently exists within the project area. It is anticipated that some businesses and residential uses may transition to an alternative land use during the period in which build out of the Palmdale Transit Village Specific Plan will occur. Potential growth impacts resulting from adoption of the Transit Village Specific Plan and associated GPA and ZC would be analyzed in the EIR. As discussed in the Draft Palmdale Transit Village Specific Plan, any public acquisition and/or redevelopment of property could trigger relocation requirements. Applicable California or Federal relocation rules and regulations must be followed closely to avoid any negative implications and the property owner must be paid at least the appraised

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value of the property. Therefore, this does constitute a significant impact on the environment.

Housing:

Based on the type of project?

2. Will the project create a significant demand for additional housing?

3. Will the project result in displacement of people from existing housing on the site?

Adoption of the Palmdale Transit Village Specific Plan and related GPA and ZC will allow for development of housing units in addition to those currently planned under the existing General Plan. Neither these additional housing units nor the supportive commercial uses proposed under the Palmdale Transit Village Specific Plan is anticipated to create demand for more housing because new housing in Palmdale is currently being constructed and can be expected to continue in the future as long as housing prices are incrementally lower than homes in the San Fernando and Santa Clarita Valleys and the Los Angeles basin. Should commuting times become too long, it is anticipated that Antelope Valley residents will look to other commuting options such as the Metrolink commuter train or buses. Therefore, housing desirability near the station could increase. As noted above, some businesses and residential uses may transition to an alternative land use during the period in which build out of the Palmdale Transit Village Specific Plan will occur; however, any persons displaced as a result of future development of the site will be relocated and compensated

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	Potentially Significant	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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in accordance with applicable state housing law. Potential impacts from the displacement of people from existing houses will be further addressed in the EIR.

L. Transportation/Circulation:

Based on review of the type of project, project exhibits, a site inspection, and/or review of the Institute of Transportation Engineers, Trip Generation or the applicant's traffic study:

1. What is the estimated number of average daily vehicle trips, and a.m. and p.m. peak hour trips, generated by the proposed project?

To Be Determined ADT: \_\_\_\_\_ a.m. peak, \_\_\_\_\_ p.m. peak

2. Will the traffic generated by this project cause a reduction of Level of Service at an intersection or on a street segment?

The Palmdale Transit Village Specific Plan proposes a system of local level and collector streets to serve the project. Most of these streets are extensions of existing streets adjacent to the project, typically improving north/south and east/west connectivity in the area. In order to adequately address traffic generated by the project, a traffic study will be prepared and evaluated under a focused EIR. It is anticipated that mitigation measures will be applied to new development to reduce impacts to acceptable levels.

3. Does circulation within the project prevent the safe and orderly flow of people and vehicles, including emergency vehicles?

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	Potentially Significant	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
	<u>Impact</u>	<u>Impact</u>	<u>Impact</u>	<u>Impact</u>

4. Will the project create or experience access problems as designed, or create any obstruction to the safe flow of traffic?

A circulation plan has been developed for the Palmdale Transit Village Specific Plan that is consistent with the City's General Plan Circulation Element policies. The City Traffic/Transportation Engineer as well as the sheriff's and fire departments have reviewed the plan and have expressed no concerns regarding the safety and orderly flow of people and vehicles, including emergency vehicles. Future development proposals will be evaluated on a case-by-case basis for adequate circulation and traffic flow. Therefore, this does not constitute a significant impact on the environment.

5. Could the project result in a significant alteration to rail or air traffic?

It anticipated that development of new housing, as well as existing housing that is within easy walking distance of the City's transportation center, will increase demand for rail or bus service. The Antelope Valley Transit Authority and Metrolink regularly review demand for these services and make adjustments as needed to accommodate such demand; however, with the addition of approximately 1,000 housing units as envisioned under the Palmdale Transit Village Specific Plan, no alteration to rail or air traffic is expected to occur. Therefore, adequate provision of these services is expected.

6. Will the project create a significant shortage of parking?

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<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The parking requirement for uses in close proximity to the City's Transportation Center will be less than that required of development in other areas of the City because it is anticipated that many residents within the planned residential areas and some customers making use of businesses located near the transportation center will be utilizing transit services, thereby reducing the need for typical parking requirements.

M. Public Services:

1. Fire Protection

What is the roadway distance and location of the nearest fire station: There are two fire stations in close proximity to the project area: Fire Station 37 located at 38318 9<sup>th</sup> Street East and Fire Station 24 located at 1050 West Rancho Vista Boulevard are approximately 1.25 and 1.5 miles from the project site respectively.

a. Will the project result in a need for significant additional fire protection services?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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As stated, there are two fire stations located in close proximity to the project site. Future development of the site will not create a significant impact on fire protection services. Development proposals are routinely reviewed by the Los Angeles County Fire Department in order to ensure adequate service is maintained.

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	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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2. Police Protection

Are there any aspects of the project that would create a significant impact to police protection?

The project site is within close proximity to the sheriff's station currently under construction at the southeast corner of Avenue Q and Sierra Highway. A pedestrian bridge over the railroad tracks between 6<sup>th</sup> Street East and Sierra Highway at Avenue Q is also planned, which will increase accessibility to the new sheriff's station. The adjacent Metrolink train station has an on-site security guard 24 hours a day to augment police services.

Future development of the project site will not create a significant impact on police protection services. The Los Angeles County Sheriff's Department routinely reviews development proposals in order to ensure adequate service is maintained.

3. Schools

a. In what elementary and high school attendance area is the project? Palmdale School District and Antelope Valley Union High School District

b. Approximately how many students will the project generate?

Based on Antelope Valley Union High School District data of .323 students per dwelling unit, staff estimates that this project could generate 207 to 332 high school students.

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	Potentially Significant	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
	<u>Impact</u>	<u>Impact</u>	<u>Impact</u>	<u>Impact</u>

Based on Palmdale School District data of .631 students per dwelling unit, staff estimates that this project could generate 404 to 648 elementary and middle school students.

Based on Antelope Valley Union High School District and Palmdale School District data, staff estimates that the total number of students generated by this project could be 611 to 980 students.

- c. Would the students generated by the project significantly contribute to the affected schools exceeding their designed capacity?

Adoption of the Palmdale Transit Village Specific Plan and related GPA and ZC are anticipated to modify land use designations from industrial uses to residential uses producing potentially 928 units, which would significantly increase student enrollment in local schools. An analysis of these changes in terms of any potential increase in school attendance along with other public services will be addressed in the focused EIR that will be prepared for the project. Schools generally are at or over capacity due to high population growth in the Antelope Valley. State law currently limits cities' ability to mitigate for school impacts beyond payment of school impact fees. Palmdale School District routinely evaluates projected student enrollment levels and typically has been able to accommodate enrollment projections. Even though the school district is anticipated to accommodate students generated as a result of new residential development within the Palmdale Transit Village Specific Plan, schools may have to operate significantly beyond their capacity. Therefore, impacts on schools have the potential to be significant and need to be addressed in the EIR.

4. Parks and Recreation

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	Potentially Significant <u>Impact</u>	Potentially Significant Unless Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	No <u>Impact</u>
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Will the proposed project result in an impact on the quality or quantity of existing parks or recreational facilities, including trails or bicycle paths?

As stated above, certain land uses will be changed to residential designations, which could increase the need for parks and recreation facilities. Development of these residential uses will require that open space be provided that will help offset this need. A linear greenbelt is proposed along the west side of 3<sup>rd</sup> Street East from Desert Sands Park at Technology Drive connecting residential areas south of Avenue Q. In addition, the Transit Village Specific Plan is located within easy walking distance of the fully developed 20-acre Desert Sands Park located at the southwest corner of 3<sup>rd</sup> Street East and Technology Drive. Therefore, it is not anticipated that the additional need for parks generated by the project will result in a significant increase for park services.

5. Public Facilities

Will the proposed project have a significant impact on maintenance of public facilities, including roads, drainage facilities, slopes, open space and trails?

Adoption of the Palmdale Transit Village Specific Plan, general plan amendment and zone change will not have a significant impact on public facilities, nor would future development of the site because currently the site could be developed with alternative land uses, requiring similar levels of maintenance of public facilities. Therefore, this does not constitute a significant impact on the environment.

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<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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6. Library Services

Will the project result in a significant impact to library services due to increased population?

While it can be expected that population would increase as a result of future residential development within the Palmdale Transit Village Specific Plan and related general plan amendment and zone change, this increase is not expected to significantly impact the City's ability to provide library services for these future residents. Therefore, this does not constitute a significant impact on the environment.

7. Other Governmental Services

Will the project have a significant impact on a government service or agency not listed above?

As discussed above, while it can be expected that population would be increased as a result of residential development contemplated within the Palmdale Transit Village Specific Plan, this increase is not expected to significantly impact the ability of government service providers or agencies to provide services. Therefore, this does not constitute a significant impact on the environment.

N. Energy:

1. Will the project result in the use of substantial amounts of fuel or energy?

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<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
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2. Will the project result in a substantial increase in demands upon existing sources of energy, or require the development of new sources of energy?

The proposed project would result in an incremental increase in use of fuel and energy. However, any future development would be constructed under Title 24 energy requirements and the ultimate use of fuel and energy will be allocated by the applicable provider and is not considered significant. Therefore, implementation of this project is not expected to create significant impacts to energy sources.

O. Utilities:

Will the proposal result in a need for new systems, or substantial alterations to the following utilities:

1. Power or natural gas?

2. Communications systems?

3. Water?

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	<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Less Than Significant Impact</u>	<u>No Impact</u>
4. Sanitary sewer?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Solid waste disposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The majority of project site that is located north of Avenue Q is in an area that is either undeveloped or has been partially developed a number of years ago. The area south of Avenue Q has been nearly built out with multi-family, attached or single-family homes. In accordance with the infrastructure study prepared for the Palmdale Transit Village Specific Plan, it can be expected that most utilities will require expansion in order to accommodate new development; however, expansion of some utility systems would be needed regardless of whether the transit village project is approved. Therefore, this does not constitute a significant impact on the environment.

P. Human Health:

Based on the type of project:

1. Will the project create any health hazard or potential health hazard (excluding mental health)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Will the project result in the exposure of people to potential health hazards?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant	Potentially Significant	Potentially Significant
Potentially Significant <u>Impact</u>	Unless Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	No <u>Impact</u>

No aspect of the proposed project is anticipated to create health hazards or expose people to health hazards. The proposed commercial and/or office uses are not expected to involve the handling or use of hazardous materials; however, if they do, all health and safety regulations would be required. Prior to individual project approvals, site assessments will be required and should health hazards be discovered, appropriate mitigation to eliminate their potential impacts would be conducted. Therefore, this does not constitute an impact on the environment.

Q. Aesthetics:

1. Will the proposal result in the obstruction of any scenic vista or view open to the public, or will the proposal result in the creation of an aesthetically offensive site open to public view?

The project site is not located near any scenic highways as shown on Exhibit ER-1 of the General Plan. Development of approximately 100 acres would have an incremental impact on the loss of open space; however, development of this area is anticipated under the current General Plan. The site is relatively flat and any new construction that contains roof-mounted equipment will require screening, thereby minimizing visual impacts from existing developed areas. Further, in accordance with the General Plan Community Design Element, new structures will consist of high quality, aesthetically pleasing architectural design utilizing durable materials to enhance the project. Therefore, the aesthetic impact of future development is expected to be less than significant. Therefore, this does not constitute a significant impact on the environment.

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<u>Potentially Significant Impact</u>	<u>Potentially Significant Unless Mitigation Incorporated</u>	<u>Potentially Significant Less Than Significant Impact</u>	<u>No Impact</u>
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R. Cultural Resources:

1. Will the proposal result in the alteration or destruction of a prehistoric or historic archaeological site, or historic structure(s)?

2. Will the proposal result in potential adverse impacts on paleontological resources?

The project site consists of approximately 100 acres, much of which has been previously developed or used for agricultural use. Some of the existing homes are over fifty years old. A cultural resources study will be conducted as part of the focused EIR prepared for the Palmdale Transit Village Specific Plan, general plan amendment and zone change. The study will address whether these homes, or any other aspect of the project site, are significant in terms of their potential as cultural resources.

S. Public Controversy:

1. Is the project or action environmentally controversial in nature or can it reasonably be expected to become controversial upon disclosure to the public?

The Palmdale Transit Village Specific Plan and related general plan amendment and zone change may become controversial upon disclosure to the public due to its location in close proximity to existing residential areas; however, adequate safeguards to address impacts to existing homes have been incorporated into the Transit Village Specific Plan. Some of these include building setbacks and requirements for pedestrian

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	Potentially Significant	Potentially Significant Unless Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	No <u>Impact</u>
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accessibility and open space. It is anticipated that any public controversy will not be based on environmental issues since a focused EIR will be prepared for the project and it is anticipated that all recommended mitigation measures would be applied to future development. This does not constitute a significant impact on the environment.

**VII. 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?

Much of the project site has been previously disturbed by existing development, prior agricultural use or otherwise disturbed by human encroachment. As a part of a focused EIR, site specific studies will be prepared to address land use, air quality, traffic, schools and cultural resources impacts on the environment. The results of those findings will be addressed in the EIR prepared for the Transit Village project.

- B. Does the project have impacts, which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)

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	Potentially Significant	Potentially Significant Unless Mitigation <u>Incorporated</u>	Less Than Significant <u>Impact</u>	No <u>Impact</u>
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The project could have limited impacts that could be cumulatively considerable; therefore, a focused EIR will be prepared to address air quality, traffic, schools and cultural resources and all available mitigation measures will be applied to the project.

- C. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

It is anticipated that substantial adverse effects on human being could be caused as a result of poor air quality, increased traffic or overcrowded schools. Therefore, these issues will be addressed in the EIR prepared for the Palmdale Transit Village Specific Plan.



## **15.2 NOTICE of PREPARATION COMMENT LETTERS**





Arnold Schwarzenegger  
Governor

STATE OF CALIFORNIA  
Governor's Office of Planning and Research  
State Clearinghouse and Planning Unit



Sean Walsh  
Director

Notice of Preparation

August 9, 2006

RECEIVED  
AUG 15 2006  
PLANNING DEPARTMENT

To: Reviewing Agencies  
Re: Palmdale Transit Village Specific Plan EIR  
SCH# 2006081052

Attached for your review and comment is the Notice of Preparation (NOP) for the Palmdale Transit Village Specific Plan EIR draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Sharon Kozdrey  
City of Palmdale  
38250 N. Sierra Highway  
Palmdale, CA 93550

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan  
Project Analyst, State Clearinghouse

Attachments  
cc: Lead Agency

**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2006081052  
**Project Title** Palmdale Transit Village Specific Plan EIR  
**Lead Agency** Palmdale, City of

**Type** NOP Notice of Preparation  
**Description** The project proposes a General Plan Amendment and Zone Change that would amend the General Plan Land Use and Zone Maps to reflect adoption of the Palmdale Transit Village Specific Plan. Development of the specific plan would result in a transit-oriented village near the City's newly constructed Metrolink train and AVTA bus transfer station. The area could potentially be developed with up to 1,027 new housing units, 40,000 square feet of stand alone neighborhood retail uses, 93,000 square feet of neighborhood retail mixed use, 353,000 square feet of stand alone low rise office and 93,000 square feet of low rise mixed-use offices uses.

**Lead Agency Contact**

**Name** Sharon Kozdrey  
**Agency** City of Palmdale  
**Phone** (661) 267-5200 **Fax**  
**email**  
**Address** 38250 N. Sierra Highway  
**City** Palmdale **State** CA **Zip** 93550

**Project Location**

**County** Los Angeles  
**City** Palmdale  
**Region**  
**Cross Streets** Sierra Highway/Technology Drive/Avenue Q-3  
**Parcel No.**  
**Township**

<b>Township</b>	<b>Range</b>	<b>Section</b>	<b>Base</b>
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**Proximity to:**

**Highways** SR-14  
**Airports** Air Force Plant 42  
**Railways** Metrolink  
**Waterways**  
**Schools**  
**Land Use**

**Project Issues** Economics/Jobs; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife; Growth Inducing; Landuse; Cumulative Effects

**Reviewing Agencies** Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Game, Region 5; Department of Health Services; Office of Emergency Services; Native American Heritage Commission; Public Utilities Commission; Caltrans, District 7; Caltrans, Division of Aeronautics; California Highway Patrol; Department of Housing and Community Development; Department of Toxic Substances Control; Regional Water Quality Control Bd., Region 6 (Victorville)

**Date Received** 08/09/2006 **Start of Review** 08/09/2006 **End of Review** 09/07/2006

# NOTICE OF COMPLETION

2006081052

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 (916) 445-0613

See Note Below - SCH#

**Project Title:** Palmdale Transit Village Specific Plan EIR

**Lead Agency:** City of Palmdale  
**Street Address:** 38250 Sierra Highway  
**City:** Palmdale

**Contact Person:** Sharon Kozdrey  
**Phone:** 661.267.5200  
**County:** Los Angeles

**Project Location:**

**County:** Los Angeles      **City/Nearest Community:** Palmdale  
**Cross Streets:** Sierra Highway/Technology Drive/Avenue Q-3      **Zip Code:** 93550      **Total Acres:** 110  
**Assessor's Parcel No.:** -      **Section:**      **Twp:**      **Range:**      **Base:**  
**Within** State Hwy. #: SR-14      **Waterways:**  
**2 Miles:** Airports: Air Force Plant 42      **Railways:** Metrolink      **Schools:**

**Document Type:** (Check one)

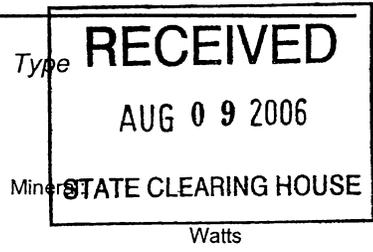
- |   |  |                                    |   |                                       |
|---|--|------------------------------------|---|---------------------------------------|
| <input checked="" type="checkbox"/> <u>CEQA</u> |  |                                    | <input type="checkbox"/> <u>NEPA</u>    | <input type="checkbox"/> <u>OTHER</u> |
| <input checked="" type="checkbox"/> NOP         | <input type="checkbox"/> Supplement/Subsequent | <input type="checkbox"/> NOI       | <input type="checkbox"/> Joint Document |                                       |
| <input type="checkbox"/> Early Cons             | <input type="checkbox"/> Prior EIR (SCH #)     | <input type="checkbox"/> EA        | <input type="checkbox"/> Final Document |                                       |
| <input type="checkbox"/> Neg Dec                | <input type="checkbox"/> Other:                | <input type="checkbox"/> Draft EIS | <input type="checkbox"/> Other:         |                                       |
| <input type="checkbox"/> Draft EIR              |  | <input type="checkbox"/> FONSI     |   |                                       |

**Local Action Type:** (Check all that apply)

- |   |   |   |   |
|---|---|---|---|
| <input type="checkbox"/> General Plan Update            | <input checked="" type="checkbox"/> Specific Plan | <input checked="" type="checkbox"/> Rezone                                  | <input type="checkbox"/> Annexation     |
| <input checked="" type="checkbox"/> General Plan Amend. | <input type="checkbox"/> Master Plan              | <input type="checkbox"/> Prezone  | <input type="checkbox"/> Redevelopment  |
| <input type="checkbox"/> General Plan Element           | <input type="checkbox"/> Planned Unit Dev.        | <input type="checkbox"/> Use Permit   | <input type="checkbox"/> Coastal Permit |
| <input type="checkbox"/> Community Plan                 | <input type="checkbox"/> Site Plan                | <input type="checkbox"/> Land Division subdivision parcel, tract maps etc.) | <input type="checkbox"/> Other:         |

**Development Type:** (Check all that apply)

- |   | Units/Sq Ft          | Acres | Employees |   |
|---|----------------------|-------|-----------|---|
| <input checked="" type="checkbox"/> Residential | Up to 1,027 units    |       |           | <input type="checkbox"/> Water Facilities |
| <input checked="" type="checkbox"/> Office      | Up to 446,000 sq.ft. |       |           | <input type="checkbox"/> Transportation   |
| <input checked="" type="checkbox"/> Commercial  | Up to 49,000 sq.ft.  |       |           | <input type="checkbox"/> Mining           |
| <input type="checkbox"/> Industrial             |                      |       |           | <input type="checkbox"/> Power            |
| <input type="checkbox"/> Educational            |                      |       |           | <input type="checkbox"/> Waste Treatment  |
| <input type="checkbox"/> Recreational           |                      |       |           | <input type="checkbox"/> Hazardous Waste  |
| <input type="checkbox"/> Other                  |                      |       |           | <input type="checkbox"/> Other:           |



**Project Issues Discussed in Document:** (Check all that apply)

- |   |  |   |   |
|---|--|---|---|
| <input checked="" type="checkbox"/> Aesthetics/Visual   | <input checked="" type="checkbox"/> Flood Plain/Flooding       | <input checked="" type="checkbox"/> Schools/Universities    | <input checked="" type="checkbox"/> Water Quality             |
| <input checked="" type="checkbox"/> Agricultural Land   | <input checked="" type="checkbox"/> Forest Land/Fire Hazard    | <input type="checkbox"/> Septic Systems                     | <input checked="" type="checkbox"/> Water Supply/Ground Water |
| <input checked="" type="checkbox"/> Air Quality         | <input checked="" type="checkbox"/> Geologic/Seismic           | <input checked="" type="checkbox"/> Sewer Capacity          | <input checked="" type="checkbox"/> Wetland/Riparian          |
| <input checked="" type="checkbox"/> Archaeo/History     | <input checked="" type="checkbox"/> Minerals                   | <input checked="" type="checkbox"/> Soil Erosion/Compaction | <input checked="" type="checkbox"/> Wildlife                  |
| <input type="checkbox"/> Coastal Zone                   | <input checked="" type="checkbox"/> Noise                      | <input checked="" type="checkbox"/> Solid Waste             | <input checked="" type="checkbox"/> Growth Inducing           |
| <input checked="" type="checkbox"/> Drainage Absorption | <input checked="" type="checkbox"/> Population Housing Balance | <input checked="" type="checkbox"/> Toxic/Hazardous         | <input checked="" type="checkbox"/> Land Use                  |
| <input checked="" type="checkbox"/> Economic/Jobs       | <input checked="" type="checkbox"/> Public Services/Facilities | <input checked="" type="checkbox"/> Traffic/Circulation     | <input checked="" type="checkbox"/> Cumulative Effects        |
| <input type="checkbox"/> Fiscal                         | <input checked="" type="checkbox"/> Recreation/Parks           | <input checked="" type="checkbox"/> Vegetation              | <input type="checkbox"/> Other:                               |

**Present Land Use/Zoning/General Plan Designation:** residential, commercial, industrial, public and vacant land uses/Business Park (BP), Commercial Manufacturing (CM), Industrial (IND) and Medium Residential (MR)/Light Industrial (M-1), Planned Industrial (M-4), Service Commercial (C-5), Medium Residential (R-2) and Multi-Family Residential (R-3).

**Project Description:** The project proposes a General Plan Amendment and Zone Change that would amend the General Plan Land Use and Zone Maps to reflect adoption of the Palmdale Transit Village Specific Plan. Development of the specific plan would result in a transit-oriented village near the City's newly constructed Metrolink train and AVTA bus transfer station. The area could potentially be developed with up to 1,027 new housing units, 40,000 square feet of stand alone neighborhood retail uses, 93,000 square feet of neighborhood retail mixed use, 353,000 square feet of stand alone low rise office and 93,000 square feet of low rise mixed-use offices uses. Development would also involve circulation improvements including a pedestrian bridge traversing the Union Pacific Railroad Tracks and landscaping.

- sources Agency
- Fish & Game Region 3 Robert Fioerke
- Fish & Game Region 4 Julie Vance
- Fish & Game Region 5 Don Chadwick  
Habitat Conservation Program
- Fish & Game Region 6 Gabriela Gatchel  
Habitat Conservation Program
- Fish & Game Region 6 I/M Tammy Allen  
Inyo/Mono. Habitat Conservation Program
- Dept. of Fish & Game M George Isaac  
Marine Region
- Other Departments
- Food & Agriculture Steve Shaffer  
Dept. of Food and Agriculture
- Dept. of General Services Public School Construction
- Dept. of General Services Robert Sleppey  
Environmental Services Section
- Dept. of Health Services Veronica Malloy  
Dept. of Health/Drinking Water
- Independent
- Commissions, Boards
- Delta Protection Commission Debby Eddy
- Office of Emergency Services Dennis Castrillo
- Governor's Office of Planning & Research State Clearinghouse
- Native American Heritage Comm. Debbie Treadway
- Resources Agency Nadell Gayou
- Dept. of Boating & Waterways David Johnson
- California Coastal Commission Elizabeth A. Fuchs
- Colorado River Board Gerald R. Zimmerman
- Dept. of Conservation Roseanne Taylor
- California Energy Commission Paul Richins
- Dept. of Forestry & Fire Protection Allen Robertson
- Office of Historic Preservation Wayne Donaldson
- Dept of Parks & Recreation Environmental Stewardship Section
- Reclamation Board DeeDee Jones
- S.F. Bay Conservation & Dev't. Comm. Steve McAdam
- Dept. of Water Resources Nadell Gayou
- Conservancy
- Fish and Game
- Dept. of Fish & Game Scott Flint  
Environmental Services Division
- Fish & Game Region 1 Donald Koch
- Fish & Game Region 2 Banky Curtis

- Public Utilities Commission Ken Lewis
- State Lands Commission Jean Sarino
- Tahoe Regional Planning Agency (TRPA) Cheryl Jacques
- Business, Trans & Housing
- Caltrans - Division of Aeronautics Sandy Hesnard
- Caltrans - Planning Terri Pencovic
- California Highway Patrol Shirley Kelly  
Office of Special Projects
- Housing & Community Development Lisa Nichols  
Housing Policy Division
- Dept. of Transportation
- Caltrans, District 1 Rex Jackman
- Caltrans, District 2 Marcelino Gonzalez
- Caltrans, District 3 Jeff Pulverman
- Caltrans, District 4 Tim Sable
- Caltrans, District 5 David Murray
- Caltrans, District 6 Marc Birnbaum
- Caltrans, District 7 Cheryl J. Powell

- Caltrans, District 8 Dan Kopulsky
- Caltrans, District 9 Gayle Rosander
- Caltrans, District 10 Tom Dumas
- Caltrans, District 11 Mario Orso
- Caltrans, District 12 Bob Joseph
- Cal EPA
- Air Resources Board
- Airport Projects Jim Lerner
- Transportation Projects Ravi Ramalingam
- Industrial Projects Mike Tollstrup
- California Integrated Waste Management Board Sue O'Leary
- State Water Resources Control Board Jim Hockenberry  
Division of Financial Assistance
- State Water Resources Control Board Student Intern, 401 Water Quality Certification Unit  
Division of Water Quality
- State Water Resources Control Board Steven Herrera  
Division of Water Rights
- Dept. of Toxic Substances Control CEQA Tracking Center
- Department of Pesticide Regulation

- Regional Water Quality Control Board (RWQCB)
- RWQCB 1 Cathleen Hudson  
North Coast Region (1)
- RWQCB 2 Environmental Document Coordinator  
San Francisco Bay Region (2)
- RWQCB 3 Central Coast Region (3)
- RWQCB 4 Teresa Rodgers  
Los Angeles Region (4)
- RWQCB 5S Central Valley Region (5)
- RWQCB 5F Central Valley Region (5)  
Fresno Branch Office
- RWQCB 5R Central Valley Region (5)  
Redding Branch Office
- RWQCB 6 Lahontan Region (6)
- RWQCB 6V Lahontan Region (6)  
Victorville Branch Office
- RWQCB 7 Colorado River Basin Region (7)
- RWQCB 8 Santa Ana Region (8)
- RWQCB 9 San Diego Region (9)
- Other



# PALMDALE

*a place to call home*

## NOTICE OF PREPARATION

JAMES C. LEDFORD, JR.  
*Mayor*

MIKE DISPENZA  
*Mayor Pro Tem*

STEVEN D. HOFBAUER  
*Councilmember*

STEPHEN KNIGHT  
*Councilmember*

TOM LACKEY  
*Councilmember*

**TO:** Agencies, Organizations and Interested Parties

**SUBJECT:** Notice of Preparation of a Draft Environmental Impact Report in Compliance with Title 14, Section 15082(a) of the California Code of Regulations

The City of Palmdale is the lead agency under the California Environmental Quality Act (CEQA) in the preparation of the Environmental Impact Report (EIR) for the project identified below. We request the view of your agency as to the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by the City when considering any permits that your agency must issue or for any other approval for the project.

**AGENCIES:** The City requests your agency's views on the scope and content of the environmental information relevant to your agency's statutory responsibilities in connection with the proposed project, in accordance with California Code of Regulations, Title 14, Section 15082(b).

**ORGANIZATIONS AND INTERESTED PARTIES:** The City requests your comments and concerns regarding the environmental issues associated with construction and operation of the proposed project.

**PROJECT TITLE:** Palmdale Transit Village Specific Plan EIR

**PROJECT LOCATION:** The project is approximately 110 acres generally located between Technology Drive and Avenue Q-3 and between 3<sup>rd</sup> Street East and the Metrolink Railroad tracks adjacent to Sierra Highway.

**PROJECT DESCRIPTION:** The City of Palmdale is the Lead Agency for the proposed Palmdale Transit Village Specific Plan, a planned development for approximately 110 acres of land as a compact, transit-oriented village within easy walking distance of the City's newly constructed Metrolink train and AVTA bus transfer station.

The project proposes a General Plan Amendment (GPA) 05-01 and Zone Change (ZC) 05-01 that would amend the General Plan Land Use and Zoning Maps from Industrial, Commercial, Business Park and Residential designations to reflect adoption of the Palmdale Transit Village Specific Plan.

With adoption of the Palmdale Transit Village Specific Plan, the area could potentially be developed with up to 1,027 new housing units, as follows: 44 single-family/duplex units on small lots, 34 single-family/duplex units surrounding common courtyard areas, 192 townhouse units, up to 725 multi-family units and approximately 32 mixed use-residential units. The project may also include up to 40,000 square feet of stand alone neighborhood retail uses, 9,000 square feet of neighborhood retail mixed-use, 353,000 square feet of stand alone low rise office use and 93,000 square feet of low rise mixed-use office uses, primarily located along the west side of 6th Street East and in close proximity to the train station and AVTA bus transfer station.

*Auxiliary aids provided for  
communication accessibility*

*upon 72 hours' notice and request.*

In the long term, the existing parking for the train station may be replaced by a new parking structure to be located directly north of the Metrolink station. It is anticipated that the Palmdale Transit Village Specific Plan project would be built in several phases over time. It is expected that development of this site would primarily be by private developers; although, some public or public-private development could potentially occur as well.

**POTENTIAL ENVIRONMENTAL EFFECTS:** The attached Initial Study describes the potential environmental effects of the proposed project. An EIR will be prepared to evaluate the project's potential impacts on the environment and analyze alternatives.

**PUBLIC REVIEW PERIOD:** The City has made this Notice of Preparation (NOP) and Initial Study available for public review and comment pursuant to California Code of Regulations, Title 14, Section 15082(b). Your response must be sent as soon as possible but **not later than 30 days after receipt of this notice**. All comments must be submitted in writing to the address below. The comment period during which the City will receive comments on the Notice of Preparation is:

**Starting Date:** August 10, 2006

**Ending Date:** September 8, 2006

**RESPONSES AND COMMENTS:** Please indicate a contact person for your agency or organization and send your responses and comments to:

Sharon Kozdrey, Senior Planner  
City of Palmdale  
38300 N. Sierra Highway  
Palmdale, California 93550

**SCOPING MEETING:** As part of the CEQA process, the City will hold a public scoping meeting at the date and time listed below. You are welcome to attend and present environmental information that you believe should be addressed in the EIR:

**Date:** Thursday, August 31, 2006

**Time:** 1:30 p.m.

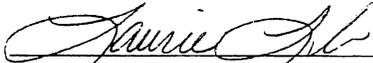
**Location:** City of Palmdale, Development Services Building  
Main Conference Room  
38250 N. Sierra Highway  
Palmdale, California 93550

**DOCUMENT AVAILABILITY:** The NOP and Initial Study are available for public review at the locations listed below during regular business hours:

- Palmdale City Hall, 38300 N. Sierra Highway
- City of Palmdale Library, 700 East Palmdale Boulevard

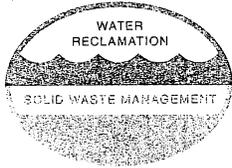
If you require additional information please contact Sharon Kozdrey at (661) 267-5200

Date: 8-7-06

Signature: 

Laurie Lile

Title: Director of Planning



# COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400  
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998  
Telephone: (562) 699-7411, FAX: (562) 699-5422  
www.lacsd.org

JAMES F. STAHL  
Chief Engineer and General Manager

August 17, 2006

File No: 20-00.04-00

Ms. Sharon Kozdrey, Senior Planner  
City of Palmdale  
38300 North Sierra Highway  
Palmdale, CA 93550

RECEIVED  
AUG 21 2006  
PLANNING DEPARTMENT

Dear Ms. Kozdrey:

## Palmdale Transit Village Specific Plan

The County Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on August 11, 2006. The proposed project area is located within the jurisdictional boundaries of District No. 20. We offer the following comments regarding sewerage service:

1. The following is a list of Districts' trunk sewers that serve the project area.

Name	Location	Size (dia.)	Design Capacity (mgd)	Peak Flow (mgd)	Last Measured
5 <sup>th</sup> Street East Trunk Sewer	In 5 <sup>th</sup> Street East from Avenue Q-3 to Avenue Q and in Avenue Q from 5 <sup>th</sup> Street East to 6 <sup>th</sup> Street East	12"	1.9	1.0	2006
Avenue Q Relief Trunk Sewer	In Avenue Q from 5 <sup>th</sup> Street East to 6 <sup>th</sup> Street East	18"	4.0	1.2	2006
Trunk A Trunk Sewer	In Technology Drive at Sierra Highway	18"	3.8	2.4	2006

3. Wastewater generated by development within the proposed project area will be treated at the Palmdale Water Reclamation Plant, which has a design capacity of 15 mgd and currently processes an average flow of 9.7 mgd.
4. The expected average wastewater flow from the project site at buildout is approximately 300,000 gallons per day. A copy of the Districts' average wastewater generation factors is enclosed for your information.
5. The Districts should review development projects within the Specific Plan area in order to determine whether or not sufficient trunk sewer capacity exists to serve each project and if

Districts' facilities will be affected by the project. Please forward information on projects to the undersigned.

6. The Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts' Sewerage System or increasing the existing strength and/or quantity of wastewater attributable to a particular parcel or operation already connected. This connection fee is required to construct an incremental expansion of the Sewerage System to accommodate the proposed project, which will mitigate the impact of this project on the present Sewerage System. Payment of a connection fee will be required before a permit to connect to the sewer is issued. A copy of the Connection Fee Information Sheet is enclosed for your convenience. For more specific information regarding the connection fee application procedure and fees, please contact the Connection Fee Counter at extension 2727.
  
7. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the design capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts in order to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service, but is to advise you that the Districts intend to provide this service up to the levels that are legally permitted and to inform you of the currently existing capacity and any proposed expansion of the Districts' facilities.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,

James F. Stahl

Ruth I. Frazen  
Engineering Technician  
Planning & Property Management Section

RIF:rf

Enclosures

**TABLE 1**  
**LOADINGS FOR EACH CLASS OF LAND USE**

<u>DESCRIPTION</u>	<u>UNIT OF MEASURE</u>	<u>FLOW</u> <u>(Gallons</u> <u>per Day)</u>	<u>COD</u> <u>(Pounds</u> <u>per Day)</u>	<u>SUSPENDED</u> <u>SOLIDS</u> <u>(Pounds</u> <u>per Day)</u>
<b>RESIDENTIAL</b>				
Single Family Home	Parcel	260	1.22	0.59
Duplex	Parcel	312	1.46	0.70
Triplex	Parcel	468	2.19	1.05
Fourplex	Parcel	624	2.92	1.40
Condominiums	Parcel	195	0.92	0.44
Single Family Home (reduced rate)	Parcel	156	0.73	0.35
Five Units or More	No. of Dwlg. Units	156	0.73	0.35
Mobile Home Parks	No. of Spaces	156	0.73	0.35
<b>COMMERCIAL</b>				
Hotel/Motel/Rooming House	Room	125	0.54	0.28
Store	1000 ft <sup>2</sup>	100	0.43	0.23
Supermarket	1000 ft <sup>2</sup>	150	2.00	1.00
Shopping Center	1000 ft <sup>2</sup>	325	3.00	1.17
Regional Mall	1000 ft <sup>2</sup>	150	2.10	0.77
Office Building	1000 ft <sup>2</sup>	200	0.86	0.45
Professional Building	1000 ft <sup>2</sup>	300	1.29	0.68
Restaurant	1000 ft <sup>2</sup>	1,000	16.68	5.00
Indoor Theatre	1000 ft <sup>2</sup>	125	0.54	0.28
Car Wash				
Tunnel - No Recycling	1000 ft <sup>2</sup>	3,700	15.86	8.33
Tunnel - Recycling	1000 ft <sup>2</sup>	2,700	11.74	6.16
Wand	1000 ft <sup>2</sup>	700	3.00	1.58
Financial Institution	1000 ft <sup>2</sup>	100	0.43	0.23
Service Shop	1000 ft <sup>2</sup>	100	0.43	0.23
Animal Kennels	1000 ft <sup>2</sup>	100	0.43	0.23
Service Station	1000 ft <sup>2</sup>	100	0.43	0.23
Auto Sales/Repair	1000 ft <sup>2</sup>	100	0.43	0.23
Wholesale Outlet	1000 ft <sup>2</sup>	100	0.43	0.23
Nursery/Greenhouse	1000 ft <sup>2</sup>	25	0.11	0.06
Manufacturing	1000 ft <sup>2</sup>	200	1.86	0.70
Dry Manufacturing	1000 ft <sup>2</sup>	25	0.23	0.09
Lumber Yard	1000 ft <sup>2</sup>	25	0.23	0.09
Warehousing	1000 ft <sup>2</sup>	25	0.23	0.09
Open Storage	1000 ft <sup>2</sup>	25	0.23	0.09
Drive-in Theatre	1000 ft <sup>2</sup>	20	0.09	0.05

**TABLE 1**

(continued)

**LOADINGS FOR EACH CLASS OF LAND USE**

<u>DESCRIPTION</u>	<u>UNIT OF MEASURE</u>	<u>FLOW (Gallons per Day)</u>	<u>COD (Pounds per Day)</u>	<u>SUSPENDED SOLIDS (Pounds per Day)</u>
<b>COMMERCIAL</b>				
Night Club	1000 ft <sup>2</sup>	350	1.50	0.79
Bowling/Skating Club	1000 ft <sup>2</sup>	150	1.76	0.55
Auditorium, Amusement	1000 ft <sup>2</sup>	125	0.54	0.27
Golf Course, Camp, and Park (Structures and Improvements)	1000 ft <sup>2</sup>	350	1.50	0.79
	1000 ft <sup>2</sup>	100	0.43	0.23
Recreational Vehicle Park	No. of Spaces	55	0.34	0.14
Convalescent Home	Bed	125	0.54	0.28
Laundry	1000 ft <sup>2</sup>	3,825	16.40	8.61
Mortuary/Cemetery	1000 ft <sup>2</sup>	100	1.33	0.67
Health Spa, Gymnasium				
With Showers	1000 ft <sup>2</sup>	600	2.58	1.35
Without Showers	1000 ft <sup>2</sup>	300	1.29	0.68
Convention Center, Fairground, Racetrack, Sports Stadium/Arena	Average Daily Attendance	10	0.04	0.02
<b>INSTITUTIONAL</b>				
College/University	Student	20	0.09	0.05
Private School	1000 ft <sup>2</sup>	200	0.86	0.45
Church	1000 ft <sup>2</sup>	50	0.21	0.11

**INFORMATION SHEET FOR APPLICANTS  
PROPOSING TO CONNECT OR INCREASE THEIR DISCHARGE TO  
THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY SEWERAGE SYSTEM**

**THE PROGRAM**

The County Sanitation Districts of Los Angeles County are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting to a Sanitation District's sewerage system. Your connection to a City or County sewer constitutes a connection to a Sanitation District's sewerage system as these sewers flow into a Sanitation District's system. The County Sanitation Districts of Los Angeles County provide for the conveyance, treatment, and disposal of your wastewater. **PAYMENT OF A CONNECTION FEE TO THE COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY WILL BE REQUIRED BEFORE A CITY OR THE COUNTY WILL ISSUE YOU A PERMIT TO CONNECT TO THE SEWER.**

**I. WHO IS REQUIRED TO PAY A CONNECTION FEE?**

1. Anyone connecting to the sewerage system for the first time for any structure located on a parcel(s) of land within a County Sanitation District of Los Angeles County.
2. Anyone increasing the quantity of wastewater discharged due to the construction of additional dwelling units on or a change in land usage of a parcel already connected to the sewerage system.
3. Anyone increasing the improvement square footage of a commercial or institutional parcel by more than 25 percent.
4. Anyone increasing the quantity and/or strength of wastewater from an industrial parcel.
5. If you qualify for an Ad Valorem Tax or Demolition Credit, connection fee will be adjusted accordingly.

**II. HOW ARE THE CONNECTION FEES USED?**

The connection fees are used to provide additional conveyance, treatment, and disposal facilities (capital facilities) which are made necessary by new users connecting to a Sanitation District's sewerage system or by existing users who significantly increase the quantity or strength of their wastewater discharge. The Connection Fee Program insures that all users pay their fair share for any necessary expansion of the system.

**III. HOW MUCH IS MY CONNECTION FEE?**

Your connection fee can be determined from the Connection Fee Schedule specific to the Sanitation District in which your parcel(s) to be connected is located. A Sanitation District boundary map is attached to each corresponding Sanitation District Connection Fee Schedule. Your City or County sewer permitting office has copies of the Connection Fee Schedule(s) and Sanitation District boundary map(s) for your parcel(s). If you require verification of the Sanitation District in which your parcel is located, please call the Sanitation Districts' information number listed under Item IX below.

**IV. WHAT FORMS ARE REQUIRED\*?**

The Connection Fee application package consists of the following:

1. Information Sheet for Applicants (this form)
2. Application for Sewer Connection

3. Connection Fee Schedule with Sanitation District Map (one schedule for each Sanitation District)

\*Additional forms are required for Industrial Dischargers.

## **V. WHAT DO I NEED TO FILE?**

1. Completed Application Form
2. A complete set of architectural blueprints (not required for connecting one single family home)
3. Fee Payment (checks payable to: County Sanitation Districts of Los Angeles County)
4. Industrial applicants must file additional forms and follow the procedures as outlined in the application instructions

## **VI. WHERE DO I SUBMIT THE FORMS?**

Residential, Commercial, and Institutional applicants should submit the above listed materials either by mail or in person to:

County Sanitation Districts of Los Angeles County  
Connection Fee Program, Room 130  
1955 Workman Mill Road  
Whittier, CA 90601

Industrial applicants should submit the appropriate materials directly to the City or County office which will issue the sewer connection permit.

## **VII. HOW LONG DOES IT TAKE TO PROCESS MY APPLICATION?**

Applications submitted by mail are generally processed and mailed within three working days of receipt. Applications brought in person are processed on the same day provided the application, supporting materials, and fee is satisfactory. Processing of large and/or complex projects may take longer.

## **VIII. HOW DO I OBTAIN MY SEWER PERMIT TO CONNECT?**

*An approved Application for Sewer Connection will be returned to the applicant after all necessary documents for processing have been submitted.* Present this approved-stamped copy to the City or County Office issuing sewer connection permits for your area at the time you apply for actual sewer hookup.

## **IX. HOW CAN I GET ADDITIONAL INFORMATION?**

If you require assistance or need additional information, please call the County Sanitation Districts of Los Angeles County at (562) 908-4288, extension 2727.

## **X. WHAT ARE THE DISTRICTS' WORKING HOURS?**

The Districts' offices are open between the hours of 7:00 a.m. and 4:00 p.m., Monday through Thursday, and between the hours of 7:00 a.m. and 3:00 p.m. on Friday, except holidays. When applying in person, applicants must be at the Connection Fee counter at least 30 minutes before closing time.

**DEPARTMENT OF TRANSPORTATION**  
DISTRICT 7, OFFICE OF REGIONAL PLANNING  
100 MAIN STREET, IGR/CEQA BRANCH  
LOS ANGELES, CA 90012-3606  
PHONE (213) 897-3747  
FAX (213) 897-1337  
TTY (213) 897-4937



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Be energy efficient!*

AUG 29 2006

August 22, 2006

PLANNING DEPARTMENT

IGR/CEQA cs/060832 - NOP  
City of Palmdale  
Palmdale Transit Village Specific Plan  
Specific Plan 05-01, GPA 05-01, ZC 05-01, 110 acres  
Technology Dr. to the north, Ave. Q-3 to the south, 3<sup>rd</sup> Street  
East, to the west and 6<sup>th</sup> Street East to the east  
Vic. LA-138- (43.95-44.32); SCH # 2006081052

Ms. Sharon Kozdrey  
City of Palmdale  
38250 N. Sierra Hwy.  
Palmdale, California 93550

Dear Ms. Kozdrey:

Thank you for including the California Department of Transportation in the environmental review process for the Notice of Preparation (NOP) for the Palmdale Transit Village Specific Plan. The proposed Palmdale Village Specific Plan, a planned development for approximately 110 acres of land as a compact transit-oriented village within easy walking distance of the City's newly constructed MetroLink train and AVTA bus transfer station. The area could potentially be developed with up to 1027 new housing units as follows: 44 single family/duplex units on small lots, 34 single family/duplex units with common courtyards, 192 townhouse units, up to 725 multi-family units and approximately 32 mixed used-residential units and may also include up to 40,000 sq. ft. stand alone retail, 9,000 sq. ft. of mixed-use retail, 353,000 sq. ft. stand alone office and 93,000 sq. of mixed-use office uses. Based on the information received, we have the following comments:

Caltrans promotes the implementation of Smart Growth strategies such as transit oriented developments (TODs) that can reduce the demand of single occupancy vehicles traveling along congested State highway corridors especially when traveling long distances. We recommend consulting with Caltrans regarding existing traffic conditions and the use of acceptable growth rates on State highways in the area. Any trip reduction use based on transportation demand management (TDM) strategies will need to be fully justified. The use of local or sub-regional transportation models needs to be consistent with regional models indicating the most recent projections and analyses of planned transportation improvements.

A traffic study will be needed to evaluate the project's overall impact on the State transportation system including the mainline Sr-14 (Antelope Valley Freeway) and all affected freeway on/off-ramps and SR-138 (Palmdale Boulevard) and all intersections along Palmdale Boulevard in the vicinity of the project. The traffic study should include, but not be limited to:

- 1) Assumptions used to develop trip generation/distribution percentages and assignments.

Ms. Sharon Kozdrey  
August 22, 2005  
Page Two

- 2) An analysis of ADT, AM and PM peak hour volumes for both the existing and future (year 2025) conditions. This should also include level-of-service calculations using the HCM 2000 methodology. The analysis should include the following:
- existing traffic volumes
  - project and cumulative traffic volumes
  - future traffic volumes projections for year 2025
  - existing level-of-service (LOS) calculations
  - project and cumulative level-of-service (LOS) calculations
- 3) The Equitable Share responsibility for traffic mitigation measures will need to be calculated as determined by the percentage increase in projected peak period trips resulting in operational impacts to SR-14 mainline freeway facility and affected on/off-ramps as well as impacts to SR-138, Palmdale Blvd. Consulting with Caltrans may be necessary in reaching consensus regarding the traffic mitigation measures. The City should refer to Appendix "B" Methodology for Calculating Equitable Mitigation Measures found in our Caltrans Guide for the Preparation of Traffic Impact Studies. The Guide can be found on the internet at:

<http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf>

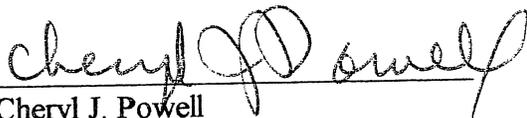
Proposed projects may need to conform with the National Pollution Discharge Elimination System (NPDES) requirements relating to construction activities and Post-Construction Storm Water Management. To the maximum extent practicable, Best Management Practices will need to be implemented to address storm water runoff from new development.

We would appreciate advance copies of the Draft EIR and Traffic Study to facilitate our internal Caltrans review. Advance copies should be sent to the undersigned:

Cheryl J. Powell  
Caltrans District 7 Office of Regional Planning  
IGR/CEQA Branch  
100 South Main Street  
Los Angeles, CA 90012

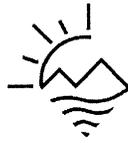
If you have any questions regarding our comments, please refer to our IGR/CEQA Record number cs/060832 and you may contact me at (213) 897-3747.

Sincerely,



Cheryl J. Powell  
IGR/CEQA Program Manager

cc: Scott Morgan, State Clearinghouse



## Department of Toxic Substances Control



Linda S. Adams  
Secretary for  
Environment Protection

Maureen F. Gorsen, Director  
1011 North Grandview Avenue  
Glendale, California 91201

Arnold Schwarzenegger  
Governor

**RECEIVED**  
AUG 31 2006

PLANNING DEPARTMENT

August 25, 2006

Ms. Sharon Kozdrey  
Senior Planner  
City of Palmdale  
38300 North Sierra Highway  
Palmdale, California 93550

### NOTICE OF PREPARATION FOR THE PALMDALE TRANSIT VILLAGE SPECIFIC PLAN DRAFT ENVIRONMENTAL IMPACT REPORT

Dear Ms. Kozdrey:

The Department of Toxic Substances Control (DTSC) has received your Notice of Preparation of a draft Environmental Impact Report (EIR) for the project mentioned above.

Based on the review of the document, DTSC comments are as follows:

1. The draft EIR needs to identify and determine whether current or historic uses at the Project area have resulted in any release of hazardous wastes/substances.
2. The draft EIR needs to identify any known or potentially contaminated site within the Project area. For all identified sites, the draft EIR needs to evaluate whether conditions at the site pose a threat to human health or the environment.
3. The draft EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may require remediation, and which government agency will provide appropriate regulatory oversight.
4. If during construction of the project, soil contamination is suspected, construction in the area should stop, and appropriate health and safety procedures should be implemented. If it is determined that contaminated soils exists, the draft EIR should identify how any required investigation and/or remediation will be conducted, and which government agency will provide regulatory oversight.

Ms. Sharon Kozdrey  
August 25, 2006  
Page 2

DTSC provides guidance for Preliminary Endangerment Assessment preparation and cleanup oversight through the Voluntary Cleanup Program (VCP). For additional information on the VCP please visit DTSC's web site at [www.dtsc.ca.gov](http://www.dtsc.ca.gov). If you would like to meet and discuss this matter further, please contact Mr. Alberto Valmidiano, Project Manager, at (818) 551-2870 or me at (818) 551-2973.

Sincerely,



Jennifer Jones  
Unit Chief  
Southern California Cleanup Operations Branch – Glendale Office

cc: Governor's Office of Planning and Research  
State Clearinghouse  
P.O. Box 3044  
Sacramento, California 95812-3044

Mr. Guenther W. Moskat, Chief  
Planning and Environmental Analysis Section  
CEQA Tracking Center  
Department of Toxic Substances Control  
P.O. Box 806  
Sacramento, California 95812-0806



**Metro**

Metropolitan Transportation Authority

One Gateway Plaza  
Los Angeles, CA 90012-2952

213.922.2000 Tel  
metro.net

August 29, 2006

Sharon Kozdrey, Senior Planner  
City of Palmdale  
38300 N. Sierra Highway  
Palmdale, CA 93550

**RECEIVED**

**AUG 31 2006**

**PLANNING DEPARTMENT**

Dear Ms. Kozdrey:

Thank you for the opportunity to comment on the Notice of Preparation (NOP) for the Palmdale Transit Village Specific Plan. This letter conveys recommendations from the Los Angeles County Metropolitan Transportation Authority (Metro) concerning issues that are germane to our agency's statutory responsibilities in relation to the proposed project.

A Traffic Impact Analysis (TIA), with highway, freeway, and transit components, is required under the State of California Congestion Management Program (CMP) statute. The CMP TIA Guidelines are published in the "2004 Congestion Management Program for Los Angeles County", Appendix D. The geographic area examined in the TIA must include the following, at a minimum:

1. All CMP arterial monitoring intersections, including monitored freeway on/off-ramp intersections, where the proposed project will add 50 or more trips during either the a.m. or p.m. weekday peak hour (of adjacent street traffic); and
2. Mainline freeway-monitoring locations where the project will add 150 or more trips, in either direction, during either the a.m. or p.m. weekday peak hour.

Among the required steps for the analysis of development-related impacts to transit are:

3. Evidence that in addition to Metro, all affected Municipal transit operators received the NOP for the Draft EIR;
4. A summary of the existing transit services in the area;
5. Estimated project trip generation and mode assignment for both morning and evening peak periods;
6. Documentation on the assumptions/analyses used to determine the number and percentage of trips assigned to transit;

7. Information on facilities and/or programs that will be incorporated into the development plan that will encourage public transit usage and transportation demand management (TDM) policies and programs; and
8. An analysis of the expected project impacts on current and future transit services along with proposed project mitigation.

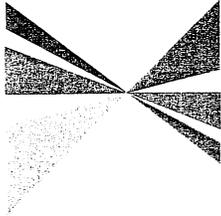
Metro looks forward to reviewing the Draft EIR. If you have any questions regarding this response, please call me at 213-922-6908 or by email at [chapmans@metro.net](mailto:chapmans@metro.net). Please send the Draft EIR to the following address:

Metro CEQA Review Coordination  
One Gateway Plaza MS 99-23-2  
Los Angeles, CA 90012-2952  
Attn: Susan Chapman

Sincerely,

A handwritten signature in black ink, appearing to read "Susan Chapman", with a long horizontal flourish extending to the right.

Susan Chapman  
Program Manager, Long Range Planning



**ASSOCIATION OF GOVERNMENTS**

**Main Office**

818 West Seventh Street  
12th Floor  
Los Angeles, California  
90017-3435

t (213) 236-1800  
f (213) 236-1825

[www.scag.ca.gov](http://www.scag.ca.gov)

**Officers:** President: Yvonne B. Burke, Los Angeles County - First Vice President: Gary Ovitt, San Bernardino County - Second Vice President: Richard Dixon, Lake Forest - Immediate Past President: Toni Young, Port Hueneme

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**Riverside County:** Jeff Stone, Riverside County - Thomas Buckley, Lake Elsinore - Bonnie Flickinger, Moreno Valley - Ron Loveridge, Riverside - Greg Pettis, Cathedral City - Ron Roberts, Temecula

**San Bernardino County:** Gary Ovitt, San Bernardino County - Lawrence Dale, Barstow - Paul Eaton, Montclair - Lee Ann Garcia, Grand Terrace - Tim Jasper, Town of Apple Valley - Larry McCallon, Highland - Deborah Robertson, Rialto - Alan Wapner, Ontario

**Ventura County:** Judy Mikels, Ventura County - Glen Becerra, Simi Valley - Carl Morehouse, San Buenaventura - Toni Young, Port Hueneme

**Orange County Transportation Authority:** Lou Correa, County of Orange

**Riverside County Transportation Commission:** Robin Lowe, Hemet

**Ventura County Transportation Commission:** Keith Millhouse, Moorpark

29 August 2006

Ms. Sharon Kozdrey, Senior Planner  
City of Palmdale  
38300 N. Sierra Highway  
Palmdale, CA 93550

**RECEIVED**

**SEP 06 2006**

**PLANNING DEPARTMENT**

**RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for Palmdale Transit Village Specific Plan SCAG No. I 20060547**

Dear Ms. Kozdrey:

Thank you for submitting a Notice of Preparation of a Draft Environmental Impact Report for the above-mentioned project to the Southern California Association of Governments (SCAG) for review and comment. SCAG's responsibility as the region's clearinghouse per Executive Order 12372 includes the implementation of California Environmental Quality Act (CEQA) §15125 [d]. This legislation requires the review of local plans, projects and programs for consistency with regional plans.

We have determined that the proposed Project is regionally significant per California Environmental Quality Act (CEQA) Guidelines (Section 15206). The proposed project is a planned development of approximately 110 acres that could potentially be comprised of up to 1,027 new housing units, 40,000 square feet of stand alone neighborhood retail uses, 9,000 square feet of retail mixed use, 353,000 square feet of stand alone low rise office use and 93,000 square feet of low rise mixed-use office uses. SCAG bases review of such projects on its adopted regional plans:

**Destination 2030: 2004 Regional Transportation Plan (RTP)  
Regional Comprehensive Plan and Guide (RCPG) -1996 Version  
Compass Growth Vision**

CEQA requires that EIRs discuss any inconsistencies between the proposed project and the applicable general plans and regional plans (Section 15125 [d]). Please state separately how the proposed plan will or will not support each regional plan. Please cite specific policies in the regional plans that the proposed project supports. If there are inconsistencies, an explanation and rationalization for such inconsistencies should be provided. Visit [www.scag.ca.gov](http://www.scag.ca.gov) for downloadable versions of these documents.

Please provide a minimum of 45 days for SCAG to review the EIR when this document is available. If you have any questions regarding the attached comments, please contact me at (213) 236-1858. Thank you.

Sincerely,

April Grayson  
Associate Regional Planner  
Intergovernmental Review

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



September 7, 2006

Ms. Sharon Kozdrey  
City of Palmdale  
38250 N. Sierra Highway  
Palmdale, CA 93550

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SEP 20 2006  
RBF CONSULTING

**Notice of Preparation of a Draft Environmental Impact Report for  
Palmdale Transit Village  
SCH # 2006081052, Los Angeles County**

Dear Ms. Kozdrey:

The Department of Fish and Game (Department) has reviewed the above-referenced Notice of Preparation (NOP), relative to impacts to biological resources. The proposed project consists of the implementation of the Palmdale Transit Village Specific Plan which would result in the construction of a transit oriented village near Sierra Highway/Technology Drive/Avenue Q-3, 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.
  - 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).

Ms. Sharon Kozdrey  
September 6, 2006  
Page 3

- 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.
  - 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

Ms. Sharon Kozdrey  
September 6, 2006  
Page 4

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, Wildlife Biologist, at (626) 797-3170 if you should have any questions and for further coordination on the proposed project.

Sincerely,



Morgan Wehtje  
Environmental Scientist IV

cc: Ms. Morgan Wehtje  
Mr. Scott Harris, Pasadena  
HCP-Chron  
Department of Fish and Game  
State Clearinghouse, Sacramento

SPH:sph

Palmdale Transit Village/2006 NOP

## PUBLIC UTILITIES COMMISSION

320 WEST 4<sup>TH</sup> STREET, SUITE 500  
LOS ANGELES, CA 90013



September 7, 2006

Sharon Kozkrey, Senior Planner  
City of Palmdale-Planning Dept.  
38250 N. Sierra Highway  
Palmdale, CA 93550

RECEIVED  
SEP 11 2006  
PLANNING DEPARTMENT

Dear Ms. Kozkrey:

Re: SCH# 2006081052; Palmdale Transit Village Specific Plan EIR

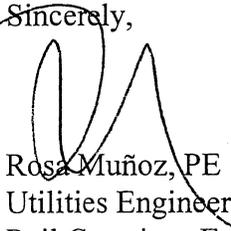
As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the Union Pacific Railroad Company and Metrolink's Antelope Valley Line right-of-way be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to the railroad right-of-way.

Safety factors 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 appropriate fencing to limit the access of trespassers onto the railroad right-of-way.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the City.

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](mailto:rxm@cpuc.ca.gov).

Sincerely,

  
Rosa Muñoz, PE  
Utilities Engineer  
Rail Crossings Engineering Section  
Consumer Protection & Safety Division

C: Freddy Cheung, UP  
Ron Mathieu, Metrolink



SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY

September 8, 2006

Sharon Kozdrey  
Senior Planner  
City of Palmdale  
38250 Sierra Highway  
Palmdale, CA 93550

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SEP 12 2006  
PLANNING DEPARTMENT

Member Agencies:  
Los Angeles County  
Metropolitan Transportation  
Authority.  
Orange County  
Transportation Authority.  
Riverside County  
Transportation Commission.  
San Bernardino  
Associated Governments.  
Ventura County  
Transportation Commission.  
Ex Officio Members:  
Southern California  
Association of Governments.  
San Diego Association  
of Governments.  
State of California.

RE: Southern California Regional Rail Authority (SCRRA) Comments on the Initial Study/Environmental Checklist (NOP/IS) for Palmdale Transit Village Specific Plan/General Plan Amendment and Zone Change

Dear Ms. Kozdrey:

As background information, SCRRA is a five-county Joint Powers Authority (JPA) that operates the regional commuter rail system, known as Metrolink, on member agency-owned and on private freight railroad rights of way. Additionally, SCRRA provides a range of rail engineering, construction, operations and maintenance services to its five JPA member agencies. The JPA member agencies are the Los Angeles County Metropolitan Transportation Authority (Metro), Orange County Transportation Authority (OCTA), San Bernardino Associated Governments (SANBAG), Riverside County Transportation Commission (RCTC) and Ventura County Transportation Commission (VCTC).

The City of Palmdale requested the assistance of SCRRA in reviewing the Draft Transit Village Specific Plan and SCRRA provided comments on this document on April 8, 2005. SCRRA supports the City of Palmdale's concept for station-adjacent development. There is two railroad tracks through the project area: one is owned by the Los Angeles County Metropolitan Transportation Authority (Metro) and the other by the Union Pacific Railroad. Each weekday, 24 Metrolink trains and approximately 9 freight trains pass through the project area and Metrolink also operates 8 trains on Saturdays. This level of service is expected to grow after 2010. Metrolink first provided service to Palmdale at an emergency station built after the Northridge earthquake in January 1994. This station was subsequently closed and Metrolink served Palmdale residents at the Lancaster and Vincent Grade/Acton stations until service began at the new Palmdale station on April 25, 2005. Our agency believes that a well-planned transit village will take full advantage of the proximity of the new Palmdale Transportation Center, resulting in improved mobility for the new residents, offer an environmentally friendly commuting option and create a thriving neighborhood. Nationwide consumer trends indicate a growing interest in housing within a half-mile of rail systems. SCRRA supports smart growth principles allowing increased rail use, such as convenient and direct pedestrian access for station area residents.

The proposed project includes construction of the Palmdale Transit Village. The proposed project location site contains approximately 110 acres generally located between Technology Drive and Avenue Q-3 and between 3<sup>rd</sup> Street East and the Metrolink Railroad tracks adjacent to Sierra Highway. Based on the proximity of the rail line to the proposed Transit Village, the following recommendations are being conveyed by SCRRA after reviewing the Palmdale Transit Village Specific Plan/General Plan Amendment and Zone Change; Initial Study/Environmental Checklist.

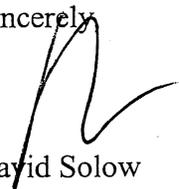
- 1) As the city's efforts are designed to leverage the considerable transportation infrastructure and investment, we suggest that the Specific Plan describe in greater detail, the transit elements of the Transit Village plan. Metrolink provides an important regional connection for the area, and offers a viable alternative to driving. Additionally, the Antelope Valley Transit Authority bus network is an integral part of local and regional mobility – the expanded transit discussion should proffer details on this service as well. Metrolink sent some details via email with the April 8, 2005 letter along with data on the characteristics of the Antelope Valley Line service and riders and hopes the city finds the information useful for incorporation into the Transit Village Specific Plan.
- 2) Section 2.5.1, regarding Transit, should read, “a new train station for Metrolink (Figure 2.12); a commuter rail service to ...”, since it is not a light-rail service as stated in the draft.
- 3) Section 4.1, regarding Pedestrian Environments, should suggest that another design guideline - striving to keep pedestrian trespassers off the railroad tracks - and designs for the Transit Village should continue to discourage trespassing on the railroad right of way.
- 4) A welded wire mesh or tubular fence should be provided along the property line to separate the railroad right-of-way from all adjacent development. The fence will also help in guiding pedestrians to the planned pedestrian bridge and lead them to the station facilities.
- 5) A pedestrian bridge is planned by the city to extend over the railroad track and is represented in the site plans as located near Avenue Q. When this pedestrian bridge is designed, it should accommodate a future third main railroad track. The design of the bridge will also need to meet SCRRA's Grade Separation requirements. Additionally, it will be necessary to obtain approval from the California Public Utilities Commission for the pedestrian bridge; this agency has jurisdiction over any crossings the railroad right of way.

- 6) The proposed development will increase the vehicle traffic levels at the existing Sierra Highway rail grade crossing. SCRRA recommends a grade separation of this crossing, especially considering the cumulative traffic increases, which will be caused by development of this area, increased Palmdale Airport use and other adjacent development.
- 7) Existing or proposed traffic signals within close proximity of the railroad must be interconnected with the railroad signal controls. This will allow for proper preemption to allow vehicular traffic to clear track area prior to arrival of trains. Close coordination with the City and railroad is critical to allow for safe movements of vehicles.
- 8) Another serious consideration is for the City to ensure any development around the railroad, including bicycle routes and pedestrians crossing the railroad, carefully address safety concerns. While we cannot make recommendations on the appropriate barriers used, we believe that a 7 or 8-foot block wall in lieu of a wire/mesh or tubular fence between the track and buildings has proven to be safer especially when children are present. The lack of appropriate barriers between dwellings and track is a dangerous condition of public property.

We request to receive timely notice, in accordance with Public Resources Code Section 21092.5 and State CEQA Guideline Section 15088, of the written proposed responses to our comments on this environmental document and the time and place of any scheduled public meetings or public hearings by the agency decision makers at least 10 days prior to such a meeting.

If you have any questions regarding these comments please contact Laurene Lopez, Community Relations Administrator, at (213) 452-0288 or by e-mail at [lopezl@scrta.net](mailto:lopezl@scrta.net).

Sincerely,



David Solow  
Chief Executive Officer

cc: Patricia Chen, Metro  
Susan Chapman, Metro  
Rosa Munoz, CPUC  
SCRRA Central Files



# 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

## FAX TRANSMITTAL PAGE

TO: Sharon Kozdrey

DATE: September 8, 2006

ORGANIZATION: City of Palmdale  
Planning Department

PHONE NO: (661) 267-5293

FAX NO: (661) 267-5233

FROM: Judy Keir

PHONE NO.: (760) 241-7366 direct

**SUBJECT:**

**COMMENTS ON THE NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE PROPOSED PALMDALE TRANSIT VILLAGE SPECIFIC PLAN/GENERAL PLAN AMENDMENT AND ZONE CHANGE (05-01), FOR APPROXIMATELY 110 ACRES GENERALLY LOCATED BETWEEN TECHNOLOGY DRIVE AND AVENUE Q-3 AND BETWEEN 3RD STREET EAST AND THE METROLINK RAILROAD TRACKS ADJACENT TO SIERRA HIGHWAY, IN THE CITY OF PALMDALE, IN LOS ANGELES COUNTY**

No. of pages, including cover sheet: 5

PER YOUR REQUEST

INFORMATION

FILE

RETURN COMMENTS

ORIGINAL TO FOLLOW

SIGNATURE

REGARDING PHONE CONVERSATION

**COMMENTS:**

rp: Forms/ FAX FRM



# 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

September 8, 2006

File: Los Angeles County

Ms. Sharon Kozdrey, Principal Planner  
City of Palmdale - Planning Department  
38300 N. Sierra Highway  
Palmdale, CA 93550  
FAX (661) 267-5233

**RECEIVED**  
SEP 14 2006  
PLANNING DEPARTMENT

**COMMENTS ON THE NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE PROPOSED PALMDALE TRANSIT VILLAGE SPECIFIC PLAN/GENERAL PLAN AMENDMENT AND ZONE CHANGE (05-01), FOR APPROXIMATELY 110 ACRES GENERALLY LOCATED BETWEEN TECHNOLOGY DRIVE AND AVENUE Q-3 AND BETWEEN 3RD STREET EAST AND THE METROLINK RAILROAD TRACKS ADJACENT TO SIERRA HIGHWAY, IN THE CITY OF PALMDALE, IN LOS ANGELES COUNTY**

California Regional Water Quality Control Board staff (Board staff) has reviewed the Notice of Preparation (NOP) dated August 7, 2006 for the above-referenced Project proposed by the City of Palmdale.

### **Project Description**

The City of Palmdale is proposing a project to revitalize and develop the Palmdale Transit Village Specific Plan, a planned development for approximately 110 acres of land as a compact, transit-oriented village within easy walking distance of the City's newly constructed Metrolink train and AVTA bus transfer station. The project proposes a General Plan Amendment 05-01 and Zone Change 05-01 that would amend the General Plan Land Use and Zoning Maps from Industrial, Commercial, Business Park and Residential designations to reflect adoption of the Palmdale Transit Village Specific Plan. The project encompasses approximately 110 acres, and could potentially be developed with up to 1,027 new housing units, and may include up to 40,000 square feet of stand along neighborhood retail uses, 9,000 square feet of neighborhood retail mixed-use, 353,000 square feet of stand alone low rise office use, and 93,000 square feet of low rise mixed-use office uses.

The NOP states that there is potential for impacts to hydrology and water quality, and to utilities and service systems. The NOP states that all the potential environmental impacts will be analyzed, examined, and quantified further in the Environmental Impact Report (EIR).

*California Environmental Protection Agency*

It is anticipated that the Palmdale Transit Village Specific Plan would be built in several phases over time. The NOP does not state when development will ultimately occur.

### **General Comments**

The mitigation measures identified in the EIR should be very specific in nature and should have adequate detail. All mitigation measures required for the project should be specifically described in the EIR. It is not sufficient to state that mitigation will be accomplished through permits acquired and that appropriate governmental agencies will be notified. Additionally, please be sure that the EIR completely evaluates the potential cumulative impacts of the project considering other existing and potential projects.

### **Item C. Water – pages 14-19**

The EIR needs to provide information on hydrology and water quality with regard to interference with groundwater recharge, alteration of existing drainage patterns of the area in a manner which would result in substantial erosion or siltation on- or off-site or result in flooding on- or off-site, or provide substantial additional sources of polluted runoff, or otherwise substantially degrade surface or ground water quantity or quality.

The EIR needs to provide information on how changes that may occur as part of the proposed land uses will impact hydrology and water quality with regard to changes in groundwater recharge, due to creation of impervious surface and alteration of existing drainage patterns. Impacts that should be evaluated include changes in surface water flow that could cause erosion or siltation on- or off-site or result in flooding on- or off-site, or provide substantial additional sources of polluted runoff, or otherwise substantially degrade surface or ground water quantity or quality.

The Regional Board has adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan), which contains prohibitions, water quality standards, and policies for implementation of standards. The Basin Plan is available on line at the Regional Board's Internet site at <http://www.swrcb.ca.gov/rwqcb6/>. Please cite and discuss applicable portions of the Basin Plan in the EIR. The City of Hesperia will need to comply with all applicable water quality standards and prohibitions, including provisions of the Basin Plan.

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 less pollution routed 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 could benefit energy conservation, air quality, open space, and habitat. Many planning tools exist to implement the above principles, and a number of recent reports and manuals provide specific guidance regarding LID.

Please consider using vegetated areas for stormwater management and infiltration on-site, which may enhance the aesthetics of the property. These principles can be incorporated into the proposed project design. We request natural drainage patterns be maintained to the extent feasible. Minimum-disturbance activities (such as preservation of vegetation and grade) are preferable to more structural (hard scape) control measures because they protect and preserve the natural drainage system. Natural drainage, including the use of vegetated buffer zones, is the most effective means of filtering sediment and pollution and regulating the volume of runoff from land surfaces to adjacent streams, including washes. In addition, preservation and minimum-disturbance activities may be more cost effective than revegetation practices or structural controls, especially long-term.

Please consider maintaining key recharge areas of the watershed as open space and providing buffer zones to allow more natural recharge areas to remain. The project should consider alternatives that will avoid or minimize impacts to other drainage areas.

Please consider designs that minimize impervious surface, such as permeable surface shoulders, 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.

Please identify short-term (construction) vs. long-term (post-construction) implementation of Best Management Practices (BMPs), and provide appropriate mitigation and monitoring of mitigation measures.

#### **Item O. Utilities – pages 38-39**

The EIR needs to evaluate and provide information on utilities and service systems with regard to wastewater treatment requirements, construction of new water or wastewater treatment facilities or expansion of existing facilities, construction of new stormwater drainage facilities, and a determination by the wastewater treatment provider that

serves or may serve the project that it has adequate capacity to serve the project's expected demand in addition to the provider's existing commitments.

Thank you for the opportunity to comment on your project. If you should have any questions regarding our above or attached comments, please contact me at (760) 241-7366 or Cindi Mitton at (760) 241-7413.

Sincerely,



Judith Keir  
Environmental Scientist

JMK/Palmdale Transit Village Specific Plan NOP.doc



# COUNTY OF LOS ANGELES

## DEPARTMENT OF PUBLIC WORKS

*"To Enrich Lives Through Effective and Caring Service"*

900 SOUTH FREMONT AVENUE  
ALHAMBRA, CALIFORNIA 91803-1331  
Telephone: (626) 458-5100  
www.ladpw.org

DONALD L. WOLFE, Director

RECEIVED

OCT - 2 2006

RBF CONSULTING

ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1460  
ALHAMBRA, CALIFORNIA 91802-1460

September 20, 2006

IN REPLY PLEASE  
REFER TO FILE: LD-0

Mr. Richard Kite  
City of Palmdale  
Planning Department  
38300 North Sierra Highway  
Palmdale, CA 93550

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SEP 20 2006

PALMDALE

Dear Mr. Kite:

### **RESPONSE TO NOTICE OF PREPARATION PALMDALE TRANSIT VILLAGE SPECIFIC PLAN CITY OF PALMDALE**

Thank you for the opportunity to review the Notice of Preparation for the Draft Environmental Impact Report (DEIR) for the proposed Palmdale Transit Village Specific Plan. We reviewed the Initial Study and offer the following comments for your consideration.

We agreed with the Initial Study that the development of the proposed project may significantly impact the County and County/City roadways and intersections in the area. We would like the opportunity to review the related environmental documents and traffic study upon their completion. The study should also address any proposed grade separation of Sierra Highway at the Union Pacific Railroad tracks. The County's methodology shall be used when evaluating the County and/or County/City intersections. The study shall also address the cumulative impacts generated by this and nearby developments and include the level of service analysis for the affected intersections. If traffic signals or other mitigation measures are warranted at the affected intersections, the developer shall determine its proportionate share of traffic signal or other mitigation costs and submit this information to Public Works for review and approval. A copy of our Traffic Impact Analysis Report Guidelines may be obtained on the Public Works' website at <http://ladpw.org/Traffic>.

Mr. Richard Kite  
September 20, 2006  
Page 2

If you have any questions, please call Ms. Simin Agahi at (626) 458-4915.

Very truly yours,

DONALD L. WOLFE  
Director of Public Works

A handwritten signature in black ink, appearing to read 'Rossana D'Antonio', with a long horizontal line extending to the right.

ROSSANA D'ANTONIO  
Assistant Division Engineer  
Land Development Division

SA:ca

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## **15.3 Traffic Impact Analysis**

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# PALMDALE TRANSIT VILLAGE SPECIFIC PLAN TRAFFIC IMPACT ANALYSIS



P A L M D A L E  
*a place to call home*

Prepared for

**CITY OF PALMDALE**

Prepared by



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**March 1, 2007**

JN 10-104580



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## EXECUTIVE SUMMARY

This study analyzes the forecast traffic impacts associated with the proposed Palmdale Transit Village Specific Plan project.

The proposed project consists of the following land uses:

- 78 single family dwelling units;
- 192 town home dwelling units;
- 725 multi-family dwelling units;
- Neighborhood retail mixed-use (32 dwelling units, 9,000 square feet of retail);
- 40,000 square feet of neighborhood retail;
- 353,000 square feet of stand alone office space;
- Office mixed-use (46,500 square feet of retail, 46,500 square feet of office); and
- 175,000 square feet of greenspace.

Buildout of the Palmdale Transit Village includes displacement of existing residential, retail, light industrial and school uses at the project site. The proposed 100-acre project site is generally bounded by Avenue P-12 on the north, the Union Pacific Railroad to the east, Avenue Q-3 to the south and 3<sup>rd</sup> Street West to the west. Regional project access is provided via Palmdale Boulevard (SR-138), Sierra Highway, Technology Drive and Division Street.

When accounting for the displaced land uses, the proposed project is forecast to generate approximately 9,357 net new daily trips, which includes approximately 834 net new a.m. peak hour trips and approximately 1,056 net new p.m. peak hour trips.

Mitigation measures have been identified to eliminate significant traffic impacts for forecast year 2030 with project conditions at the following intersections:

- SR-14 Southbound Off-Ramp/Palmdale Boulevard (SR-138);
- 6<sup>th</sup> Street East/Palmdale Boulevard (SR-138);
- Sierra Highway/Avenue P (SR-138); and
- Sierra Highway/Palmdale Boulevard (SR-138).

No mitigation measures have been identified to reduce or eliminate significant traffic impacts at the following three study intersections; therefore, significant adverse unavoidable traffic impacts are forecast to occur for forecast year 2030 with project conditions;

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138);
- Division Street/Palmdale Boulevard (SR-138); and
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138).

Mitigation measures have been identified to eliminate significant traffic impacts for forecast year 2030 with project conditions at the following CMP study intersection:

- Sierra Highway/Palmdale Boulevard (SR-138).

## **INTRODUCTION**

This study analyzes the forecast traffic impacts associated with the proposed Palmdale Transit Village Specific Plan project.

The proposed project consists of the following land uses:

- 78 single family dwelling units;
- 192 town home dwelling units;
- 725 multi-family dwelling units;
- Neighborhood retail mixed-use (32 dwelling units, 9,000 square feet of retail);
- 40,000 square feet of neighborhood retail;
- 353,000 square feet of stand alone office space;
- Office mixed-use (46,500 square feet of retail, 46,500 square feet of office); and
- 175,000 square feet of greenspace.

Buildout of the Palmdale Transit Village includes displacement of existing residential, retail, light industrial and school uses at the project site. The proposed 100-acre project site is generally bounded by Avenue P-12 on the north, the Union Pacific Railroad to the east, Avenue Q-3 to the south and 3<sup>rd</sup> Street West to the west. Regional project access is provided via Palmdale Boulevard (SR-138), Sierra Highway, Technology Drive and Division Street.

Exhibit 1 shows the regional location of the project site. Exhibit 2 shows the project site location.

### **Study Area**

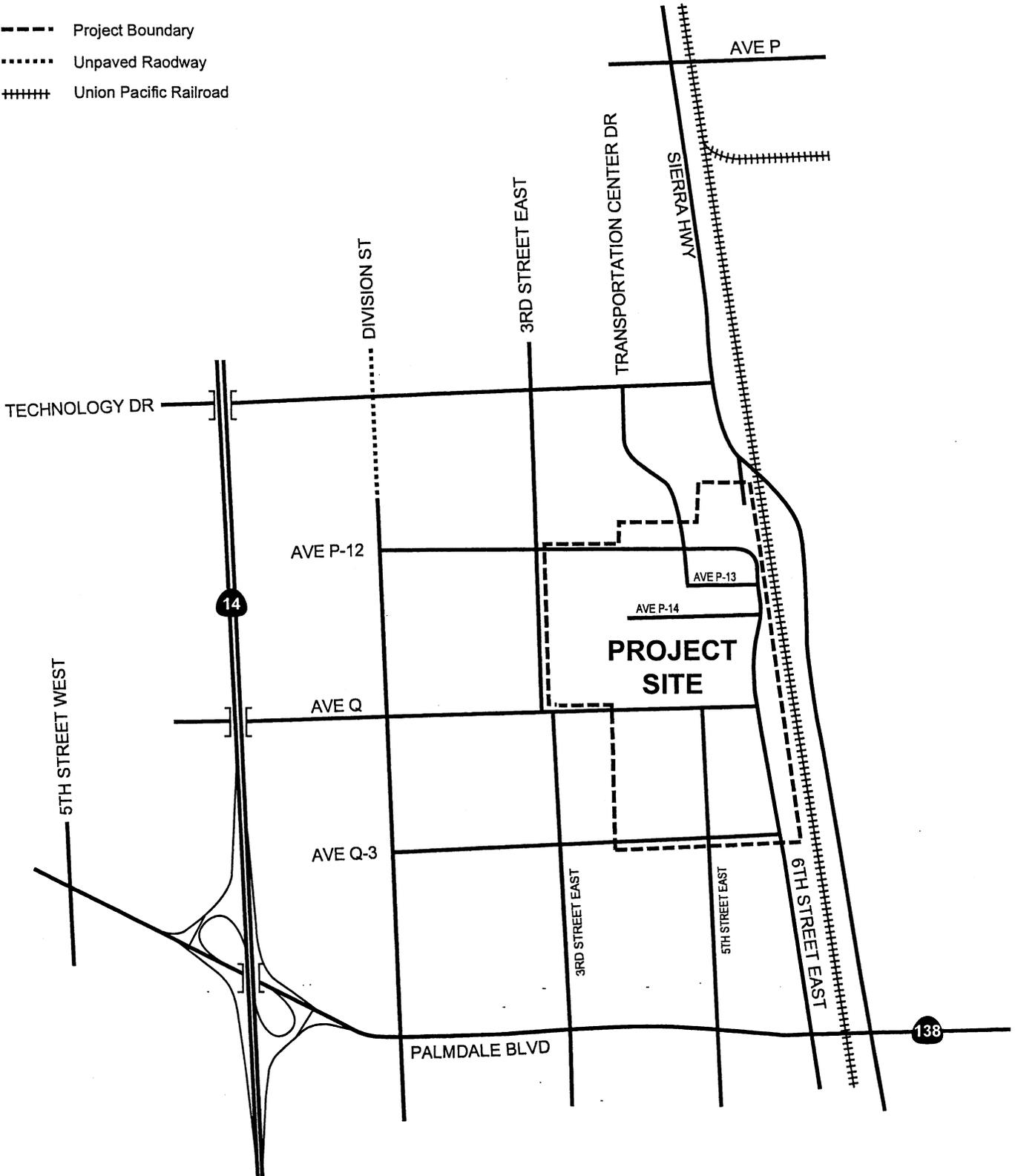
City of Palmdale staff identified the following sixteen (16) intersections in the vicinity of the project site for analysis during the a.m. peak hour and the p.m. peak hour:

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138);
- SR-14 Southbound Off-ramp/Palmdale Boulevard (SR-138);
- SR-14 Northbound Off-ramp/Palmdale Boulevard (SR-138);
- Division Street/Avenue Q;
- Division Street/Palmdale Boulevard (SR-138);
- 3<sup>rd</sup> Street East/Technology Drive;
- 3<sup>rd</sup> Street East/Avenue P-12;
- 3<sup>rd</sup> Street East/Avenue Q (analyzed as two intersections to address the offset configuration of 3<sup>rd</sup> Street East at Avenue Q);
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138);
- 5<sup>th</sup> Street East/Palmdale Boulevard (SR-138);
- 6<sup>th</sup> Street East/Avenue Q;



Legend:

- Project Boundary
- ..... Unpaved Roadway
- +++++ Union Pacific Railroad



Not to Scale



- 6<sup>th</sup> Street East/Avenue Q-3;
- 6<sup>th</sup> Street East/Palmdale Boulevard (SR-138);
- Sierra Highway/Avenue P;
- Sierra Highway/Technology Drive; and
- Sierra Highway/Palmdale Boulevard (SR-138).

Exhibit 3 shows the location of the study intersections, which are analyzed for the following study scenarios:

- Existing Conditions;
- Forecast Year 2030 Without Project Conditions; and
- Forecast Year 2030 With Project Conditions.

### Analysis Methodology

Level of service (LOS) is commonly used as a qualitative description of intersection operation and is based on the type of traffic control and delay experienced at the intersection. The *2000 Highway Capacity Manual (HCM)* analysis methodology for *Signalized Intersections* and *Unsignalized Intersections* is utilized to determine the operating LOS of the study intersections.

The *2000 HCM* analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding ranges of stopped delay experienced per vehicle for signalized and unsignalized intersections shown in Table 1.

**Table 1  
LOS & Delay Ranges**

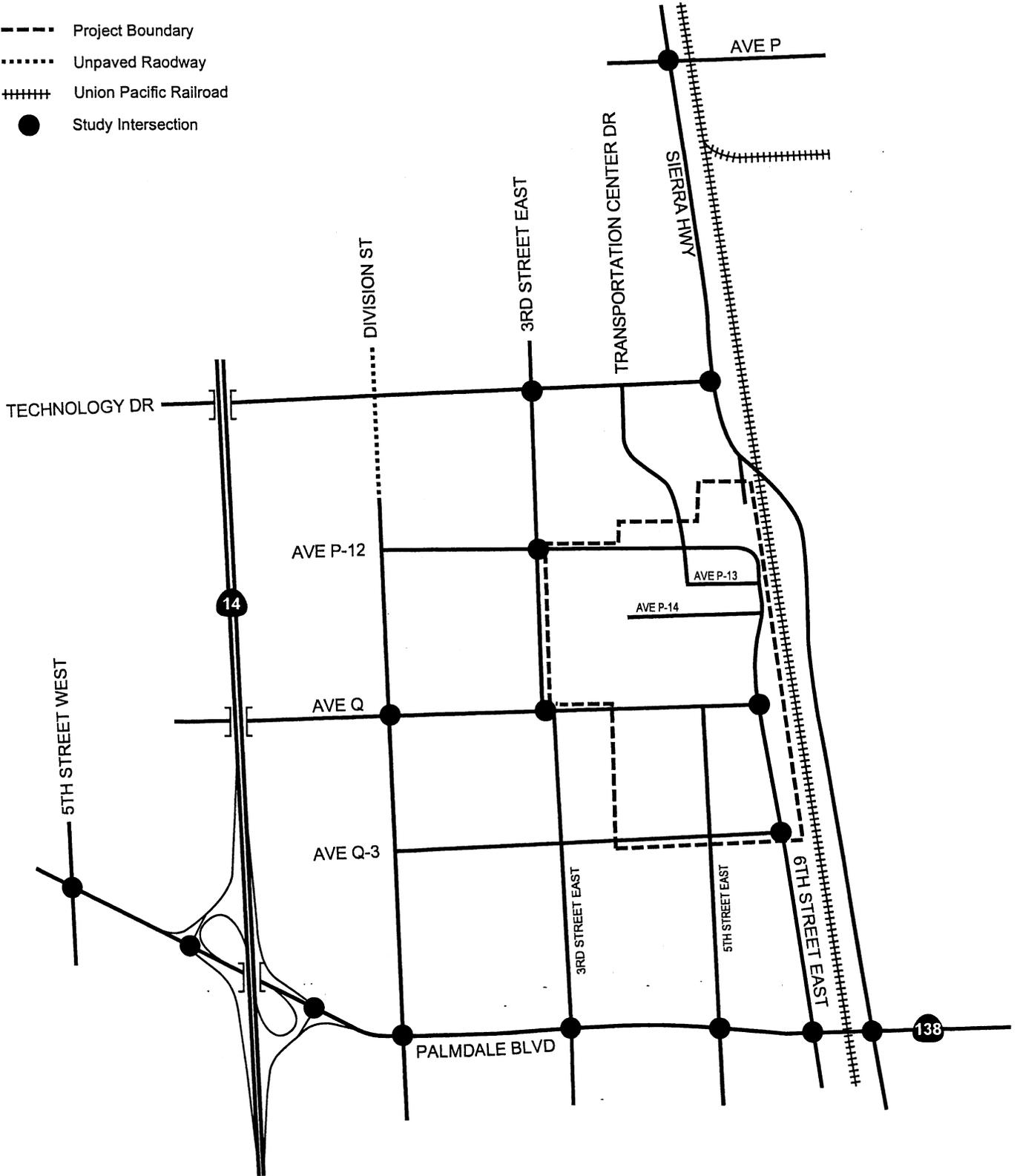
LOS	Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: *2000 Highway Capacity Manual*

Level of service is based on the average stopped delay per vehicle for all movements of signalized intersections and all-way stop-controlled intersections; for one-way or two-way stop-controlled intersections, LOS is based on the worst stop-controlled approach.

Legend:

- Project Boundary
- ..... Unpaved Roadway
- +++++ Union Pacific Railroad
- Study Intersection



Not to Scale



## Performance Criteria

The City of Palmdale target for peak hour intersection operation is LOS D or better.

## Thresholds of Significance:

To determine whether the addition of project-generated trips at a study intersection results in a significant impact, the City of Palmdale has established the following thresholds of significance:

- A significant project-related impact occurs at a study intersection if the addition of project-generated trips causes an intersection operating at LOS D or better to operate at a deficient LOS (LOS E or F) or if the addition of project-generated trips causes a 2 percent increase in delay at any intersection operating at a deficient LOS (LOS E or F).

## EXISTING CONDITIONS

### Roadway Description

The characteristics of the roadway system in the vicinity of the project site are described below:

**Avenue P** in the vicinity of the project site is a four-lane divided roadway with a raised median trending in an east-west direction. On-street parking is permitted on Avenue P. The posted speed limit on Avenue P is 50 miles per hour.

**Technology Drive** is a four-lane divided roadway trending in an east-west direction. On-street parking is prohibited on Technology Drive in the vicinity of the project site. The posted speed limit on Technology Drive is 55 miles per hour.

**Avenue P-12** is a two-lane undivided roadway trending in an east-west direction. Avenue P-12 originates at Division Street to the west and terminates at 6<sup>th</sup> Street East to the east. On-street parking is prohibited on Avenue P-12 between 3<sup>rd</sup> Street and 6<sup>th</sup> Street East. On-street parking is permitted on Avenue P-12 west of 3<sup>rd</sup> Street.

**Avenue Q** is a two-lane roadway trending in an east-west direction. Avenue Q is a two-lane divided roadway with a painted median east of Division Street and transitions to a two-lane undivided roadway west of Division Street. On-street parking is permitted on Avenue Q in the vicinity of the project site. The posted speed limit varies on Avenue Q from 40 miles per hour east of 3<sup>rd</sup> Street East to 45 miles per hour west of Division Street.

**Avenue Q-3** is a two-lane undivided roadway trending in an east-west direction. Avenue Q-3 originates at Division Street to the west and terminates at 6<sup>th</sup> Street East to the east. On-street parking is permitted on Avenue Q-3 in the vicinity of the project site. The posted speed limit on Avenue Q-3 is 10 miles per hour.

**Palmdale Boulevard (SR-138)** is a four to six-lane divided roadway trending in an east-west direction. West of SR-14, Palmdale Boulevard is a four-lane divided roadway with a raised median. Between SR-14 and 6<sup>th</sup> Street East, Palmdale Boulevard is a six-lane divided roadway with a raised median. East of 6<sup>th</sup> Street East, Palmdale Boulevard is a four-lane divided roadway with a raised median. On-street parking is prohibited on Palmdale Boulevard west of Sierra

Highway. The posted speed limit varies on Palmdale Boulevard in the project vicinity from 30 miles per hour to 50 miles per hour.

**5<sup>th</sup> Street West** is a four-lane divided roadway trending in a north-south direction. On-street parking is prohibited on 5<sup>th</sup> Street West south of Palmdale Boulevard. The posted speed limit on 5<sup>th</sup> Street West is 45 miles per hour.

**Division Street** is a two-lane undivided roadway trending in a north-south direction. On-street parking is permitted on Division Street with the exception of a segment between Palmdale Boulevard and Avenue Q-3. The posted speed limit on Division Street is 25 miles per hour north of Palmdale Boulevard and 50 miles per hour south of Palmdale Boulevard. Division Street north of Avenue P-12 is not currently paved.

**3<sup>rd</sup> Street East** is a two-lane undivided roadway trending in a north-south direction. On-street parking is prohibited on 3<sup>rd</sup> Street East between Avenue P-12 and Technology Drive. The posted speed limit on 3<sup>rd</sup> Street East is 35 miles per hour.

**5<sup>th</sup> Street East** is a two-lane undivided roadway trending in a north-south direction. On-street parking is permitted on 5<sup>th</sup> Street East between Avenue Q and Palmdale Boulevard (SR-138). The posted speed limit on 5<sup>th</sup> Street East is 35 miles per hour.

**6<sup>th</sup> Street East** is a two-lane divided roadway with a continuous left-turn lane trending in a north-south direction. On-street parking is prohibited on 6<sup>th</sup> Street East in the vicinity of the project site. The posted speed limit on 6<sup>th</sup> Street East is 40 miles per hour.

**Sierra Highway** – is a four-lane divided roadway trending in a north-south direction. On-street parking is prohibited on Sierra Highway. The posted speed limit on Sierra Highway is 50 miles per hour south of Palmdale Boulevard, 55 miles per hour between Palmdale Boulevard and Technology Drive, and 60 miles per hour north of Technology drive.

### **Existing Conditions Peak Hour Traffic Volumes**

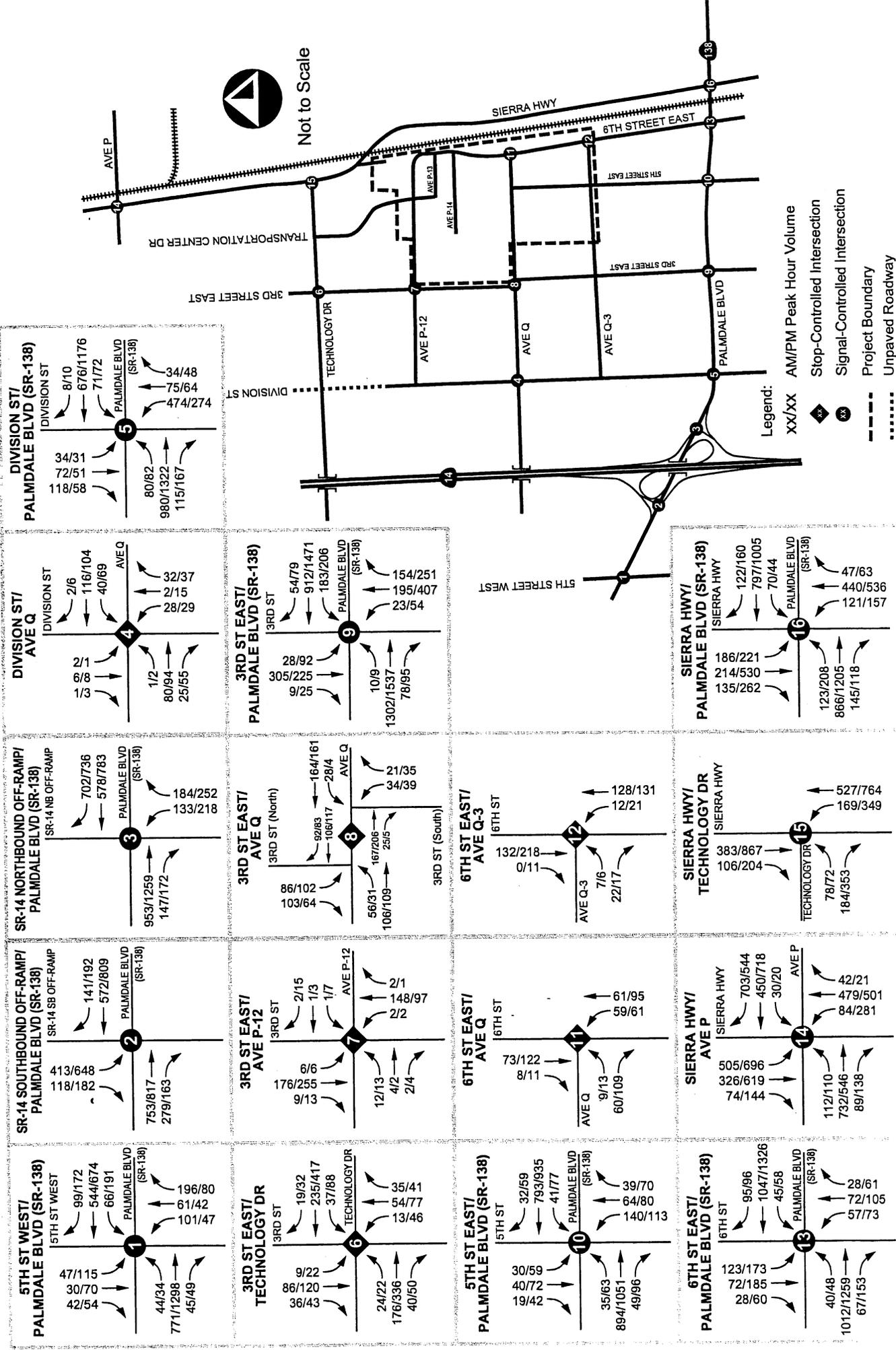
To determine the existing operation of the study intersections, a.m. and p.m. peak hour intersection movement counts were taken in February 2006 at all study intersections except for 5<sup>th</sup> Street East/Palmdale Boulevard which was collected in October 2006. The a.m. peak period intersection counts were taken from 7:00 a.m. to 9:00 a.m., and the p.m. peak period intersection counts were taken from 4:00 p.m. to 6:00 p.m. The counts used in this analysis were taken from the highest hour within the peak period counted. Additionally, average daily traffic (ADT) volumes for the roadway circulation system were collected in February 2006, and the City of Palmdale provided additional ADT counts from February 2006 and July 2006.

Exhibit 4 shows existing conditions a.m. peak hour and p.m. peak hour volumes at the study intersections. Exhibit 5 shows existing ADT volumes for the roadway circulation system in the vicinity of the project site. Detailed traffic count data is contained in Appendix A.

Exhibit 6 shows existing study intersection/roadway geometry.

### **Existing Conditions Peak Hour Level of Service**

Table 2 summarizes existing conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.

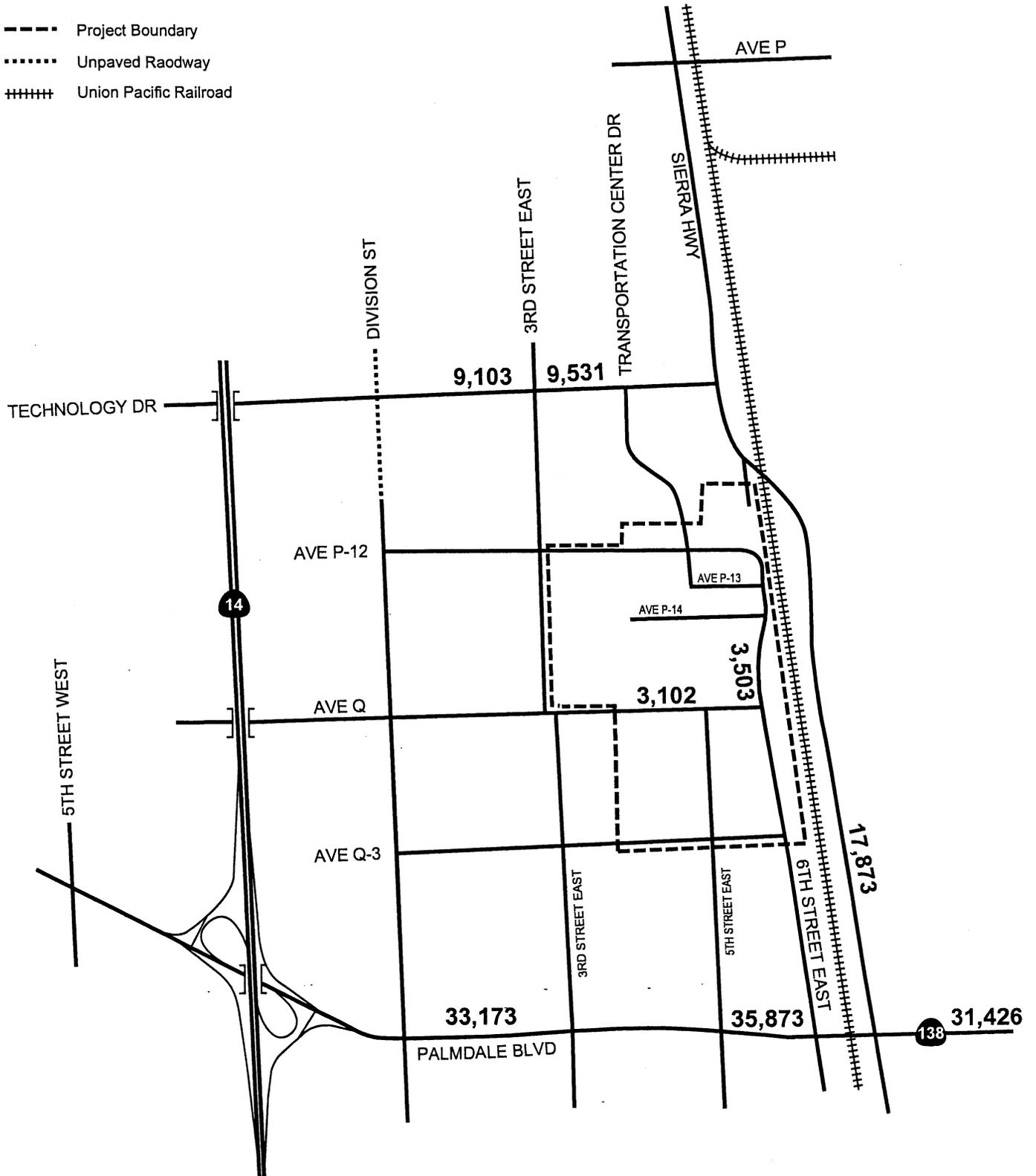


# Existing Conditions AM/PM Peak Hour Intersection Volumes



Legend:

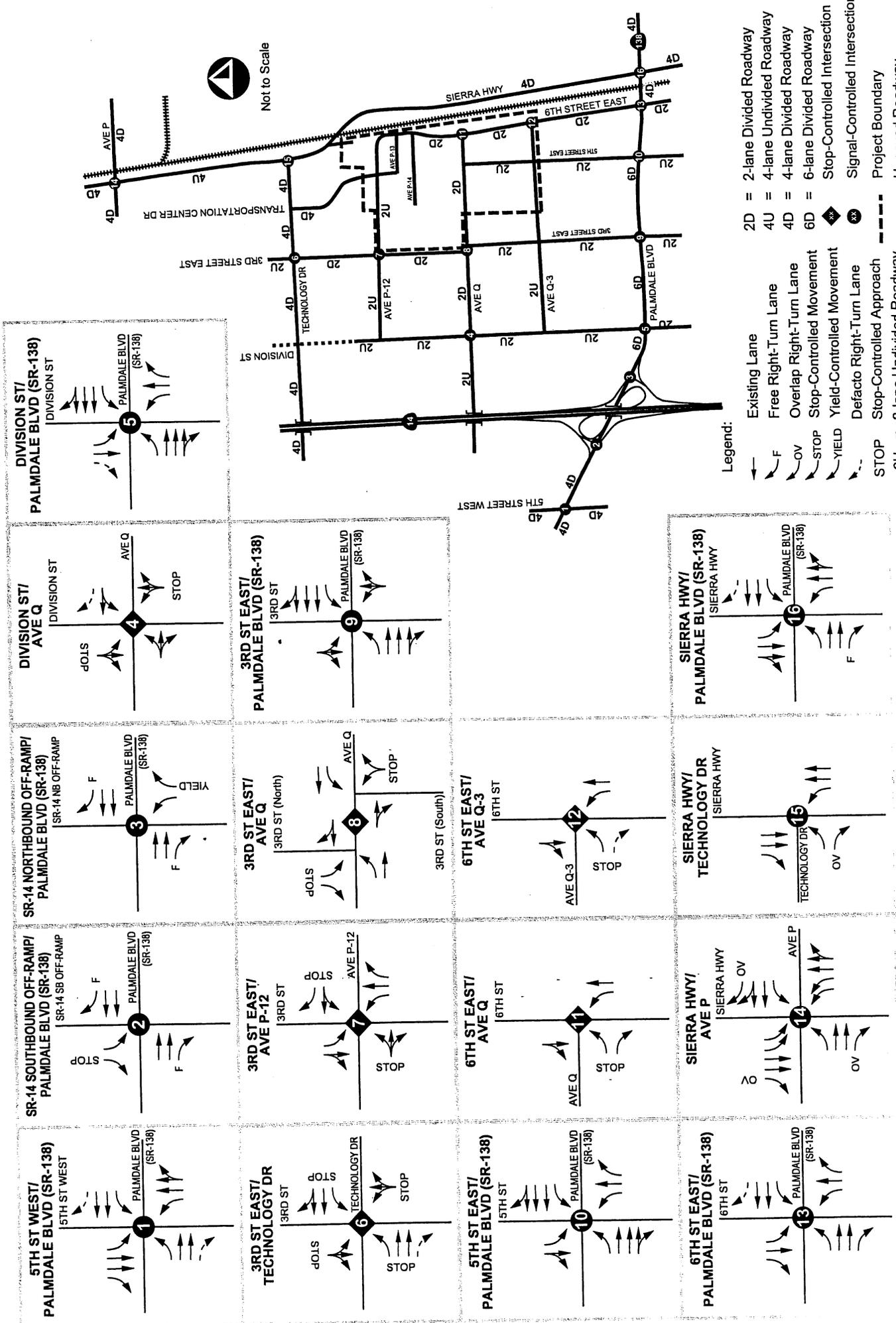
- Project Boundary
- ..... Unpaved Roadway
- +++++ Union Pacific Railroad



Not to Scale



## Existing Conditions Roadway Segment ADT Volumes



# Existing Conditions Study Area Geometry



**Table 2  
Existing Conditions AM & PM Peak Hour Intersection LOS**

Study Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
5 <sup>th</sup> Street West/Palmdale Blvd (SR-138)	11.4	B	15.5	B
SR-14 SB Off-Ramp/Palmdale Blvd (SR-138)	9.7	A	16.5	B
SR-14 NB Off-Ramp/Palmdale Blvd (SR-138)	6.7	A	8.1	A
Division St/Avenue Q	11.1	B	11.7	B
Division St/Palmdale Blvd (SR-138)	22.6	C	14.9	B
3 <sup>rd</sup> Street East/Technology Dr	10.4	B	31.9	D
3 <sup>rd</sup> Street East/Avenue P-12	11.3	B	11.6	B
3 <sup>rd</sup> Street East/Avenue Q				
- North leg of 3 <sup>rd</sup> Street East/Avenue Q	10.9	B	11.0	B
- South leg of 3 <sup>rd</sup> Street East/Avenue Q	11.1	B	11.0	B
3 <sup>rd</sup> Street East/Palmdale Blvd (SR-138)	19.2	B	<b>73.9</b>	<b>E</b>
5 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	9.2	A	10.5	B
6 <sup>th</sup> Street East/Avenue Q	9.1	A	9.7	A
6 <sup>th</sup> Street East/Avenue Q-3	9.4	A	10.1	B
6 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	10.7	B	13.6	B
Sierra Hwy/Avenue P	34.4	C	44.6	D
Sierra Hwy/Technology Dr	11.8	B	11.7	B
Sierra Hwy/Palmdale Blvd (SR-138)	29.2	C	53.4	D

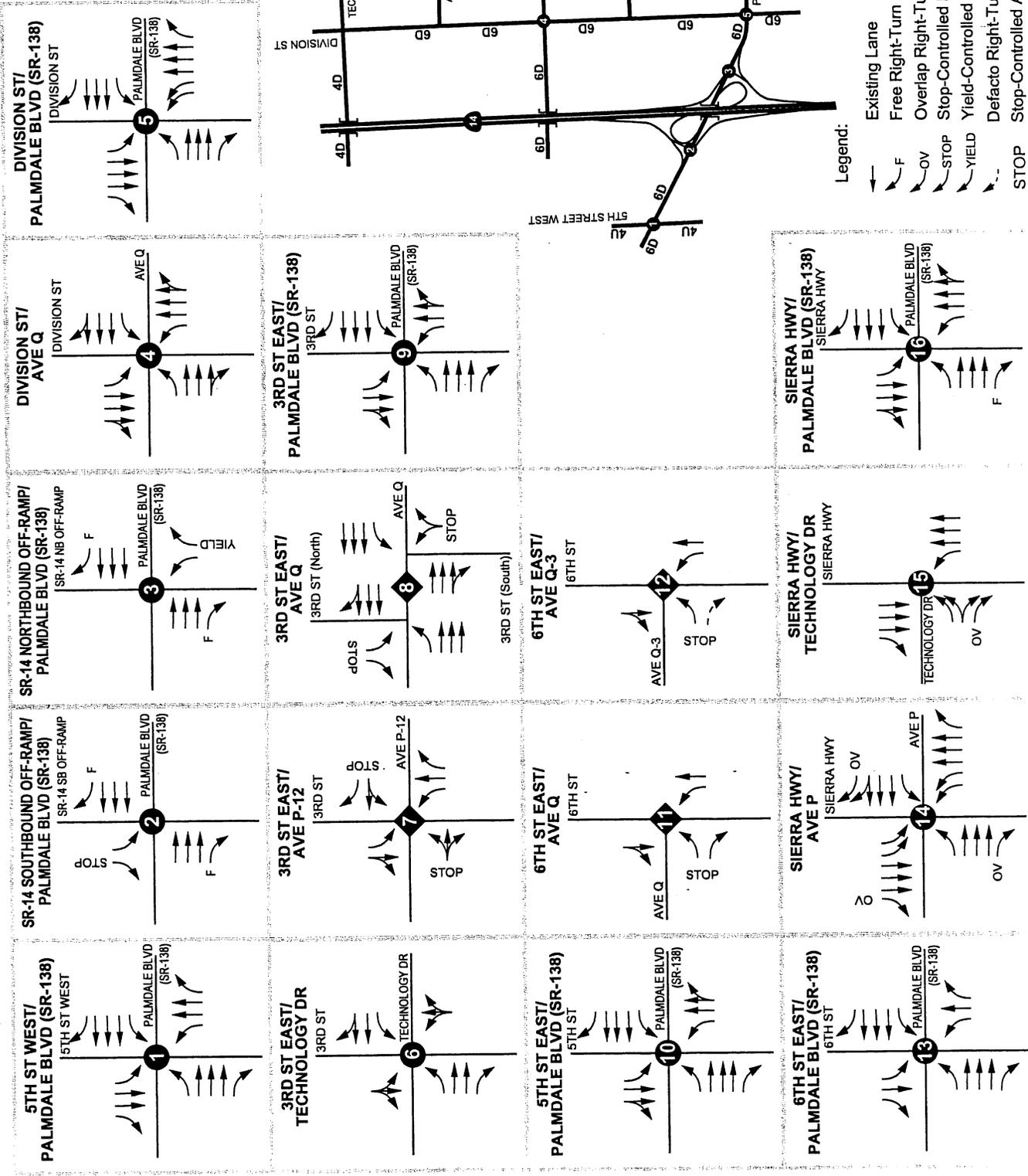
**Note:** SB = Southbound; NB = Northbound; Delay shown in seconds per vehicle; Deficient intersection operation shown in **bold**.

As shown in Table 2, the study intersections are currently operating at an acceptable LOS (LOS D or better) according to City of Palmdale performance criteria for the a.m. peak hour and p.m. peak hour with the exception of the 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138) study intersection during the p.m. peak hour.

### **FORECAST YEAR 2030 WITHOUT PROJECT CONDITIONS**

The proposed project is planned to build out over multiple years based on market demands and specific project component approvals. Therefore, to determine the impacts of the proposed project, forecast year 2030 traffic operations are examined consistent with typical City of Palmdale long-range analysis.

Forecast year 2030 without project conditions assumes City of Palmdale streets are built in accordance with the *City of Palmdale General Plan Circulation Element (January 25, 1993)*. Exhibit 7 shows forecast year 2030 without project study intersection/roadway geometry.



Legend:

- Existing Lane
- Free Right-Turn Lane
- Overlap Right-Turn Lane
- Stop-Controlled Movement
- Yield-Controlled Movement
- Defacto Right-Turn Lane
- Stop-Controlled Approach
- 2U = 2-lane Undivided Roadway
- 2D = 2-lane Divided Roadway
- 4U = 4-lane Undivided Roadway
- 4D = 4-lane Divided Roadway
- 6D = 6-lane Divided Roadway
- Stop-Controlled Intersection
- Signal-Controlled Intersection
- Project Boundary

# Forecast Year 2030 Study Area Geometry

Exhibit 7

FEB/2007



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## Forecast Year 2030 Without Project Conditions Traffic Volumes

Forecast year 2030 traffic volumes were derived by applying an annual growth rate of 2.5 percent per year to existing volumes as directed by City of Palmdale staff.

Exhibit 8 shows forecast year 2030 without project conditions a.m. peak hour and p.m. peak hour traffic volumes at the study intersections. Exhibit 9 shows forecast year 2030 without project conditions ADT volumes for the roadway circulation system.

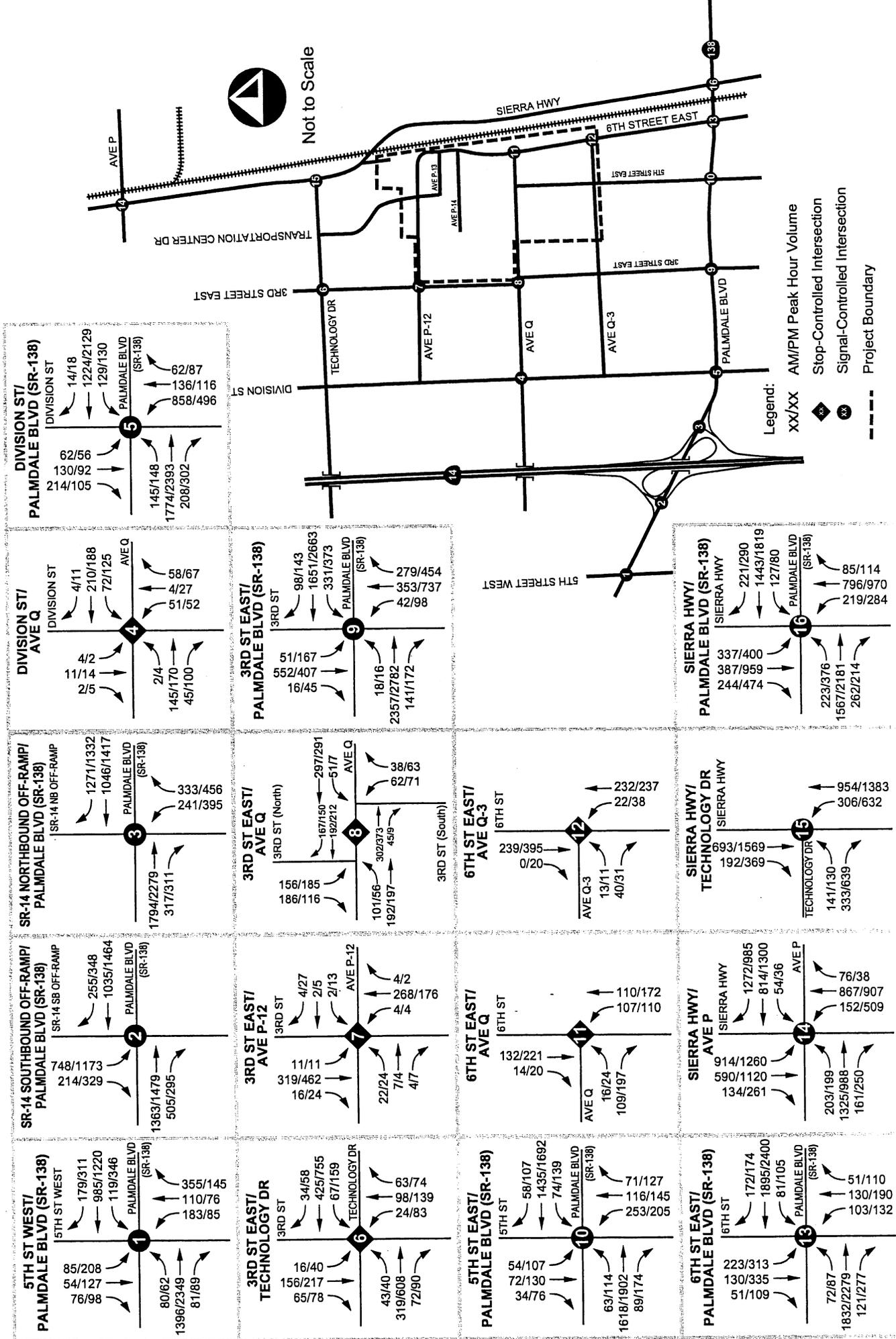
## Forecast Year 2030 Without Project Conditions Level of Service

Table 3 summarizes forecast year 2030 without project conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.

**Table 3**  
**Forecast Year 2030 Without Project Conditions**  
**AM & PM Peak Hour Intersection LOS**

Study Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
5 <sup>th</sup> Street West/Palmdale Blvd (SR-138)	28.7	C	<b>84.5</b>	<b>F</b>
SR-14 SB Off-Ramp/Palmdale Blvd (SR-138)	17.0	B	<b>62.6</b>	<b>E</b>
SR-14 NB Off-Ramp/Palmdale Blvd (SR-138)	9.8	A	16.4	B
Division St/Avenue Q	36.6	D	42.2	D
Division St/Palmdale Blvd (SR-138)	<b>58.2</b>	<b>E</b>	42.1	D
3 <sup>rd</sup> Street East/Technology Dr	13.2	B	18.5	B
3 <sup>rd</sup> Street East/Avenue P-12	14.5	B	15.5	C
3 <sup>rd</sup> Street East/Avenue Q				
- North leg of 3 <sup>rd</sup> Street East/Avenue Q	13.8	B	13.8	B
- South leg of 3 <sup>rd</sup> Street East/Avenue Q	12.7	B	12.2	B
3 <sup>rd</sup> Street East/Palmdale Blvd (SR-138)	39.1	D	<b>213.8</b>	<b>F</b>
5 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	11.8	B	11.0	B
6 <sup>th</sup> Street East/Avenue Q	9.9	A	11.2	B
6 <sup>th</sup> Street East/Avenue Q-3	10.3	B	11.8	B
6 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	17.5	B	50.5	D
Sierra Hwy/Avenue P	<b>75.5</b>	<b>E</b>	<b>125.3</b>	<b>F</b>
Sierra Hwy/Technology Dr	13.6	B	22.4	C
Sierra Hwy/Palmdale Blvd (SR-138)	42.1	D	<b>140.0</b>	<b>F</b>

**Note:** SB = Southbound; NB = Northbound; N/A = Not Applicable; Delay shown in seconds per vehicle; Deficient intersection operation shown in **bold**.



# Forecast Year 2030 Without Project AM/PM Peak Hour Intersection Volumes



Legend:

- Project Boundary
- ++++ Union Pacific Railroad



Not to Scale

# Forecast Year 2030 Without Project Roadway Segment ADT Volumes



As shown in Table 3, the following six study intersections are forecast to operate at a deficient LOS (LOS E or worse) according to City of Palmdale performance criteria for forecast year 2030 without project conditions during the a.m. peak hour and p.m. peak hour:

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138) (p.m. peak hour only);
- SR-14 Southbound Off-Ramp/Palmdale Boulevard (SR-138) (p.m. peak hour only);
- Division Street/Palmdale Boulevard (SR-138) (a.m. peak hour only);
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138) (p.m. peak hour only);
- Sierra Highway/Avenue P (SR-138) (both a.m. and p.m. peak hours); and
- Sierra Highway/Palmdale Boulevard (SR-138) (p.m. peak hour only).

## **PROPOSED PROJECT**

The proposed Palmdale Transit Village project consists of the following land uses:

- 78 single family dwelling units;
- 192 town home dwelling units;
- 725 multi-family dwelling units;
- Neighborhood retail mixed-use (32 dwelling units, 9,000 square feet of retail);
- 40,000 square feet of neighborhood retail;
- 353,000 square feet of stand alone office space;
- Office mixed-use (46,500 square feet of retail, 46,500 square feet of office); and
- 175,000 square feet of greenspace.

Buildout of the Palmdale Transit Village includes displacement of existing residential, retail, light industrial and school uses at the project site. The proposed 100-acre project site is generally bounded by Avenue P-12 on the north, the Union Pacific Railroad to the east, Avenue Q-3 to the south and 3<sup>rd</sup> Street West to the west. Regional project access is provided via Palmdale Boulevard (SR-138), Sierra Highway, Technology Drive and Division Street.

Exhibit 10 shows the proposed Palmdale Transit Village project build-out plan.

### **Trip Generation of Proposed Project**

Since the project will displace existing land uses on the project site currently generating trips, the forecast project site trip generation consists of the trips forecast to be generated by the proposed project minus trips generated by the existing land uses displaced by the proposed project.

To calculate trips currently generated by the land uses on the project site displaced by the proposed project, Institute of Transportation Engineers (*ITE*) trip generation rates were used.



**Table 4**  
**ITE Trip Rates for Existing Project Site**

Land Use (ITE Code)	Units	AM Peak Hour Rates			PM Peak Hour Rates			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Shopping Center (820)	tsf	0.63	0.40	1.03	1.80	1.95	3.75	42.94
General Light Industrial (110)	tsf	0.81	0.11	0.92	0.12	0.86	0.98	6.97
High School (530)	stu	0.28	0.13	0.41	0.07	0.07	0.14	1.71
Single-Family Detached Housing (210)	du	0.19	0.56	0.75	0.64	0.37	1.01	9.57
Residential Condominium/Townhouse (230)	du	0.07	0.37	0.44	0.35	0.17	0.52	5.86

Source: 2003 ITE Trip Generation Manual, 7<sup>th</sup> Edition.

Note: tsf = thousand square feet. du = dwelling units. stu = students.

Table 5 summarizes trips generated by land uses on the project site that will be displaced using the ITE trips rates contained in Table 4.

**Table 5**  
**Existing Project Site Trip Generation Displaced by Proposed Project**

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
59.378 tsf Shopping Center	37	24	61	107	116	223	2,550
8.25 tsf Light Industrial	7	1	8	1	7	8	58
600 student High School	168	78	246	42	42	84	1,026
41 du Single-Family Detached Housing	8	23	31	26	15	41	392
63 du Residential Condominium/Townhouse	4	23	27	22	11	33	369
<b>Total Trip Generation</b>	<b>224</b>	<b>149</b>	<b>373</b>	<b>198</b>	<b>191</b>	<b>389</b>	<b>4,395</b>

Note: tsf = thousand square feet. du = dwelling units.

As shown in Table 5, existing land uses currently located on the project site that will be displaced by the proposed project are generating approximately 4,395 daily trips, which include approximately 373 a.m. peak hour trips and approximately 389 p.m. peak hour trips.

Table 6 summarizes ITE trip generation rates used to calculate the number of trips forecast to be generated by the proposed Palmdale Transit Village project.

**Table 6  
ITE Trip Rates for Proposed Project**

Land Use (ITE Code)	Units	AM Peak Hour Rates			PM Peak Hour Rates			Daily Trip Rate
		In	Out	Total	In	Out	Total	
Shopping Center (820)	tsf	0.63	0.40	1.03	1.80	1.95	3.75	42.94
Apartments (220)	du	0.10	0.41	0.51	0.40	0.22	0.62	6.72
General Office (710)	tsf	1.36	0.19	1.55	0.25	1.24	1.49	11.01
Single-Family Detached Housing (210)	du	0.19	0.56	0.75	0.64	0.37	1.01	9.57
Residential Condominium/Townhouse (230)	du	0.07	0.37	0.44	0.35	0.17	0.52	5.86

Sources: 2003 ITE Trip Generation Manual, 7<sup>th</sup> Edition.

Note: tsf = thousand square feet. du = dwelling units.

### *Internal Trip Capture Reduction*

As documented in *ITE's Trip Generation Handbook (Institute of Transportation Engineers, 2<sup>nd</sup> Edition, 2004)*, an internal trip capture reduction is applicable when a project site has multiple destinations (such as the proposed project), in which a patron visits more than one destination onsite during the same visit. For example, a visitor to the project site may first visit an office, and then visit shopping land uses in the same vehicle trip to the project site. An internal trip capture reduction under this example would reduce/eliminate both the trip exiting the office as well as the trip to the shopping center from the office, since both these trips occurred within the project site. The only trips generated under this internal trip capture reduction example would be an inbound trip to the project site to the office and a trip from the shopping center exiting the project site. Hence, two trips are generated under this internal trip capture reduction example. Without the internal trip capture reduction, four trips would be generated: an inbound trip to the project site to the office, an outbound trip exiting the project site from the office, an inbound trip to the project site to the shopping, and an outbound trip exiting the project site from the shopping center.

Internal trip capture has been calculated as directed in *Trip Generation Handbook (Institute of Transportation Engineers, 2<sup>nd</sup> Edition, 2004)*. The ITE internal trip capture has been calculated for the proposed project as 7 percent during the p.m. peak hour trip forecast, and 8 percent during the daily trip forecast. Detailed internal trip capture summary calculation sheets are contained in Appendix C.

### *Transportation Impact Factor*

As documented in *ITE's Trip Generation Handbook (Institute of Transportation Engineers, 2<sup>nd</sup> Edition, 2004)*, a vehicle trip reduction factor is applicable for development sites near transit centers and light rail stations (such as the proposed project). Trip reduction factors are based on proximity to transit centers/light rail stations, development patterns and development density/intensity. The apartment dwelling unit portion of the Palmdale Transit Village project satisfies requirements for a 10 percent transportation impact factor since it is located within 0.25 miles of a transit center or light rail station and its density exceeds 24 dwelling units per acre.

Table 7 summarizes the trips forecast to be generated by the proposed project not accounting for trips currently generated at the project site utilizing *ITE* trip generation rates shown in Table 6 with applicable internal trip capture reduction and transportation impact factor reduction as documented in *Trip Generation Handbook (Institute of Transportation Engineers, 2<sup>nd</sup> Edition, 2004)*.

**Table 7  
Forecast Trip Generation of Proposed Project  
Not Accounting for Current Project Site Trip Generation**

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
95.5 tsf Shopping Center	60	38	98	172	186	358	4,101
<i>ITE</i> Onsite Trip Capture Reduction	0	0	0	-12	-13	-25	-328
757 du Apartments	76	310	386	303	167	470	5,087
<i>ITE</i> Onsite Trip Capture Reduction	0	0	0	-21	-12	-33	-407
<i>ITE</i> Transportation Impact Factor Reduction	-8	-31	-39	-28	-16	-44	-468
399.5 tsf General Office	543	76	619	100	495	595	4,398
<i>ITE</i> Onsite Trip Capture Reduction	0	0	0	-7	-35	-42	-352
78 du Single Family Detached Housing	15	44	59	50	29	79	746
<i>ITE</i> Onsite Trip Capture Reduction	0	0	0	-4	-2	-6	-60
192 du Residential Condominium	13	71	84	67	33	100	1,125
<i>ITE</i> Onsite Trip Capture Reduction	0	0	0	-5	-2	-7	-90
<b>Total Trip Generation</b>	<b>699</b>	<b>508</b>	<b>1,207</b>	<b>615</b>	<b>830</b>	<b>1,445</b>	<b>13,752</b>

**Note:** tsf = thousand square feet; du = dwelling unit.

As shown in Table 7, not accounting for trips currently generated at the project site, the proposed project is forecast to generate approximately 13,752 daily trips, which include approximately 1,207 a.m. peak hour trips and approximately 1,445 p.m. peak hour trips.

Since the project site is currently occupied by land uses generating trips displaced by the proposed project, trips associated with the displaced land uses are subtracted from the forecast trip generation of the proposed project shown in Table 7 to determine the actual number of net new trips generated by the proposed project. Table 8 summarizes the net forecast trip generation of the proposed project subtracting trips associated with the displaced land use from the proposed project land use.

**Table 8  
Forecast Net Trip Generation of Proposed Project**

Land Use	AM Peak Hour Trips			PM Peak Hour Trips			Daily Trips
	In	Out	Total	In	Out	Total	
Proposed Project Site Land Use	699	508	1,207	615	830	1,445	13,752
Existing Project Site Land Use Displaced	-224	-149	-373	-198	-191	-389	-4,395
<b>Total Net Project Trip Generation</b>	<b>475</b>	<b>359</b>	<b>834</b>	<b>417</b>	<b>639</b>	<b>1,056</b>	<b>9,357</b>

As shown in Table 8, when accounting for the displaced land uses, the proposed project is forecast to generate approximately 9,357 net new daily trips, which includes approximately 834 net new a.m. peak hour trips and approximately 1,056 net new p.m. peak hour trips.

### **Trip Distribution of Proposed Project**

Exhibit 11 shows the forecast trip percent distribution of the proposed project, reviewed and approved by City staff for use in this analysis

### **Trip Assignment of Proposed Project**

Exhibit 12 shows the corresponding forecast assignment of a.m. peak hour and p.m. peak hour project-generated trips assuming the trip percent distribution shown in Exhibit 11.

Exhibit 13 shows the forecast assignment of project-generated ADT volumes to the roadway circulation system assuming the trip percent distribution shown in Exhibit 11.

## **FORECAST YEAR 2030 WITH PROJECT CONDITIONS**

This section analyzes the impact of the addition of trips forecast to be generated by the proposed project to forecast year 2030 without project conditions traffic volumes.

### **Forecast Year 2030 With Project Conditions Traffic Volumes**

Forecast year 2030 with project conditions peak hour traffic volumes were derived by adding net new project-generated trips to forecast year 2030 without project conditions peak hour traffic volumes.

Exhibit 14 shows forecast year 2030 with project conditions a.m. peak hour and p.m. peak hour volumes at the study intersections. Exhibit 15 shows forecast year 2030 with project conditions ADT volumes for the roadway circulation system.

### **Forecast Year 2030 With Project Conditions Level of Service**

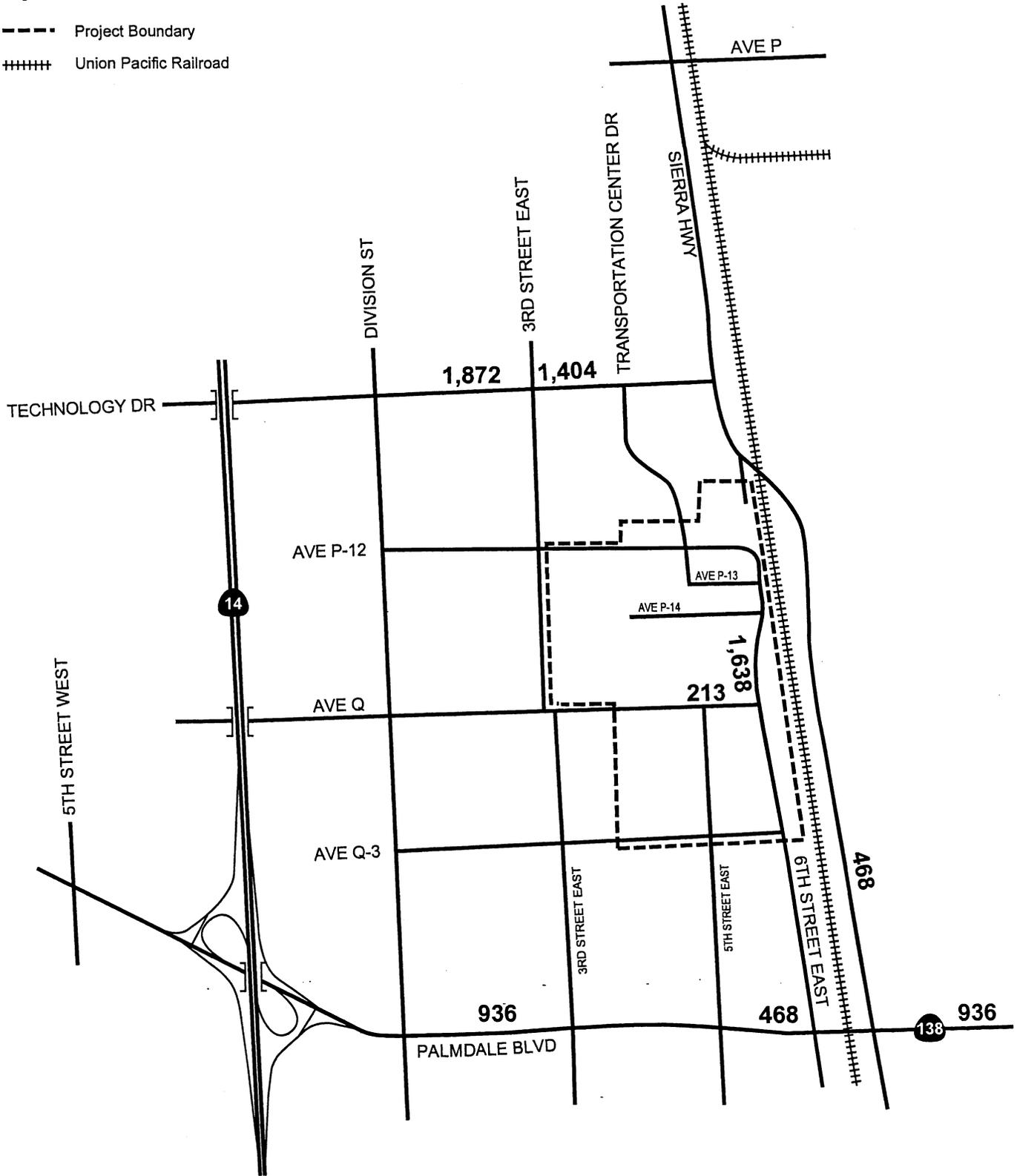
Table 9 summarizes forecast year 2030 with project conditions a.m. peak hour and p.m. peak hour LOS of the study intersections; detailed LOS analysis sheets are contained in Appendix B.





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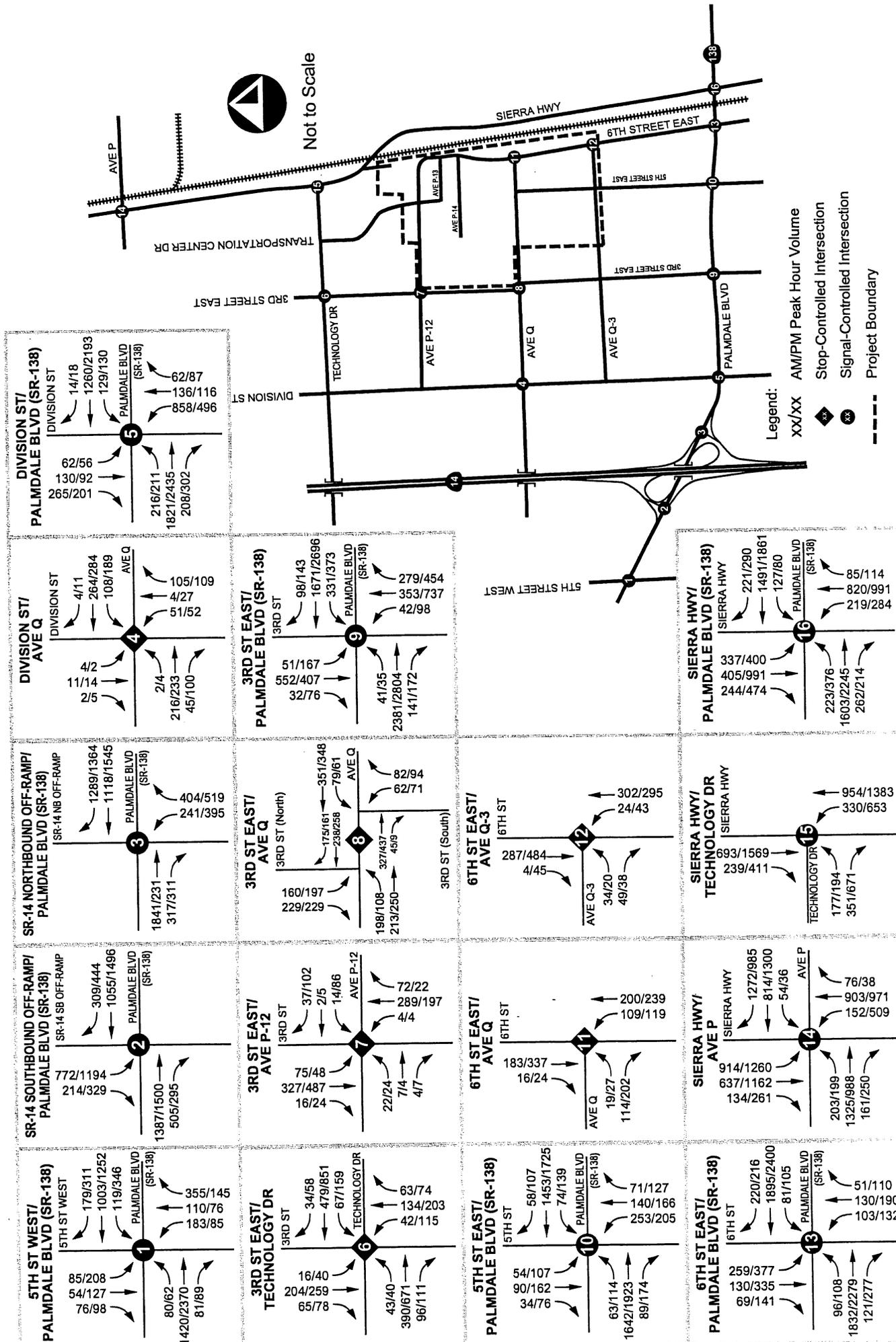
- Project Boundary
- +++++ Union Pacific Railroad



Not to Scale



# Forecast ADT Assignment of Proposed Project



# Forecast Year 2030 With Project AM/PM Peak Hour Intersection Volumes



Legend:

- Project Boundary
- ++++ Union Pacific Railroad



Not to Scale

## Forecast Year 2030 With Project Roadway Segment ADT Volumes



**Table 9  
Forecast Year 2030 With Project Conditions AM & PM Peak Hour Intersection LOS**

Study Intersection	Forecast Year 2030 Without Project Conditions		Forecast Year 2030 With Project Conditions				Significant Impact?
	PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay - LOS	Delay - LOS	Delay - LOS	Percent Change in Delay	Delay - LOS	Percent Change in Delay	
5 <sup>th</sup> Street West/Palmdale Blvd (SR-138)	28.7 - C	84.5 - F	28.9 - C	0.7%	86.5 - F	2.4%	Yes
SR-14 SB Off-Ramp/Palmdale Blvd (SR-138)	17.0 - B	62.6 - E	17.6 - B	3.5%	65.2 - E	4.2%	Yes
SR-14 NB Off-Ramp/Palmdale Blvd (SR-138)	9.8 - A	16.4 - B	10.7 - B	9.2%	31.1 - C	89.6%	No
Division St/Avenue Q	36.6 - D	42.2 - D	34.7 - C	-5.2%	36.7 - D	-13.0%	No
Division St/Palmdale Blvd (SR-138)	58.2 - E	42.1 - D	62.4 - E	7.2%	50.2 - D	19.2%	Yes
3 <sup>rd</sup> Street East/Technology Dr	13.2 - B	18.5 - B	13.3 - B	0.8%	32.3 - C	74.6%	No
3 <sup>rd</sup> Street East/Avenue P-12	14.5 - B	15.5 - C	18.7 - C	29.0%	20.1 - C	29.7%	No
3 <sup>rd</sup> Street East/Avenue Q	13.8 - B	13.8 - B	22.4 - C	62.3%	17.5 - C	26.8%	No
- North leg of 3 <sup>rd</sup> Street East/Avenue Q	12.7 - B	12.2 - B	13.4 - B	5.5%	14.5 - B	18.9%	
3 <sup>rd</sup> Street East/Palmdale Blvd (SR-138)	39.1 - D	213.8 - F	39.7 - D	1.5%	224.1 - F	4.8%	Yes
5 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	11.8 - B	11.0 - B	13.9 - B	17.8%	11.7 - B	6.4%	No
6 <sup>th</sup> Street East/Avenue Q	9.9 - A	11.2 - B	10.5 - B	6.1%	17.8 - C	58.9%	No
6 <sup>th</sup> Street East/Avenue Q-3	10.3 - B	11.8 - B	11.7 - B	13.6%	13.9 - B	17.8%	No
6 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	17.5 - B	50.5 - D	18.3 - B	4.6%	70.4 - E	39.4%	Yes
Sierra Hwy/Avenue P	75.5 - E	125.3 - F	80.8 - F	7.0%	128.5 - F	2.6%	Yes
Sierra Hwy/Technology Dr	13.6 - B	22.4 - C	14.8 - B	8.8%	22.8 - C	1.8%	No
Sierra Hwy/Palmdale Blvd (SR-138)	42.1 - D	140.0 - F	46.2 - D	9.7%	150.0 - F	7.1%	Yes

**Note:** NB = Northbound; SB = Southbound; N/A = Not Applicable; Delay shown in seconds per vehicle; Deficient intersection operation shown in **bold**.

As shown in Table 9, with the addition of project-generated trips, the following seven study intersections are forecast to operate at a deficient LOS (LOS E or worse) according to City of Palmdale performance criteria for forecast year 2030 with project conditions during the a.m. peak hour and p.m. peak hour:

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138) (p.m. peak hour only);
- SR-14 Southbound Off-Ramp/Palmdale Boulevard (SR-138) (p.m. peak hour only);
- Division Street/Palmdale Boulevard (SR-138) (a.m. peak hour only);
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138) (p.m. peak hour only);
- 6<sup>th</sup> Street East/Palmdale Boulevard (SR-138) (p.m. peak hour only);
- Sierra Highway/Avenue P (SR-138) (both a.m. and p.m. peak hours); and
- Sierra Highway/Palmdale Boulevard (SR-138) (p.m. peak hour only).

As also shown in Table 9, based on City-established thresholds of significance, the addition of project-generated trips is forecast to result in a significant impact at the following seven study intersections for forecast year 2030 with project conditions:

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138);
- SR-14 Southbound Off-Ramp/Palmdale Boulevard (SR-138);
- Division Street/Palmdale Boulevard (SR-138);
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138);
- 6<sup>th</sup> Street East/Palmdale Boulevard (SR-138);
- Sierra Highway/Avenue P (SR-138); and
- Sierra Highway/Palmdale Boulevard (SR-138).

#### **Forecast Year 2030 With Project Conditions Recommended Mitigation Measures**

The following mitigation measures are recommended to eliminate traffic impacts for forecast year 2030 with project conditions:

- **SR-14 Southbound Off-Ramp/Palmdale Boulevard (SR-138)** – The project shall make a fair share contribution to widen the southbound SR-14 off-ramp approach from one left-turn lane and one right-turn lane to consist of two left-turn lanes and one right-turn lane. Implementation of this mitigation measure will require coordination with Caltrans staff.
- **6<sup>th</sup> Street East/Palmdale Boulevard (SR-138)** – The project shall make a fair share contribution to widen the southbound 6<sup>th</sup> Street East approach from one left-turn lane, one through lane and one right-turn lane to consist of two left-turn lanes, one through lane and one right-turn lane. Implementation of this mitigation measure will require coordination with Caltrans staff.

- **Sierra Highway/Avenue P** – The project shall make a fair share contribution to widen the eastbound Avenue P approach from one left-turn lane, three through lanes and one right-turn lane to consist of two left-turn lanes, three through lanes and one right-turn lane.
- **Sierra Highway/Palmdale Boulevard (SR-138)** – The project shall make a fair share contribution to widen the eastbound Palmdale Boulevard (SR-138) approach from one left-turn lane, three through lanes and one free right-turn lane to consist of two left-turn lanes, three through lanes and one free right-turn lane. Implementation of this mitigation measure will require coordination with Caltrans staff.

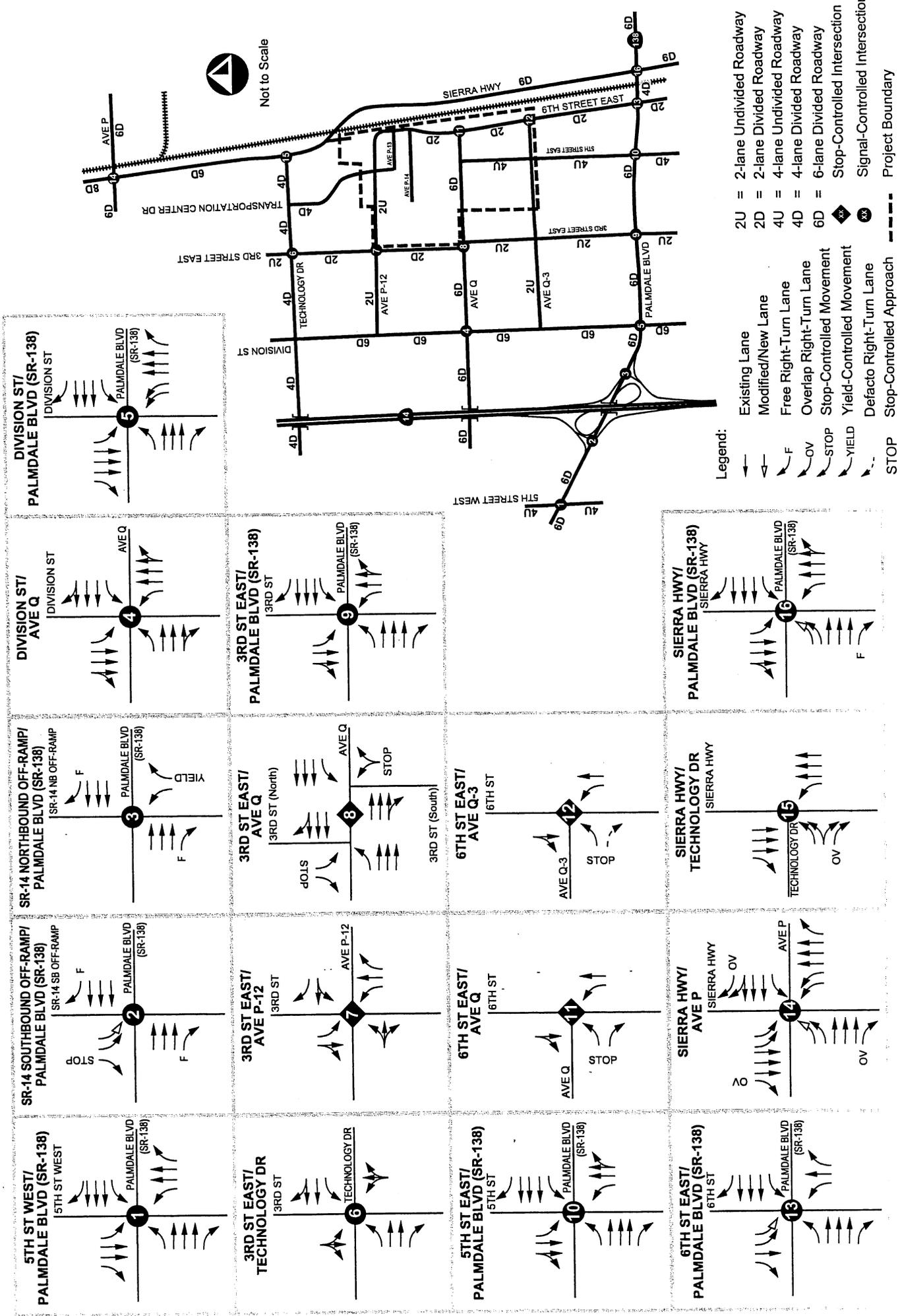
No feasible mitigation measures have been identified to reduce or eliminate the traffic impact to a level considered less than significant at three study intersections due to physical right-of-way constraints, planning, and engineering; environmental clearance involved make construction of mitigation measures likely impractical at this time at the following three study intersections significantly impacted by trips forecast to be generated by the proposed project:

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138);
- Division Street/Palmdale Boulevard (SR-138); and
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138).

Exhibit 16 shows the recommended mitigated study intersection geometry for forecast year 2030 with project conditions.

#### **Mitigated Forecast Year 2030 With Project Conditions Level of Service**

Table 10 summarizes forecast year 2030 with project conditions a.m. peak hour and p.m. peak hour LOS of mitigated study intersections assuming implementation of the recommended mitigation measures; detailed LOS analysis sheets are contained in Appendix B.



# Mitigated Forecast Year 2030 Study Area Geometry



**Table 10  
Mitigated Forecast Year 2030 With Project Conditions AM & PM Peak Hour Intersection LOS**

Study Intersection	Forecast Year 2030 Without Project Conditions		Mitigated Forecast Year 2030 With Project Conditions				Significant Impact?
	PM Peak Hour		AM Peak Hour		PM Peak Hour		
	Delay - LOS	Delay - LOS	Delay - LOS	Percent Change in Delay	Delay - LOS	Percent Change in Delay	
SR-14 SB Off-Ramp/Palmdale Blvd (SR-138)	17.0 - B	62.6 - E	7.7 - A	-54.7%	13.9 - B	-77.8%	No
6 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	17.5 - B	50.5 - D	18.4 - B	5.1%	42.5 - D	-15.8%	No
Sierra Hwy/Avenue P	75.5 - E	125.3 - F	71.9 - E	-4.8%	87.1 - F	-30.5%	No
Sierra Hwy/Palmdale Blvd (SR-138)	42.1 - D	140.0 - F	43.2 - D	2.6%	121.0 - F	-13.6%	No

**Note:** NB = Northbound; SB = Southbound; N/A = Not Applicable; Delay shown in seconds per vehicle; Deficient intersection operation shown in **bold**.

As shown in Table 10, assuming implementation of the recommended mitigation measures, the project traffic impacts at the four mitigated study intersections are reduced to a level considered less than significant during the a.m. peak hour and p.m. peak hour for forecast year 2030 with project conditions.

## LOS ANGELES COUNTY CONGESTION MANAGEMENT PROGRAM ANALYSIS

The purpose of the Congestion Management Program (CMP) is to develop a coordinated approach to managing and decreasing traffic congestion by linking the various transportation, land use and air quality planning programs throughout the County. The program is consistent with that of the Southern California Association of Governments (SCAG). The CMP program requires review of substantial individual projects, which might on their own impact the CMP transportation system.

According to the CMP (*Los Angeles County Metropolitan Transportation Authority, July 2004*), those proposed projects, which meet the following criteria shall be evaluated:

- All CMP arterial monitoring intersections, including monitored freeway on- or off-ramp intersections, where the proposed project will add 50 or more trips during either the a.m. or p.m. weekday peak hours (of adjacent street traffic).
- Mainline freeway monitoring locations where the project will add 150 or more trips, in either direction, during either the AM or PM weekday peak hours.

Utilizing CMP guidelines, the following intersection is included in the CMP study area:

- Sierra Highway/Palmdale Boulevard.

### CMP Intersection Analysis Methodology

The CMP advocates use of Intersection Capacity Utilization (ICU) intersection analysis methodology to analyze the operation of CMP intersections. The ICU analysis methodology describes the operation of a signalized intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on corresponding Volume/Capacity (V/C) ratios shown in Table 11.

**Table 11**  
**CMP LOS & V/C Ratio Ranges**

LOS	V/C Ratio
A	≤ 0.60
B	> 0.60 to ≤ 0.70
C	> 0.70 to ≤ 0.80
D	> 0.80 to ≤ 0.90
E	> 0.90 to ≤ 1.00
F	> 1.00

Source: 1990 Transportation Research Board

**CMP Intersection Thresholds of Significance**

To determine whether the addition of project-generated trips results in a significant impact at the CMP study facility, and thus requires mitigation, the Los Angeles County CMP utilizes the following threshold of significance:

- A significant project impact occurs when a proposed project increases traffic demand at a CMP study facility by two-percent of capacity ( $V/C \geq 0.02$ ), causing or worsening LOS F ( $V/C > 1.00$ ).

**Existing Conditions CMP Intersection Peak Hour LOS**

Table 12 summarizes existing conditions a.m. peak hour and p.m. peak hour LOS of the CMP study intersection; detailed LOS analysis sheets are contained in Appendix D.

**Table 12  
Existing Conditions  
AM & PM Peak Hour CMP Intersection LOS**

CMP Study Intersection	AM Peak Hour	PM Peak Hour
	V/C - LOS	V/C - LOS
Sierra Hwy/Palmdale Blvd (SR-138)	0.62 – B	0.76 – C

As shown in Table 12, the CMP study intersection is currently operating at an acceptable LOS (LOS E or better) according to Los Angeles CMP performance criteria for the a.m. peak hour and p.m. peak hour.

**Forecast Year 2030 With Project Conditions CMP Intersection Peak Hour LOS**

Table 13 summarizes forecast year 2030 with project conditions a.m. peak hour and p.m. peak hour LOS of the CMP study intersection; detailed LOS analysis sheets are contained in Appendix D.

**Table 13  
Forecast Year 2030 With Project Conditions AM & PM Peak Hour CMP Intersection LOS**

CMP Study Intersection	Forecast Year 2030 Without Project Conditions		Forecast Year 2030 With Project Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	V/C - LOS	V/C - LOS	V/C - LOS	V/C - LOS	
Sierra Hwy/Palmdale Blvd (SR-138)	0.99 – E	<b>1.25 – F</b>	<b>1.01 – F</b>	<b>1.27 – F</b>	Yes

**Note:** Deficient intersection operation shown in bold.

As shown in Table 13, the addition of project-generated trips at the CMP study intersection is forecast to result in a significant impact for forecast year 2030 with project conditions.

**Forecast Year 2030 With Project Conditions CMP Recommended Mitigation Measures**

The following mitigation measure is recommended to eliminate traffic impacts for forecast year 2030 with project conditions at the CMP study intersection:

- **Sierra Highway/Palmdale Boulevard (SR-138)** – The project shall make a fair share contribution to widen the eastbound Palmdale Boulevard (SR-138) approach from one left-turn lane, three through lanes and one free right-turn lane to consist of two left-turn lanes, three through lanes and one free right-turn lane. Implementation of this mitigation measure will require coordination with Caltrans staff.

**Mitigated Forecast Year 2030 With Project Conditions CMP Intersection Peak Hour LOS**

Table 13 summarizes forecast year 2030 with project conditions a.m. peak hour and p.m. peak hour LOS of the mitigated CMP study intersection assuming implementation of the recommended mitigation measure; detailed LOS analysis sheets are contained in Appendix D.

**Table 14  
Mitigated Forecast Year 2030 With Project Conditions  
AM & PM Peak Hour CMP Intersection LOS**

CMP Study Intersection	Forecast Year 2030 Without Project Conditions		Mitigated Forecast Year 2030 With Project Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	V/C - LOS	V/C - LOS	V/C - LOS	V/C - LOS	
Sierra Hwy/Palmdale Blvd (SR-138)	0.99 – E	<b>1.25 – F</b>	0.97 – E	<b>1.16 – F</b>	No

**Note:** Deficient intersection operation shown in **bold**.

As shown in Table 14, assuming implementation of the recommended mitigation measure, the project traffic impacts at the Sierra Highway/Palmdale Boulevard (SR-138) CMP study intersection are reduced to a level considered less than significant during the a.m. peak hour and p.m. peak hour for forecast year 2030 with project conditions.

**CMP Freeway Segment Analysis**

This section evaluates the forecast impact of project-generated trips at the following CMP Freeway study segments:

- SR-14 north of SR-138 (Palmdale Boulevard); and
- SR-14 south of SR-138 (Palmdale Boulevard).

**CMP Freeway Segment Analysis Methodology**

The CMP advocates the use of the HCM analysis methodology to analyze the operation of freeway segments. HCM analysis methodology describes the operation of a basic freeway segment using a range of LOS from LOS A to LOS F based on corresponding density (passenger cars/mile/lane) shown in Table 15.

**Table 15  
LOS & Density Ranges for Freeway Segments**

LOS	Density (pc/mi/ln)
A	$\leq 11.0$
B	$11.1 \leq 18.0$
C	$18.1 \leq 26.0$
D	$26.1 \leq 35.0$
E	$35.1 \leq 45.0$

Source: 2000 Highway Capacity Manual

Note: pc/mi/ln = passenger cars per mile per lane.

According to the CMP, the goal for basic freeway segment operation is LOS E or better, except where base year conditions LOS is worse than LOS E; in such cases base year LOS is the standard.

### **CMP Freeway Segment Thresholds of Significance**

While the CMP has not established traffic thresholds of significance for freeway segments, this traffic analysis utilizes the following traffic thresholds of significance:

A significant project impact occurs at a CMP study freeway segment when the addition of project-generated trips causes the peak hour level of service of the study freeway segment to change from acceptable operation (LOS E or better) to deficient operation (LOS F).

### **Existing Conditions CMP Freeway Segment Level of Service**

Existing freeway volumes were obtained from the Caltrans website. Freeway volumes obtained from the Caltrans website are assumed to be p.m. peak hour volumes, and a.m. peak hour mainline volumes are assumed as 90 percent of p.m. peak hour volumes. Directional volumes were derived using data available in *Congestion Management Program for Los Angeles County (MTA, 2004)*. According to Caltrans 2004 Annual Average Daily Truck Traffic, truck traffic accounts for 5.2% of traffic on SR-14 south of Palmdale Boulevard (SR-138) and 3.7% of traffic on SR-14 north of Palmdale Boulevard (SR-138). This analysis conservatively assumes a truck factor of 6 percent and a peak hour factor of 0.95 for the freeway study segment's traffic volumes. SR-14 is currently a 6-lane divided freeway in the vicinity of Palmdale Boulevard (SR-138).

Table 16 summarizes existing a.m. peak hour and p.m. peak hour LOS of the CMP freeway study segments; detailed LOS analysis sheets are contained in Appendix E.

**Table 16**  
**Existing Conditions CMP Freeway**  
**AM & PM Peak Hour Study Segment LOS**

Study Segment	AM Peak Hour	PM Peak Hour
	Density - LOS	Density - LOS
NB SR-14 north of Palmdale Boulevard (SR-138)	7.1 – A	29.2 – D
SB SR-14 north of Palmdale Boulevard (SR-138)	30.2 – D	11.7 – B
NB SR-14 south of Palmdale Boulevard (SR-138)	6.6 – A	26.1 – D
SB SR-14 south of Palmdale Boulevard (SR-138)	26.9 – D	10.8 – A

**Note:** Density = passenger cars per mile per lane; NB = Northbound; SB = Southbound.

As shown in Table 16, the CMP freeway study segments are currently operating at an acceptable LOS (LOS E or better) according to Los Angeles CMP performance criteria during the a.m. and p.m. peak hour.

**Forecast Year 2030 Without Project Conditions CMP Freeway Segment Level of Service**

Forecast year 2030 without traffic volumes are based on the application of the general traffic volume growth factor for North County available in *Congestion Management Program for Los Angeles County (MTA, 2004)* to existing traffic volumes. Forecast year 2030 conditions on SR-14 assume an 8-lane facility consisting of three general purpose lanes and one high-occupancy vehicle (HOV) lane in both directions in the vicinity of the Palmdale Boulevard (SR-138) interchange, consistent with the *North County Combined Highway Corridors Study Final Report (Parsons Transportation Group, June 2004)*.

Table 17 summarizes forecast year 2030 without project conditions a.m. peak hour and p.m. peak hour LOS of the CMP study freeway segments; detailed LOS analysis sheets are contained in Appendix E.

**Table 17**  
**Forecast Year 2030 Without Project Conditions**  
**CMP Freeway AM & PM Peak Hour Study Segment LOS**

Study Segment	AM Peak Hour	PM Peak Hour
	Density - LOS	Density - LOS
NB SR-14 north of Palmdale Boulevard (SR-138)	12.0 – B	<b>OVRFL – F</b>
SB SR-14 north of Palmdale Boulevard (SR-138)	<b>OVRFL – F</b>	19.6 - C
NB SR-14 south of Palmdale Boulevard (SR-138)	11.0 – B	<b>OVRFL – F</b>
SB SR-14 south of Palmdale Boulevard (SR-138)	<b>OVRFL – F</b>	18.1 – C

**Note:** Density = passenger cars per mile per lane; NB = Northbound; SB = Southbound; Deficient segment operation shown in **bold**; OVRFL = Density exceeds calculation of software program.

As shown in Table 17, the CMP study freeway segments are forecast to operate at a deficient LOS (LOS F) during either the a.m. or p.m. peak hour for forecast year 2030 without project conditions according to Los Angeles CMP performance criteria.

## Forecast Year 2030 With Project Conditions CMP Freeway Segment Level of Service

Forecast year 2030 with project traffic volumes were derived by adding project-generated trips to forecast year 2030 without project traffic volumes.

Table 18 summarizes forecast year 2030 with project conditions a.m. peak hour and p.m. peak hour peak hour LOS of the CMP study freeway segments; detailed LOS analysis sheets are contained in Appendix E.

**Table 18**  
**Forecast Year 2030 With Project Conditions**  
**CMP Freeway AM & PM Peak Hour Study Segment LOS**

Study Segment	Forecast Year 2030 Without Project Conditions		Forecast Year 2030 With Project Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	Density - LOS	Density - LOS	Density - LOS	Density - LOS	
NB SR-14 north of Palmdale Boulevard (SR-138)	12.0 – B	<b>OVRFL – F</b>	12.0 – B	<b>OVRFL – F</b>	No
SB SR-14 north of Palmdale Boulevard (SR-138)	<b>OVRFL – F</b>	19.6 - C	<b>OVRFL – F</b>	19.7 - C	No
NB SR-14 south of Palmdale Boulevard (SR-138)	11.0 – B	<b>OVRFL – F</b>	11.3 – B	<b>OVRFL – F</b>	No
SB SR-14 south of Palmdale Boulevard (SR-138)	<b>OVRFL – F</b>	18.1 – C	<b>OVRFL – F</b>	18.5 – C	No

**Note:** Density = passenger cars per mile per lane; NB = Northbound; SB = Southbound; Deficient segment operation shown in bold; OVRFL = Density exceeds calculation of software program.

As shown in Table 18, with the addition of project-generated trips, the CMP study freeway segments are forecast to continue to operate at a deficient LOS (LOS F) during either the a.m. or p.m. peak hour for forecast year 2030 with project conditions according to Los Angeles CMP performance criteria.

As also shown in Table 18, the addition of project-generated trips is forecast to result in no significant impacts at the CMP study freeway segments for forecast year 2030 with project conditions based on CMP thresholds of significance.

### CMP Transit Impact Analysis

The following transit services are available at the Palmdale Transit Center, which is located at 39000 Clock Tower Plaza Drive within the proposed project site:

- Antelope Valley Transit Authority (AVTA) Local Bus Service;
  - Local bus routes 1, 3, 7, 9, 97 and the Lake LA Express;
- Antelope Valley Transit Authority (AVTA) Commuter Bus Service;
  - Bus 785 to Los Angeles, Bus 786 to Century City and Bus 787 to the San Fernando Valley.
- Antelope Valley Transit Authority (AVTA) Medical Shuttle;
- Amtrak Throughway Bus Service;
- Greyhound Bus Service;

- Metrolink Rail Service; and
- County of L.A. Beach Bus (Summer Only).

The proposed project is forecast to generate approximately 834 a.m. peak hour trips, approximately 1,056 p.m. peak hour trips and approximately 9,357 net new daily vehicle trips. As per CMP guidelines, person trips can be estimated using a 1.4 factor to convert total vehicle trips to person trips, which results in a total of 1,168 a.m. peak hour person trips, 1,478 p.m. peak hour person trips and 13,100 daily person trips generated by the project.

Based on the CMP guidelines for determining trips assigned to transit the following factors applicable to the proposed project are utilized:

- 3.5 percent of Total Person Trips Generated for most cases; and
- 10 percent for a primarily residential project within ¼ mile of a CMP transit center.

Based on the definition of CMP transit centers on page F-5 of Appendix F of the *2002 Congestion Management Program for Los Angeles County (MTA, 2002)*, the Palmdale Transit Center is identified as a CMP transit center.

Based on the CMP guidelines, and the proximity of the various project land uses in relation to the Palmdale Transit Center, the proposed project is forecast to generate approximately 62 a.m. peak hour transit trips, approximately 78 p.m. peak hour transit trips, and approximately 719 daily transit trips.

## **STATE HIGHWAY ANALYSIS**

The purpose of the Caltrans *Guide for the Preparation of Traffic Impact Studies* (State of California Department of Transportation, December 2002) is to provide a safe and efficient State transportation system, provide consistency and uniformity in the identification of traffic impacts generated by local land use proposals, and consistency and equity in the identification of measures to mitigate the traffic impacts generated by land use proposals. The Caltrans traffic studies guide identifies review of substantial individual projects, which might on their own impact the CMP State Highway transportation system.

### **State Highway Intersection Analysis**

This section evaluates the forecast impact of project-generated trips at the following State Highway study intersections:

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138);
- SR-14 Southbound Off-ramp/Palmdale Boulevard (SR-138);
- SR-14 Northbound Off-ramp/Palmdale Boulevard (SR-138);
- Division Street/Palmdale Boulevard (SR-138);
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138);
- 5<sup>th</sup> Street East/Palmdale Boulevard (SR-138);

- 6<sup>th</sup> Street East/Palmdale Boulevard (SR-138); and
- Sierra Highway/Palmdale Boulevard (SR-138).

**State Highway Intersection Analysis Methodology**

Caltrans advocates use of HCM intersection analysis methodology to analyze the operation of signalized and unsignalized intersections. The HCM analysis methodology describes the operation of an intersection using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions), based on the corresponding stopped delay experienced per vehicle as shown in Table 19.

**Table 19  
State Highway LOS & Delay Ranges**

LOS	Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: 2000 Highway Capacity Manual

Level of service is based on the average stopped delay per vehicle for all movements of signalized intersections and all-way stop-controlled intersections; for one-way or two-way stop-controlled intersections, LOS is based on the worst stop-controlled approach. The Caltrans goal for peak hour intersection operation is LOS C or better.

**State Highway Intersection Thresholds of Significance**

While Caltrans has not established traffic thresholds of significance, this traffic analysis utilizes the following traffic thresholds of significance:

- A significant project impact occurs at a State Highway study intersection when the addition of project-generated trips causes the peak hour level of service of the study intersection to change from acceptable operation (LOS A, B, or C) to deficient operation (LOS D, E or F).

**Existing Conditions State Highway Intersection Level of Service**

Table 20 summarizes existing conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix F.

**Table 20  
Existing Conditions  
AM & PM Peak Hour State Highway Intersection LOS**

Study Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
5 <sup>th</sup> Street West/Palmdale Blvd (SR-138)	11.4	B	11.3	B
SR-14 SB Off-Ramp/Palmdale Blvd (SR-138)	9.0	A	12.6	B
SR-14 NB Off-Ramp/Palmdale Blvd (SR-138)	6.5	A	7.2	A
Division St/Palmdale Blvd (SR-138)	17.4	B	12.5	B
3 <sup>rd</sup> Street East/Palmdale Blvd (SR-138)	16.0	B	<b>35.5</b>	<b>D</b>
5 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	8.6	A	9.9	A
6 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	9.4	A	11.2	B
Sierra Hwy/Palmdale Blvd (SR-138)	25.3	C	30.5	C

**Note:** SB = Southbound; NB = Northbound; Delay shown in seconds per vehicle; Deficient intersection operation shown in **bold**.

As shown in Table 20, the State Highway study intersections are currently operating at an acceptable LOS (LOS C or better) according to Caltrans performance criteria during the peak hours with the exception of one the 3<sup>rd</sup> Street East/Palmdale Boulevard State Highway study intersection during the p.m. peak hour.

**Forecast Year 2030 Without Project Conditions State Highway Intersection Level of Service**

Table 21 summarizes forecast year 2030 without project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix F.

**Table 21  
Forecast Year 2030 Without Project Conditions  
AM & PM Peak Hour State Highway Intersection LOS**

Study Intersection	AM Peak Hour		PM Peak Hour	
	Delay	LOS	Delay	LOS
5 <sup>th</sup> Street West/Palmdale Blvd (SR-138)	26.7	C	<b>42.5</b>	<b>D</b>
SR-14 SB Off-Ramp/Palmdale Blvd (SR-138)	13.5	B	27.7	C
SR-14 NB Off-Ramp/Palmdale Blvd (SR-138)	7.1	A	10.7	B
Division St/Palmdale Blvd (SR-138)	31.8	C	21.6	C
3 <sup>rd</sup> Street East/Palmdale Blvd (SR-138)	19.6	B	<b>127.4</b>	<b>F</b>
5 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	9.4	A	10.2	B
6 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	14.8	B	22.5	C
Sierra Hwy/Palmdale Blvd (SR-138)	29.4	C	<b>67.6</b>	<b>E</b>

**Note:** SB = Southbound; NB = Northbound; N/A = Not Applicable; Delay shown in seconds per vehicle; Deficient intersection operation shown in **bold**.

As shown in Table 21, the State Highway study intersections are forecast to operate at an acceptable LOS (LOS C or better) according to Caltrans performance criteria during the peak hours for forecast year 2030 without project conditions, with the exception of three State Highway study intersections:

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138) (p.m. peak hour only);
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138) (p.m. peak hour only); and
- Sierra Highway/Palmdale Boulevard (SR-138) (p.m. peak hour only).

**Forecast Year 2030 With Project Conditions State Highway Intersection Level of Service**

Table 22 summarizes forecast year 2030 with project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study intersections; detailed LOS analysis sheets are contained in Appendix F.

**Table 22  
Forecast Year 2030 With Project Conditions  
AM & PM Peak Hour State Highway Intersection LOS**

Study Intersection	Forecast Year 2030 Without Project Conditions		Forecast Year 2030 With Project Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	Delay – LOS	Delay – LOS	Delay – LOS	Delay – LOS	
5 <sup>th</sup> Street West/Palmdale Blvd (SR-138)	26.7 – C	<b>42.5 – D</b>	26.7 – C	<b>44.2 – D</b>	No
SR-14 SB Off-Ramp/Palmdale Blvd (SR-138)	13.5 – B	27.7 – C	13.7 – B	31.4 – C	No
SR-14 NB Off-Ramp/Palmdale Blvd (SR-138)	7.1 – A	10.7 – B	7.5 – A	10.4 – B	No
Division St/Palmdale Blvd (SR-138)	31.8 – C	21.6 – C	33.4 – C	20.3 – C	No
3 <sup>rd</sup> Street East/Palmdale Blvd (SR-138)	19.6 – B	<b>127.4 – F</b>	19.5 – B	<b>135.4 – F</b>	No
5 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	9.4 – A	10.2 – B	11.1 – B	10.8 – B	No
6 <sup>th</sup> Street East/Palmdale Blvd (SR-138)	14.8 – B	22.5 – C	15.2 – B	21.1 – C	No
Sierra Hwy/Palmdale Blvd (SR-138)	29.4 – C	<b>67.6 – E</b>	31.5 – C	<b>74.2 – E</b>	No

**Note:** SB = Southbound; NB = Northbound; N/A = Not Applicable; Delay shown in seconds per vehicle; Deficient intersection operation shown in **bold**.

As shown in Table 22, the State Highway study intersections are forecast continue to operate at an acceptable LOS (LOS C or better) according to Caltrans performance criteria during the peak hours for forecast year 2030 with project conditions with the exception of three State Highway study intersections:

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138) (p.m. peak hour only);
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138) (p.m. peak hour only); and
- Sierra Highway/Palmdale Boulevard (SR-138) (p.m. peak hour only).

As also shown in Table 22, the addition of project-generated trips is forecast to result in no significant impacts at the State Highway study intersections based on Caltrans thresholds of significance for forecast year 2030 with project conditions.

## State Highway Freeway Segment Analysis

This section evaluates the forecast impact of project-generated trips at the following State Highway study freeway segments:

- SR-14 north of SR-138 (Palmdale Boulevard); and
- SR-14 south of SR-138 (Palmdale Boulevard).

## State Highway Freeway Segment Analysis Methodology

Caltrans advocates the use of HCM analysis methodology to analyze the operation of freeway segments. The HCM analysis methodology describes the operation of a basic freeway segment using a range of LOS from LOS A (free-flow conditions) to LOS F (severely congested conditions) based on corresponding density (passenger cars/mile/lane) shown in Table 23.

**Table 23**  
**LOS & Density Ranges for Freeway Segments**

LOS	Density (pc/mi/ln)
A	$\leq 11.0$
B	$11.1 \leq 18.0$
C	$18.1 \leq 26.0$
D	$26.1 \leq 35.0$
E	$35.1 \leq 45.0$

Note: pc/mi/ln = passenger cars per mile per lane.

The Caltrans goal for basic freeway segment operation is LOS C or better.

## State Highway Freeway Segment Thresholds of Significance

While Caltrans has not established traffic thresholds of significance, this traffic analysis utilizes the following traffic thresholds of significance:

- A significant project impact occurs at a State Highway study freeway segment when the addition of project-generated trips causes the peak hour level of service of the study freeway segment to change from acceptable operation (LOS A, B, or C) to deficient operation (LOS D, E or F).

## Existing Conditions State Highway Freeway Segment Level of Service

Existing freeway volumes were obtained from the Caltrans website. Freeway volumes obtained from the Caltrans website are assumed to be p.m. peak hour volumes, and a.m. peak hour mainline volumes are assumed as 90 percent of p.m. peak hour volumes. Directional volumes were derived using data available in *Congestion Management Program for Los Angeles County (MTA, 2004)*. According to Caltrans 2004 Annual Average Daily Truck Traffic, truck traffic accounts for 5.2% of traffic on SR-14 south of Palmdale Boulevard (SR-138) and 3.7% of traffic on SR-14 north of Palmdale Boulevard (SR-138). This analysis conservatively assumes a truck

factor of 6 percent and a peak hour factor of 0.95 for the freeway study segment's traffic volumes. SR-14 is currently a 6-lane divided freeway in the vicinity of Palmdale Boulevard (SR-138).

Table 24 summarizes existing a.m. peak hour and p.m. peak hour LOS of the State Highway study freeway segments; detailed LOS analysis sheets are contained in Appendix E.

**Table 24  
Existing Conditions State Highway  
AM & PM Peak Hour Study Freeway Segment LOS**

Study Segment	AM Peak Hour	PM Peak Hour
	Density - LOS	Density - LOS
NB SR-14 north of Palmdale Boulevard (SR-138)	7.1 – A	<b>29.2 – D</b>
SB SR-14 north of Palmdale Boulevard (SR-138)	<b>30.2 – D</b>	11.7 – B
NB SR-14 south of Palmdale Boulevard (SR-138)	6.6 – A	<b>26.1 – D</b>
SB SR-14 south of Palmdale Boulevard (SR-138)	<b>26.9 – D</b>	10.8 – A

**Note:** Density = passenger cars per mile per lane; NB = Northbound; SB = Southbound. Deficient segment operation shown in **bold**.

As shown in Table 24, the State Highway freeway segments are currently operating at a deficient LOS (LOS D or worse) according to Caltrans performance criteria during one or both peak hours.

**Forecast Year 2030 Without Project Conditions State Highway Freeway Segment Level of Service**

Forecast year 2030 without traffic volumes are based on the application of the general traffic volume growth factor for North County available in *Congestion Management Program for Los Angeles County (MTA, 2004)* to existing traffic volumes. Forecast year 2030 conditions on SR-14 assume an 8-lane facility consisting of three general purpose lanes and one high-occupancy vehicle (HOV) lane in both directions in the vicinity of the Palmdale Boulevard (SR-138) interchange, consistent with the *North County Combined Highway Corridors Study Final Report (Parsons Transportation Group, June 2004)*.

Table 25 summarizes forecast year 2030 without project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study freeway segments; detailed LOS analysis sheets are contained in Appendix E.

**Table 25  
Forecast Year 2030 Without Project Conditions  
State Highway AM & PM Peak Hour Study Freeway Segment LOS**

Study Segment	AM Peak Hour	PM Peak Hour
	Density - LOS	Density - LOS
NB SR-14 north of Palmdale Boulevard (SR-138)	12.0 – B	<b>OVRFL – F</b>
SB SR-14 north of Palmdale Boulevard (SR-138)	<b>OVRFL – F</b>	19.6 - C
NB SR-14 south of Palmdale Boulevard (SR-138)	11.0 – B	<b>OVRFL – F</b>
SB SR-14 south of Palmdale Boulevard (SR-138)	<b>OVRFL – F</b>	18.1 – C

**Note:** Density = passenger cars per mile per lane; NB = Northbound; SB = Southbound; Deficient segment operation shown in **bold**; OVRFL = Density exceeds calculation of software program.

As shown in Table 17, the State Highway study freeway segments are forecast to continue to operate at a deficient LOS (LOS D or worse) according to Caltrans performance criteria for forecast year 2030 without project conditions.

**Forecast Year 2030 With Project Conditions State Highway Freeway Segment Level of Service**

Forecast year 2030 with project traffic volumes were derived by adding project-generated trips to forecast year 2030 without project traffic volumes.

Table 26 summarizes forecast year 2030 with project conditions a.m. peak hour and p.m. peak hour LOS of the State Highway study freeway segments; detailed LOS analysis sheets are contained in Appendix E.

**Table 26  
Forecast Year 2030 With Project Conditions  
State Highway AM & PM Peak Hour Study Freeway Segment LOS**

Study Segment	Forecast Year 2030 Without Project Conditions		Forecast Year 2030 With Project Conditions		Significant Impact?
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour	
	Density - LOS	Density - LOS	Density - LOS	Density - LOS	
NB SR-14 north of Palmdale Boulevard (SR-138)	12.0 – B	<b>OVRFL – F</b>	12.0 – B	<b>OVRFL – F</b>	No
SB SR-14 north of Palmdale Boulevard (SR-138)	<b>OVRFL – F</b>	19.6 - C	<b>OVRFL – F</b>	19.7 - C	No
NB SR-14 south of Palmdale Boulevard (SR-138)	11.0 – B	<b>OVRFL – F</b>	11.3 – B	<b>OVRFL – F</b>	No
SB SR-14 south of Palmdale Boulevard (SR-138)	<b>OVRFL – F</b>	18.1 – C	<b>OVRFL – F</b>	18.5 – C	No

**Note:** Density = passenger cars per mile per lane; NB = Northbound; SB = Southbound; Deficient segment operation shown in **bold**; OVRFL = Density exceeds calculation of software program.

As shown in Table 26, with the addition of project-generated trips, the State Highway study freeway segments are forecast to continue to operate at a deficient LOS (LOS D or worse) according to Caltrans performance criteria for forecast year 2030 with project conditions.

As also shown in Table 26, the addition of project-generated trips is forecast to result in no significant impacts at the State Highway study freeway segments for forecast year 2030 with project conditions based on Caltrans thresholds of significance.

## MITIGATION MEASURES

The following mitigation measures are recommended to reduce project impacts to a level considered less than significant for forecast year 2030 with project conditions based on City of Palmdale thresholds of significance:

- Mitigation Measure No. 1 SR-14 Southbound Off-Ramp/Palmdale Boulevard (SR-138)** – The project shall make a fair share contribution to widen the southbound SR-14 off-ramp approach from one left-turn lane and one right-turn lane to consist of two left-turn lanes and one right-turn lane. Implementation of this mitigation measure will require coordination with Caltrans staff.
- Mitigation Measure No. 2 6<sup>th</sup> Street East/Palmdale Boulevard (SR-138)** – The project shall make a fair share contribution to widen the southbound 6<sup>th</sup> Street East approach from one left-turn lane, one through lane and one right-turn lane to consist of two left-turn lanes, one through lane and one right-turn lane. Implementation of this mitigation measure will require coordination with Caltrans staff.
- Mitigation Measure No. 3 Sierra Highway/Avenue P** – The project shall make a fair share contribution to widen the eastbound Avenue P approach from one left-turn lane, three through lanes and one right-turn lane to consist of two left-turn lanes, three through lanes and one right-turn lane.
- Mitigation Measure No. 4 Sierra Highway/Palmdale Boulevard (SR-138)** – The project shall make a fair share contribution to widen the eastbound Palmdale Boulevard (SR-138) approach from one left-turn lane, three through lanes and one free right-turn lane to consist of two left-turn lanes, three through lanes and one free right-turn lane. Implementation of this mitigation measure will require coordination with Caltrans staff.

No feasible mitigation measures have been identified to reduce or eliminate the traffic impact to a level considered less than significant at three study intersections due to physical right-of-way constraints, planning, and engineering; environmental clearance involved make construction of mitigation measures likely impractical at this time at the following three study intersections significantly impacted by trips forecast to be generated by the proposed project:

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138);
- Division Street/Palmdale Boulevard (SR-138); and
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138).

## **CMP Required Mitigation Measures**

The following mitigation measure is recommended to reduce project impacts to a level considered less than significant for forecast year 2030 with project conditions based on CMP thresholds of significance:

- CMP Mitigation Measure No. 1**     **Sierra Highway/Palmdale Boulevard (SR-138)** – The project shall make a fair share contribution to widen the eastbound Palmdale Boulevard (SR-138) approach from one left-turn lane, three through lanes and one free right-turn lane to consist of two left-turn lanes, three through lanes and one free right-turn lane.

## **CONCLUSIONS**

The proposed Palmdale Transit Village project consists of the following land uses:

- 78 single family dwelling units;
- 192 town home dwelling units;
- 725 multi-family dwelling units;
- Neighborhood retail mixed-use (32 dwelling units, 9,000 square feet of retail);
- 40,000 square feet of neighborhood retail;
- 353,000 square feet of stand alone office space;
- Office mixed-use (46,500 square feet of retail, 46,500 square feet of office); and
- 175,000 square feet of greenspace.

Buildout of the Palmdale Transit Village includes displacement of existing residential, retail, light industrial and school uses at the project site.

When accounting for the displaced land uses, the proposed project is forecast to generate approximately 9,357 net new daily trips, which includes approximately 834 net new a.m. peak hour trips and approximately 1,056 net new p.m. peak hour trips.

Mitigation measures have been identified to eliminate significant traffic impacts for forecast year 2030 with project conditions at the following intersections:

- SR-14 Southbound Off-Ramp/Palmdale Boulevard (SR-138);
- 6<sup>th</sup> Street East/Palmdale Boulevard (SR-138);
- Sierra Highway/Avenue P (SR-138); and
- Sierra Highway/Palmdale Boulevard (SR-138).

No mitigation measures have been identified to reduce or eliminate significant traffic impacts at the following three study intersections; therefore, significant adverse unavoidable traffic impacts are forecast to occur for forecast year 2030 with project conditions;

- 5<sup>th</sup> Street West/Palmdale Boulevard (SR-138);
- Division Street/Palmdale Boulevard (SR-138); and
- 3<sup>rd</sup> Street East/Palmdale Boulevard (SR-138).

Mitigation measures have been identified to eliminate significant traffic impacts for forecast year 2030 with project conditions at the following CMP study intersection:

- Sierra Highway/Palmdale Boulevard (SR-138).

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**APPENDIX A**  
**Existing Count Data**



## **Intersection Counts**



# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 5th St. West

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-001

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 1	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	43	13	44	10	6	11	12	194	14	9	184	14	554
7:15 AM	27	19	47	12	7	12	14	231	16	16	128	15	544
7:30 AM	15	17	56	11	9	8	6	200	7	20	105	39	493
7:45 AM	16	12	49	14	8	11	12	146	8	21	127	31	455
8:00 AM	10	13	38	25	4	4	14	174	7	17	148	25	479
8:15 AM	11	9	35	19	6	7	7	138	8	15	142	23	420
8:30 AM	9	8	29	20	7	8	8	117	4	13	145	32	400
8:45 AM	7	11	27	17	4	6	5	191	2	15	112	26	423
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL 138	NT 102	NR 325	SL 128	ST 51	SR 67	EL 78	ET 1391	ER 66	WL 126	WT 1091	WR 205	TOTAL 3768
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AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	101	61	196	47	30	42	44	771	45	66	544	99	2046
PEAK HR. FACTOR:		0.895			0.902			0.824			0.856		0.923

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 5th St. West

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-001

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	1	2	1	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	10	11	16	29	17	15	6	362	12	46	179	41	744
4:15 PM	11	11	17	20	16	12	7	366	14	41	169	46	730
4:30 PM	12	8	26	35	19	13	13	288	11	55	167	35	682
4:45 PM	14	12	21	31	18	14	8	282	12	49	159	50	670
5:00 PM	8	17	29	40	15	10	9	292	5	64	148	26	663
5:15 PM	5	16	22	30	14	9	10	300	7	46	150	22	631
5:30 PM	13	21	26	32	16	17	11	302	11	54	158	28	689
5:45 PM	9	12	22	25	17	12	12	282	8	38	136	19	592
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	82	108	179	242	132	102	76	2474	80	393	1266	267	5401

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	47	42	80	115	70	54	34	1298	49	191	674	172	2826
PEAK HR. FACTOR:	0.899		0.892			0.892			0.975		0.950		

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: SR-14 SB Off-Ramp

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-002

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL 1	ST	SR 1	EL	ET 2	ER 1	WL	WT 2	WR 1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				81		21		186	61		176	46	571
7:15 AM				84		26		211	81		146	31	579
7:30 AM				120		29		201	73		108	34	565
7:45 AM				128		42		155	64		142	30	561
8:00 AM				110		37		152	59		141	34	533
8:15 AM				97		23		149	51		167	37	524
8:30 AM				89		21		144	44		162	28	488
8:45 AM				82		22		155	46		164	22	491
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 791	ST 0	SR 221	EL 0	ET 1353	ER 479	WL 0	WT 1206	WR 262	TOTAL 4312
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AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	0	0	0	413	0	118	0	753	279	0	572	141	2276
PEAK HR. FACTOR:		0.000			0.781			0.884			0.803		0.983

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: SR-14 SB Off-Ramp

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-002

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL 1	ST	SR 1	EL	ET 2	ER 1	WL	WT 2	WR 1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				170		58		215	54		212	47	756
4:15 PM				168		46		208	43		202	50	717
4:30 PM				147		34		195	28		199	48	651
4:45 PM				163		44		199	38		196	47	687
5:00 PM				170		56		196	37		210	50	719
5:15 PM				148		48		177	40		199	37	649
5:30 PM				142		33		179	41		204	22	621
5:45 PM				145		34		181	32		188	23	603
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	0	0	1253	0	353	0	1550	313	0	1610	324	5403

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	0	0	0	648	0	182	0	817	163	0	809	192	2811
PEAK HR. FACTOR:		0.000			0.910			0.911			0.966		0.930

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: SR-14 NB Off-Ramp

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-003

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT	NR 1	SL	ST	SR	EL	ET 2	ER 1	WL	WT 2	WR 1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	45		54					181	30		180	146	636
7:15 AM	35		47					259	37		145	188	711
7:30 AM	30		43					223	40		105	190	631
7:45 AM	23		40					290	40		148	178	719
8:00 AM	19		32					225	41		143	169	629
8:15 AM	25		41					223	42		171	167	669
8:30 AM	30		45					185	41		155	168	624
8:45 AM	38		47					225	40		161	158	669
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL 245	NT 0	NR 349	SL 0	ST 0	SR 0	EL 0	ET 1811	ER 311	WL 0	WT 1208	WR 1364	TOTAL 5288
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AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	133	0	184	0	0	0	0	953	147	0	578	702	2697
PEAK HR. FACTOR:		0.801			0.000			0.833			0.961		0.938

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: SR-14 NB Off-Ramp

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-003

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1		1					2	1		2	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	46		56					349	19		201	131	802
4:15 PM	48		65					338	30		189	175	845
4:30 PM	52		73					313	41		193	191	863
4:45 PM	54		66					299	47		178	185	829
5:00 PM	54		58					339	43		211	163	868
5:15 PM	58		55					308	41		201	197	860
5:30 PM	57		52					285	36		175	220	825
5:45 PM	54		64					308	27		188	210	851
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	423	0	489	0	0	0	0	2539	284	0	1536	1472	6743

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	218	0	252	0	0	0	0	1259	172	0	783	736	3420
PEAK HR. FACTOR:		0.940			0.000			0.937			0.954		0.985

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Division St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue Q

DAY: THURSDAY

PROJECT# 06-2054-004

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
6:00 AM	0	1	0	0	1	0	0	1	0	0	1	0	
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	13	0	5	1	0	0	0	20	5	7	16	1	68
7:15 AM	5	0	9	1	0	0	3	18	4	5	17	0	62
7:30 AM	5	0	4	1	2	0	1	24	5	13	26	1	82
7:45 AM	4	1	7	0	4	0	0	16	6	12	36	1	87
8:00 AM	9	1	8	0	0	1	0	25	6	7	35	0	92
8:15 AM	10	0	13	1	0	0	0	15	8	8	19	0	74
8:30 AM	8	1	9	0	0	0	0	28	8	4	16	0	74
8:45 AM	9	0	2	0	1	0	0	14	5	12	20	2	65
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	63	3	57	4	7	1	4	160	47	68	185	5	604

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	28	2	32	2	6	1	1	80	25	40	116	2	335
PEAK HR. FACTOR:	0.674			0.563			0.855			0.806			0.910

CONTROL: 2-Way Stop N & S

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Division St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue Q

DAY: THURSDAY

PROJECT# 06-2054-004

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	2	6	0	2	1	0	23	8	14	22	1	83
4:15 PM	11	4	9	0	4	2	1	26	11	17	29	1	115
4:30 PM	6	4	11	1	2	0	0	24	16	22	24	0	110
4:45 PM	9	0	9	0	1	1	1	20	13	18	20	2	94
5:00 PM	3	7	8	0	1	0	0	24	15	12	31	3	104
5:15 PM	3	2	14	0	3	3	0	28	12	6	26	0	97
5:30 PM	7	5	12	1	3	1	0	31	9	10	25	0	104
5:45 PM	11	3	5	1	4	2	0	26	9	10	23	0	94
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	54	27	74	3	20	10	2	202	93	109	200	7	801

PM Peak Hr Begins at: 4:15 PM

PEAK VOLUMES =	29	15	37	1	8	3	2	94	55	69	104	6	423
PEAK HR. FACTOR:	0.844			0.500			0.944			0.952			0.920

CONTROL: 2-Way Stop N & S

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Division St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-005

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	1	1	0	1	3	0	1	3	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	99	9	4	5	12	26	16	206	25	21	222	3	648
7:15 AM	102	11	6	6	4	29	23	232	26	22	203	4	668
7:30 AM	128	12	7	7	8	28	21	295	29	18	145	3	701
7:45 AM	121	16	9	8	13	30	16	284	31	14	154	2	698
8:00 AM	126	21	8	9	22	29	20	205	24	17	162	2	645
8:15 AM	99	26	10	10	29	31	23	196	31	22	215	1	693
8:30 AM	89	18	5	8	22	26	16	175	26	19	208	2	614
8:45 AM	67	11	6	5	18	23	10	230	22	20	232	2	646
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	831	124	55	58	128	222	145	1823	214	153	1541	19	5313

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	474	75	34	34	72	118	80	980	115	71	676	8	2737
PEAK HR. FACTOR:		0.940			0.800			0.851			0.793		0.976

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Division St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-005

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	1	1	0	1	3	0	1	3	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	72	15	8	6	18	16	12	340	50	15	279	2	833
4:15 PM	69	17	9	7	14	11	11	313	45	16	275	3	790
4:30 PM	68	16	11	8	12	13	19	348	42	17	304	2	860
4:45 PM	66	15	13	7	10	16	27	344	37	18	292	1	846
5:00 PM	71	16	15	9	15	18	25	317	43	21	305	4	859
5:15 PM	75	14	15	10	19	20	22	287	48	22	204	2	738
5:30 PM	73	13	12	8	22	18	18	260	51	20	330	1	826
5:45 PM	76	12	8	6	21	16	14	320	54	16	325	2	870
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	570	118	91	61	131	128	148	2529	370	145	2314	17	6622

PM Peak Hr Begins at: 4:15 PM

PEAK VOLUMES =	274	64	48	31	51	58	82	1322	167	72	1176	10	3355
PEAK HR. FACTOR:	0.946			0.833			0.960			0.953			0.975

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 3rd St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Technology Drive

DAY: THURSDAY

PROJECT# 06-2054-006

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	4	7	5	3	6	19	6	40	10	5	62	1	168
7:15 AM	1	18	13	1	12	4	13	41	11	7	64	5	190
7:30 AM	3	12	12	0	22	13	4	52	8	8	44	3	181
7:45 AM	5	10	4	1	14	12	3	49	12	9	82	5	206
8:00 AM	4	14	6	7	38	7	4	34	9	13	45	6	187
8:15 AM	7	29	9	3	30	6	0	31	4	3	40	5	167
8:30 AM	8	16	7	4	26	8	5	28	6	1	31	4	144
8:45 AM	5	22	10	1	19	5	3	21	4	3	34	5	132
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	37	128	66	20	167	74	38	296	64	49	402	34	1375

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	13	54	35	9	86	36	24	176	40	37	235	19	764
PEAK HR. FACTOR:		0.797			0.630			0.923			0.758		0.927

CONTROL: 4-Way Stop

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 3rd St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Technology Drive

DAY: THURSDAY

PROJECT# 06-2054-006

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	9	22	10	3	32	8	1	101	16	22	94	10	328
4:15 PM	11	18	13	4	30	4	4	90	14	25	77	15	305
4:30 PM	15	20	14	9	31	13	3	80	13	22	97	11	328
4:45 PM	8	22	6	4	27	10	4	82	10	20	102	4	299
5:00 PM	5	11	5	5	26	12	10	90	13	27	114	9	327
5:15 PM	18	24	16	4	36	8	5	84	14	19	104	8	340
5:30 PM	14	12	9	2	23	12	8	78	17	16	88	10	289
5:45 PM	12	9	7	4	21	6	11	71	14	15	80	14	264
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	92	138	80	35	226	73	46	676	111	166	756	81	2480

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	46	77	41	22	120	43	22	336	50	88	417	32	1294
PEAK HR. FACTOR:	0.707			0.873			0.903			0.895			0.951

CONTROL: 4-Way Stop

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 3rd St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue P-12

DAY: THURSDAY

PROJECT# 06-2054-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
LANES:	1	1	1	1	1	1	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	11	0	0	21	0	1	0	0	0	0	0	33
7:15 AM	1	12	0	0	30	0	1	0	0	0	1	0	45
7:30 AM	1	16	1	2	35	1	3	1	1	0	0	0	61
7:45 AM	0	23	0	1	43	1	1	0	0	0	0	1	70
8:00 AM	0	32	0	3	49	6	5	1	1	0	1	0	98
8:15 AM	1	59	1	2	45	0	2	0	1	1	0	1	113
8:30 AM	1	34	1	0	39	2	4	3	0	0	0	0	84
8:45 AM	0	21	0	0	24	0	5	0	0	1	0	0	51
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	4	208	3	8	286	10	22	5	3	2	2	2	555

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	2	148	2	6	176	9	12	4	2	1	1	2	365
PEAK HR. FACTOR:		0.623			0.823			0.643			0.500		0.808

CONTROL: 2-Way Stop E & W

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 3rd St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue P-12

DAY: THURSDAY

PROJECT# 06-2054-007

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	1	1	1	1	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	28	0	2	60	1	1	0	0	0	0	0	92
4:15 PM	1	21	0	4	55	2	1	0	0	2	1	4	91
4:30 PM	0	23	0	0	68	2	4	1	2	1	2	7	110
4:45 PM	1	21	0	2	50	4	3	1	1	3	0	3	89
5:00 PM	0	32	1	0	82	5	5	0	1	1	0	1	128
5:15 PM	0	36	2	2	32	2	2	2	0	0	3	8	89
5:30 PM	0	38	0	0	52	3	3	1	1	4	1	3	106
5:45 PM	4	26	0	0	40	1	2	1	0	2	2	8	86
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	6	225	3	10	439	20	21	6	5	13	9	34	791

PM Peak Hr Begins at: 4:15 PM

PEAK VOLUMES =	2	97	1	6	255	13	13	2	4	7	3	15	418
PEAK HR. FACTOR:		0.758			0.787			0.679			0.625		0.816

CONTROL: 2-Way Stop E & W

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 3rd St.

DATE: 02/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue Q

DAY: THURSDAY

PROJECT# 06-2054-008

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	1	0	0	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	10	0	6	8	2	14	5	14	2	6	10	6	83
7:15 AM	8	1	8	12	0	17	8	19	6	7	13	8	107
7:30 AM	7	2	4	15	1	20	10	24	7	8	15	14	127
7:45 AM	9	0	7	20	1	25	11	27	8	10	18	26	162
8:00 AM	8	0	2	22	2	28	10	22	4	8	19	25	150
8:15 AM	6	2	8	25	0	30	25	12	2	2	24	23	159
8:30 AM	8	1	6	20	0	18	16	11	9	1	11	19	120
8:45 AM	7	1	8	14	1	13	4	17	11	3	17	11	107
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	63	7	49	136	7	165	89	146	49	45	127	132	1015

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	30	4	21	82	4	103	56	85	21	28	76	88	598
PEAK HR. FACTOR:		0.859		0.859			0.880			0.889			0.923

CONTROL: 1-Way Stop S

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 3rd St.

DATE: 02/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue Q

DAY: THURSDAY

PROJECT# 06-2054-008

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	1	0	0	1	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	4	17	11	14	1	18	7	26	2	3	24	17	144
4:15 PM	7	0	8	16	2	19	3	29	1	2	15	19	121
4:30 PM	8	0	7	33	1	16	5	26	0	0	23	18	137
4:45 PM	7	4	9	20	3	13	4	23	0	1	24	15	123
5:00 PM	9	1	10	35	0	26	5	27	0	1	15	21	150
5:15 PM	6	3	8	17	0	11	10	25	0	2	22	21	125
5:30 PM	8	1	8	25	2	14	12	34	0	0	26	17	147
5:45 PM	4	0	4	17	0	14	6	26	0	3	25	17	116
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	53	26	65	177	9	131	52	216	3	12	174	145	1063

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	30	9	35	97	5	64	31	109	0	4	87	74	545
PEAK HR. FACTOR:		0.925		0.680			0.761			0.917			0.908

CONTROL: 1-Way Stop S

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 3rd St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-009

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	3	0	1	3	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	4	28	19	5	34	1	1	90	8	30	140	7	367
7:15 AM	6	36	22	8	47	3	2	75	10	33	156	9	407
7:30 AM	5	29	26	5	73	2	2	158	9	44	208	10	571
7:45 AM	6	38	25	9	61	4	2	135	10	49	182	6	527
8:00 AM	8	55	54	7	82	2	2	214	14	58	232	14	742
8:15 AM	4	52	33	8	82	2	2	398	20	46	224	12	883
8:30 AM	6	47	37	7	75	2	3	371	27	41	250	15	881
8:45 AM	5	41	30	6	66	3	3	319	17	38	206	13	747
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	44	326	246	55	520	19	17	1760	115	339	1598	86	5125

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	23	195	154	28	305	9	10	1302	78	183	912	54	3253
PEAK HR. FACTOR:		0.795			0.929			0.827			0.939		0.921

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 3rd St.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-009

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	1	3	0	1	3	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	11	54	29	19	29	3	1	154	16	34	169	15	534
4:15 PM	14	47	35	20	34	2	2	196	13	41	188	19	611
4:30 PM	16	69	41	27	45	3	1	209	18	46	258	14	747
4:45 PM	18	76	49	23	48	2	0	266	17	54	273	15	841
5:00 PM	13	104	51	12	63	4	1	380	26	48	352	22	1076
5:15 PM	11	98	61	24	53	7	4	383	17	54	390	14	1116
5:30 PM	14	105	65	27	61	6	2	394	23	49	348	19	1113
5:45 PM	16	100	74	29	48	8	2	380	29	55	381	24	1146
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	113	653	405	181	381	35	13	2362	159	381	2359	142	7184

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	54	407	251	92	225	25	9	1537	95	206	1471	79	4451
PEAK HR. FACTOR:		0.937		0.910				0.979			0.954		0.971

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Sierra Highway

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue P

DAY: THURSDAY

PROJECT# 06-2054-010

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	0	2	2	1	1	2	1	1	1.5	1.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	11	73	4	96	64	9	14	121	9	6	104	133	644
7:15 AM	15	113	6	106	57	12	21	133	13	6	121	142	745
7:30 AM	14	162	7	120	86	11	24	149	16	5	110	166	870
7:45 AM	22	142	10	136	124	17	28	218	28	12	125	195	1057
8:00 AM	27	81	14	131	68	22	31	209	21	8	106	184	902
8:15 AM	21	94	11	118	48	24	29	156	24	5	109	158	797
8:30 AM	18	108	5	84	87	22	28	128	21	3	115	135	754
8:45 AM	14	72	7	82	71	20	22	119	14	5	101	116	643
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	142	845	64	873	605	137	197	1233	146	50	891	1229	6412

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	84	479	42	505	326	74	112	732	89	30	450	703	3626
PEAK HR. FACTOR:		0.827		0.817			0.851			0.891			0.858

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Sierra Highway

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue P

DAY: THURSDAY

PROJECT# 06-2054-010

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	2	2	0	2	2	1	1	2	1	1	1.5	1.5	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	85	146	7	135	154	25	34	171	36	3	211	162	1169
4:15 PM	77	140	9	129	139	24	31	163	34	2	200	156	1104
4:30 PM	69	131	6	125	130	21	31	142	25	3	196	132	1011
4:45 PM	67	119	2	136	139	42	30	133	45	2	190	130	1035
5:00 PM	72	124	3	169	154	49	36	142	51	3	202	143	1148
5:15 PM	78	129	2	190	166	31	34	126	28	6	172	163	1125
5:30 PM	66	118	6	174	151	30	22	115	23	7	163	127	1002
5:45 PM	65	130	10	163	148	34	18	163	36	4	181	111	1063
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL 579	NT 1037	NR 45	SL 1221	ST 1181	SR 256	EL 236	ET 1155	ER 278	WL 30	WT 1515	WR 1124	TOTAL 8657
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PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	281	501	21	696	619	144	110	546	138	20	718	544	4338
PEAK HR. FACTOR:		0.961		0.943			0.867			0.921			0.945

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Sierra Highway

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Technology Drive

DAY: THURSDAY

PROJECT# 06-2054-011

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	0	2	1	1	0	1	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	56	72			80	20	15		30				273
7:15 AM	37	110			75	23	23		40				308
7:30 AM	36	172			92	22	25		42				389
7:45 AM	56	133			132	43	18		63				445
8:00 AM	40	112			84	18	12		39				305
8:15 AM	32	105			62	11	19		26				255
8:30 AM	44	118			106	15	14		22				319
8:45 AM	42	92			91	20	10		34				289
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	343	914	0	0	722	172	136	0	296	0	0	0	2583

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	169	527	0	0	383	106	78	0	184	0	0	0	1447
PEAK HR. FACTOR:		0.837			0.699			0.809			0.000		0.813

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Sierra Highway

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Technology Drive

DAY: THURSDAY

PROJECT# 06-2054-011

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	2	0	0	2	1	1	0	1	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	110	213			228	56	18		133				758
4:15 PM	84	196			218	47	10		72				627
4:30 PM	70	206			227	57	18		71				649
4:45 PM	85	149			194	44	26		77				575
5:00 PM	95	178			189	40	20		60				582
5:15 PM	87	175			211	31	36		90				630
5:30 PM	81	157			227	30	23		66				584
5:45 PM	71	145			185	49	26		81				557
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL 683	NT 1419	NR 0	SL 0	ST 1679	SR 354	EL 177	ET 0	ER 650	WL 0	WT 0	WR 0	TOTAL 4962
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PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	349	764	0	0	867	204	72	0	353	0	0	0	2609
PEAK HR. FACTOR:		0.861			0.943			0.704			0.000		0.860

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 6th Street

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue Q

DAY: THURSDAY

PROJECT# 06-2054-013

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	0	1	1	0.5	0	0.5	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	10	9			12	3	1		10				45
7:15 AM	12	11			14	2	3		11				53
7:30 AM	15	13			13	4	3		13				61
7:45 AM	15	15			23	1	2		14				70
8:00 AM	12	10			21	3	3		14				63
8:15 AM	14	15			11	2	3		22				67
8:30 AM	18	21			18	2	1		10				70
8:45 AM	10	6			9	1	2		16				44
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	106	100	0	0	121	18	18	0	110	0	0	0	473

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	59	61	0	0	73	8	9	0	60	0	0	0	270
PEAK HR. FACTOR:		0.769			0.844			0.690			0.000		0.964

CONTROL: 1-Way Stop E

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 6th Street

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue Q

DAY: THURSDAY

PROJECT# 06-2054-013

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	0	1	1	0.5	0	0.5	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	11	21			23	3	5		29				92
4:15 PM	10	23			21	4	6		30				94
4:30 PM	14	24			14	2	3		26				83
4:45 PM	10	22			32	1	4		22				91
5:00 PM	19	27			30	1	2		17				96
5:15 PM	13	14			22	1	3		31				84
5:30 PM	19	32			38	8	4		39				140
5:45 PM	6	16			44	1	2		16				85
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	102	179	0	0	224	21	29	0	210	0	0	0	765

PM Peak Hr Begins at: 4:45 PM

PEAK VOLUMES =	61	95	0	0	122	11	13	0	109	0	0	0	411
PEAK HR. FACTOR:		0.765			0.723			0.709			0.000		0.734

CONTROL: 1-Way Stop E

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 6th Street

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue Q-3

DAY: THURSDAY

PROJECT# 06-2054-014

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	0	1	0	0.5	0	0.5	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	20			22		1		1				45
7:15 AM	1	23			24		2		3				53
7:30 AM	3	42			30		1		5				81
7:45 AM	4	41			36		1		5				87
8:00 AM	2	19			35		2		9				67
8:15 AM	3	26			31		3		3				66
8:30 AM	1	34			27		3		4				69
8:45 AM	1	20			21		1		4				47
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	16	225	0	0	226	0	14	0	34	0	0	0	515

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	12	128	0	0	132	0	7	0	22	0	0	0	301
PEAK HR. FACTOR:		0.778			0.917			0.659			0.000		0.865

CONTROL: 1-Way Stop E

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 6th Street

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Avenue Q-3

DAY: THURSDAY

PROJECT# 06-2054-014

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	0	0	1	0	0.5	0	0.5	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	8	29			52	2	3			4			98
4:15 PM	8	27			53	2	4			5			99
4:30 PM	3	39			39	2	4			3			90
4:45 PM	5	25			52	6	2			3			93
5:00 PM	7	34			45	3	2			4			95
5:15 PM	6	34			55	1	1			1			98
5:30 PM	3	38			66	1	1			9			118
5:45 PM	2	25			51	0	1			1			80
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	42	251	0	0	413	17	18	0	30	0	0	0	771

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	21	131	0	0	218	11	6	0	17	0	0	0	404
PEAK HR. FACTOR:		0.927			0.854			0.575			0.000		0.856

CONTROL: 1-Way Stop E

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 6th Street

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-015

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	1	1	1	1	1	2	1	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	5	21	4	30	16	5	7	174	12	5	190	48	517
7:15 AM	6	15	4	42	20	5	3	173	10	10	215	34	537
7:30 AM	17	29	11	42	17	2	9	253	10	9	187	33	619
7:45 AM	9	25	9	33	9	6	6	256	16	10	183	13	575
8:00 AM	18	19	7	30	21	5	11	268	17	14	343	24	777
8:15 AM	15	16	6	31	15	9	14	283	23	8	264	22	706
8:30 AM	18	21	7	30	18	7	6	192	13	8	212	26	558
8:45 AM	6	16	8	32	18	7	9	269	14	15	228	23	645
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	94	162	56	270	134	46	65	1868	115	79	1822	223	4934

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	57	72	28	123	72	28	40	1012	67	45	1047	95	2686
PEAK HR. FACTOR:		0.853			0.978			0.874			0.779		0.864

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 6th Street

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-015

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	1	1	1	1	1	2	1	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	13	38	15	42	66	17	11	342	47	14	310	22	937
4:15 PM	19	17	16	23	38	10	9	337	46	9	302	24	850
4:30 PM	22	22	13	48	43	18	14	286	30	17	366	25	904
4:45 PM	19	28	17	60	38	15	14	294	30	18	348	25	906
5:00 PM	20	18	17	40	27	14	11	307	29	10	304	24	821
5:15 PM	14	29	22	39	39	13	11	327	19	5	296	20	834
5:30 PM	24	30	21	59	87	14	11	338	41	10	301	26	962
5:45 PM	29	27	20	46	84	20	10	313	48	8	312	22	939
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	160	209	141	357	422	121	91	2544	290	91	2539	188	7153

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	73	105	61	173	185	60	48	1259	153	58	1326	96	3597
PEAK HR. FACTOR:	0.905			0.836			0.913			0.907			0.960

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Sierra Hwy.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-012

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	29	66	3	18	77	20	9	162	24	10	185	21	624
7:15 AM	27	70	4	28	73	26	24	205	27	16	220	17	737
7:30 AM	22	105	4	40	54	23	37	196	44	11	252	25	813
7:45 AM	25	93	9	23	47	19	21	228	34	10	159	27	695
8:00 AM	35	177	11	54	40	51	33	160	35	13	199	36	844
8:15 AM	33	92	17	43	37	27	21	221	39	12	159	19	720
8:30 AM	26	84	10	46	59	29	28	237	48	14	239	21	841
8:45 AM	27	87	9	43	78	28	41	248	23	31	200	46	861
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL 224	NT 774	NR 67	SL 295	ST 465	SR 223	EL 214	ET 1657	ER 274	WL 117	WT 1613	WR 212	TOTAL 6135
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AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	121	440	47	186	214	135	123	866	145	70	797	122	3266
PEAK HR. FACTOR:		0.682			0.898			0.906			0.893		0.948

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: Sierra Hwy.

DATE: 2/16/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd.

DAY: THURSDAY

PROJECT# 06-2054-012

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	41	103	14	58	125	56	53	328	36	9	275	34	1132
4:15 PM	35	122	13	49	120	57	48	349	25	19	276	46	1159
4:30 PM	43	152	12	62	127	64	58	271	33	6	261	53	1142
4:45 PM	48	135	19	57	124	68	44	281	31	9	226	29	1071
5:00 PM	31	127	19	53	159	73	58	304	29	10	242	32	1137
5:15 PM	35	101	24	48	125	69	57	303	30	11	250	30	1083
5:30 PM	41	73	23	82	174	58	46	252	17	16	206	31	1019
5:45 PM	38	110	18	66	114	48	40	316	55	10	255	34	1104
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL 312	NT 923	NR 142	SL 475	ST 1068	SR 493	EL 404	ET 2404	ER 256	WL 90	WT 1991	WR 289	TOTAL 8847
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PM Peak Hr Begins at: 4:15 PM

PEAK VOLUMES =	157	536	63	221	530	262	208	1205	118	44	1005	160	4509
PEAK HR. FACTOR:	0.913			0.889			0.907			0.886			0.973

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 5th St East

DATE: 10/11/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd

DAY: WEDNESDAY

PROJECT# 06-2357-001

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	1	1	1	0	1	3	0	1	3	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	20	12	8	9	8	5	7	179	11	8	182	6	455
7:15 AM	24	9	10	5	7	5	8	225	13	11	197	8	522
7:30 AM	36	14	6	10	10	6	5	189	9	13	189	6	493
7:45 AM	37	20	12	8	4	4	15	264	12	9	211	9	605
8:00 AM	43	21	11	7	19	4	7	216	15	8	196	9	556
8:15 AM	32	17	15	6	3	6	5	208	15	4	173	8	492
8:30 AM	29	11	9	5	10	7	6	211	10	12	198	5	513
8:45 AM	23	10	6	6	9	3	7	192	8	8	177	4	453
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													

TOTAL VOLUMES =	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
	244	114	77	56	70	40	60	1684	93	73	1523	55	4089

AM Peak Hr Begins at: 7:15 AM

PEAK VOLUMES =	140	64	39	30	40	19	35	894	49	41	793	32	2176
PEAK HR. FACTOR:		0.810			0.742			0.840			0.945		0.899

CONTROL: Signalized

# Intersection Turning Movement

Prepared by: Southland Car Counters

N-S STREET: 5th St East

DATE: 10/11/2006

LOCATION: City of Palmdale

E-W STREET: Palmdale Blvd

DAY: WEDNESDAY

PROJECT# 06-2357-001

LANES:	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			TOTAL
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	1	1	1	1	1	0	1	3	0	1	3	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	33	10	16	12	14	7	13	225	16	17	241	12	616
4:15 PM	25	14	14	16	13	9	11	211	14	15	228	8	578
4:30 PM	31	12	19	18	16	8	14	216	20	20	255	13	642
4:45 PM	38	12	17	12	13	12	14	218	17	17	237	9	616
5:00 PM	26	16	17	16	17	8	14	275	24	20	268	17	718
5:15 PM	32	21	21	14	16	13	20	261	28	19	217	19	681
5:30 PM	30	24	16	17	20	7	15	264	16	21	242	10	682
5:45 PM	25	19	16	12	19	14	14	251	28	17	208	13	636
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													

TOTAL VOLUMES =	NL 240	NT 128	NR 136	SL 117	ST 128	SR 78	EL 115	ET 1921	ER 163	WL 146	WT 1896	WR 101	TOTAL 5169
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PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	113	80	70	59	72	42	63	1051	96	77	935	59	2717
PEAK HR. FACTOR:	0.889			0.961			0.966			0.878			0.946

CONTROL: Signalized

## **ADT Counts**



Volumes for: Thursday, February 16, 2006

City: Palmdale

Project #: 06-2055-001

Location: Palmdale Blvd. btwn Division St. and 3rd St.

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			37	51	12:00			302	296			
00:15			32	30	12:15			276	270			
00:30			29	44	12:30			232	282			
00:45			35	133	47	172	305	241	1051	309	1157	2208
01:00			28	36	13:00			226	269			
01:15			20	33	13:15			236	284			
01:30			37	21	13:30			202	292			
01:45			20	105	33	123	228	267	931	301	1146	2077
02:00			20	23	14:00			272	314			
02:15			17	16	14:15			280	300			
02:30			12	13	14:30			254	328			
02:45			28	77	24	76	153	261	1067	333	1275	2342
03:00			19	14	15:00			237	301			
03:15			18	9	15:15			234	320			
03:30			18	26	15:30			275	359			
03:45			21	76	31	80	156	269	1015	351	1331	2346
04:00			26	24	16:00			275	363			
04:15			31	27	16:15			273	310			
04:30			60	55	16:30			264	292			
04:45			94	211	44	150	361	305	1117	294	1259	2376
05:00			103	46	17:00			275	343			
05:15			77	45	17:15			297	344			
05:30			83	66	17:30			250	348			
05:45			115	378	68	225	603	267	1089	303	1338	2427
06:00			117	80	18:00			267	298			
06:15			149	97	18:15			259	318			
06:30			210	168	18:30			243	296			
06:45			207	683	187	532	1215	206	975	263	1175	2150
07:00			166	196	19:00			230	244			
07:15			212	229	19:15			184	246			
07:30			216	278	19:30			154	194			
07:45			251	845	282	985	1830	145	713	189	873	1586
08:00			191	239	20:00			182	185			
08:15			204	210	20:15			146	152			
08:30			231	238	20:30			158	144			
08:45			221	847	258	945	1792	127	613	158	639	1252
09:00			231	225	21:00			123	146			
09:15			198	105	21:15			100	142			
09:30			232	220	21:30			91	119			
09:45			244	905	225	775	1680	81	395	115	522	917
10:00			237	236	22:00			88	119			
10:15			223	216	22:15			84	92			
10:30			248	238	22:30			87	73			
10:45			267	975	252	942	1917	45	304	68	352	656
11:00			256	254	23:00			52	62			
11:15			290	281	23:15			50	51			
11:30			256	298	23:30			31	56			
11:45			309	1111	276	1109	2220	34	167	40	209	376

**Total Vol.** 6346 6114 **12460** 9437 11276 **20713**

Daily Totals				
NB	SB	EB	WB	Combined
		15783	17390	<b>33173</b>

**Split %** AM 50.9% 49.1% **37.6%** PM 45.6% 54.4% **62.4%**

**Peak Hour** 11:15 11:15 **11:15** 16:30 15:15 **15:30**  
**Volume** 1157 1151 **2308** 1141 1393 **2475**  
**P.H.F.** 0.94 0.97 **0.96** 0.94 0.96 **0.97**

Volumes for: Thursday, February 16, 2006

City: Palmdale

Project #: 06-2055-002

Location: Palmdale Blvd. btwn 5th Street and 6th Street

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			39	50	12:00			307	348			
00:15			32	27	12:15			279	324			
00:30			29	43	12:30			266	323			
00:45			37	137	50	170	307	260	1112	336	1331	2443
01:00			26	35	13:00			235	351			
01:15			20	30	13:15			258	374			
01:30			35	22	13:30			215	289			
01:45			21	102	32	119	221	285	993	358	1372	2365
02:00			21	26	14:00			285	353			
02:15			18	16	14:15			289	393			
02:30			13	14	14:30			261	371			
02:45			25	77	25	81	158	299	1134	410	1527	2661
03:00			20	13	15:00			247	345			
03:15			19	10	15:15			279	369			
03:30			21	24	15:30			264	388			
03:45			30	90	26	73	163	279	1069	354	1456	2525
04:00			26	25	16:00			292	332			
04:15			30	28	16:15			267	376			
04:30			55	54	16:30			277	405			
04:45			83	194	42	149	343	306	1142	337	1450	2592
05:00			97	48	17:00			295	412			
05:15			80	42	17:15			308	376			
05:30			86	68	17:30			282	409			
05:45			109	372	65	223	595	280	1165	315	1512	2677
06:00			114	84	18:00			320	328			
06:15			136	90	18:15			252	337			
06:30			174	153	18:30			250	342			
06:45			173	597	192	519	1116	208	1030	329	1336	2366
07:00			154	194	19:00			228	267			
07:15			209	212	19:15			189	227			
07:30			241	292	19:30			165	219			
07:45			232	836	330	1028	1864	134	716	191	904	1620
08:00			201	288	20:00			172	191			
08:15			196	275	20:15			145	186			
08:30			246	269	20:30			144	158			
08:45			230	873	280	1112	1985	110	571	194	729	1300
09:00			245	252	21:00			113	150			
09:15			233	257	21:15			114	149			
09:30			221	253	21:30			85	133			
09:45			251	950	220	982	1932	74	386	129	561	947
10:00			246	260	22:00			81	142			
10:15			217	233	22:15			63	100			
10:30			287	330	22:30			85	71			
10:45			266	1016	309	1132	2148	44	273	81	394	667
11:00			267	309	23:00			61	62			
11:15			317	310	23:15			41	48			
11:30			301	358	23:30			39	60			
11:45			328	1213	297	1274	2487	43	184	37	207	391

**Total Vol.** 6457 6862 **13319** 9775 12779 **22554**

Daily Totals				
NB	SB	EB	WB	Combined
		16232	19641	<b>35873</b>

Split %	AM			PM		
	48.5%	51.5%	<b>37.1%</b>	43.3%	56.7%	<b>62.9%</b>
<b>Peak Hour</b>	11:15	11:30	<b>11:15</b>	16:45	16:45	<b>16:45</b>
<b>Volume</b>	1253	1327	<b>2566</b>	1191	1534	<b>2725</b>
<b>P.H.F.</b>	0.96	0.93	<b>0.97</b>	0.97	0.93	<b>0.96</b>

Volumes for: Thursday, February 16, 2006

City: Palmdale

Project #: 06-2055-003

Location: Palmdale Blvd. just east of Sierra Highway

AM Period	NB	SB	EB	WB	PM Period	NB	SB	EB	WB			
00:00			42	33	12:00			274	275			
00:15			33	31	12:15			267	259			
00:30			31	14	12:30			267	265			
00:45			32	138	26	104	242	269	1077	248	1047	2124
01:00			18	24	13:00			254	203			
01:15			18	19	13:15			301	266			
01:30			20	28	13:30			226	182			
01:45			25	81	23	94	175	308	1089	247	898	1987
02:00			26	23	14:00			313	273			
02:15			9	16	14:15			314	275			
02:30			9	9	14:30			307	217			
02:45			18	62	23	71	133	317	1251	194	959	2210
03:00			14	17	15:00			242	238			
03:15			9	18	15:15			309	281			
03:30			24	21	15:30			257	232			
03:45			22	69	31	87	156	285	1093	234	985	2078
04:00			17	38	16:00			316	242			
04:15			29	46	16:15			321	235			
04:30			49	80	16:30			328	224			
04:45			44	139	117	281	420	287	1252	253	954	2206
05:00			31	120	17:00			309	250			
05:15			40	89	17:15			299	251			
05:30			43	122	17:30			318	277			
05:45			51	165	127	458	623	300	1226	250	1028	2254
06:00			67	128	18:00			270	275			
06:15			61	141	18:15			273	260			
06:30			118	172	18:30			267	213			
06:45			137	383	183	624	1007	248	1058	206	954	2012
07:00			127	188	19:00			249	195			
07:15			174	212	19:15			191	174			
07:30			192	245	19:30			194	153			
07:45			230	723	213	858	1581	163	797	143	665	1462
08:00			201	181	20:00			196	143			
08:15			224	181	20:15			159	144			
08:30			209	236	20:30			138	132			
08:45			210	844	212	810	1654	164	657	104	523	1180
09:00			225	227	21:00			109	121			
09:15			218	247	21:15			152	96			
09:30			206	225	21:30			106	90			
09:45			235	884	230	929	1813	99	466	72	379	845
10:00			242	256	22:00			111	74			
10:15			187	235	22:15			77	74			
10:30			256	273	22:30			65	65			
10:45			268	953	281	1045	1998	62	315	54	267	582
11:00			264	281	23:00			56	50			
11:15			298	300	23:15			52	41			
11:30			280	285	23:30			57	34			
11:45			302	1144	304	1170	2314	36	201	44	169	370

**Total Vol.** 5585 6531 **12116** 10482 8828 **19310**

Daily Totals				
NB	SB	EB	WB	Combined
		16067	15359	<b>31426</b>

Split %	AM			PM		
	46.1%	53.9%	<b>38.6%</b>	54.3%	45.7%	<b>61.4%</b>

Peak Hour	11:15	11:00	<b>11:15</b>	16:00	17:30	<b>13:45</b>
Volume	1154	1170	<b>2318</b>	1252	1062	<b>2254</b>
P.H.F.	0.96	0.96	<b>0.96</b>	0.95	0.96	<b>0.96</b>

City of Palmdale  
38250 Sierra Highway  
Palmdale, Ca 93550

Site Code: 000000005559  
Date Start: 06-Feb-06  
Avenue Q  
6th Street East

Weather : Clear and Dry  
Counted By: JR and DW  
Board # : 5559

Location : Ave Q west of 6th St E

Start Time	06-Feb-06		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00 AM	*	*	7	6	9	3	19	7	6	14	14	10	19	10	12	8
01:00	*	*	2	4	6	6	7	5	8	18	7	9	9	9	8	6
02:00	*	*	4	2	1	3	7	6	3	11	7	10	10	4	6	4
03:00	*	*	6	4	6	5	12	2	11	5	2	7	7	0	8	3
04:00	*	*	8	6	9	7	33	10	8	7	2	9	9	5	12	6
05:00	*	*	22	20	21	17	27	21	13	8	19	7	7	5	16	16
06:00	*	*	37	37	46	45	33	44	40	26	8	3	9	3	32	29
07:00	*	*	96	69	92	72	98	83	95	35	34	15	20	15	73	57
08:00	*	*	97	61	107	75	86	72	96	67	41	29	37	29	82	56
09:00	*	*	119	75	77	53	103	53	111	70	59	31	57	31	94	57
10:00	*	*	94	75	103	67	106	78	123	80	68	37	68	37	103	68
11:00	*	*	136	98	147	101	140	103	159	101	74	49	76	49	132	88
12:00 PM	*	*	128	71	158	85	108	69	139	85	77	60	89	60	127	74
01:00	*	*	151	81	129	108	155	82	137	75	63	48	92	48	132	76
02:00	*	*	130	82	154	66	146	70	145	96	60	54	95	54	131	71
03:00	*	*	183	119	155	106	179	108	204	126	58	50	93	50	155	94
04:00	146	103	192	102	165	95	180	105	204	94	88	55	97	55	155	88
05:00	156	93	166	99	148	95	160	98	162	88	57	60	60	57	136	81
06:00	116	71	85	61	106	72	113	61	107	72	50	40	76	53	99	63
07:00	76	50	81	48	82	32	66	25	102	55	47	63	63	40	78	42
08:00	53	28	46	26	46	29	49	33	61	37	38	36	46	36	51	32
09:00	33	23	30	24	50	24	42	23	65	27	32	16	30	16	44	24
10:00	27	24	15	19	25	21	30	16	29	23	23	12	18	12	26	20
11:00	18	6	18	7	12	3	15	14	35	16	14	12	13	12	22	10
Lane Day	625	398	1853	1196	1854	1190	1914	1188	2063	1249	918	673	1100	673	1734	1073
Peak	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00
Vol.	136	98	147	101	140	103	159	103	159	101	74	49	76	49	132	88
PM Peak	17:00	16:00	16:00	13:00	16:00	108	180	108	204	126	77	60	16:00	12:00	15:00	15:00
Vol.	156	103	192	119	165	108	180	108	204	126	77	60	16:00	12:00	155	94

City of Palmdale  
38250 Sierra Highway  
Palmdale, Ca 93550

Site Code: 707 3366407  
Date Start: 11-Jul-06  
Sierra Highway  
Avenue Q

Weather : Clear and Dry  
Counted by: DW  
Board # : 407

Location : Sierra Hwy S/O Ave Q

Start Time	10-Jul-06		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	NB	SB														
12:00 AM	*	*	66	94	171	110	103	119	*	*	*	*	*	*	113	108
01:00	*	*	55	73	174	83	63	78	*	*	*	*	*	*	97	78
02:00	*	*	39	50	117	48	44	45	*	*	*	*	*	*	67	48
03:00	*	*	52	46	126	54	69	44	*	*	*	*	*	*	82	48
04:00	*	*	68	90	120	85	75	84	*	*	*	*	*	*	88	86
05:00	*	*	165	139	181	136	132	112	*	*	*	*	*	*	159	129
06:00	*	*	306	215	300	200	283	203	*	*	*	*	*	*	296	206
07:00	*	*	503	359	482	346	407	338	*	*	*	*	*	*	464	348
08:00	*	*	511	473	419	456	435	408	*	*	*	*	*	*	455	446
09:00	*	*	501	425	455	466	468	359	*	*	*	*	*	*	475	417
10:00	*	*	506	457	439	452	371	320	*	*	*	*	*	*	439	410
11:00	*	*	551	490	577	476	476	*	*	*	*	*	*	*	564	483
12:00 PM	*	*	595	468	551	467	*	*	*	*	*	*	*	*	585	457
01:00	*	*	582	504	570	457	*	*	*	*	*	*	*	*	594	473
02:00	*	*	577	501	544	580	*	*	*	*	*	*	*	*	577	542
03:00	*	*	615	544	626	578	*	*	*	*	*	*	*	*	609	555
04:00	*	*	669	579	641	551	*	*	*	*	*	*	*	*	660	571
05:00	*	*	662	596	658	643	*	*	*	*	*	*	*	*	663	612
06:00	*	*	548	502	574	547	*	*	*	*	*	*	*	*	547	504
07:00	*	*	434	423	583	456	*	*	*	*	*	*	*	*	465	432
08:00	*	*	286	352	442	380	*	*	*	*	*	*	*	*	344	359
09:00	*	*	246	304	418	328	*	*	*	*	*	*	*	*	309	328
10:00	*	*	236	267	247	249	*	*	*	*	*	*	*	*	229	249
11:00	*	*	138	135	148	162	*	*	*	*	*	*	*	*	133	141
Lane Day	0	0	8911	8086	9563	8310	2450	2110	0	0	0	0	0	0	9014	8030
AM Peak Vol.	16:00	17:00	11:00	11:00	11:00	11:00	09:00	08:00	4560	0	0	0	0	0	11:00	11:00
PM Peak Vol.	16:00	17:00	16:00	17:00	17:00	17:00	17:00	17:00	468	408	564	483	17:00	17:00	663	612
Comb. Total	0	10649	16997	17873	4560	0	0	17044	0	0	0	0	0	17044	0	0
ADT	Not Calculated															

City of Palmdale  
 38250 Sierra Highway  
 Palmdale, Ca 93550

Site Code: 00000005558  
 Date Start: 06-Feb-06  
 Technology Drive  
 3rd Street East

Weather : Clear and Dry  
 Counted By: JR and DW  
 Board # : 5558

Location : Technology Dr E/O 3rd St E

Start Time	06-Feb-06		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB
12:00 AM	*	14	19	11	21	10	29	7	17	20	42	27	34	15	27	
01:00	*	11	10	15	9	8	24	18	4	21	41	16	22	15	18	
02:00	*	7	7	6	3	6	10	5	7	16	15	16	13	9	9	
03:00	*	9	18	12	17	10	23	14	25	11	12	11	15	11	18	
04:00	*	39	40	44	44	37	74	30	37	4	8	10	14	27	36	
05:00	*	67	128	58	127	68	133	67	124	28	28	20	15	51	92	
06:00	*	156	143	145	170	157	180	147	145	52	45	33	19	115	117	
07:00	*	238	243	248	284	255	264	275	260	142	78	59	50	203	196	
08:00	*	259	209	259	203	244	212	253	236	206	141	81	78	217	180	
09:00	*	246	201	262	202	234	191	254	216	287	213	202	155	248	196	
10:00	*	250	220	267	219	262	203	311	227	337	239	210	166	273	212	
11:00	*	298	251	370	273	328	269	340	277	417	291	265	203	336	261	
12:00 PM	*	342	311	310	352	330	304	348	342	455	322	307	240	349	312	
01:00	*	341	369	333	350	333	325	322	349	355	342	284	292	328	338	
02:00	*	337	381	326	396	352	403	345	368	321	369	255	287	323	367	
03:00	*	422	392	428	362	399	363	467	403	354	353	277	299	391	362	
04:00	448	523	412	479	362	483	341	597	411	301	343	218	279	436	356	
05:00	419	452	370	440	399	435	414	467	402	289	355	196	275	385	376	
06:00	279	321	310	342	352	307	334	338	369	211	274	172	285	281	317	
07:00	199	199	220	201	262	200	232	227	275	172	230	107	194	186	238	
08:00	111	126	188	126	176	135	197	140	224	100	185	75	128	116	178	
09:00	80	89	146	92	135	83	147	140	192	78	138	50	78	87	139	
10:00	50	33	75	40	73	47	84	86	141	80	124	45	67	54	91	
11:00	23	16	43	27	36	23	29	56	87	30	84	24	30	28	50	
Lane Day	1609	1707	4795	4706	4827	4746	4785	5254	5138	4287	4272	2960	3238	4484	4486	
AM Peak Vol.	3316	9501	9668	9531	10392	8559	6198	8970								
PM Peak Vol.	16:00	17:00	16:00	16:00	17:00	16:00	17:00	16:00	16:00	12:00	14:00	12:00	15:00	16:00	17:00	
Peak Vol.	448	419	479	399	414	597	411	436	436	307	369	307	299	436	376	

City of Palmdale  
 38250 Sierra Highway  
 Palmdale, Ca 93550

Site Code: Trax I Plus  
 Date Start: 06-Feb-06  
 3rd Street East  
 Technology Drive

Weather : Clear and Dry  
 Counted By: JR and DW  
 Board # : 055

Location : Technology W/O 3rd St E

Start Time	06-Feb-06		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB	EB	WB
12:00	*	*	19	11	26	10	28	10	25	0	60	0	57	0	36	5
AM	*	*	9	15	10	9	22	11	6	0	40	0	25	0	19	6
01:00	*	*	9	6	4	5	16	5	7	0	19	0	13	0	11	3
02:00	*	*	14	0	11	4	14	5	14	0	11	0	15	0	13	2
03:00	*	*	46	27	48	31	70	16	39	0	11	0	17	0	38	12
04:00	*	*	134	36	136	40	138	0	125	0	21	0	14	0	95	13
05:00	*	*	167	91	152	88	162	0	116	0	34	0	16	0	108	30
06:00	*	*	255	247	261	240	275	0	231	0	55	0	38	0	186	81
07:00	*	*	216	225	203	228	196	0	226	0	87	0	68	0	166	76
08:00	*	*	178	226	188	220	188	0	205	0	176	0	98	0	172	74
09:00	*	*	187	180	195	195	191	0	197	0	231	0	145	0	191	62
10:00	*	*	276	250	283	297	232	0	252	0	247	0	169	0	243	91
11:00	*	*	309	320	303	279	308	0	319	0	332	0	244	0	302	100
PM	*	*	423	284	381	253	358	0	397	0	351	0	256	0	361	90
01:00	*	*	369	292	362	261	374	0	384	0	385	0	299	0	362	92
02:00	*	*	376	313	349	304	367	0	406	0	358	0	282	0	356	103
03:00	*	*	379	460	353	381	335	0	390	0	343	0	306	0	351	140
04:00	*	*	421	405	372	389	427	0	387	0	358	0	274	0	381	170
05:00	425	397	319	316	366	305	377	0	392	0	315	0	292	0	344	128
06:00	347	277	253	228	273	247	284	0	316	0	254	0	233	0	268	97
07:00	265	201	223	113	209	95	215	0	248	0	207	0	158	0	204	44
08:00	167	98	172	92	128	94	157	0	213	0	164	0	104	0	155	36
09:00	148	65	95	40	107	37	110	0	148	0	111	0	82	0	106	17
10:00	88	44	58	19	54	22	46	0	117	0	100	0	36	0	66	9
11:00	1493	1103	4907	4196	4774	4034	4890	47	5160	0	4270	0	3241	0	4534	1481
Lane	2596		9103		8808		4937		5160		4270		3241		6015	
Day																
AM			11:00	11:00	11:00	11:00	07:00	04:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00
Peak			276	250	283	297	275	16	252	247	169	243	243	243	243	243
Vol.			13:00	16:00	13:00	17:00	17:00	15:00	15:00	14:00	16:00	17:00	17:00	17:00	17:00	17:00
PM			423	460	381	389	427	406	406	385	306	381	381	381	381	381
Peak																
Vol.			425	397	381	389	427	406	406	385	306	381	381	381	381	381

City of Palmdale  
 38250 Sierra Highway  
 Palmdale, Ca 93550

Site Code: 000000005557  
 Date Start: 07-Feb-06  
 Avenue Q  
 6th Street East

Weather : Clear and Dry  
 Counted By: JR AND DW  
 Board # : 5557

Location : 6th St E North of Ave Q

Start Time	06-Feb-06		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB	SB	NB
12:00 AM	*	*	*	*	4	5	11	20	5	4	6	6	15	12	8	9
01:00	*	*	4	5	4	5	1	10	3	5	6	6	10	6	5	6
02:00	*	*	5	6	5	6	5	11	3	5	6	6	5	11	5	9
03:00	*	*	12	33	12	33	14	43	11	35	5	5	5	5	9	24
04:00	*	*	27	128	27	128	32	134	27	94	5	5	2	5	19	73
05:00	*	*	51	121	49	147	49	147	54	119	12	7	4	4	34	80
06:00	*	*	52	97	56	104	56	104	62	97	20	34	4	4	39	67
07:00	*	*	147	160	152	141	138	152	138	152	33	27	18	12	98	98
08:00	*	*	79	80	49	62	49	62	62	75	40	29	32	26	52	54
09:00	*	*	46	49	41	49	41	49	38	51	45	45	24	35	39	46
10:00	*	*	52	61	69	69	69	69	62	75	46	54	27	27	51	57
11:00	*	*	175	174	204	191	204	191	195	173	59	72	30	45	133	131
12:00 PM	*	*	73	75	66	87	66	87	65	68	47	62	42	46	59	68
01:00	*	*	66	70	78	89	78	89	84	90	60	82	39	49	65	76
02:00	*	*	67	72	66	75	66	75	73	63	46	48	41	44	59	60
03:00	*	*	147	124	127	134	127	134	134	196	60	67	38	53	101	115
04:00	*	*	108	100	113	123	113	123	125	177	50	59	34	52	86	102
05:00	*	*	133	102	154	95	154	95	159	141	47	47	37	35	114	88
06:00	*	*	188	106	154	90	154	90	133	104	42	42	40	32	114	76
07:00	*	*	84	71	83	77	83	77	95	73	56	62	25	20	76	62
08:00	*	*	50	40	50	33	50	33	64	39	36	41	26	31	45	37
09:00	*	*	26	30	37	32	37	32	46	53	20	37	24	22	30	34
10:00	*	*	24	21	29	25	29	25	36	29	27	31	11	13	25	23
11:00	*	*	8	10	11	11	11	11	17	13	15	24	6	6	11	12
Lane	0	0	489	356	1647	1739	1651	1852	1691	1931	789	904	539	592	1277	1407
Day	0	0	845	3386	3503	3622	1693	1131	2684							
AM Peak Vol.			11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	11:00	08:00	11:00	11:00	11:00
PM Peak Vol.	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	17:00	13:00	13:00	12:00	15:00	17:00	15:00
Peak	151	111	175	174	204	191	195	173	196	196	60	82	42	53	114	115
Vol.			175	174	204	191	195	173	196	196	60	82	42	53	114	115

**APPENDIX B**  
**LOS Analysis Sheets**



## **Existing Conditions**



Palmdale Transit Village TIA  
Existing Conditions

1: PALMDALE BLVD & 5TH ST WEST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00
Fr't	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1490	2980	1333	1490	2980	1333	1490	2639		1490	2980	1333
Flt Permitted	0.38	1.00	1.00	0.27	1.00	1.00	0.73	1.00		0.53	1.00	1.00
Satd. Flow (perm)	590	2980	1333	417	2980	1333	1152	2639		831	2980	1333
Volume (vph)	44	771	45	66	544	99	101	61	196	47	30	42
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	838	49	72	591	108	110	66	213	51	33	46
RTOR Reduction (vph)	0	0	16	0	0	46	0	96	0	0	0	28
Lane Group Flow (vph)	48	838	33	72	591	62	110	183	0	51	33	18
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)	55.0	55.0	55.0	55.0	55.0	55.0	37.0	37.0		37.0	37.0	37.0
Effective Green, g (s)	57.0	57.0	57.0	57.0	57.0	57.0	39.0	39.0		39.0	39.0	39.0
Actuated g/C Ratio	0.57	0.57	0.57	0.57	0.57	0.57	0.39	0.39		0.39	0.39	0.39
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	336	1699	760	238	1699	760	449	1029		324	1162	520
v/s Ratio Prot		c0.28			0.20			0.07			0.01	
v/s Ratio Perm	0.08		0.02	0.17		0.05	c0.10			0.06		0.01
v/c Ratio	0.14	0.49	0.04	0.30	0.35	0.08	0.24	0.18		0.16	0.03	0.03
Uniform Delay, d1	10.1	12.9	9.5	11.2	11.5	9.7	20.6	20.0		19.8	18.8	18.9
Progression Factor	1.00	1.00	1.00	0.21	0.21	0.01	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.9	1.0	0.1	3.0	0.5	0.2	1.3	0.4		1.0	0.0	0.1
Delay (s)	11.0	13.9	9.6	5.4	2.9	0.3	21.9	20.4		20.9	18.9	19.0
Level of Service	B	B	A	A	A	A	C	C		C	B	B
Approach Delay (s)		13.5			2.8			20.8			19.7	
Approach LOS		B			A			C			B	

Intersection Summary

HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑	↑		↑↑				↓		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.95	1.00		0.95				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		2980	1333		2980				1490		1333
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		2980	1333		2980				1490		1333
Volume (vph)	0	753	279	0	572	0	0	0	413	0	118
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	818	303	0	622	0	0	0	449	0	128
RTOR Reduction (vph)	0	0	182	0	0	0	0	0	0	0	56
Lane Group Flow (vph)	0	818	121	0	622	0	0	0	449	0	72
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		100.0	38.0		38.0				54.0		54.0
Effective Green, g (s)		100.0	40.0		40.0				56.0		56.0
Actuated g/C Ratio		1.00	0.40		0.40				0.56		0.56
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		2980	533		1192				834		746
v/s Ratio Prot		0.11			c0.21				c0.30		
v/s Ratio Perm		0.16	0.09								0.05
v/c Ratio		0.27	0.23		0.52				0.54		0.10
Uniform Delay, d1		0.0	19.8		22.7				13.9		10.2
Progression Factor		1.00	0.32		0.74				1.00		1.00
Incremental Delay, d2		0.2	0.9		1.6				2.5		0.3
Delay (s)		0.2	7.3		18.5				16.3		10.5
Level of Service		A	A		B				B		B
Approach Delay (s)		2.1			18.5		0.0			15.0	
Approach LOS		A			B		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			9.7			HCM Level of Service			A		
HCM Volume to Capacity ratio			0.53								
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			4.0		
Intersection Capacity Utilization			34.1%			ICU Level of Service			A		
Analysis Period (min)			15								
c Critical Lane Group											

											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER
Lane Configurations		↑↑↑			↑↑↑				↘		↗
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0			2.0				2.0		2.0
Lane Util. Factor		0.91			0.91				1.00		1.00
Frts		1.00			0.92				1.00		0.85
Flt Protected		1.00			1.00				0.95		1.00
Satd. Flow (prot)		4282			3930				1490		1333
Flt Permitted		1.00			1.00				0.95		1.00
Satd. Flow (perm)		4282			3930				1490		1333
Volume (vph)	0	991	0	0	578	702	0	0	133	0	184
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1077	0	0	628	763	0	0	145	0	200
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	39
Lane Group Flow (vph)	0	1077	0	0	1391	0	0	0	145	0	161
Turn Type									Prot		custom
Protected Phases		4			8				2		
Permitted Phases					Free						2
Actuated Green, G (s)		50.0			100.0				42.0		42.0
Effective Green, g (s)		52.0			100.0				44.0		44.0
Actuated g/C Ratio		0.52			1.00				0.44		0.44
Clearance Time (s)		4.0			4.0				4.0		4.0
Vehicle Extension (s)		3.0			3.0				3.0		3.0
Lane Grp Cap (vph)		2227			3930				656		587
v/s Ratio Prot		c0.25			c0.18				0.10		
v/s Ratio Perm					0.17						0.12
v/c Ratio		0.48			0.35				0.22		0.27
Uniform Delay, d1		15.4			0.0				17.4		17.8
Progression Factor		0.69			1.00				1.00		1.00
Incremental Delay, d2		0.7			0.2				0.8		1.2
Delay (s)		11.3			0.2				18.1		19.0
Level of Service		B			A				B		B
Approach Delay (s)		11.3			0.2		0.0			18.6	
Approach LOS		B			A		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			6.7			HCM Level of Service			A		
HCM Volume to Capacity ratio			0.42								
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			2.0		
Intersection Capacity Utilization			42.9%			ICU Level of Service			A		
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
Existing Conditions

4: AVE Q & DIVISION ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	80	25	40	116	2	28	2	32	2	6	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	1	87	27	43	126	2	30	2	35	2	7	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	128			114			320	318	101	352	329	126
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	128			114			320	318	101	352	329	126
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			95	100	96	100	99	100
cM capacity (veh/h)	1458			1475			612	580	955	566	572	924
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total	115	170	2	67	10							
Volume Left	1	43	0	30	2							
Volume Right	27	0	2	35	1							
cSH	1458	1475	1700	750	596							
Volume to Capacity	0.00	0.03	0.00	0.09	0.02							
Queue Length 95th (ft)	0	2	0	7	1							
Control Delay (s)	0.1	2.1	0.0	10.3	11.1							
Lane LOS	A	A		B	B							
Approach Delay (s)	0.1	2.1		10.3	11.1							
Approach LOS				B	B							
Intersection Summary												
Average Delay			3.2									
Intersection Capacity Utilization			31.3%		ICU Level of Service				A			
Analysis Period (min)			15									

Palmdale Transit Village TIA  
Existing Conditions

5: PALMDALE BLVD & DIVISION ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4215		1490	4275		1490	1569	1333	1490	1569	1333
Flt Permitted	0.95	1.00		0.95	1.00		0.70	1.00	1.00	0.70	1.00	1.00
Satd. Flow (perm)	1490	4215		1490	4275		1103	1569	1333	1097	1569	1333
Volume (vph)	80	980	115	71	676	8	474	75	34	34	72	118
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	1065	125	77	735	9	515	82	37	37	78	128
RTOR Reduction (vph)	0	14	0	0	1	0	0	0	18	0	0	63
Lane Group Flow (vph)	87	1176	0	77	743	0	515	82	19	37	78	65
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Actuated Green, G (s)	7.8	31.0		8.0	31.2		49.0	49.0	49.0	49.0	49.0	49.0
Effective Green, g (s)	9.8	33.0		10.0	33.2		51.0	51.0	51.0	51.0	51.0	51.0
Actuated g/C Ratio	0.10	0.33		0.10	0.33		0.51	0.51	0.51	0.51	0.51	0.51
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	146	1391		149	1419		563	800	680	559	800	680
v/s Ratio Prot	0.06	c0.28		0.05	c0.17			0.05			0.05	
v/s Ratio Perm							c0.47		0.01	0.03		0.05
v/c Ratio	0.60	0.85		0.52	0.52		0.91	0.10	0.03	0.07	0.10	0.10
Uniform Delay, d1	43.2	31.1		42.7	27.0		22.5	12.7	12.2	12.4	12.6	12.6
Progression Factor	0.73	0.55		0.50	0.31		1.00	1.00	1.00	0.99	0.99	0.97
Incremental Delay, d2	5.8	5.9		2.8	1.3		21.9	0.3	0.1	0.2	0.2	0.3
Delay (s)	37.4	23.2		23.9	9.6		44.4	12.9	12.3	12.5	12.8	12.5
Level of Service	D	C		C	A		D	B	B	B	B	B
Approach Delay (s)		24.1			11.0			38.4			12.6	
Approach LOS		C			B			D			B	

Intersection Summary

HCM Average Control Delay	22.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	79.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	24	176	40	37	235	19	13	54	35	9	86	36
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	26	191	43	40	255	21	14	59	38	10	93	39
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	26	235	40	276	111	142						
Volume Left (vph)	26	0	40	0	14	10						
Volume Right (vph)	0	43	0	21	38	39						
Hadj (s)	0.53	-0.10	0.53	-0.02	-0.15	-0.12						
Departure Headway (s)	6.2	5.5	6.1	5.5	5.5	5.5						
Degree Utilization, x	0.04	0.36	0.07	0.42	0.17	0.22						
Capacity (veh/h)	550	621	563	626	579	595						
Control Delay (s)	8.3	10.4	8.3	11.4	9.6	10.0						
Approach Delay (s)	10.2		11.0		9.6	10.0						
Approach LOS	B		B		A	A						
Intersection Summary												
Delay			10.4									
HCM Level of Service			B									
Intersection Capacity Utilization			40.1%	ICU Level of Service	A							
Analysis Period (min)			15									

Palmdale Transit Village TIA  
Existing Conditions

7: AVE P-12 & 3RD ST EAST  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↕	↗	↖	↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	12	4	2	1	1	2	2	148	2	6	176	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	13	4	2	1	1	2	2	161	2	7	191	10
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)							6					
Median type		None			None							
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	376	377	196	374	379	161	201			163		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	376	377	196	374	379	161	201			163		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	98	99	100	100	100	100	100			100		
cM capacity (veh/h)	576	551	845	575	549	884	1371			1416		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	20	4	2	161	2	7	201					
Volume Left	13	1	2	0	0	7	0					
Volume Right	2	2	0	0	2	0	10					
cSH	591	1125	1371	1700	1700	1416	1700					
Volume to Capacity	0.03	0.00	0.00	0.09	0.00	0.00	0.12					
Queue Length 95th (ft)	3	0	0	0	0	0	0					
Control Delay (s)	11.3	10.3	7.6	0.0	0.0	7.6	0.0					
Lane LOS	B	B	A			A						
Approach Delay (s)	11.3	10.3	0.1			0.2						
Approach LOS	B	B										
Intersection Summary												
Average Delay			0.8									
Intersection Capacity Utilization			26.2%			ICU Level of Service				A		
Analysis Period (min)			15									

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	56	106	106	92	86	103
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	61	115	115	100	93	112
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						2
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	215				402	165
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	215				402	165
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	96				84	87
cM capacity (veh/h)	1355				577	879
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	61	115	215	205		
Volume Left	61	0	0	93		
Volume Right	0	0	100	112		
cSH	1355	1700	1700	1268		
Volume to Capacity	0.04	0.07	0.13	0.16		
Queue Length 95th (ft)	4	0	0	14		
Control Delay (s)	7.8	0.0	0.0	10.9		
Lane LOS	A			B		
Approach Delay (s)	2.7		0.0	10.9		
Approach LOS				B		
<b>Intersection Summary</b>						
Average Delay			4.6			
Intersection Capacity Utilization			32.6%		ICU Level of Service	A
Analysis Period (min)			15			

Palmdale Transit Village TIA  
Existing Conditions

9: AVE Q & 3RD ST EAST  
AM Peak Hour

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↙	↑	↘	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	167	25	28	164	34	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	182	27	30	178	37	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			209		434	195
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			209		434	195
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		93	97
cM capacity (veh/h)			1362		566	846
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	209	30	178	60		
Volume Left	0	30	0	37		
Volume Right	27	0	0	23		
cSH	1700	1362	1700	648		
Volume to Capacity	0.12	0.02	0.10	0.09		
Queue Length 95th (ft)	0	2	0	8		
Control Delay (s)	0.0	7.7	0.0	11.1		
Lane LOS		A		B		
Approach Delay (s)	0.0	1.1		11.1		
Approach LOS				B		
<b>Intersection Summary</b>						
Average Delay			1.9			
Intersection Capacity Utilization			29.3%		ICU Level of Service	A
Analysis Period (min)			15			

Palmdale Transit Village TIA  
Existing Conditions

10: PALMDALE BLVD & 3RD ST EAST  
AM Peak Hour

Movement												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0			2.0			2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.94			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1490	4246		1490	4246			1477			1557	
Flt Permitted	0.95	1.00		0.95	1.00			0.97			0.95	
Satd. Flow (perm)	1490	4246		1490	4246			1434			1478	
Volume (vph)	10	1302	78	183	912	54	23	195	154	28	305	9
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	1415	85	199	991	59	25	212	167	30	332	10
RTOR Reduction (vph)	0	6	0	0	6	0	0	25	0	0	1	0
Lane Group Flow (vph)	11	1494	0	199	1044	0	0	379	0	0	371	0
Turn Type	Prot			Prot			Perm		Perm			
Protected Phases	7	4		3	8			2		6		6
Permitted Phases							2					
Actuated Green, G (s)	2.0	40.8		15.2	54.0			32.0				32.0
Effective Green, g (s)	4.0	42.8		17.2	56.0			34.0				34.0
Actuated g/C Ratio	0.04	0.43		0.17	0.56			0.34				0.34
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0				3.0
Lane Grp Cap (vph)	60	1817		256	2378			488				503
v/s Ratio Prot	0.01	c0.35		c0.13	0.25							
v/s Ratio Perm								c0.26				0.25
v/c Ratio	0.18	0.82		0.78	0.44			0.78				0.74
Uniform Delay, d1	46.4	25.2		39.6	12.8			29.6				29.1
Progression Factor	0.46	0.25		0.74	0.95			1.00				1.00
Incremental Delay, d2	1.2	3.6		13.4	0.6			11.5				9.3
Delay (s)	22.4	10.0		42.6	12.7			41.1				38.4
Level of Service	C	A		D	B			D				D
Approach Delay (s)		10.1			17.5			41.1				38.4
Approach LOS		B			B			D				D

Intersection Summary

HCM Average Control Delay	19.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	84.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
Existing Conditions

43: PALMDALE BLVD & 5th Street East  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑		↖	↑↑↑		↖	↑	↗	↖	↖	
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	
Fr't	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1490	4249		1490	4257		1490	1569	1333	1490	1491	
Flt Permitted	0.95	1.00		0.95	1.00		0.71	1.00	1.00	0.70	1.00	
Satd. Flow (perm)	1490	4249		1490	4257		1108	1569	1333	1094	1491	
Volume (vph)	35	894	49	41	793	32	140	64	39	30	40	19
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	972	53	45	862	35	152	70	42	33	43	21
RTOR Reduction (vph)	0	5	0	0	3	0	0	0	28	0	14	0
Lane Group Flow (vph)	38	1020	0	45	894	0	152	70	14	33	50	0
Turn Type	Prot			Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2		2		6
Permitted Phases							2		2		6	
Actuated Green, G (s)	3.6	43.8		12.2	52.4		32.0	32.0	32.0	32.0	32.0	32.0
Effective Green, g (s)	5.6	45.8		14.2	54.4		34.0	34.0	34.0	34.0	34.0	34.0
Actuated g/C Ratio	0.06	0.46		0.14	0.54		0.34	0.34	0.34	0.34	0.34	0.34
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	83	1946		212	2316		377	533	453	372	507	
v/s Ratio Prot	0.03	c0.24		0.03	c0.21			0.04		0.01	0.03	0.03
v/s Ratio Perm							c0.14		0.01	0.03		
v/c Ratio	0.46	0.52		0.21	0.39		0.40	0.13	0.03	0.09	0.10	
Uniform Delay, d1	45.7	19.3		38.0	13.2		25.2	22.8	22.0	22.5	22.5	
Progression Factor	1.26	0.24		0.51	0.33		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.2	0.6		0.4	0.4		3.2	0.5	0.1	0.5	0.4	
Delay (s)	59.8	5.1		19.6	4.7		28.4	23.3	22.1	22.9	22.9	
Level of Service	E	A		B	A		C	C	C	C	C	
Approach Delay (s)		7.1			5.4			26.1			22.9	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement						
	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	9	60	59	61	73	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	65	64	66	79	9
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	278	84	88			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	278	84	88			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	93	96			
cM capacity (veh/h)	681	976	1508			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	10	65	64	66	88	
Volume Left	10	0	64	0	0	
Volume Right	0	65	0	0	9	
cSH	681	976	1508	1700	1700	
Volume to Capacity	0.01	0.07	0.04	0.04	0.05	
Queue Length 95th (ft)	1	5	3	0	0	
Control Delay (s)	10.4	9.0	7.5	0.0	0.0	
Lane LOS	B	A	A			
Approach Delay (s)	9.1		3.7		0.0	
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			4.0			
Intersection Capacity Utilization			20.5%		ICU Level of Service	A
Analysis Period (min)			15			

Movement						
	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	7	22	12	128	132	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	8	24	13	139	143	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	309	143	143			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	309	143	143			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	97	99			
cM capacity (veh/h)	677	904	1439			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	32	13	139	143		
Volume Left	8	13	0	0		
Volume Right	24	0	0	0		
cSH	1192	1439	1700	1700		
Volume to Capacity	0.03	0.01	0.08	0.08		
Queue Length 95th (ft)	2	1	0	0		
Control Delay (s)	9.4	7.5	0.0	0.0		
Lane LOS	A	A				
Approach Delay (s)	9.4	0.6		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			21.8%		ICU Level of Service	A
Analysis Period (min)			15			

Palmdale Transit Village TIA  
Existing Conditions

13: PALMDALE BLVD & 6TH ST  
AM Peak Hour

Movement												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt Protected	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	2980	1333	1490	2980	1333	1490	1569	1333	1490	1569	1333
Satd. Flow (perm)	1490	2980	1333	1490	2980	1333	1073	1569	1333	1073	1569	1333
Volume (vph)	40	1012	67	45	1047	95	57	72	28	123	72	28
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	1100	73	49	1138	103	62	78	30	134	78	30
RTOR Reduction (vph)	0	0	36	0	0	13	0	0	20	0	0	20
Lane Group Flow (vph)	43	1100	37	49	1138	90	62	78	10	134	78	10
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	6.3	48.4	48.4	8.5	50.6	50.6	31.1	31.1	31.1	31.1	31.1	31.1
Effective Green, g (s)	8.3	50.4	50.4	10.5	52.6	52.6	33.1	33.1	33.1	33.1	33.1	33.1
Actuated g/C Ratio	0.08	0.50	0.50	0.10	0.53	0.53	0.33	0.33	0.33	0.33	0.33	0.33
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	124	1502	672	156	1567	701	355	519	441	355	519	441
v/s Ratio Prot	0.03	c0.37		c0.03	c0.38			0.05			0.05	
v/s Ratio Perm			0.03			0.07	0.06		0.01	c0.12		0.01
v/c Ratio	0.35	0.73	0.05	0.31	0.73	0.13	0.17	0.15	0.02	0.38	0.15	0.02
Uniform Delay, d1	43.3	19.5	12.6	41.4	18.2	12.0	23.8	23.5	22.5	25.6	23.5	22.5
Progression Factor	0.92	0.26	0.01	0.87	0.27	0.18	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.6	3.0	0.1	0.9	2.3	0.3	1.1	0.6	0.1	3.0	0.6	0.1
Delay (s)	41.6	8.0	0.3	37.1	7.2	2.5	24.8	24.2	22.6	28.6	24.2	22.6
Level of Service	D	A	A	D	A	A	C	C	C	C	C	C
Approach Delay (s)		8.7			7.9			24.1			26.4	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	10.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	65.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
Existing Conditions

14: AVE P & SIERRA HWY  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1440	1600	1600	1440	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	0.95		0.97	0.95	1.00
Frnt	1.00	1.00	0.85	1.00	0.96	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1490	2980	1333	1490	2727	1213	2602	2944		2602	2980	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1490	2980	1333	1490	2727	1213	2602	2944		2602	2980	1333
Volume (vph)	112	732	89	30	450	703	84	479	42	505	326	74
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	122	796	97	33	489	764	91	521	46	549	354	80
RTOR Reduction (vph)	0	0	65	0	49	419	0	0	0	0	0	68
Lane Group Flow (vph)	122	796	32	33	649	136	91	567	0	549	354	12
Turn Type	Prot		Over	Prot		Over	Prot			Prot		Over
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases												
Actuated Green, G (s)	11.1	29.5	10.0	5.1	23.5	20.1	10.0	19.3		20.1	29.4	11.1
Effective Green, g (s)	13.1	31.5	12.0	7.1	25.5	22.1	12.0	21.3		22.1	31.4	13.1
Actuated g/C Ratio	0.15	0.35	0.13	0.08	0.28	0.25	0.13	0.24		0.25	0.35	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	217	1043	178	118	773	298	347	697		639	1040	194
v/s Ratio Prot	0.08	c0.27	0.02	0.02	c0.24	0.11	0.03	c0.19		c0.21	0.12	0.01
v/s Ratio Perm												
v/c Ratio	0.56	0.76	0.18	0.28	0.84	0.46	0.26	0.81		0.86	0.34	0.06
Uniform Delay, d1	35.8	25.9	34.6	39.0	30.3	28.9	35.0	32.5		32.5	21.6	33.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.88		1.00	1.00	1.00
Incremental Delay, d2	3.3	3.4	0.5	1.3	8.0	1.1	0.4	9.9		11.1	0.9	0.1
Delay (s)	39.1	29.3	35.1	40.3	38.3	30.0	31.3	38.5		43.6	22.5	33.3
Level of Service	D	C	D	D	D	C	C	D		D	C	C
Approach Delay (s)		31.0			34.8			37.5			35.2	
Approach LOS		C			C			D			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			34.4									C
HCM Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			90.0							6.0		
Intersection Capacity Utilization			80.7%									D
Analysis Period (min)			15									
c Critical Lane Group												

Movement						
	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1490	1333	1490	2980	2980	1333
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1490	1333	1490	2980	2980	1333
Volume (vph)	78	184	169	527	383	106
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	200	184	573	416	115
RTOR Reduction (vph)	0	161	0	0	0	45
Lane Group Flow (vph)	85	39	184	573	416	70
Turn Type		Over	Prot			Perm
Protected Phases	4	5	5	2	6	
Permitted Phases						6
Actuated Green, G (s)	9.2	15.7	15.7	72.8	53.1	53.1
Effective Green, g (s)	11.2	17.7	17.7	74.8	55.1	55.1
Actuated g/C Ratio	0.12	0.20	0.20	0.83	0.61	0.61
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	185	262	293	2477	1824	816
v/s Ratio Prot	c0.06	0.03	c0.12	c0.19	0.14	
v/s Ratio Perm						0.05
v/c Ratio	0.46	0.15	0.63	0.23	0.23	0.09
Uniform Delay, d1	36.6	29.9	33.1	1.6	7.9	7.1
Progression Factor	1.00	1.00	1.00	1.00	0.38	0.07
Incremental Delay, d2	1.8	0.3	4.2	0.2	0.3	0.2
Delay (s)	38.4	30.2	37.3	1.8	3.2	0.7
Level of Service	D	C	D	A	A	A
Approach Delay (s)	32.6			10.4	2.7	
Approach LOS	C			B	A	
<b>Intersection Summary</b>						
HCM Average Control Delay			11.8		HCM Level of Service	B
HCM Volume to Capacity ratio			0.34			
Actuated Cycle Length (s)			90.0		Sum of lost time (s)	4.0
Intersection Capacity Utilization			42.0%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Palmdale Transit Village TIA  
Existing Conditions

16: PALMDALE BLVD & SIERRA HWY  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	2980	1333	1490	2980	1333	1490	2937		1490	2807	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	2980	1333	1490	2980	1333	1490	2937		1490	2807	
Volume (vph)	123	866	145	70	797	122	121	440	47	186	214	135
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	941	158	76	866	133	132	478	51	202	233	147
RTOR Reduction (vph)	0	0	0	0	0	23	0	8	0	0	99	0
Lane Group Flow (vph)	134	941	158	76	866	110	132	521	0	202	281	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	11.4	38.5	100.0	8.0	35.1	35.1	15.1	21.7		15.8	22.4	
Effective Green, g (s)	13.4	40.5	100.0	10.0	37.1	37.1	17.1	23.7		17.8	24.4	
Actuated g/C Ratio	0.13	0.40	1.00	0.10	0.37	0.37	0.17	0.24		0.18	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	200	1207	1333	149	1106	495	255	696		265	685	
v/s Ratio Prot	c0.09	c0.32		0.05	c0.29		0.09	c0.18		c0.14	0.10	
v/s Ratio Perm			0.12			0.08						
v/c Ratio	0.67	0.78	0.12	0.51	0.78	0.22	0.52	0.75		0.76	0.41	
Uniform Delay, d1	41.2	25.9	0.0	42.7	27.9	21.6	37.7	35.4		39.1	31.8	
Progression Factor	0.70	0.37	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.4	3.8	0.1	2.9	5.6	1.0	1.8	7.3		12.2	1.8	
Delay (s)	35.1	13.3	0.1	45.6	33.4	22.6	39.5	42.6		51.3	33.6	
Level of Service	D	B	A	D	C	C	D	D		D	C	
Approach Delay (s)		14.0			33.0			42.0			39.7	
Approach LOS		B			C			D			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			29.2				HCM Level of Service				C	
HCM Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			100.0						6.0			
Intersection Capacity Utilization			76.1%									D
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
Existing Conditions

1: PALMDALE BLVD & 5TH ST WEST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1490	2980	1333	1490	2980	1333	1490	2688		1490	2980	1333
Flt Permitted	0.35	1.00	1.00	0.16	1.00	1.00	0.70	1.00		0.62	1.00	1.00
Satd. Flow (perm)	555	2980	1333	246	2980	1333	1106	2688		971	2980	1333
Volume (vph)	34	1298	49	191	674	172	47	42	80	115	70	54
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	1411	53	208	733	187	51	46	87	125	76	59
RTOR Reduction (vph)	0	0	10	0	0	41	0	71	0	0	0	48
Lane Group Flow (vph)	37	1411	43	208	733	146	51	62	0	125	76	11
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)	76.0	76.0	76.0	76.0	76.0	76.0	16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	78.0	78.0	78.0	78.0	78.0	78.0	18.0	18.0		18.0	18.0	18.0
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.78	0.78	0.18	0.18		0.18	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	433	2324	1040	192	2324	1040	199	484		175	536	240
v/s Ratio Prot		0.47			0.25			0.02			0.03	
v/s Ratio Perm	0.07		0.03	c0.84		0.11	0.05			c0.13		0.01
v/c Ratio	0.09	0.61	0.04	1.08	0.32	0.14	0.26	0.13		0.71	0.14	0.04
Uniform Delay, d1	2.6	4.6	2.5	11.0	3.2	2.7	35.2	34.4		38.6	34.5	33.9
Progression Factor	1.00	1.00	1.00	1.35	0.17	0.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.4	1.2	0.1	79.9	0.3	0.2	3.1	0.5		22.0	0.6	0.3
Delay (s)	3.0	5.8	2.6	94.8	0.8	0.2	38.3	35.0		60.5	35.1	34.2
Level of Service	A	A	A	F	A	A	D	C		E	D	C
Approach Delay (s)		5.6			18.0			35.9			47.1	
Approach LOS		A			B			D			D	

Intersection Summary

HCM Average Control Delay	15.5	HCM Level of Service	B
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
Existing Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑	↑		↑↑				↑		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.95	1.00		0.95				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		2980	1333		2980				1490		1333
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		2980	1333		2980				1490		1333
Volume (vph)	0	817	163	0	809	0	0	0	648	0	182
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	888	177	0	879	0	0	0	704	0	198
RTOR Reduction (vph)	0	0	112	0	0	0	0	0	0	0	18
Lane Group Flow (vph)	0	888	65	0	879	0	0	0	704	0	180
Turn Type		Perm							Prot	custom	
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		100.0	35.0		35.0				57.0		57.0
Effective Green, g (s)		100.0	37.0		37.0				59.0		59.0
Actuated g/C Ratio		1.00	0.37		0.37				0.59		0.59
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		2980	493		1103				879		786
v/s Ratio Prot		0.11			c0.29				c0.47		
v/s Ratio Perm		0.19	0.05								0.13
v/c Ratio		0.30	0.13		0.80				0.80		0.23
Uniform Delay, d1		0.0	20.9		28.1				15.9		9.7
Progression Factor		1.00	1.74		0.66				1.00		1.00
Incremental Delay, d2		0.2	0.5		5.8				7.6		0.7
Delay (s)		0.2	36.8		24.5				23.5		10.4
Level of Service		A	D		C				C		B
Approach Delay (s)		6.3			24.5		0.0			20.6	
Approach LOS		A			C		A			C	
<b>Intersection Summary</b>											
HCM Average Control Delay		16.5		HCM Level of Service				B			
HCM Volume to Capacity ratio		0.79									
Actuated Cycle Length (s)		100.0		Sum of lost time (s)				4.0			
Intersection Capacity Utilization		46.6%		ICU Level of Service				A			
Analysis Period (min)		15									
c Critical Lane Group											

											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER
Lane Configurations		↑↑↑			↑↑↑				↑		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0			2.0				2.0		2.0
Lane Util. Factor		0.91			0.91				1.00		1.00
Fr <sub>t</sub>		1.00			0.93				1.00		0.85
Fl <sub>t</sub> Protected		1.00			1.00				0.95		1.00
Satd. Flow (prot)		4282			3971				1490		1333
Fl <sub>t</sub> Permitted		1.00			1.00				0.95		1.00
Satd. Flow (perm)		4282			3971				1490		1333
Volume (vph)	0	1259	0	0	783	736	0	0	218	0	252
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1368	0	0	851	800	0	0	237	0	274
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	17
Lane Group Flow (vph)	0	1368	0	0	1651	0	0	0	237	0	257
Turn Type									Prot		custom
Protected Phases		4			8				2		
Permitted Phases					Free						2
Actuated Green, G (s)		50.0			100.0				42.0		42.0
Effective Green, g (s)		52.0			100.0				44.0		44.0
Actuated g/C Ratio		0.52			1.00				0.44		0.44
Clearance Time (s)		4.0			4.0				4.0		4.0
Vehicle Extension (s)		3.0			3.0				3.0		3.0
Lane Grp Cap (vph)		2227			3971				656		587
v/s Ratio Prot		c0.32			c0.22				0.16		
v/s Ratio Perm					0.20						0.19
v/c Ratio		0.61			0.42				0.36		0.44
Uniform Delay, d <sub>1</sub>		16.9			0.0				18.6		19.4
Progression Factor		0.69			1.00				1.00		1.00
Incremental Delay, d <sub>2</sub>		1.1			0.3				1.5		2.4
Delay (s)		12.8			0.3				20.2		21.8
Level of Service		B			A				C		C
Approach Delay (s)		12.8			0.3		0.0			21.0	
Approach LOS		B			A		A			C	
<b>Intersection Summary</b>											
HCM Average Control Delay			8.1			HCM Level of Service				A	
HCM Volume to Capacity ratio			0.52								
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			2.0		
Intersection Capacity Utilization			54.1%			ICU Level of Service			A		
Analysis Period (min)			15								
c	Critical Lane Group										

Palmdale Transit Village TIA  
Existing Conditions

4: AVE Q & DIVISION ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗		↕			↕	
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	94	55	69	104	6	29	15	37	1	8	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	102	60	75	113	7	32	16	40	1	9	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	120			162			407	406	132	448	429	113
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	120			162			407	406	132	448	429	113
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			94	97	96	100	98	100
cM capacity (veh/h)	1468			1417			523	505	917	466	490	940
Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1							
Volume Total	164	188	7	88	13							
Volume Left	2	75	0	32	1							
Volume Right	60	0	7	40	3							
cSH	1468	1417	1700	645	554							
Volume to Capacity	0.00	0.05	0.00	0.14	0.02							
Queue Length 95th (ft)	0	4	0	12	2							
Control Delay (s)	0.1	3.3	0.0	11.5	11.7							
Lane LOS	A	A		B	B							
Approach Delay (s)	0.1	3.2		11.5	11.7							
Approach LOS				B	B							
Intersection Summary												
Average Delay			3.9									
Intersection Capacity Utilization			43.2%		ICU Level of Service				A			
Analysis Period (min)			15									

Palmdale Transit Village TIA  
Existing Conditions

5: PALMDALE BLVD & DIVISION ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖↖		↖	↖↖↖		↖	↖	↖	↖	↖	↖
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	0.85	1.00	1.00	0.85
Fr <sub>t</sub>	1.00	0.98		1.00	1.00		1.00	1.00	0.95	1.00	1.00	0.85
Fl <sub>t</sub> Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4210		1490	4277		1490	1569	1333	1490	1569	1333
Fl <sub>t</sub> Permitted	0.95	1.00		0.95	1.00		0.72	1.00	1.00	0.70	1.00	1.00
Satd. Flow (perm)	1490	4210		1490	4277		1131	1569	1333	1098	1569	1333
Volume (vph)	82	1322	167	72	1176	10	274	64	48	31	51	58
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	1437	182	78	1278	11	298	70	52	34	55	63
RTOR Reduction (vph)	0	16	0	0	1	0	0	0	33	0	0	40
Lane Group Flow (vph)	89	1603	0	78	1288	0	298	70	19	34	55	23
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Actuated Green, G (s)	7.8	46.0		8.0	46.2		34.0	34.0	34.0	34.0	34.0	34.0
Effective Green, g (s)	9.8	48.0		10.0	48.2		36.0	36.0	36.0	36.0	36.0	36.0
Actuated g/C Ratio	0.10	0.48		0.10	0.48		0.36	0.36	0.36	0.36	0.36	0.36
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	146	2021		149	2062		407	565	480	395	565	480
v/s Ratio Prot	0.06	c0.38		0.05	c0.30			0.04			0.04	
v/s Ratio Perm							c0.26		0.01	0.03		0.02
v/c Ratio	0.61	0.79		0.52	0.62		0.73	0.12	0.04	0.09	0.10	0.05
Uniform Delay, d1	43.3	21.8		42.7	19.2		27.8	21.4	20.8	21.1	21.2	20.8
Progression Factor	1.24	0.57		0.41	0.18		1.00	1.00	1.00	0.96	0.96	0.91
Incremental Delay, d2	5.9	2.8		1.8	0.8		11.1	0.5	0.2	0.4	0.3	0.2
Delay (s)	59.5	15.2		19.4	4.3		38.9	21.9	20.9	20.8	20.8	19.2
Level of Service	E	B		B	A		D	C	C	C	C	B
Approach Delay (s)		17.5			5.1			33.8			20.1	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	14.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
Existing Conditions

6: TECHNOLOGY DR & 3RD ST EAST  
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	336	50	88	417	32	46	77	41	22	120	43
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	365	54	96	453	35	50	84	45	24	130	47
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1						
Volume Total (vph)	24	420	96	488	178	201						
Volume Left (vph)	24	0	96	0	50	24						
Volume Right (vph)	0	54	0	35	45	47						
Hadj (s)	0.53	-0.06	0.53	-0.02	-0.06	-0.08						
Departure Headway (s)	7.6	7.0	7.4	6.9	7.6	7.4						
Degree Utilization, x	0.05	0.82	0.20	0.93	0.37	0.42						
Capacity (veh/h)	455	497	469	507	435	449						
Control Delay (s)	9.8	33.3	11.0	48.9	15.0	15.6						
Approach Delay (s)	32.0		42.7		15.0	15.6						
Approach LOS	D		E		B	C						
Intersection Summary												
Delay			31.9									
HCM Level of Service			D									
Intersection Capacity Utilization			62.6%				ICU Level of Service		B			
Analysis Period (min)			15									

Palmdale Transit Village TIA  
Existing Conditions

7: AVE P-12 & 3RD ST EAST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↗	↖	↑	↗	↖	↕	
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	13	2	4	7	3	15	2	97	1	6	255	13
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	2	4	8	3	16	2	105	1	7	277	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						6						
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	417	408	284	405	414	105	291			107		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	417	408	284	405	414	105	291			107		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	99	99	99	98	100			100		
cM capacity (veh/h)	532	529	755	548	525	949	1270			1484		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	21	27	2	105	1	7	291					
Volume Left	14	8	2	0	0	7	0					
Volume Right	4	16	0	0	1	0	14					
cSH	567	1354	1270	1700	1700	1484	1700					
Volume to Capacity	0.04	0.02	0.00	0.06	0.00	0.00	0.17					
Queue Length 95th (ft)	3	2	0	0	0	0	0					
Control Delay (s)	11.6	10.0	7.8	0.0	0.0	7.4	0.0					
Lane LOS	B	B	A			A						
Approach Delay (s)	11.6	10.0	0.2			0.2						
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.3									
Intersection Capacity Utilization			31.5%		ICU Level of Service					A		
Analysis Period (min)			15									

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	31	109	117	83	102	64
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	34	118	127	90	111	70
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						2
Median type					None	
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	217				358	172
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	217				358	172
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				82	92
cM capacity (veh/h)	1352				624	871
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	34	118	217	180		
Volume Left	34	0	0	111		
Volume Right	0	0	90	70		
cSH	1352	1700	1700	1016		
Volume to Capacity	0.02	0.07	0.13	0.18		
Queue Length 95th (ft)	2	0	0	16		
Control Delay (s)	7.7	0.0	0.0	11.0		
Lane LOS	A			B		
Approach Delay (s)	1.7		0.0	11.0		
Approach LOS				B		
<b>Intersection Summary</b>						
Average Delay			4.1			
Intersection Capacity Utilization			33.4%		ICU Level of Service	A
Analysis Period (min)			15			

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↙	↑	↘	
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	206	5	4	161	39	35
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	224	5	4	175	42	38
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type					None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			229		410	227
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			229		410	227
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		93	95
cM capacity (veh/h)			1339		596	813
Direction, Lane #	EB 1	WB 1	WB 2	NB 1		
Volume Total	229	4	175	80		
Volume Left	0	4	0	42		
Volume Right	5	0	0	38		
cSH	1700	1339	1700	682		
Volume to Capacity	0.13	0.00	0.10	0.12		
Queue Length 95th (ft)	0	0	0	10		
Control Delay (s)	0.0	7.7	0.0	11.0		
Lane LOS		A		B		
Approach Delay (s)	0.0	0.2		11.0		
Approach LOS				B		
Intersection Summary						
Average Delay			1.9			
Intersection Capacity Utilization			25.0%		ICU Level of Service	A
Analysis Period (min)			15			

Palmdale Transit Village TIA  
Existing Conditions

10: PALMDALE BLVD & 3RD ST EAST  
PM Peak Hour

Movement												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0			2.0			2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.95			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1490	4245		1490	4250			1488			1533	
Flt Permitted	0.95	1.00		0.95	1.00			0.95			0.58	
Satd. Flow (perm)	1490	4245		1490	4250			1417			900	
Volume (vph)	9	1537	95	206	1471	79	54	407	251	92	225	25
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	1671	103	224	1599	86	59	442	273	100	245	27
RTOR Reduction (vph)	0	7	0	0	5	0	0	20	0	0	3	0
Lane Group Flow (vph)	10	1767	0	224	1680	0	0	754	0	0	369	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)	2.0	35.0		11.0	44.0			42.0			42.0	
Effective Green, g (s)	4.0	37.0		13.0	46.0			44.0			44.0	
Actuated g/C Ratio	0.04	0.37		0.13	0.46			0.44			0.44	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	60	1571		194	1955			623			396	
v/s Ratio Prot	0.01	c0.42		c0.15	0.40							
v/s Ratio Perm								c0.53			0.41	
v/c Ratio	0.17	1.12		1.15	0.86			1.21			0.93	
Uniform Delay, d1	46.4	31.5		43.5	24.1			28.0			26.6	
Progression Factor	0.76	0.60		0.85	1.03			1.00			1.00	
Incremental Delay, d2	1.0	63.2		111.6	5.1			109.3			31.0	
Delay (s)	36.5	82.2		148.6	29.8			137.3			57.6	
Level of Service	D	F		F	C			F			E	
Approach Delay (s)		81.9			43.8			137.3			57.6	
Approach LOS		F			D			F			E	

Intersection Summary

HCM Average Control Delay	73.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	111.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
Existing Conditions

43: PALMDALE BLVD & 5th Street East  
PM Peak Hour

Movement												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	
Frts	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1490	4229		1490	4244		1490	1569	1333	1490	1481	
Flt Permitted	0.95	1.00		0.95	1.00		0.61	1.00	1.00	0.67	1.00	
Satd. Flow (perm)	1490	4229		1490	4244		956	1569	1333	1046	1481	
Volume (vph)	63	1051	96	77	935	59	113	80	70	59	72	42
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	1142	104	84	1016	64	123	87	76	64	78	46
RTOR Reduction (vph)	0	10	0	0	6	0	0	0	52	0	21	0
Lane Group Flow (vph)	68	1236	0	84	1074	0	123	87	24	64	103	0
Turn Type	Prot			Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases							2		2		6	
Actuated Green, G (s)	8.0	45.4		13.6	51.0		29.0	29.0	29.0	29.0	29.0	
Effective Green, g (s)	10.0	47.4		15.6	53.0		31.0	31.0	31.0	31.0	31.0	
Actuated g/C Ratio	0.10	0.47		0.16	0.53		0.31	0.31	0.31	0.31	0.31	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	149	2005		232	2249		296	486	413	324	459	
v/s Ratio Prot	0.05	c0.29		0.06	c0.25			0.06			0.07	
v/s Ratio Perm							c0.13		0.02	0.06		
v/c Ratio	0.46	0.62		0.36	0.48		0.42	0.18	0.06	0.20	0.22	
Uniform Delay, d1	42.4	19.5		37.7	14.8		27.3	25.2	24.2	25.4	25.6	
Progression Factor	1.09	0.37		0.52	0.22		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.2	0.1		0.5	0.4		4.3	0.8	0.3	1.4	1.1	
Delay (s)	46.5	7.3		20.0	3.7		31.6	26.0	24.5	26.7	26.7	
Level of Service	D	A		B	A		C	C	C	C	C	
Approach Delay (s)		9.3			4.9			28.0			26.7	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	56.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	13	109	61	95	122	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	118	66	103	133	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	374	139	145			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	374	139	145			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	87	95			
cM capacity (veh/h)	598	910	1438			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	14	118	66	103	145	
Volume Left	14	0	66	0	0	
Volume Right	0	118	0	0	12	
cSH	598	910	1438	1700	1700	
Volume to Capacity	0.02	0.13	0.05	0.06	0.09	
Queue Length 95th (ft)	2	11	4	0	0	
Control Delay (s)	11.2	9.5	7.6	0.0	0.0	
Lane LOS	B	A	A			
Approach Delay (s)	9.7		3.0		0.0	
Approach LOS	A					
<b>Intersection Summary</b>						
Average Delay			4.0			
Intersection Capacity Utilization			25.8%		ICU Level of Service	A
Analysis Period (min)			15			

Movement						
	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	6	17	21	131	218	11
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	18	23	142	237	12
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	431	243	249			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	431	243	249			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	98	98			
cM capacity (veh/h)	571	796	1317			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	25	23	142	249		
Volume Left	7	23	0	0		
Volume Right	18	0	0	12		
cSH	1077	1317	1700	1700		
Volume to Capacity	0.02	0.02	0.08	0.15		
Queue Length 95th (ft)	2	1	0	0		
Control Delay (s)	10.1	7.8	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	10.1	1.1		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			30.7%		ICU Level of Service	A
Analysis Period (min)			15			

Palmdale Transit Village TIA  
Existing Conditions

13: PALMDALE BLVD & 6TH ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.85	1.00	0.85
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	1.00	0.85	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	2980	1333	1490	2980	1333	1490	1569	1333	1490	1569	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.49	1.00	1.00	0.62	1.00	1.00
Satd. Flow (perm)	1490	2980	1333	1490	2980	1333	770	1569	1333	976	1569	1333
Volume (vph)	48	1259	153	58	1326	96	73	105	61	173	185	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	1368	166	63	1441	104	79	114	66	188	201	65
RTOR Reduction (vph)	0	0	76	0	0	11	0	0	46	0	0	45
Lane Group Flow (vph)	52	1368	90	63	1441	93	79	114	20	188	201	20
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	7.5	52.2	52.2	7.5	52.2	52.2	28.3	28.3	28.3	28.3	28.3	28.3
Effective Green, g (s)	9.5	54.2	54.2	9.5	54.2	54.2	30.3	30.3	30.3	30.3	30.3	30.3
Actuated g/C Ratio	0.10	0.54	0.54	0.10	0.54	0.54	0.30	0.30	0.30	0.30	0.30	0.30
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	142	1615	722	142	1615	722	233	475	404	296	475	404
v/s Ratio Prot	0.03	0.46		c0.04	c0.48			0.07			0.13	
v/s Ratio Perm			0.07			0.07	0.10		0.01	c0.19		0.01
v/c Ratio	0.37	0.85	0.12	0.44	0.89	0.13	0.34	0.24	0.05	0.64	0.42	0.05
Uniform Delay, d1	42.4	19.4	11.2	42.8	20.3	11.3	27.1	26.2	24.7	30.1	27.9	24.7
Progression Factor	0.90	0.33	0.02	0.86	0.20	0.17	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	5.2	0.3	0.7	2.8	0.1	3.9	1.2	0.2	10.0	2.8	0.2
Delay (s)	39.5	11.5	0.6	37.4	6.9	2.1	31.0	27.4	24.9	40.1	30.6	24.9
Level of Service	D	B	A	D	A	A	C	C	C	D	C	C
Approach Delay (s)		11.3			7.8			27.8			33.7	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	82.6%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
Existing Conditions

14: AVE P & SIERRA HWY  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1440	1600	1600	1440	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	0.97	0.95		0.97	0.95	1.00
Flt Protected	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1490	2980	1333	1490	2855	1213	2602	2962		2602	2980	1333
Satd. Flow (perm)	1490	2980	1333	1490	2855	1213	2602	2962		2602	2980	1333
Volume (vph)	110	546	138	20	718	544	281	501	21	696	619	144
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	120	593	150	22	780	591	305	545	23	757	673	157
RTOR Reduction (vph)	0	0	121	0	0	322	0	0	0	0	0	135
Lane Group Flow (vph)	120	593	29	22	780	269	305	568	0	757	673	22
Turn Type	Prot		Over	Prot		Over	Prot			Prot		Over
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases												
Actuated Green, G (s)	12.0	34.0	16.0	4.0	26.0	28.4	16.0	17.6		28.4	30.0	12.0
Effective Green, g (s)	14.0	36.0	18.0	6.0	28.0	30.4	18.0	19.6		30.4	32.0	14.0
Actuated g/C Ratio	0.14	0.36	0.18	0.06	0.28	0.30	0.18	0.20		0.30	0.32	0.14
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	209	1073	240	89	799	369	468	581		791	954	187
v/s Ratio Prot	c0.08	c0.20	0.02	0.01	c0.27	0.22	0.12	c0.19		c0.29	0.23	0.02
v/s Ratio Perm												
v/c Ratio	0.57	0.55	0.12	0.25	0.98	0.73	0.65	0.98		0.96	0.71	0.12
Uniform Delay, d1	40.2	25.6	34.4	44.8	35.7	31.1	38.1	40.0		34.2	29.9	37.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.66	0.65		1.00	1.00	1.00
Incremental Delay, d2	3.8	0.6	0.2	1.5	25.8	7.3	3.1	31.5		21.9	4.4	0.3
Delay (s)	44.0	26.2	34.6	46.3	61.5	38.4	28.1	57.4		56.0	34.2	37.9
Level of Service	D	C	C	D	E	D	C	E		E	C	D
Approach Delay (s)		30.1			51.4			47.2			45.0	
Approach LOS		C			D			D			D	

Intersection Summary

HCM Average Control Delay	44.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	94.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement						
	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1490	1333	1490	2980	2980	1333
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	1490	1333	1490	2980	2980	1333
Volume (vph)	72	353	349	764	867	204
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	78	384	379	830	942	222
RTOR Reduction (vph)	0	231	0	0	0	117
Lane Group Flow (vph)	78	153	379	830	942	105
Turn Type		Over	Prot			Perm
Protected Phases	4	5	5	2	6	
Permitted Phases						6
Actuated Green, G (s)	9.5	33.2	33.2	82.5	45.3	45.3
Effective Green, g (s)	11.5	35.2	35.2	84.5	47.3	47.3
Actuated g/C Ratio	0.12	0.35	0.35	0.84	0.47	0.47
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	171	469	524	2518	1410	631
v/s Ratio Prot	c0.05	0.11	c0.25	0.28	c0.32	
v/s Ratio Perm						0.08
v/c Ratio	0.46	0.33	0.72	0.33	0.67	0.17
Uniform Delay, d1	41.3	23.7	28.2	1.7	20.3	15.1
Progression Factor	1.00	1.00	0.70	0.98	0.40	0.03
Incremental Delay, d2	1.9	0.4	3.5	0.2	2.3	0.5
Delay (s)	43.3	24.1	23.2	1.9	10.5	0.9
Level of Service	D	C	C	A	B	A
Approach Delay (s)	27.4			8.5	8.7	
Approach LOS	C			A	A	

Intersection Summary

HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	69.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗	↗	↘	↗↗	↗	↘	↗↗	1600	↘	↗↗	1600
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	2980	1333	1490	2980	1333	1490	2934		1490	2832	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	2980	1333	1490	2980	1333	1490	2934		1490	2832	
Volume (vph)	208	1205	118	44	1005	160	157	536	63	221	530	262
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	226	1310	128	48	1092	174	171	583	68	240	576	285
RTOR Reduction (vph)	0	0	0	0	0	25	0	9	0	0	61	0
Lane Group Flow (vph)	226	1310	128	48	1092	149	171	642	0	240	800	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	15.6	44.0	100.0	6.0	34.4	34.4	10.0	20.0		14.0	24.0	
Effective Green, g (s)	17.6	46.0	100.0	8.0	36.4	36.4	12.0	22.0		16.0	26.0	
Actuated g/C Ratio	0.18	0.46	1.00	0.08	0.36	0.36	0.12	0.22		0.16	0.26	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	262	1371	1333	119	1085	485	179	645		238	736	
v/s Ratio Prot	c0.15	c0.44		0.03	c0.37		0.11	c0.22		0.16	c0.28	
v/s Ratio Perm			0.10			0.11						
v/c Ratio	0.86	0.96	0.10	0.40	1.01	0.31	0.96	1.00		1.01	1.09	
Uniform Delay, d1	40.0	26.0	0.0	43.7	31.8	22.8	43.7	39.0		42.0	37.0	
Progression Factor	0.76	0.49	1.00	1.00	1.00	1.00	1.00	1.00		0.63	0.49	
Incremental Delay, d2	16.4	11.2	0.1	2.2	28.9	1.6	53.8	34.5		53.6	55.6	
Delay (s)	46.6	23.9	0.1	46.0	60.7	24.4	97.5	73.4		80.2	73.6	
Level of Service	D	C	A	D	E	C	F	E		F	E	
Approach Delay (s)		25.2			55.4			78.4			75.1	
Approach LOS		C			E			E			E	
Intersection Summary												
HCM Average Control Delay			53.4			HCM Level of Service				D		
HCM Volume to Capacity ratio			1.00									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			4.0			
Intersection Capacity Utilization			97.7%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

## **Forecast Year 2030 Without Project Conditions**



Palmdale Transit Village TIA  
2030 NP Conditions

1: PALMDALE BLVD & 5TH ST WEST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘	↑↑↑	↗	↘	↑↑	↗	↘	↑↑	↗
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2980	1333	1490	2980	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	2980	1333	1490	2980	1333
Volume (vph)	44	771	45	66	544	99	101	61	196	47	30	42
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	80	1396	81	119	985	179	183	110	355	85	54	76
RTOR Reduction (vph)	0	0	21	0	0	62	0	0	227	0	0	64
Lane Group Flow (vph)	80	1396	60	119	985	117	183	110	128	85	54	12
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.0	44.2	44.2	14.8	51.0	51.0	19.0	27.0	27.0	8.0	16.0	16.0
Effective Green, g (s)	10.0	46.2	46.2	16.8	53.0	53.0	21.0	29.0	29.0	10.0	18.0	18.0
Actuated g/C Ratio	0.09	0.42	0.42	0.15	0.48	0.48	0.19	0.26	0.26	0.09	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	135	1798	560	228	2063	642	284	786	351	135	488	218
v/s Ratio Prot	0.05	c0.33		0.08	c0.23		c0.12	0.04		0.06	0.02	
v/s Ratio Perm			0.05			0.09			c0.10			0.01
v/c Ratio	0.59	0.78	0.11	0.52	0.48	0.18	0.64	0.14	0.37	0.63	0.11	0.06
Uniform Delay, d1	48.0	27.5	19.4	42.9	19.2	16.2	41.1	31.0	33.0	48.2	39.2	38.8
Progression Factor	1.00	1.00	1.00	0.84	0.75	1.17	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.8	3.4	0.4	1.6	0.6	0.5	4.9	0.4	2.9	8.9	0.5	0.5
Delay (s)	54.8	30.8	19.8	37.7	15.0	19.4	46.0	31.3	35.9	57.1	39.6	39.3
Level of Service	D	C	B	D	B	B	D	C	D	E	D	D
Approach Delay (s)		31.5			17.8			38.0			46.4	
Approach LOS		C			B			D			D	

Intersection Summary

HCM Average Control Delay	28.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	76.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		4282	1333		4282				1490		1333
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		4282	1333		4282				1490		1333
Volume (vph)	0	753	279	0	572	0	0	0	413	0	118
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	0	1363	505	0	1035	0	0	0	748	0	214
RTOR Reduction (vph)	0	0	340	0	0	0	0	0	0	0	6
Lane Group Flow (vph)	0	1363	165	0	1035	0	0	0	748	0	208
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		55.0	16.0		16.0				31.0		31.0
Effective Green, g (s)		55.0	18.0		18.0				33.0		33.0
Actuated g/C Ratio		1.00	0.33		0.33				0.60		0.60
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		4282	436		1401				894		800
v/s Ratio Prot		0.10			c0.24				c0.50		
v/s Ratio Perm		0.21	0.12								0.16
v/c Ratio		0.32	0.38		0.74				0.84		0.26
Uniform Delay, d1		0.0	14.2		16.4				8.8		5.2
Progression Factor		1.00	4.98		0.63				1.00		1.00
Incremental Delay, d2		0.1	1.8		3.4				9.2		0.8
Delay (s)		0.1	72.5		13.8				18.0		6.0
Level of Service		A	E		B				B		A
Approach Delay (s)		19.7			13.8		0.0			15.3	
Approach LOS		B			B		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			17.0							B	
HCM Volume to Capacity ratio			0.79								
Actuated Cycle Length (s)			55.0						4.0		
Intersection Capacity Utilization			51.8%						A		
Analysis Period (min)			15								
c Critical Lane Group											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER
Lane Configurations		↑↑↑			↑↑↑	↑			↓		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0			2.0	2.0			2.0		2.0
Lane Util. Factor		0.91			0.91	1.00			1.00		1.00
Flt		1.00			1.00	0.85			1.00		0.85
Flt Protected		1.00			1.00	1.00			0.95		1.00
Satd. Flow (prot)		4282			4282	1333			1490		1333
Flt Permitted		1.00			1.00	1.00			0.95		1.00
Satd. Flow (perm)		4282			4282	1333			1490		1333
Volume (vph)	0	991	0	0	578	702	0	0	133	0	184
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	0	1794	0	0	1046	1271	0	0	241	0	333
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	7
Lane Group Flow (vph)	0	1794	0	0	1046	1271	0	0	241	0	326
Turn Type						Free			Prot		custom
Protected Phases		4				8			2		
Permitted Phases						Free	Free				2
Actuated Green, G (s)		58.0				110.0	110.0		44.0		44.0
Effective Green, g (s)		60.0				110.0	110.0		46.0		46.0
Actuated g/C Ratio		0.55				1.00	1.00		0.42		0.42
Clearance Time (s)		4.0				4.0			4.0		4.0
Vehicle Extension (s)		3.0				3.0			3.0		3.0
Lane Grp Cap (vph)		2336				4282	1333		623		557
v/s Ratio Prot		0.42				0.13			0.16		
v/s Ratio Perm						0.11	c0.95				0.24
v/c Ratio		0.77				0.24	0.95		0.39		0.59
Uniform Delay, d1		19.6				0.0	0.0		22.2		24.7
Progression Factor		0.43				1.00	1.00		1.00		1.00
Incremental Delay, d2		2.2				0.1	9.0		1.8		4.5
Delay (s)		10.6				0.1	9.0		24.0		29.1
Level of Service		B				A	A		C		C
Approach Delay (s)		10.6				5.0		0.0		27.0	
Approach LOS		B				A		A		C	
<b>Intersection Summary</b>											
HCM Average Control Delay			9.8			HCM Level of Service			A		
HCM Volume to Capacity ratio			0.95								
Actuated Cycle Length (s)			110.0			Sum of lost time (s)			0.0		
Intersection Capacity Utilization			72.3%			ICU Level of Service			C		
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
2030 NP Conditions

4: AVE Q & DIVISION ST  
AM Peak Hour

Movement												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Flt	1.00	0.96		1.00	1.00		1.00	0.86		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4130		1490	4270		1490	3681		1490	4184	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	4130		1490	4270		1490	3681		1490	4184	
Volume (vph)	1	80	25	40	116	2	28	2	32	2	6	1
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	2	145	45	72	210	4	51	4	58	4	11	2
RTOR Reduction (vph)	0	39	0	0	2	0	0	23	0	0	1	0
Lane Group Flow (vph)	2	151	0	72	212	0	51	39	0	4	12	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	2.0	12.7		9.3	20.0		8.6	67.8		4.2	63.4	
Effective Green, g (s)	4.0	14.7		11.3	22.0		10.6	69.8		6.2	65.4	
Actuated g/C Ratio	0.04	0.13		0.10	0.20		0.10	0.63		0.06	0.59	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	54	552		153	854		144	2336		84	2488	
v/s Ratio Prot	0.00	0.04		c0.05	c0.05		c0.03	c0.01		c0.00	0.00	
v/s Ratio Perm												
v/c Ratio	0.04	0.27		0.47	0.25		0.35	0.02		0.05	0.00	
Uniform Delay, d1	51.1	42.8		46.5	37.0		46.5	7.4		49.1	9.1	
Progression Factor	1.00	1.00		1.00	1.01		0.66	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.3		2.3	0.2		1.4	0.0		0.2	0.0	
Delay (s)	51.4	43.1		48.6	37.6		32.0	7.4		49.3	9.1	
Level of Service	D	D		D	D		C	A		D	A	
Approach Delay (s)		43.2			40.4			18.5			18.5	
Approach LOS		D			D			B			B	

Intersection Summary

HCM Average Control Delay	36.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.14		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
2030 NP Conditions

5: PALMDALE BLVD & DIVISION ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00	0.85	1.00	0.85
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	2891	4282	1333	1490	4282	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	2891	4282	1333	1490	4282	1333
Volume (vph)	80	980	115	71	676	8	474	75	34	34	72	118
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	145	1774	208	129	1224	14	858	136	62	62	130	214
RTOR Reduction (vph)	0	0	116	0	0	9	0	0	40	0	0	163
Lane Group Flow (vph)	145	1774	92	129	1224	5	858	136	22	62	130	51
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.0	39.2	39.2	10.0	37.2	37.2	28.0	36.8	36.8	8.0	16.8	16.8
Effective Green, g (s)	14.0	41.2	41.2	12.0	39.2	39.2	30.0	38.8	38.8	10.0	18.8	18.8
Actuated g/C Ratio	0.13	0.37	0.37	0.11	0.36	0.36	0.27	0.35	0.35	0.09	0.17	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	190	1604	499	163	1526	475	788	1510	470	135	732	228
v/s Ratio Prot	0.10	c0.41		0.09	c0.29		c0.30	0.03		0.04	0.03	
v/s Ratio Perm			0.07			0.00			0.02			c0.04
v/c Ratio	0.76	1.11	0.18	0.79	0.80	0.01	1.09	0.09	0.05	0.46	0.18	0.22
Uniform Delay, d1	46.4	34.4	23.1	47.8	31.9	22.9	40.0	23.8	23.4	47.4	39.0	39.3
Progression Factor	0.69	0.57	0.09	0.77	0.95	0.98	1.00	1.00	1.00	1.18	0.77	0.35
Incremental Delay, d2	11.3	54.4	0.5	19.7	3.9	0.0	59.0	0.1	0.2	2.5	0.5	2.2
Delay (s)	43.2	74.1	2.5	56.4	34.2	22.3	99.0	23.9	23.6	58.4	30.6	16.1
Level of Service	D	E	A	E	C	C	F	C	C	E	C	B
Approach Delay (s)		65.0			36.2			84.9			27.2	
Approach LOS		E			D			F			C	

Intersection Summary

HCM Average Control Delay	58.2	HCM Level of Service	E
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0			2.0			2.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.99			0.95			0.96	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			1.00	
Satd. Flow (prot)	1490	2980	1333	1490	2947			1487			1505	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.96			0.98	
Satd. Flow (perm)	1490	2980	1333	1490	2947			1430			1482	
Volume (vph)	24	176	40	37	235	19	13	54	35	9	86	36
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	43	319	72	67	425	34	24	98	63	16	156	65
RTOR Reduction (vph)	0	0	54	0	11	0	0	28	0	0	20	0
Lane Group Flow (vph)	43	319	18	67	448	0	0	157	0	0	217	0
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2		6		6
Permitted Phases			4				2					
Actuated Green, G (s)	4.0	11.4	11.4	7.9	15.3			23.7			23.7	
Effective Green, g (s)	6.0	13.4	13.4	9.9	17.3			25.7			25.7	
Actuated g/C Ratio	0.11	0.24	0.24	0.18	0.31			0.47			0.47	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	163	726	325	268	927			668			692	
v/s Ratio Prot	0.03	0.11		c0.04	c0.15							
v/s Ratio Perm			0.01					0.11			c0.15	
v/c Ratio	0.26	0.44	0.05	0.25	0.48			0.24			0.31	
Uniform Delay, d1	22.5	17.6	15.9	19.4	15.2			8.8			9.1	
Progression Factor	1.00	1.00	1.00	0.81	0.71			0.93			1.00	
Incremental Delay, d2	0.9	0.4	0.1	0.5	0.4			0.8			1.2	
Delay (s)	23.3	18.0	16.0	16.2	11.2			9.0			10.3	
Level of Service	C	B	B	B	B			A			B	
Approach Delay (s)		18.2			11.8			9.0			10.3	
Approach LOS		B			B			A			B	

Intersection Summary

HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	53.0%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
2030 NP Conditions

7: AVE P-12 & 3RD ST EAST  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free				Free
Grade		0%			0%			0%				0%
Volume (veh/h)	12	4	2	1	1	2	2	148	2	6	176	9
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	22	7	4	2	2	4	4	268	4	11	319	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						6						
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)											1298	
pX, platoon unblocked												
vC, conflicting volume	626	627	327	623	632	268	335			272		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	626	627	327	623	632	268	335			272		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	94	98	99	100	100	100	100			99		
cM capacity (veh/h)	390	396	715	388	393	771	1224			1292		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	33	7	4	268	4	11	335					
Volume Left	22	2	4	0	0	11	0					
Volume Right	4	4	0	0	4	0	16					
cSH	412	781	1224	1700	1700	1292	1700					
Volume to Capacity	0.08	0.01	0.00	0.16	0.00	0.01	0.20					
Queue Length 95th (ft)	6	1	0	0	0	1	0					
Control Delay (s)	14.5	12.0	7.9	0.0	0.0	7.8	0.0					
Lane LOS	B	B	A			A						
Approach Delay (s)	14.5	12.0	0.1			0.2						
Approach LOS	B	B										
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			36.6%		ICU Level of Service					A		
Analysis Period (min)			15									

										
Movement	EBL	EBT	WBT	WBR	SBL	SBR				
Lane Configurations	↘	↑↑↑	↑↑↑		↘	↗				
Sign Control		Free	Free		Stop					
Grade		0%	0%		0%					
Volume (veh/h)	56	106	106	92	86	103				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Hourly flow rate (vph)	101	192	192	167	156	186				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)							2			
Median type						None				
Median storage veh										
Upstream signal (ft)	1283									
pX, platoon unblocked										
vC, conflicting volume	358					542	147			
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	358					542	147			
tC, single (s)	4.1					6.8	6.9			
tC, 2 stage (s)										
tF (s)	2.2					3.5	3.3			
p0 queue free %	92					64	79			
cM capacity (veh/h)	1197					431	873			
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	SB 1		
Volume Total	101	64	64	64	77	77	205	342		
Volume Left	101	0	0	0	0	0	0	156		
Volume Right	0	0	0	0	0	0	167	186		
cSH	1197	1700	1700	1700	1700	1700	1700	947		
Volume to Capacity	0.08	0.04	0.04	0.04	0.05	0.05	0.12	0.36		
Queue Length 95th (ft)	7	0	0	0	0	0	0	42		
Control Delay (s)	8.3	0.0	0.0	0.0	0.0	0.0	0.0	13.8		
Lane LOS	A							B		
Approach Delay (s)	2.9					0.0			13.8	
Approach LOS							B			
<b>Intersection Summary</b>										
Average Delay			5.6							
Intersection Capacity Utilization			35.7%	ICU Level of Service				A		
Analysis Period (min)			15							

									
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	↑↑↑		↘	↑↑↑	↘				
Sign Control	Free			Free	Stop				
Grade	0%			0%	0%				
Volume (veh/h)	167	25	28	164	34	21			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Hourly flow rate (vph)	302	45	51	297	62	38			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type	None								
Median storage (veh)									
Upstream signal (ft)									
pX, platoon unblocked									
vC, conflicting volume			348			525	123		
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol			348			525	123		
tC, single (s)			4.1			6.8	6.9		
tC, 2 stage (s)									
tF (s)			2.2			3.5	3.3		
p0 queue free %			96			87	96		
cM capacity (veh/h)			1208			462	904		
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	
Volume Total	121	121	106	51	99	99	99	100	
Volume Left	0	0	0	51	0	0	0	62	
Volume Right	0	0	45	0	0	0	0	38	
cSH	1700	1700	1700	1208	1700	1700	1700	568	
Volume to Capacity	0.07	0.07	0.06	0.04	0.06	0.06	0.06	0.18	
Queue Length 95th (ft)	0	0	0	3	0	0	0	16	
Control Delay (s)	0.0	0.0	0.0	8.1	0.0	0.0	0.0	12.7	
Lane LOS				A				B	
Approach Delay (s)	0.0				1.2				12.7
Approach LOS								B	
<b>Intersection Summary</b>									
Average Delay			2.1						
Intersection Capacity Utilization			28.3%	ICU Level of Service				A	
Analysis Period (min)			15						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	1.00	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2783		1490	2968	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.20	1.00		0.20	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	314	2783		314	2968	
Volume (vph)	10	1302	78	183	912	54	23	195	154	28	305	9
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	18	2357	141	331	1651	98	42	353	279	51	552	16
RTOR Reduction (vph)	0	0	42	0	0	28	0	130	0	0	2	0
Lane Group Flow (vph)	18	2357	99	331	1651	70	42	502	0	51	566	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	3.4	55.6	55.6	24.4	76.6	76.6	18.0	18.0		18.0	18.0	
Effective Green, g (s)	5.4	57.6	57.6	26.4	78.6	78.6	20.0	20.0		20.0	20.0	
Actuated g/C Ratio	0.05	0.52	0.52	0.24	0.71	0.71	0.18	0.18		0.18	0.18	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	73	2242	698	358	3060	952	57	506		57	540	
v/s Ratio Prot	0.01	c0.55		c0.22	0.39			0.18			c0.19	
v/s Ratio Perm			0.07			0.05	0.13			0.16		
v/c Ratio	0.25	1.05	0.14	0.92	0.54	0.07	0.74	0.99		0.89	1.05	
Uniform Delay, d1	50.3	26.2	13.5	40.8	7.3	4.7	42.5	44.9		44.0	45.0	
Progression Factor	1.49	0.26	0.00	0.65	0.35	0.06	1.00	1.00		0.98	0.99	
Incremental Delay, d2	1.1	30.6	0.3	25.5	0.6	0.1	59.0	38.1		91.5	52.1	
Delay (s)	75.9	37.3	0.3	52.0	3.1	0.4	101.5	83.0		134.8	96.6	
Level of Service	E	D	A	D	A	A	F	F		F	F	
Approach Delay (s)		35.5			10.8			84.1			99.7	
Approach LOS		D			B			F			F	

Intersection Summary

HCM Average Control Delay	39.1	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	119.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑↑	↘	↙	↑↑↑	↘	↙	↑↑	↘	↙	↑↑	↘
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2811		1490	2837	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.68	1.00		0.61	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1071	2811		951	2837	
Volume (vph)	35	894	49	41	793	32	140	64	39	30	40	19
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	63	1618	89	74	1435	58	253	116	71	54	72	34
RTOR Reduction (vph)	0	0	48	0	0	31	0	43	0	0	21	0
Lane Group Flow (vph)	63	1618	41	74	1435	27	253	144	0	54	85	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	7.8	49.2	49.2	7.8	49.2	49.2	41.0	41.0		41.0	41.0	
Effective Green, g (s)	9.8	51.2	51.2	9.8	51.2	51.2	43.0	43.0		43.0	43.0	
Actuated g/C Ratio	0.09	0.47	0.47	0.09	0.47	0.47	0.39	0.39		0.39	0.39	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	133	1993	620	133	1993	620	419	1099		372	1109	
v/s Ratio Prot	0.04	c0.38		c0.05	0.34			0.05			0.03	
v/s Ratio Perm			0.03			0.02	c0.24			0.06		
v/c Ratio	0.47	0.81	0.07	0.56	0.72	0.04	0.60	0.13		0.15	0.08	
Uniform Delay, d1	47.6	25.3	16.2	48.0	23.6	16.0	26.7	21.5		21.6	21.0	
Progression Factor	0.67	0.41	0.18	0.72	0.19	0.06	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.2	0.3	0.0	2.7	1.2	0.1	6.3	0.2		0.8	0.1	
Delay (s)	32.2	10.7	3.0	37.2	5.6	1.0	33.0	21.8		22.5	21.2	
Level of Service	C	B	A	D	A	A	C	C		C	C	
Approach Delay (s)		11.1			7.0			28.2			21.6	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	11.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	81.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Movement						
	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	9	60	59	61	73	8
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	16	109	107	110	132	14
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	463	139	147			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	463	139	147			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	88	93			
cM capacity (veh/h)	515	909	1435			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	16	109	107	110	147	
Volume Left	16	0	107	0	0	
Volume Right	0	109	0	0	14	
cSH	515	909	1435	1700	1700	
Volume to Capacity	0.03	0.12	0.07	0.06	0.09	
Queue Length 95th (ft)	2	10	6	0	0	
Control Delay (s)	12.2	9.5	7.7	0.0	0.0	
Lane LOS	B	A	A			
Approach Delay (s)	9.9		3.8		0.0	
Approach LOS	A					
Intersection Summary						
Average Delay			4.2			
Intersection Capacity Utilization			29.7%		ICU Level of Service	A
Analysis Period (min)			15			

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	7	22	12	128	132	0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	13	40	22	232	239	0
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	514	239	239			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	514	239	239			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	95	98			
cM capacity (veh/h)	512	800	1328			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	52	22	232	239		
Volume Left	13	22	0	0		
Volume Right	40	0	0	0		
cSH	1055	1328	1700	1700		
Volume to Capacity	0.05	0.02	0.14	0.14		
Queue Length 95th (ft)	4	1	0	0		
Control Delay (s)	10.3	7.8	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	10.3	0.7		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			31.4%		ICU Level of Service	A
Analysis Period (min)			15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘	↑↑↑	↗	↘	↑	↗	↘	↑	↗
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	1569	1333	1490	1569	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.61	1.00	1.00	0.61	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	961	1569	1333	961	1569	1333
Volume (vph)	40	1012	67	45	1047	95	57	72	28	123	72	28
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	72	1832	121	81	1895	172	103	130	51	223	130	51
RTOR Reduction (vph)	0	0	60	0	0	18	0	0	33	0	0	33
Lane Group Flow (vph)	72	1832	61	81	1895	154	103	130	18	223	130	18
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	7.9	53.2	53.2	7.9	53.2	53.2	36.9	36.9	36.9	36.9	36.9	36.9
Effective Green, g (s)	9.9	55.2	55.2	9.9	55.2	55.2	38.9	38.9	38.9	38.9	38.9	38.9
Actuated g/C Ratio	0.09	0.50	0.50	0.09	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	134	2149	669	134	2149	669	340	555	471	340	555	471
v/s Ratio Prot	0.05	0.43		c0.05	c0.44			0.08			0.08	
v/s Ratio Perm			0.05			0.12	0.11		0.01	c0.23		0.01
v/c Ratio	0.54	0.85	0.09	0.60	0.88	0.23	0.30	0.23	0.04	0.66	0.23	0.04
Uniform Delay, d1	47.9	23.9	14.3	48.2	24.5	15.4	25.7	25.1	23.3	29.9	25.1	23.3
Progression Factor	0.61	0.66	0.98	0.88	0.30	0.21	1.00	1.00	1.00	1.00	1.00	1.01
Incremental Delay, d2	3.1	3.5	0.2	4.6	3.6	0.5	2.3	1.0	0.2	9.5	1.0	0.2
Delay (s)	32.5	19.3	14.2	47.0	10.8	3.8	28.0	26.0	23.4	39.5	26.1	23.6
Level of Service	C	B	B	D	B	A	C	C	C	D	C	C
Approach Delay (s)		19.4			11.6			26.3			33.2	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	85.6%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
2030 NP Conditions

14: AVE P & SIERRA HWY  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1440	1600	1600	1440	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.86	0.86	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.94	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	3817	1147	2602	4282	1333	2602	4282	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	3817	1147	2602	4282	1333	2602	4282	1333
Volume (vph)	112	732	89	30	450	703	84	479	42	505	326	74
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	203	1325	161	54	814	1272	152	867	76	914	590	134
RTOR Reduction (vph)	0	0	76	0	100	394	0	0	0	0	0	116
Lane Group Flow (vph)	203	1325	85	54	1209	383	152	867	76	914	590	18
Turn Type	Prot		Over	Prot		Over	Prot		Perm	Prot		Over
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases									2			
Actuated Green, G (s)	12.8	34.8	17.0	8.0	30.0	33.0	17.0	18.2	18.2	33.0	34.2	12.8
Effective Green, g (s)	14.8	36.8	19.0	10.0	32.0	35.0	19.0	20.2	20.2	35.0	36.2	14.8
Actuated g/C Ratio	0.13	0.33	0.17	0.09	0.29	0.32	0.17	0.18	0.18	0.32	0.33	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	200	1433	230	135	1110	365	449	786	245	828	1409	179
v/s Ratio Prot	c0.14	c0.31	0.06	0.04	c0.32	0.33	0.06	c0.20		c0.35	0.14	0.01
v/s Ratio Perm									0.06			
v/c Ratio	1.01	0.92	0.37	0.40	1.09	1.05	0.34	1.10	0.31	1.10	0.42	0.10
Uniform Delay, d1	47.6	35.3	40.2	47.2	39.0	37.5	40.0	44.9	38.9	37.5	28.7	41.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.64	0.64	1.00	1.00	1.00
Incremental Delay, d2	67.6	10.3	1.0	1.9	54.7	60.5	0.4	63.6	3.2	63.7	0.9	0.2
Delay (s)	115.2	45.6	41.2	49.1	93.7	98.0	38.7	92.6	27.9	101.2	29.6	42.0
Level of Service	F	D	D	D	F	F	D	F	C	F	C	D
Approach Delay (s)		53.5			94.1			80.6			70.6	
Approach LOS		D			F			F			E	

Intersection Summary

HCM Average Control Delay	75.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	110.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement						
	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	0.97	0.91	1.00	0.91	0.91	1.00
Frt	0.93	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.97	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	2752	1213	1490	4282	4282	1333
Flt Permitted	0.97	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	2752	1213	1490	4282	4282	1333
Volume (vph)	78	184	169	527	383	106
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	141	333	306	954	693	192
RTOR Reduction (vph)	114	121	0	0	0	113
Lane Group Flow (vph)	158	81	306	954	693	79
Turn Type		Over	Prot			Perm
Protected Phases	4	5	5	2	6	
Permitted Phases						6
Actuated Green, G (s)	12.5	42.0	42.0	89.5	43.5	43.5
Effective Green, g (s)	14.5	44.0	44.0	91.5	45.5	45.5
Actuated g/C Ratio	0.13	0.40	0.40	0.83	0.41	0.41
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	363	485	596	3562	1771	551
v/s Ratio Prot	c0.06	0.07	c0.21	0.22	c0.16	
v/s Ratio Perm						0.06
v/c Ratio	0.44	0.17	0.51	0.27	0.39	0.14
Uniform Delay, d1	44.0	21.2	24.9	2.0	22.6	20.1
Progression Factor	0.79	3.45	0.39	0.27	0.42	0.12
Incremental Delay, d2	0.8	0.2	0.3	0.1	0.6	0.5
Delay (s)	35.4	73.3	10.1	0.6	10.1	3.0
Level of Service	D	E	B	A	B	A
Approach Delay (s)	51.6			2.9	8.6	
Approach LOS	D			A	A	
<b>Intersection Summary</b>						
HCM Average Control Delay			13.6		HCM Level of Service	B
HCM Volume to Capacity ratio			0.44			
Actuated Cycle Length (s)			110.0		Sum of lost time (s)	6.0
Intersection Capacity Utilization			55.0%		ICU Level of Service	A
Analysis Period (min)			15			
c Critical Lane Group						

Palmdale Transit Village TIA  
2030 NP Conditions

16: PALMDALE BLVD & SIERRA HWY  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91		1.00	0.91	
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	4220		1490	4034	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	4220		1490	4034	
Volume (vph)	123	866	145	70	797	122	121	440	47	186	214	135
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	223	1567	262	127	1443	221	219	796	85	337	387	244
RTOR Reduction (vph)	0	0	0	0	0	30	0	12	0	0	104	0
Lane Group Flow (vph)	223	1567	262	127	1443	191	219	869	0	337	527	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	14.0	42.1	110.0	9.9	38.0	38.0	18.0	20.0		22.0	24.0	
Effective Green, g (s)	16.0	44.1	110.0	11.9	40.0	40.0	20.0	22.0		24.0	26.0	
Actuated g/C Ratio	0.15	0.40	1.00	0.11	0.36	0.36	0.18	0.20		0.22	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	1717	1333	161	1557	485	271	844		325	953	
v/s Ratio Prot	0.15	c0.37		0.09	c0.34		0.15	c0.21		c0.23	0.13	
v/s Ratio Perm			c0.20			0.14						
v/c Ratio	1.03	0.91	0.20	0.79	0.93	0.39	0.81	1.03		1.04	0.55	
Uniform Delay, d1	47.0	31.1	0.0	47.8	33.6	26.0	43.2	44.0		43.0	36.9	
Progression Factor	0.57	0.38	1.00	1.00	1.00	1.00	1.00	1.00		0.56	0.40	
Incremental Delay, d2	53.3	5.5	0.2	22.1	11.0	2.4	16.0	38.8		58.1	2.2	
Delay (s)	80.3	17.2	0.2	69.9	44.6	28.4	59.2	82.8		82.3	17.0	
Level of Service	F	B	A	E	D	C	E	F		F	B	
Approach Delay (s)		21.9			44.4			78.1			39.7	
Approach LOS		C			D			E			D	

Intersection Summary

HCM Average Control Delay	42.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	103.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2980	1333	1490	2980	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	2980	1333	1490	2980	1333
Volume (vph)	34	1298	49	191	674	172	47	42	80	115	70	54
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	62	2349	89	346	1220	311	85	76	145	208	127	98
RTOR Reduction (vph)	0	0	13	0	0	82	0	0	123	0	0	80
Lane Group Flow (vph)	62	2349	76	346	1220	229	85	76	22	208	127	18
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.0	51.4	51.4	22.8	66.2	66.2	9.2	16.0	16.0	13.8	20.6	20.6
Effective Green, g (s)	10.0	53.4	53.4	24.8	68.2	68.2	11.2	18.0	18.0	15.8	22.6	22.6
Actuated g/C Ratio	0.08	0.44	0.44	0.21	0.57	0.57	0.09	0.15	0.15	0.13	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	124	1905	593	308	2434	758	139	447	200	196	561	251
v/s Ratio Prot	0.04	c0.55		c0.23	0.28		c0.06	c0.03		c0.14	0.04	
v/s Ratio Perm			0.06			0.17			0.02			0.01
v/c Ratio	0.50	1.23	0.13	1.12	0.50	0.30	0.61	0.17	0.11	1.06	0.23	0.07
Uniform Delay, d1	52.6	33.3	19.6	47.6	15.6	13.5	52.3	44.5	44.1	52.1	41.3	40.1
Progression Factor	1.00	1.00	1.00	0.71	0.17	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	109.7	0.4	69.1	0.2	0.3	7.7	0.8	1.1	81.4	0.9	0.6
Delay (s)	55.8	143.0	20.1	103.0	2.8	0.3	60.0	45.3	45.2	133.5	42.2	40.7
Level of Service	E	F	C	F	A	A	E	D	D	F	D	D
Approach Delay (s)		136.4			20.9			49.3			85.7	
Approach LOS		F			C			D			F	

Intersection Summary

HCM Average Control Delay	84.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	112.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		4282	1333		4282				1490		1333
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		4282	1333		4282				1490		1333
Volume (vph)	0	817	163	0	809	0	0	0	648	0	182
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	0	1479	295	0	1464	0	0	0	1173	0	329
RTOR Reduction (vph)	0	0	147	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1479	148	0	1464	0	0	0	1173	0	329
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		120.0	34.0		34.0				78.0		78.0
Effective Green, g (s)		120.0	36.0		36.0				80.0		80.0
Actuated g/C Ratio		1.00	0.30		0.30				0.67		0.67
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		4282	400		1285				993		889
v/s Ratio Prot		0.10			c0.34				c0.79		
v/s Ratio Perm		0.24	0.11								0.25
v/c Ratio		0.35	0.37		1.14				1.18		0.37
Uniform Delay, d1		0.0	33.1		42.0				20.0		8.8
Progression Factor		1.00	1.34		0.70				1.00		1.00
Incremental Delay, d2		0.0	0.2		72.3				92.0		1.2
Delay (s)		0.0	44.5		101.5				112.0		10.0
Level of Service		A	D		F				F		B
Approach Delay (s)		7.4			101.5		0.0			89.7	
Approach LOS		A			F		A			F	
Intersection Summary											
HCM Average Control Delay			62.6			HCM Level of Service			E		
HCM Volume to Capacity ratio			1.16								
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			4.0		
Intersection Capacity Utilization			64.5%			ICU Level of Service			C		
Analysis Period (min)			15								
c Critical Lane Group											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER	
Lane Configurations		↑↑↑			↑↑↑	↑			↑		↑	
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Total Lost time (s)		2.0			2.0	2.0			2.0		2.0	
Lane Util. Factor		0.91			0.91	1.00			1.00		1.00	
Flt		1.00			1.00	0.85			1.00		0.85	
Flt Protected		1.00			1.00	1.00			0.95		1.00	
Satd. Flow (prot)		4282			4282	1333			1490		1333	
Flt Permitted		1.00			1.00	1.00			0.95		1.00	
Satd. Flow (perm)		4282			4282	1333			1490		1333	
Volume (vph)	0	1259	0	0	783	736	0	0	218	0	252	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	
Adj. Flow (vph)	0	2279	0	0	1417	1332	0	0	395	0	456	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	2	
Lane Group Flow (vph)	0	2279	0	0	1417	1332	0	0	395	0	454	
Turn Type						Free			Prot		custom	
Protected Phases		4				8			2			
Permitted Phases					Free	Free					2	
Actuated Green, G (s)		67.0			120.0	120.0			45.0		45.0	
Effective Green, g (s)		69.0			120.0	120.0			47.0		47.0	
Actuated g/C Ratio		0.57			1.00	1.00			0.39		0.39	
Clearance Time (s)		4.0			4.0				4.0		4.0	
Vehicle Extension (s)		3.0			3.0				3.0		3.0	
Lane Grp Cap (vph)		2462			4282	1333			584		522	
v/s Ratio Prot		0.53			0.19				0.27			
v/s Ratio Perm					0.14	c1.00					0.34	
v/c Ratio		0.93			0.33	1.00			0.68		0.87	
Uniform Delay, d1		23.2			0.0	0.0			30.2		33.7	
Progression Factor		0.52			1.00	1.00			1.00		1.00	
Incremental Delay, d2		5.4			0.1	14.1			6.2		17.6	
Delay (s)		17.4			0.1	14.1			36.4		51.3	
Level of Service		B			A	B			D		D	
Approach Delay (s)		17.4			6.9		0.0			44.4		
Approach LOS		B			A		A			D		
<b>Intersection Summary</b>												
HCM Average Control Delay			16.4				HCM Level of Service			B		
HCM Volume to Capacity ratio			1.00									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)		0.0			
Intersection Capacity Utilization			92.5%				ICU Level of Service		F			
Analysis Period (min)			15									
c Critical Lane Group												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4044		1490	4247		1490	3825		1490	4113	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	4044		1490	4247		1490	3825		1490	4113	
Volume (vph)	2	94	55	69	104	6	29	15	37	1	8	3
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	4	170	100	125	188	11	52	27	67	2	14	5
RTOR Reduction (vph)	0	89	0	0	6	0	0	25	0	0	3	0
Lane Group Flow (vph)	4	181	0	125	193	0	52	69	0	2	16	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	2.0	11.0		17.8	26.8		20.0	73.2		2.0	55.2	
Effective Green, g (s)	4.0	13.0		19.8	28.8		22.0	75.2		4.0	57.2	
Actuated g/C Ratio	0.03	0.11		0.16	0.24		0.18	0.63		0.03	0.48	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	50	438		246	1019		273	2397		50	1961	
v/s Ratio Prot	0.00	c0.04		c0.08	0.05		c0.03	c0.02		c0.00	0.00	
v/s Ratio Perm												
v/c Ratio	0.08	0.41		0.51	0.19		0.19	0.03		0.04	0.01	
Uniform Delay, d1	56.2	49.9		45.7	36.3		41.5	8.5		56.1	16.5	
Progression Factor	1.00	1.00		1.04	1.05		1.27	1.85		1.00	1.00	
Incremental Delay, d2	0.7	0.6		1.7	0.1		0.3	0.0		0.3	0.0	
Delay (s)	56.9	50.6		49.1	38.3		53.0	15.8		56.5	16.5	
Level of Service	E	D		D	D		D	B		E	B	
Approach Delay (s)		50.7			42.4			29.0			20.3	
Approach LOS		D			D			C			C	
Intersection Summary												
HCM Average Control Delay			42.2			HCM Level of Service				D		
HCM Volume to Capacity ratio			0.19									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			10.0			
Intersection Capacity Utilization			36.8%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
2030 NP Conditions

5: PALMDALE BLVD & DIVISION ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	2891	4282	1333	1490	4282	1333
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	2891	4282	1333	1490	4282	1333
Volume (vph)	82	1322	167	72	1176	10	274	64	48	31	51	58
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	148	2393	302	130	2129	18	496	116	87	56	92	105
RTOR Reduction (vph)	0	0	115	0	0	8	0	0	67	0	0	89
Lane Group Flow (vph)	148	2393	187	130	2129	10	496	116	20	56	92	16
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	10.0	60.2	60.2	10.0	60.2	60.2	17.0	25.8	25.8	8.0	16.8	16.8
Effective Green, g (s)	12.0	62.2	62.2	12.0	62.2	62.2	19.0	27.8	27.8	10.0	18.8	18.8
Actuated g/C Ratio	0.10	0.52	0.52	0.10	0.52	0.52	0.16	0.23	0.23	0.08	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	149	2220	691	149	2220	691	458	992	309	124	671	209
v/s Ratio Prot	0.10	c0.56		0.09	c0.50		c0.17	c0.03		c0.04	0.02	
v/s Ratio Perm			0.14			0.01			0.02			0.01
v/c Ratio	0.99	1.08	0.27	0.87	0.96	0.01	1.08	0.12	0.07	0.45	0.14	0.08
Uniform Delay, d1	54.0	28.9	16.2	53.2	27.7	14.0	50.5	36.4	36.0	52.4	43.6	43.2
Progression Factor	1.11	0.51	0.04	0.70	0.53	0.29	1.00	1.00	1.00	0.42	0.37	0.30
Incremental Delay, d2	47.2	39.5	0.4	5.4	1.6	0.0	66.2	0.2	0.4	2.3	0.4	0.6
Delay (s)	107.4	54.2	1.0	42.6	16.3	4.0	116.7	36.6	36.4	24.2	16.6	13.5
Level of Service	F	D	A	D	B	A	F	D	D	C	B	B
Approach Delay (s)		51.4			17.7			93.5			17.0	
Approach LOS		D			B			F			B	

Intersection Summary

HCM Average Control Delay	42.1	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	96.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0			2.0			2.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.99			0.97			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1490	2980	1333	1490	2948			1495			1510	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.85			0.94	
Satd. Flow (perm)	1490	2980	1333	1490	2948			1282			1431	
Volume (vph)	22	336	50	88	417	32	46	77	41	22	120	43
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	40	608	90	159	755	58	83	139	74	40	217	78
RTOR Reduction (vph)	0	0	38	0	8	0	0	19	0	0	17	0
Lane Group Flow (vph)	40	608	52	159	805	0	0	277	0	0	318	0
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases			4				2			6		
Actuated Green, G (s)	4.0	16.1	16.1	10.7	22.8			21.2			21.2	
Effective Green, g (s)	6.0	18.1	18.1	12.7	24.8			23.2			23.2	
Actuated g/C Ratio	0.10	0.30	0.30	0.21	0.41			0.39			0.39	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	149	899	402	315	1219			496			553	
v/s Ratio Prot	0.03	c0.20		c0.11	c0.27							
v/s Ratio Perm			0.04					0.22			c0.22	
v/c Ratio	0.27	0.68	0.13	0.50	0.66			0.56			0.57	
Uniform Delay, d1	25.0	18.4	15.2	20.9	14.2			14.4			14.5	
Progression Factor	1.00	1.00	1.00	0.88	1.10			1.07			1.00	
Incremental Delay, d2	1.0	2.0	0.1	0.7	0.7			4.5			4.3	
Delay (s)	25.9	20.4	15.4	19.0	16.3			19.8			18.8	
Level of Service	C	C	B	B	B			B			B	
Approach Delay (s)		20.1			16.8			19.8			18.8	
Approach LOS		C			B			B			B	

Intersection Summary

HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
2030 NP Conditions

7: AVE P-12 & 3RD ST EAST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	13	2	4	7	3	15	2	97	1	6	255	13
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	4	7	13	5	27	4	176	2	11	462	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)						6						
Median type		None			None							
Median storage veh												
Upstream signal (ft)											1298	
pX, platoon unblocked												
vC, conflicting volume	694	680	473	675	690	176	485			177		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	694	680	473	675	690	176	485			177		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	99	99	96	99	97	100			99		
cM capacity (veh/h)	339	369	591	357	364	868	1078			1399		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	34	45	4	176	2	11	485					
Volume Left	24	13	4	0	0	11	0					
Volume Right	7	27	0	0	2	0	24					
cSH	376	899	1078	1700	1700	1399	1700					
Volume to Capacity	0.09	0.05	0.00	0.10	0.00	0.01	0.29					
Queue Length 95th (ft)	7	4	0	0	0	1	0					
Control Delay (s)	15.5	11.8	8.4	0.0	0.0	7.6	0.0					
Lane LOS	C	B	A			A						
Approach Delay (s)	15.5	11.8	0.2			0.2						
Approach LOS	C	B										
<b>Intersection Summary</b>												
Average Delay			1.6									
Intersection Capacity Utilization			46.2%			ICU Level of Service				A		
Analysis Period (min)			15									

									
Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations	↖	↑↑↑	↑↑↑		↖	↖			
Sign Control		Free	Free		Stop				
Grade		0%	0%		0%				
Volume (veh/h)	31	109	117	83	102	64			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Hourly flow rate (vph)	56	197	212	150	185	116			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)							2		
Median type					None				
Median storage (veh)									
Upstream signal (ft)	1283								
pX, platoon unblocked									
vC, conflicting volume	362					465	146		
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	362					465	146		
tC, single (s)	4.1					6.8	6.9		
tC, 2 stage (s)									
tF (s)	2.2					3.5	3.3		
p0 queue free %	95					63	87		
cM capacity (veh/h)	1193					501	875		
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	SB 1	
Volume Total	56	66	66	66	85	85	193	300	
Volume Left	56	0	0	0	0	0	0	185	
Volume Right	0	0	0	0	0	0	150	116	
cSH	1193	1700	1700	1700	1700	1700	1700	816	
Volume to Capacity	0.05	0.04	0.04	0.04	0.05	0.05	0.11	0.37	
Queue Length 95th (ft)	4	0	0	0	0	0	0	43	
Control Delay (s)	8.2	0.0	0.0	0.0	0.0	0.0	0.0	13.8	
Lane LOS	A							B	
Approach Delay (s)	1.8					0.0	13.8		
Approach LOS							B		
Intersection Summary									
Average Delay			5.0						
Intersection Capacity Utilization			34.7%	ICU Level of Service		A			
Analysis Period (min)			15						

									
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	↑↑↑		↑	↑↑↑	↑↑				
Sign Control	Free			Free	Stop				
Grade	0%			0%	0%				
Volume (veh/h)	206	5	4	161	39	35			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Hourly flow rate (vph)	373	9	7	291	71	63			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type	None								
Median storage veh									
Upstream signal (ft)									
pX, platoon unblocked									
vC, conflicting volume			382			489	129		
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol			382			489	129		
tC, single (s)			4.1			6.8	6.9		
tC, 2 stage (s)									
tF (s)			2.2			3.5	3.3		
p0 queue free %			99			86	93		
cM capacity (veh/h)			1173			505	897		
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	
Volume Total	149	149	84	7	97	97	97	134	
Volume Left	0	0	0	7	0	0	0	71	
Volume Right	0	0	9	0	0	0	0	63	
cSH	1700	1700	1700	1173	1700	1700	1700	637	
Volume to Capacity	0.09	0.09	0.05	0.01	0.06	0.06	0.06	0.21	
Queue Length 95th (ft)	0	0	0	0	0	0	0	20	
Control Delay (s)	0.0	0.0	0.0	8.1	0.0	0.0	0.0	12.2	
Lane LOS				A				B	
Approach Delay (s)	0.0			0.2				12.2	
Approach LOS								B	
<b>Intersection Summary</b>									
Average Delay			2.1						
Intersection Capacity Utilization			24.7%	ICU Level of Service		A			
Analysis Period (min)			15						

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95		
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.99		
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2810		1490	2936		
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	2810		1490	2936		
Volume (vph)	9	1537	95	206	1471	79	54	407	251	92	225	25	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	
Adj. Flow (vph)	16	2782	172	373	2663	143	98	737	454	167	407	45	
RTOR Reduction (vph)	0	0	57	0	0	44	0	79	0	0	7	0	
Lane Group Flow (vph)	16	2782	115	373	2663	99	98	1112	0	167	445	0	
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot			
Protected Phases	7	4		3	8		5	2		1	6		
Permitted Phases			4			8							
Actuated Green, G (s)	4.0	44.6	44.6	20.4	61.0	61.0	13.0	29.0		10.0	26.0		
Effective Green, g (s)	6.0	46.6	46.6	22.4	63.0	63.0	15.0	31.0		12.0	28.0		
Actuated g/C Ratio	0.05	0.39	0.39	0.19	0.52	0.52	0.12	0.26		0.10	0.23		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	75	1663	518	278	2248	700	186	726		149	685		
v/s Ratio Prot	0.01	c0.65		c0.25	c0.62		0.07	c0.40		c0.11	0.15		
v/s Ratio Perm			0.09			0.07							
v/c Ratio	0.21	1.67	0.22	1.34	1.18	0.14	0.53	1.53		1.12	0.65		
Uniform Delay, d <sub>1</sub>	54.7	36.7	24.6	48.8	28.5	14.6	49.2	44.5		54.0	41.6		
Progression Factor	0.67	0.93	1.26	0.86	0.80	1.09	1.00	1.00		1.00	1.00		
Incremental Delay, d <sub>2</sub>	0.7	304.0	0.5	173.9	87.4	0.4	2.7	246.4		109.8	4.7		
Delay (s)	37.3	338.0	31.5	215.7	110.3	16.3	51.9	290.9		164.1	46.5		
Level of Service	D	F	C	F	F	B	D	F		F	D		
Approach Delay (s)		318.6			118.5			272.8			78.2		
Approach LOS		F			F			F			E		
Intersection Summary													
HCM Average Control Delay			213.8									HCM Level of Service	F
HCM Volume to Capacity ratio			1.46										
Actuated Cycle Length (s)			120.0									Sum of lost time (s)	6.0
Intersection Capacity Utilization			154.1%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Palmdale Transit Village TIA  
2030 NP Conditions

43: PALMDALE BLVD & 5th Street East  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2772		1490	2815	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.57	1.00		0.51	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	892	2772		792	2815	
Volume (vph)	63	1051	96	77	935	59	113	80	70	59	72	42
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	114	1902	174	139	1692	107	205	145	127	107	130	76
RTOR Reduction (vph)	0	0	83	0	0	54	0	87	0	0	52	0
Lane Group Flow (vph)	114	1902	91	139	1692	54	205	185	0	107	154	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	14.3	59.0	59.0	13.3	58.0	58.0	35.7	35.7		35.7	35.7	
Effective Green, g (s)	16.3	61.0	61.0	15.3	60.0	60.0	37.7	37.7		37.7	37.7	
Actuated g/C Ratio	0.14	0.51	0.51	0.13	0.50	0.50	0.31	0.31		0.31	0.31	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	202	2177	678	190	2141	667	280	871		249	884	
v/s Ratio Prot	0.08	c0.44		c0.09	0.40			0.07				0.05
v/s Ratio Perm			0.07			0.04	c0.23			0.14		
v/c Ratio	0.56	0.87	0.13	0.73	0.79	0.08	0.73	0.21		0.43	0.17	
Uniform Delay, d1	48.5	26.1	15.6	50.4	24.8	15.6	36.7	30.2		32.6	29.9	
Progression Factor	0.83	0.13	0.00	0.83	0.14	0.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.5	0.0	1.3	0.3	0.0	15.6	0.6		5.3	0.4	
Delay (s)	40.7	4.0	0.0	43.4	3.8	0.0	52.2	30.8		38.0	30.3	
Level of Service	D	A	A	D	A	A	D	C		D	C	
Approach Delay (s)		5.6			6.4			40.0			32.9	
Approach LOS		A			A			D			C	

Intersection Summary

HCM Average Control Delay	11.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	13	109	61	95	122	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	197	110	172	221	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	624	231	241			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	624	231	241			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	94	76	92			
cM capacity (veh/h)	412	808	1326			
<hr/>						
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	24	197	110	172	241	
Volume Left	24	0	110	0	0	
Volume Right	0	197	0	0	20	
cSH	412	808	1326	1700	1700	
Volume to Capacity	0.06	0.24	0.08	0.10	0.14	
Queue Length 95th (ft)	5	24	7	0	0	
Control Delay (s)	14.3	10.9	8.0	0.0	0.0	
Lane LOS	B	B	A			
Approach Delay (s)	11.2		3.1		0.0	
Approach LOS	B					
<hr/>						
Intersection Summary						
Average Delay			4.5			
Intersection Capacity Utilization			36.4%		ICU Level of Service	A
Analysis Period (min)			15			

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	6	17	21	131	218	11
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	11	31	38	237	395	20
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	718	405	414			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	718	405	414			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	95	97			
cM capacity (veh/h)	383	646	1144			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	42	38	237	414		
Volume Left	11	38	0	0		
Volume Right	31	0	0	20		
cSH	874	1144	1700	1700		
Volume to Capacity	0.05	0.03	0.14	0.24		
Queue Length 95th (ft)	4	3	0	0		
Control Delay (s)	11.8	8.3	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	11.8	1.1		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			42.8%		ICU Level of Service	A
Analysis Period (min)			15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗↗↗	↘	↘	↗↗↗	↘	↘	↑	↗	↘	↑	↘
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	1569	1333	1490	1569	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.34	1.00	1.00	0.53	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	537	1569	1333	824	1569	1333
Volume (vph)	48	1259	153	58	1326	96	73	105	61	173	185	60
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	87	2279	277	105	2400	174	132	190	110	313	335	109
RTOR Reduction (vph)	0	0	111	0	0	13	0	0	72	0	0	49
Lane Group Flow (vph)	87	2279	166	105	2400	161	132	190	38	313	335	60
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	8.0	58.2	58.2	10.5	60.7	60.7	39.3	39.3	39.3	39.3	39.3	39.3
Effective Green, g (s)	10.0	60.2	60.2	12.5	62.7	62.7	41.3	41.3	41.3	41.3	41.3	41.3
Actuated g/C Ratio	0.08	0.50	0.50	0.10	0.52	0.52	0.34	0.34	0.34	0.34	0.34	0.34
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	124	2148	669	155	2237	696	185	540	459	284	540	459
v/s Ratio Prot	0.06	0.53		c0.07	c0.56			0.12			0.21	
v/s Ratio Perm			0.12			0.12	0.25		0.03	c0.38		0.05
v/c Ratio	0.70	1.06	0.25	0.68	1.07	0.23	0.71	0.35	0.08	1.10	0.62	0.13
Uniform Delay, d1	53.5	29.9	17.0	51.8	28.6	15.6	34.2	29.4	26.6	39.4	32.8	27.0
Progression Factor	0.73	0.84	1.40	0.78	0.33	0.18	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	12.6	35.8	0.7	1.1	33.8	0.1	20.9	1.8	0.4	83.6	5.3	0.6
Delay (s)	51.9	60.8	24.5	41.2	43.1	2.8	55.1	31.2	26.9	122.9	38.1	27.6
Level of Service	D	E	C	D	D	A	E	C	C	F	D	C
Approach Delay (s)		56.7			40.5			37.4			71.6	
Approach LOS		E			D			D			E	

Intersection Summary

HCM Average Control Delay	50.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	106.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1440	1600	1600	1440	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.86	0.86	0.97	0.91	1.00	0.97	0.91	1.00
Fr't	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4033	1147	2602	4282	1333	2602	4282	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4033	1147	2602	4282	1333	2602	4282	1333
Volume (vph)	110	546	138	20	718	544	281	501	21	696	619	144
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	199	988	250	36	1300	985	509	907	38	1260	1120	261
RTOR Reduction (vph)	0	0	145	0	1	345	0	0	0	0	0	195
Lane Group Flow (vph)	199	988	105	36	1329	610	509	907	38	1260	1120	66
Turn Type	Prot		Over	Prot		Over	Prot		Perm	Prot		Over
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases									2			
Actuated Green, G (s)	12.0	37.0	25.0	5.6	30.6	41.0	25.0	20.4	20.4	41.0	36.4	12.0
Effective Green, g (s)	14.0	39.0	27.0	7.6	32.6	43.0	27.0	22.4	22.4	43.0	38.4	14.0
Actuated g/C Ratio	0.12	0.32	0.22	0.06	0.27	0.36	0.22	0.19	0.19	0.36	0.32	0.12
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	174	1392	300	94	1096	411	585	799	249	932	1370	156
v/s Ratio Prot	c0.13	0.23	0.08	0.02	c0.33	c0.53	0.20	c0.21		0.48	0.26	0.05
v/s Ratio Perm									0.03			
v/c Ratio	1.14	0.71	0.35	0.38	1.21	1.48	0.87	1.14	0.15	1.35	0.82	0.42
Uniform Delay, d1	53.0	35.5	39.1	53.9	43.7	38.5	44.8	48.8	40.9	38.5	37.6	49.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.73	0.71	1.00	1.00	1.00
Incremental Delay, d2	112.1	1.7	0.7	2.6	104.1	230.3	12.5	75.1	1.2	165.5	5.5	1.8
Delay (s)	165.1	37.2	39.8	56.5	147.8	268.8	56.8	110.8	30.4	204.0	43.1	51.1
Level of Service	F	D	D	E	F	F	E	F	C	F	D	D
Approach Delay (s)		55.4			196.2			89.8			120.6	
Approach LOS		E			F			F			F	

Intersection Summary

HCM Average Control Delay	125.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	133.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	0.97	0.91	1.00	0.91	0.91	1.00
Fr <sub>t</sub>	0.90	0.85	1.00	1.00	1.00	0.85
Fl <sub>t</sub> Protected	0.98	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	2699	1213	1490	4282	4282	1333
Fl <sub>t</sub> Permitted	0.98	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	2699	1213	1490	4282	4282	1333
Volume (vph)	72	353	349	764	867	204
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	130	639	632	1383	1569	369
RTOR Reduction (vph)	210	171	0	0	0	205
Lane Group Flow (vph)	161	227	632	1383	1569	164
Turn Type		Over	Prot			Perm
Protected Phases	4	5	5	2	6	
Permitted Phases						6
Actuated Green, G (s)	13.5	49.0	49.0	98.5	45.5	45.5
Effective Green, g (s)	15.5	51.0	51.0	100.5	47.5	47.5
Actuated g/C Ratio	0.13	0.42	0.42	0.84	0.40	0.40
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	349	516	633	3586	1695	528
v/s Ratio Prot	c0.06	0.19	c0.42	0.32	c0.37	
v/s Ratio Perm						0.12
v/c Ratio	0.46	0.44	1.00	0.39	0.93	0.31
Uniform Delay, d <sub>1</sub>	48.4	24.4	34.5	2.3	34.6	25.0
Progression Factor	1.12	1.79	0.61	0.51	0.45	0.01
Incremental Delay, d <sub>2</sub>	0.8	0.5	21.4	0.1	8.9	1.3
Delay (s)	54.9	44.2	42.4	1.3	24.5	1.6
Level of Service	D	D	D	A	C	A
Approach Delay (s)	49.4			14.2	20.1	
Approach LOS	D			B	C	

Intersection Summary

HCM Average Control Delay	22.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	100.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	4215		1490	4070	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	4215		1490	4070	
Volume (vph)	208	1205	118	44	1005	160	157	536	63	221	530	262
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	376	2181	214	80	1819	290	284	970	114	400	959	474
RTOR Reduction (vph)	0	0	0	0	0	29	0	12	0	0	75	0
Lane Group Flow (vph)	376	2181	214	80	1819	261	284	1072	0	400	1358	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	21.8	50.0	120.0	8.0	36.2	36.2	16.0	23.0		23.0	30.0	
Effective Green, g (s)	23.8	52.0	120.0	10.0	38.2	38.2	18.0	25.0		25.0	32.0	
Actuated g/C Ratio	0.20	0.43	1.00	0.08	0.32	0.32	0.15	0.21		0.21	0.27	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	296	1856	1333	124	1363	424	224	878		310	1085	
v/s Ratio Prot	c0.25	c0.51		0.05	c0.42		0.19	c0.25		c0.27	c0.33	
v/s Ratio Perm			0.16			0.20						
v/c Ratio	1.27	1.18	0.16	0.65	1.33	0.61	1.27	1.22		1.29	1.25	
Uniform Delay, d1	48.1	34.0	0.0	53.3	40.9	34.7	51.0	47.5		47.5	44.0	
Progression Factor	0.76	0.47	1.00	1.00	1.00	1.00	1.00	1.00		0.59	0.49	
Incremental Delay, d2	128.0	80.3	0.1	11.0	155.6	6.5	150.9	109.8		143.0	117.5	
Delay (s)	164.6	96.4	0.1	64.2	196.5	41.2	201.9	157.3		170.9	139.1	
Level of Service	F	F	A	E	F	D	F	F		F	F	
Approach Delay (s)		98.2			171.1			166.5			146.0	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	140.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	133.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

## **Forecast Year 2030 With Project Conditions**



Palmdale Transit Village TIA  
Forecast Year 2030 WP Conditions

1: PALMDALE BLVD & 5TH ST WEST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2980	1333	1490	2980	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	2980	1333	1490	2980	1333
Volume (vph)	80	1420	81	119	1003	179	183	110	355	85	54	76
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	80	1420	81	119	1003	179	183	110	355	85	54	76
RTOR Reduction (vph)	0	0	20	0	0	61	0	0	227	0	0	64
Lane Group Flow (vph)	80	1420	61	119	1003	118	183	110	128	85	54	12
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.0	44.2	44.2	14.8	51.0	51.0	19.0	27.0	27.0	8.0	16.0	16.0
Effective Green, g (s)	10.0	46.2	46.2	16.8	53.0	53.0	21.0	29.0	29.0	10.0	18.0	18.0
Actuated g/C Ratio	0.09	0.42	0.42	0.15	0.48	0.48	0.19	0.26	0.26	0.09	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	135	1798	560	228	2063	642	284	786	351	135	488	218
v/s Ratio Prot	0.05	c0.33		0.08	c0.23		c0.12	0.04		0.06	0.02	
v/s Ratio Perm			0.05			0.09			c0.10			0.01
v/c Ratio	0.59	0.79	0.11	0.52	0.49	0.18	0.64	0.14	0.37	0.63	0.11	0.06
Uniform Delay, d1	48.0	27.7	19.4	42.9	19.3	16.2	41.1	31.0	33.0	48.2	39.2	38.8
Progression Factor	1.00	1.00	1.00	0.85	0.76	1.16	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.8	3.6	0.4	1.6	0.6	0.5	4.9	0.4	2.9	8.9	0.5	0.5
Delay (s)	54.8	31.3	19.8	37.9	15.2	19.3	46.0	31.3	35.9	57.1	39.6	39.3
Level of Service	D	C	B	D	B	B	D	C	D	E	D	D
Approach Delay (s)		31.9			17.8			38.0			46.4	
Approach LOS		C			B			D			D	

Intersection Summary

HCM Average Control Delay	28.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
Forecast Year 2030 WP Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		4282	1333		4282				1490		1333
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		4282	1333		4282				1490		1333
Volume (vph)	0	1387	505	0	1055	0	0	0	772	0	214
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1387	505	0	1055	0	0	0	772	0	214
RTOR Reduction (vph)	0	0	340	0	0	0	0	0	0	0	5
Lane Group Flow (vph)	0	1387	165	0	1055	0	0	0	772	0	209
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		55.0	16.0		16.0				31.0		31.0
Effective Green, g (s)		55.0	18.0		18.0				33.0		33.0
Actuated g/C Ratio		1.00	0.33		0.33				0.60		0.60
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		4282	436		1401				894		800
v/s Ratio Prot		0.11			c0.25				c0.52		
v/s Ratio Perm		0.22	0.12								0.16
v/c Ratio		0.32	0.38		0.75				0.86		0.26
Uniform Delay, d1		0.0	14.2		16.5				9.1		5.2
Progression Factor		1.00	4.92		0.69				1.00		1.00
Incremental Delay, d2		0.1	1.7		3.7				10.8		0.8
Delay (s)		0.1	71.6		15.2				20.0		6.0
Level of Service		A	E		B				B		A
Approach Delay (s)		19.2			15.2		0.0			16.9	
Approach LOS		B			B		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			17.6			HCM Level of Service			B		
HCM Volume to Capacity ratio			0.81								
Actuated Cycle Length (s)			55.0			Sum of lost time (s)			4.0		
Intersection Capacity Utilization			52.8%			ICU Level of Service			A		
Analysis Period (min)			15								
c Critical Lane Group											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER
Lane Configurations		↑↑↑			↑↑↑	↑			↓		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0			2.0	2.0			2.0		2.0
Lane Util. Factor		0.91			0.91	1.00			1.00		1.00
Fr <sub>t</sub>		1.00			1.00	0.85			1.00		0.85
Fl <sub>t</sub> Protected		1.00			1.00	1.00			0.95		1.00
Satd. Flow (prot)		4282			4282	1333			1490		1333
Fl <sub>t</sub> Permitted		1.00			1.00	1.00			0.95		1.00
Satd. Flow (perm)		4282			4282	1333			1490		1333
Volume (vph)	0	1841	0	0	1118	1289	0	0	241	0	404
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1841	0	0	1118	1289	0	0	241	0	404
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	5
Lane Group Flow (vph)	0	1841	0	0	1118	1289	0	0	241	0	399
Turn Type						Free			Prot		custom
Protected Phases		4			8				2		
Permitted Phases					Free	Free					2
Actuated Green, G (s)		56.0			110.0	110.0			46.0		46.0
Effective Green, g (s)		58.0			110.0	110.0			48.0		48.0
Actuated g/C Ratio		0.53			1.00	1.00			0.44		0.44
Clearance Time (s)		4.0			4.0				4.0		4.0
Vehicle Extension (s)		3.0			3.0				3.0		3.0
Lane Grp Cap (vph)		2258			4282	1333			650		582
v/s Ratio Prot		0.43			0.14				0.16		
v/s Ratio Perm					0.12	c0.97					0.30
v/c Ratio		0.82			0.26	0.97			0.37		0.69
Uniform Delay, d <sub>1</sub>		21.6			0.0	0.0			20.8		24.9
Progression Factor		0.41			1.00	1.00			1.00		1.00
Incremental Delay, d <sub>2</sub>		2.9			0.1	9.6			1.6		6.4
Delay (s)		11.8			0.1	9.6			22.5		31.4
Level of Service		B			A	A			C		C
Approach Delay (s)		11.8			5.2		0.0			28.0	
Approach LOS		B			A		A			C	
<b>Intersection Summary</b>											
HCM Average Control Delay			10.7				HCM Level of Service			B	
HCM Volume to Capacity ratio			0.97								
Actuated Cycle Length (s)			110.0				Sum of lost time (s)			0.0	
Intersection Capacity Utilization			78.6%				ICU Level of Service			D	
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
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4: AVE Q & DIVISION ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖↖↖		↖	↖↖↖		↖	↖↖↖		↖	↖↖↖	
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Fr't	1.00	0.97		1.00	1.00		1.00	0.86		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4172		1490	4273		1490	3664		1490	4184	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	4172		1490	4273		1490	3664		1490	4184	
Volume (vph)	2	216	45	108	264	4	51	4	105	4	11	2
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	2	216	45	108	264	4	51	4	105	4	11	2
RTOR Reduction (vph)	0	33	0	0	1	0	0	45	0	0	1	0
Lane Group Flow (vph)	2	228	0	108	267	0	51	64	0	4	12	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	2.0	14.5		13.1	25.6		8.7	62.4		4.0	57.7	
Effective Green, g (s)	4.0	16.5		15.1	27.6		10.7	64.4		6.0	59.7	
Actuated g/C Ratio	0.04	0.15		0.14	0.25		0.10	0.59		0.05	0.54	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	54	626		205	1072		145	2145		81	2271	
v/s Ratio Prot	0.00	c0.05		c0.07	0.06		c0.03	c0.02		c0.00	0.00	
v/s Ratio Perm												
v/c Ratio	0.04	0.36		0.53	0.25		0.35	0.03		0.05	0.01	
Uniform Delay, d1	51.1	42.0		44.1	32.9		46.4	9.6		49.3	11.5	
Progression Factor	1.00	1.00		1.00	1.02		0.70	1.00		1.00	1.00	
Incremental Delay, d2	0.3	0.4		2.4	0.1		1.2	0.0		0.3	0.0	
Delay (s)	51.4	42.4		46.6	33.7		33.7	9.6		49.6	11.5	
Level of Service	D	D		D	C		C	A		D	B	
Approach Delay (s)		42.5			37.4			17.3			20.5	
Approach LOS		D			D			B			C	

Intersection Summary

HCM Average Control Delay	34.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.19		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	36.7%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
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5: PALMDALE BLVD & DIVISION ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	2891	4282	1333	1490	4282	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	2891	4282	1333	1490	4282	1333
Volume (vph)	216	1821	208	129	1260	14	858	136	62	62	130	265
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	216	1821	208	129	1260	14	858	136	62	62	130	265
RTOR Reduction (vph)	0	0	113	0	0	9	0	0	41	0	0	178
Lane Group Flow (vph)	216	1821	95	129	1260	5	858	136	21	62	130	87
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	14.0	40.2	40.2	10.0	36.2	36.2	27.0	35.8	35.8	8.0	16.8	16.8
Effective Green, g (s)	16.0	42.2	42.2	12.0	38.2	38.2	29.0	37.8	37.8	10.0	18.8	18.8
Actuated g/C Ratio	0.15	0.38	0.38	0.11	0.35	0.35	0.26	0.34	0.34	0.09	0.17	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	217	1643	511	163	1487	463	762	1471	458	135	732	228
v/s Ratio Prot	0.14	c0.43		0.09	c0.29		c0.30	0.03		0.04	0.03	
v/s Ratio Perm			0.07			0.00			0.02			c0.07
v/c Ratio	1.00	1.11	0.19	0.79	0.85	0.01	1.13	0.09	0.05	0.46	0.18	0.38
Uniform Delay, d1	47.0	33.9	22.5	47.8	33.2	23.5	40.5	24.5	24.1	47.4	39.0	40.4
Progression Factor	0.71	0.60	0.11	0.75	0.94	1.01	1.00	1.00	1.00	0.78	0.75	0.44
Incremental Delay, d2	45.2	54.6	0.5	19.2	5.2	0.0	73.1	0.1	0.2	2.4	0.5	4.7
Delay (s)	78.5	75.0	2.9	55.1	36.5	23.8	113.6	24.6	24.3	39.5	29.7	22.4
Level of Service	E	E	A	E	D	C	F	C	C	D	C	C
Approach Delay (s)		68.7			38.1			96.9			26.8	
Approach LOS		E			D			F			C	

Intersection Summary

HCM Average Control Delay	62.4	HCM Level of Service	E
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.0%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
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6: TECHNOLOGY DR & 3RD ST EAST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0			2.0			2.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00			1.00	
Frt	1.00	1.00	0.85	1.00	0.99			0.96			0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00			0.99			1.00	
Satd. Flow (prot)	1490	2980	1333	1490	2951			1500			1516	
Flt Permitted	0.95	1.00	1.00	0.95	1.00			0.92			0.98	
Satd. Flow (perm)	1490	2980	1333	1490	2951			1395			1493	
Volume (vph)	43	390	96	67	479	34	42	134	63	16	204	65
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	43	390	96	67	479	34	42	134	63	16	204	65
RTOR Reduction (vph)	0	0	71	0	9	0	0	19	0	0	16	0
Lane Group Flow (vph)	43	390	25	67	504	0	0	220	0	0	269	0
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases			4				2			6		
Actuated Green, G (s)	4.0	12.4	12.4	7.3	15.7			23.3			23.3	
Effective Green, g (s)	6.0	14.4	14.4	9.3	17.7			25.3			25.3	
Actuated g/C Ratio	0.11	0.26	0.26	0.17	0.32			0.46			0.46	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	163	780	349	252	950			642			687	
v/s Ratio Prot	0.03	0.13		c0.04	c0.17							
v/s Ratio Perm			0.02					0.16			c0.18	
v/c Ratio	0.26	0.50	0.07	0.27	0.53			0.34			0.39	
Uniform Delay, d1	22.5	17.2	15.3	19.9	15.2			9.5			9.8	
Progression Factor	1.00	1.00	1.00	0.97	0.70			0.73			1.00	
Incremental Delay, d2	0.9	0.5	0.1	0.5	0.5			1.4			1.7	
Delay (s)	23.3	17.7	15.4	19.9	11.2			8.4			11.5	
Level of Service	C	B	B	B	B			A			B	
Approach Delay (s)		17.8			12.2			8.4			11.5	
Approach LOS		B			B			A			B	

Intersection Summary

HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
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7: AVE P-12 & 3RD ST EAST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	22	7	4	14	2	37	4	289	72	75	327	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	22	7	4	14	2	37	4	289	72	75	327	16
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)							6					
Median type		None			None							
Median storage veh												
Upstream signal (ft)											1298	
pX, platoon unblocked												
vC, conflicting volume	802	854	335	782	790	289	343			361		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	802	854	335	782	790	289	343			361		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	92	97	99	95	99	95	100			94		
cM capacity (veh/h)	272	277	707	289	301	750	1216			1198		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	33	53	4	289	72	75	343					
Volume Left	22	14	4	0	0	75	0					
Volume Right	4	37	0	0	72	0	16					
cSH	295	962	1216	1700	1700	1198	1700					
Volume to Capacity	0.11	0.06	0.00	0.17	0.04	0.06	0.20					
Queue Length 95th (ft)	9	4	0	0	0	5	0					
Control Delay (s)	18.7	12.5	8.0	0.0	0.0	8.2	0.0					
Lane LOS	C	B	A			A						
Approach Delay (s)	18.7	12.5	0.1			1.5						
Approach LOS	C	B										
Intersection Summary												
Average Delay			2.2									
Intersection Capacity Utilization			43.8%		ICU Level of Service				A			
Analysis Period (min)			15									

										
Movement	EBL	EBT	WBT	WBR	SBL	SBR				
Lane Configurations										
Sign Control		Free	Free		Stop					
Grade		0%	0%		0%					
Volume (veh/h)	198	213	238	175	160	229				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Hourly flow rate (vph)	198	213	238	175	160	229				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)								2		
Median type							None			
Median storage (veh)										
Upstream signal (ft)							1283			
pX, platoon unblocked										
vC, conflicting volume	413					792	167			
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol	413					792	167			
tC, single (s)	4.1					6.8	6.9			
tC, 2 stage (s)										
tF (s)	2.2					3.5	3.3			
p0 queue free %	83					41	73			
cM capacity (veh/h)	1142					270	848			
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	SB 1		
Volume Total	198	71	71	71	95	95	223	389		
Volume Left	198	0	0	0	0	0	0	160		
Volume Right	0	0	0	0	0	0	175	229		
cSH	1142	1700	1700	1700	1700	1700	1700	587		
Volume to Capacity	0.17	0.04	0.04	0.04	0.06	0.06	0.13	0.66		
Queue Length 95th (ft)	16	0	0	0	0	0	0	123		
Control Delay (s)	8.8	0.0	0.0	0.0	0.0	0.0	0.0	22.4		
Lane LOS	A							C		
Approach Delay (s)	4.2					0.0			22.4	
Approach LOS									C	
Intersection Summary										
Average Delay			8.6							
Intersection Capacity Utilization			43.7%	ICU Level of Service						A
Analysis Period (min)			15							

									
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations	↑↑↑		↘	↑↑↑	↘				
Sign Control	Free			Free	Stop				
Grade	0%			0%	0%				
Volume (veh/h)	327	45	79	351	62	82			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Hourly flow rate (vph)	327	45	79	351	62	82			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type							None		
Median storage (veh)									
Upstream signal (ft)									
pX, platoon unblocked									
vC, conflicting volume			372			624	132		
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol			372			624	132		
tC, single (s)			4.1			6.8	6.9		
tC, 2 stage (s)									
tF (s)			2.2			3.5	3.3		
p0 queue free %			93			84	91		
cM capacity (veh/h)			1183			389	894		
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1	
Volume Total	131	131	110	79	117	117	117	144	
Volume Left	0	0	0	79	0	0	0	62	
Volume Right	0	0	45	0	0	0	0	82	
cSH	1700	1700	1700	1183	1700	1700	1700	574	
Volume to Capacity	0.08	0.08	0.06	0.07	0.07	0.07	0.07	0.25	
Queue Length 95th (ft)	0	0	0	5	0	0	0	25	
Control Delay (s)	0.0	0.0	0.0	8.3	0.0	0.0	0.0	13.4	
Lane LOS				A				B	
Approach Delay (s)	0.0				1.5				13.4
Approach LOS								B	
Intersection Summary									
Average Delay			2.7						
Intersection Capacity Utilization			33.9%			ICU Level of Service	A		
Analysis Period (min)			15						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0		
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95		
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.99		
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2783		1490	2956		
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.19	1.00		0.19	1.00		
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	299	2783		299	2956		
Volume (vph)	41	2381	141	331	1671	98	42	353	279	51	552	32	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	41	2381	141	331	1671	98	42	353	279	51	552	32	
RTOR Reduction (vph)	0	0	43	0	0	31	0	130	0	0	4	0	
Lane Group Flow (vph)	41	2381	98	331	1671	67	42	502	0	51	580	0	
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm			
Protected Phases	7	4		3	8			2				6	
Permitted Phases			4			8	2			6			
Actuated Green, G (s)	5.7	55.4	55.4	23.6	73.3	73.3	19.0	19.0		19.0	19.0		
Effective Green, g (s)	7.7	57.4	57.4	25.6	75.3	75.3	21.0	21.0		21.0	21.0		
Actuated g/C Ratio	0.07	0.52	0.52	0.23	0.68	0.68	0.19	0.19		0.19	0.19		
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0		
Lane Grp Cap (vph)	104	2234	696	347	2931	912	57	531		57	564		
v/s Ratio Prot	0.03	c0.56		c0.22	0.39			0.18			c0.20		
v/s Ratio Perm			0.07			0.05	0.14			0.17			
v/c Ratio	0.39	1.07	0.14	0.95	0.57	0.07	0.74	0.94		0.89	1.03		
Uniform Delay, d1	48.9	26.3	13.6	41.6	9.0	5.8	41.9	43.9		43.4	44.5		
Progression Factor	1.47	0.24	0.01	0.63	0.31	0.02	1.00	1.00		0.98	0.98		
Incremental Delay, d2	1.5	36.0	0.3	31.9	0.7	0.1	59.0	27.5		91.5	45.3		
Delay (s)	73.4	42.4	0.4	58.1	3.4	0.2	100.9	71.5		134.1	88.8		
Level of Service	E	D	A	E	A	A	F	E		F	F		
Approach Delay (s)		40.6			11.9			73.3			92.4		
Approach LOS		D			B			E			F		
Intersection Summary													
HCM Average Control Delay			39.7									HCM Level of Service	D
HCM Volume to Capacity ratio			1.02										
Actuated Cycle Length (s)			110.0									Sum of lost time (s)	6.0
Intersection Capacity Utilization			120.3%									ICU Level of Service	H
Analysis Period (min)			15										
c Critical Lane Group													

Palmdale Transit Village TIA  
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43: PALMDALE BLVD & 5th Street East  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	0.96	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2830		1490	2858	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.67	1.00		0.59	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1045	2830		920	2858	
Volume (vph)	63	1642	89	74	1453	58	253	140	71	54	90	34
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	63	1642	89	74	1453	58	253	140	71	54	90	34
RTOR Reduction (vph)	0	0	48	0	0	32	0	43	0	0	20	0
Lane Group Flow (vph)	63	1642	41	74	1453	26	253	168	0	54	104	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	7.8	48.2	48.2	7.8	48.2	48.2	42.0	42.0		42.0	42.0	
Effective Green, g (s)	9.8	50.2	50.2	9.8	50.2	50.2	44.0	44.0		44.0	44.0	
Actuated g/C Ratio	0.09	0.46	0.46	0.09	0.46	0.46	0.40	0.40		0.40	0.40	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	133	1954	608	133	1954	608	418	1132		368	1143	
v/s Ratio Prot	0.04	c0.38		c0.05	0.34			0.06			0.04	
v/s Ratio Perm			0.03			0.02	c0.24			0.06		
v/c Ratio	0.47	0.84	0.07	0.56	0.74	0.04	0.61	0.15		0.15	0.09	
Uniform Delay, d <sub>1</sub>	47.6	26.4	16.8	48.0	24.6	16.6	26.1	21.1		21.0	20.5	
Progression Factor	0.62	0.48	0.28	0.65	0.32	0.14	1.00	1.00		1.00	1.00	
Incremental Delay, d <sub>2</sub>	0.2	0.4	0.0	2.5	1.3	0.1	6.4	0.3		0.8	0.2	
Delay (s)	29.7	13.0	4.8	33.6	9.1	2.3	32.5	21.3		21.9	20.7	
Level of Service	C	B	A	C	A	A	C	C		C	C	
Approach Delay (s)		13.2			10.0			27.4			21.1	
Approach LOS		B			B			C			C	

Intersection Summary

HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	19	114	109	200	183	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	19	114	109	200	183	16
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	609	191	199			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	609	191	199			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	95	87	92			
cM capacity (veh/h)	422	851	1373			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	19	114	109	200	199	
Volume Left	19	0	109	0	0	
Volume Right	0	114	0	0	16	
cSH	422	851	1373	1700	1700	
Volume to Capacity	0.05	0.13	0.08	0.12	0.12	
Queue Length 95th (ft)	4	12	6	0	0	
Control Delay (s)	13.9	9.9	7.8	0.0	0.0	
Lane LOS	B	A	A			
Approach Delay (s)	10.5		2.8		0.0	
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			3.5			
Intersection Capacity Utilization			33.1%		ICU Level of Service	A
Analysis Period (min)			15			

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	34	49	24	302	287	4
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	34	49	24	302	287	4
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	None					
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	639	289	291			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	639	289	291			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	92	93	98			
cM capacity (veh/h)	432	750	1271			
Direction, Lane #						
	EB 1	NB 1	NB 2	SB 1		
Volume Total	83	24	302	291		
Volume Left	34	24	0	0		
Volume Right	49	0	0	4		
cSH	1054	1271	1700	1700		
Volume to Capacity	0.08	0.02	0.18	0.17		
Queue Length 95th (ft)	6	1	0	0		
Control Delay (s)	11.7	7.9	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	11.7	0.6		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.7			
Intersection Capacity Utilization			33.7%		ICU Level of Service	A
Analysis Period (min)			15			

Palmdale Transit Village TIA  
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13: PALMDALE BLVD & 6TH ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	1569	1333	1490	1569	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.62	1.00	1.00	0.62	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	969	1569	1333	969	1569	1333
Volume (vph)	96	1832	121	81	1895	220	103	130	51	259	130	69
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	96	1832	121	81	1895	220	103	130	51	259	130	69
RTOR Reduction (vph)	0	0	62	0	0	23	0	0	32	0	0	43
Lane Group Flow (vph)	96	1832	59	81	1895	197	103	130	19	259	130	26
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	8.0	51.2	51.2	8.0	51.2	51.2	38.8	38.8	38.8	38.8	38.8	38.8
Effective Green, g (s)	10.0	53.2	53.2	10.0	53.2	53.2	40.8	40.8	40.8	40.8	40.8	40.8
Actuated g/C Ratio	0.09	0.48	0.48	0.09	0.48	0.48	0.37	0.37	0.37	0.37	0.37	0.37
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	135	2071	645	135	2071	645	359	582	494	359	582	494
v/s Ratio Prot	c0.06	0.43		0.05	c0.44			0.08			0.08	
v/s Ratio Perm			0.04			0.15	0.11		0.01	c0.27		0.02
v/c Ratio	0.71	0.88	0.09	0.60	0.92	0.31	0.29	0.22	0.04	0.72	0.22	0.05
Uniform Delay, d1	48.6	25.6	15.3	48.1	26.3	17.2	24.4	23.7	22.1	29.7	23.7	22.2
Progression Factor	0.59	0.64	0.95	0.79	0.23	0.16	1.00	1.00	1.00	1.02	1.01	1.05
Incremental Delay, d2	12.2	4.5	0.2	4.1	4.6	0.7	2.0	0.9	0.1	11.9	0.9	0.2
Delay (s)	40.8	20.9	14.8	42.0	10.6	3.4	26.4	24.6	22.2	42.0	24.9	23.5
Level of Service	D	C	B	D	B	A	C	C	C	D	C	C
Approach Delay (s)		21.5			11.1			24.8			34.4	
Approach LOS		C			B			C			C	

Intersection Summary

HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	88.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
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14: AVE P & SIERRA HWY  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1440	1600	1600	1440	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.86	0.86	0.97	0.91	1.00	0.97	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.94	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	3822	1147	2602	4282	1333	2602	4282	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	3822	1147	2602	4282	1333	2602	4282	1333
Volume (vph)	203	1325	161	54	814	1272	152	903	76	914	637	134
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	203	1325	161	54	814	1272	152	903	76	914	637	134
RTOR Reduction (vph)	0	0	76	0	97	382	0	0	0	0	0	116
Lane Group Flow (vph)	203	1325	85	54	1196	411	152	903	76	914	637	18
Turn Type	Prot		Over	Prot		Over	Prot		Perm	Prot		Over
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases									2			
Actuated Green, G (s)	12.8	33.8	17.0	8.0	29.0	33.0	17.0	19.2	19.2	33.0	35.2	12.8
Effective Green, g (s)	14.8	35.8	19.0	10.0	31.0	35.0	19.0	21.2	21.2	35.0	37.2	14.8
Actuated g/C Ratio	0.13	0.33	0.17	0.09	0.28	0.32	0.17	0.19	0.19	0.32	0.34	0.13
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	200	1394	230	135	1077	365	449	825	257	828	1448	179
v/s Ratio Prot	c0.14	c0.31	0.06	0.04	c0.31	c0.36	0.06	c0.21		0.35	0.15	0.01
v/s Ratio Perm									0.06			
v/c Ratio	1.01	0.95	0.37	0.40	1.11	1.13	0.34	1.09	0.30	1.10	0.44	0.10
Uniform Delay, d1	47.6	36.2	40.2	47.2	39.5	37.5	40.0	44.4	38.0	37.5	28.3	41.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.70	0.69	1.00	1.00	1.00
Incremental Delay, d2	67.6	14.0	1.0	1.9	63.0	86.0	0.4	59.9	2.8	63.7	1.0	0.2
Delay (s)	115.2	50.2	41.2	49.1	102.5	123.5	37.5	91.1	29.0	101.2	29.3	42.0
Level of Service	F	D	D	D	F	F	D	F	C	F	C	D
Approach Delay (s)		57.2			108.9			79.7			69.3	
Approach LOS		E			F			E			E	

Intersection Summary

HCM Average Control Delay	80.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	111.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	0.97	0.91	1.00	0.91	0.91	1.00
Frt	0.95	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.97	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	2791	1213	1490	4282	4282	1333
Flt Permitted	0.97	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	2791	1213	1490	4282	4282	1333
Volume (vph)	177	351	330	954	693	239
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	177	351	330	954	693	239
RTOR Reduction (vph)	80	150	0	0	0	148
Lane Group Flow (vph)	195	104	330	954	693	91
Turn Type		Over	Prot			Perm
Protected Phases	4	5	5	2	6	
Permitted Phases						6
Actuated Green, G (s)	14.9	43.0	43.0	87.1	40.1	40.1
Effective Green, g (s)	16.9	45.0	45.0	89.1	42.1	42.1
Actuated g/C Ratio	0.15	0.41	0.41	0.81	0.38	0.38
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	429	496	610	3468	1639	510
v/s Ratio Prot	c0.07	0.09	c0.22	0.22	c0.16	
v/s Ratio Perm						0.07
v/c Ratio	0.45	0.21	0.54	0.28	0.42	0.18
Uniform Delay, d1	42.3	21.0	24.7	2.6	25.0	22.5
Progression Factor	0.65	3.80	0.39	0.30	0.41	0.09
Incremental Delay, d2	0.7	0.2	0.4	0.1	0.7	0.7
Delay (s)	28.2	80.1	10.1	0.9	11.0	2.8
Level of Service	C	F	B	A	B	A
Approach Delay (s)	53.1			3.2	8.9	
Approach LOS	D			A	A	
<b>Intersection Summary</b>						
HCM Average Control Delay			14.8		HCM Level of Service	B
HCM Volume to Capacity ratio			0.47			
Actuated Cycle Length (s)			110.0		Sum of lost time (s)	6.0
Intersection Capacity Utilization			58.0%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91		1.00	0.91	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.94	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	4222		1490	4041	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	4222		1490	4041	
Volume (vph)	223	1603	262	127	1491	221	219	820	85	337	405	244
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	223	1603	262	127	1491	221	219	820	85	337	405	244
RTOR Reduction (vph)	0	0	0	0	0	29	0	11	0	0	99	0
Lane Group Flow (vph)	223	1603	262	127	1491	192	219	894	0	337	550	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	14.0	41.0	110.0	10.0	37.0	37.0	18.0	21.0		22.0	25.0	
Effective Green, g (s)	16.0	43.0	110.0	12.0	39.0	39.0	20.0	23.0		24.0	27.0	
Actuated g/C Ratio	0.15	0.39	1.00	0.11	0.35	0.35	0.18	0.21		0.22	0.25	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	1674	1333	163	1518	473	271	883		325	992	
v/s Ratio Prot	c0.15	c0.37		0.09	c0.35		0.15	c0.21		c0.23	c0.14	
v/s Ratio Perm			0.20			0.14						
v/c Ratio	1.03	0.96	0.20	0.78	0.98	0.41	0.81	1.01		1.04	0.55	
Uniform Delay, d <sub>1</sub>	47.0	32.6	0.0	47.7	35.2	26.8	43.2	43.5		43.0	36.2	
Progression Factor	0.64	0.56	1.00	1.00	1.00	1.00	1.00	1.00		0.56	0.41	
Incremental Delay, d <sub>2</sub>	51.3	8.7	0.2	20.6	19.2	2.6	16.0	33.4		57.8	2.1	
Delay (s)	81.6	26.9	0.2	68.3	54.4	29.3	59.2	76.9		81.7	16.9	
Level of Service	F	C	A	E	D	C	E	E		F	B	
Approach Delay (s)		29.4			52.3			73.4			39.0	
Approach LOS		C			D			E			D	

Intersection Summary

HCM Average Control Delay	46.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	105.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
Forecast Year 2030 WP Conditions

1: PALMDALE BLVD & 5TH ST WEST  
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frts	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2980	1333	1490	2980	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	2980	1333	1490	2980	1333
Volume (vph)	62	2370	89	346	1252	311	85	76	145	208	127	98
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	62	2370	89	346	1252	311	85	76	145	208	127	98
RTOR Reduction (vph)	0	0	13	0	0	79	0	0	123	0	0	80
Lane Group Flow (vph)	62	2370	76	346	1252	232	85	76	22	208	127	18
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.0	51.4	51.4	22.8	66.2	66.2	9.2	16.0	16.0	13.8	20.6	20.6
Effective Green, g (s)	10.0	53.4	53.4	24.8	68.2	68.2	11.2	18.0	18.0	15.8	22.6	22.6
Actuated g/C Ratio	0.08	0.44	0.44	0.21	0.57	0.57	0.09	0.15	0.15	0.13	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	124	1905	593	308	2434	758	139	447	200	196	561	251
v/s Ratio Prot	0.04	c0.55		c0.23	0.29		c0.06	c0.03		c0.14	0.04	
v/s Ratio Perm			0.06			0.17			0.02			0.01
v/c Ratio	0.50	1.24	0.13	1.12	0.51	0.31	0.61	0.17	0.11	1.06	0.23	0.07
Uniform Delay, d1	52.6	33.3	19.6	47.6	15.8	13.5	52.3	44.5	44.1	52.1	41.3	40.1
Progression Factor	1.00	1.00	1.00	0.95	0.14	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	114.5	0.4	60.0	0.1	0.1	7.7	0.8	1.1	81.4	0.9	0.6
Delay (s)	55.8	147.8	20.1	105.4	2.2	0.1	60.0	45.3	45.2	133.5	42.2	40.7
Level of Service	E	F	C	F	A	A	E	D	D	F	D	D
Approach Delay (s)		141.0			20.6			49.3			85.7	
Approach LOS		F			C			D			F	

Intersection Summary

HCM Average Control Delay	86.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	112.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
Forecast Year 2030 WP Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		4282	1333		4282				1490		1333
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		4282	1333		4282				1490		1333
Volume (vph)	0	1500	295	0	1496	0	0	0	1194	0	329
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1500	295	0	1496	0	0	0	1194	0	329
RTOR Reduction (vph)	0	0	145	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1500	150	0	1496	0	0	0	1194	0	329
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		120.0	36.0		36.0				76.0		76.0
Effective Green, g (s)		120.0	38.0		38.0				78.0		78.0
Actuated g/C Ratio		1.00	0.32		0.32				0.65		0.65
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		4282	422		1356				969		866
v/s Ratio Prot		0.11			c0.35				c0.80		
v/s Ratio Perm		0.24	0.11								0.25
v/c Ratio		0.35	0.36		1.10				1.23		0.38
Uniform Delay, d1		0.0	31.6		41.0				21.0		9.8
Progression Factor		1.00	2.43		0.66				1.00		1.00
Incremental Delay, d2		0.0	0.2		57.5				113.6		1.3
Delay (s)		0.0	77.1		84.7				134.6		11.0
Level of Service		A	E		F				F		B
Approach Delay (s)		12.7			84.7		0.0			107.9	
Approach LOS		B			F		A			F	
<b>Intersection Summary</b>											
HCM Average Control Delay			65.2			HCM Level of Service			E		
HCM Volume to Capacity ratio			1.18								
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			4.0		
Intersection Capacity Utilization			65.2%			ICU Level of Service			C		
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
Forecast Year 2030 WP Conditions

3: PALMDALE BLVD & SR-14 NB ON-RAMP  
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER	
Lane Configurations		↑↑↑			↑↑↑	↑			↑		↑	
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	
Total Lost time (s)		2.0			2.0	2.0			2.0		2.0	
Lane Util. Factor		0.91			0.91	1.00			1.00		1.00	
Fr <sub>t</sub>		1.00			1.00	0.85			1.00		0.85	
Fl <sub>t</sub> Protected		1.00			1.00	1.00			0.95		1.00	
Satd. Flow (prot)		4282			4282	1333			1490		1333	
Fl <sub>t</sub> Permitted		1.00			1.00	1.00			0.95		1.00	
Satd. Flow (perm)		4282			4282	1333			1490		1333	
Volume (vph)	0	2321	0	0	1545	1364	0	0	395	0	519	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	2321	0	0	1545	1364	0	0	395	0	519	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	2	
Lane Group Flow (vph)	0	2321	0	0	1545	1364	0	0	395	0	517	
Turn Type						Free			Prot		custom	
Protected Phases		4			8				2			
Permitted Phases					Free	Free					2	
Actuated Green, G (s)		66.0			120.0	120.0			46.0		46.0	
Effective Green, g (s)		68.0			120.0	120.0			48.0		48.0	
Actuated g/C Ratio		0.57			1.00	1.00			0.40		0.40	
Clearance Time (s)		4.0			4.0				4.0		4.0	
Vehicle Extension (s)		3.0			3.0				3.0		3.0	
Lane Grp Cap (vph)		2426			4282	1333			596		533	
v/s Ratio Prot		0.54			0.20				0.27			
v/s Ratio Perm					0.16	c1.02					0.39	
v/c Ratio		0.96			0.36	1.02			0.66		0.97	
Uniform Delay, d1		24.6			0.0	60.0			29.4		35.3	
Progression Factor		0.40			1.00	1.00			1.00		1.00	
Incremental Delay, d2		7.7			0.0	14.4			5.7		32.1	
Delay (s)		17.5			0.0	74.4			35.1		67.4	
Level of Service		B			A	E			D		E	
Approach Delay (s)		17.5			34.9		0.0			53.4		
Approach LOS		B			C		A			D		
<b>Intersection Summary</b>												
HCM Average Control Delay			31.1				HCM Level of Service			C		
HCM Volume to Capacity ratio			1.02									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)		0.0			
Intersection Capacity Utilization			98.1%				ICU Level of Service		F			
Analysis Period (min)			15									
c	Critical Lane Group											

Palmdale Transit Village TIA  
Forecast Year 2030 WP Conditions

4: AVE Q & DIVISION ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.91		1.00	0.91	
Flt	1.00	0.95		1.00	0.99		1.00	0.88		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4089		1490	4258		1490	3768		1490	4113	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	4089		1490	4258		1490	3768		1490	4113	
Volume (vph)	4	233	100	189	284	11	52	27	109	2	14	5
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	233	100	189	284	11	52	27	109	2	14	5
RTOR Reduction (vph)	0	75	0	0	4	0	0	46	0	0	3	0
Lane Group Flow (vph)	4	258	0	189	291	0	52	90	0	2	16	0
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	2.0	12.6		21.9	32.5		18.6	67.5		2.0	50.9	
Effective Green, g (s)	4.0	14.6		23.9	34.5		20.6	69.5		4.0	52.9	
Actuated g/C Ratio	0.03	0.12		0.20	0.29		0.17	0.58		0.03	0.44	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	50	497		297	1224		256	2182		50	1813	
v/s Ratio Prot	0.00	c0.06		c0.13	0.07		c0.03	c0.02		c0.00	0.00	
v/s Ratio Perm												
v/c Ratio	0.08	0.52		0.64	0.24		0.20	0.04		0.04	0.01	
Uniform Delay, d1	56.2	49.4		44.1	32.7		42.7	10.9		56.1	18.8	
Progression Factor	1.00	1.00		1.02	1.03		0.41	0.07		1.00	1.00	
Incremental Delay, d2	0.7	0.9		4.4	0.1		0.3	0.0		0.3	0.0	
Delay (s)	56.9	50.3		49.4	33.8		17.7	0.8		56.5	18.8	
Level of Service	E	D		D	C		B	A		E	B	
Approach Delay (s)		50.4			39.9			5.5			22.4	
Approach LOS		D			D			A			C	

Intersection Summary

HCM Average Control Delay	36.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	40.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
Forecast Year 2030 WP Conditions

5: PALMDALE BLVD & DIVISION ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frnt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	2891	4282	1333	1490	4282	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	2891	4282	1333	1490	4282	1333
Volume (vph)	211	2435	302	130	2193	18	496	116	87	56	92	201
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	211	2435	302	130	2193	18	496	116	87	56	92	201
RTOR Reduction (vph)	0	0	113	0	0	8	0	0	67	0	0	158
Lane Group Flow (vph)	211	2435	189	130	2193	10	496	116	20	56	92	43
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	14.0	60.2	60.2	10.0	56.2	56.2	17.8	25.8	25.8	8.0	16.0	16.0
Effective Green, g (s)	16.0	62.2	62.2	12.0	58.2	58.2	19.8	27.8	27.8	10.0	18.0	18.0
Actuated g/C Ratio	0.13	0.52	0.52	0.10	0.49	0.49	0.17	0.23	0.23	0.08	0.15	0.15
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	199	2220	691	149	2077	647	477	992	309	124	642	200
v/s Ratio Prot	0.14	c0.57		0.09	c0.51		c0.17	0.03		c0.04	0.02	
v/s Ratio Perm			0.14			0.01			0.02			c0.03
v/c Ratio	1.06	1.10	0.27	0.87	1.06	0.02	1.04	0.12	0.07	0.45	0.14	0.21
Uniform Delay, d1	52.0	28.9	16.2	53.2	30.9	16.0	50.1	36.4	36.0	52.4	44.3	44.8
Progression Factor	1.09	0.50	0.02	0.54	0.21	0.00	1.00	1.00	1.00	0.54	0.42	0.64
Incremental Delay, d2	55.9	46.8	0.4	5.4	26.5	0.0	51.9	0.2	0.4	2.2	0.4	2.0
Delay (s)	112.8	61.4	0.7	34.0	33.0	0.1	102.0	36.6	36.4	30.4	18.9	30.7
Level of Service	F	E	A	C	C	A	F	D	D	C	B	C
Approach Delay (s)		58.8			32.8			83.0			27.6	
Approach LOS		E			C			F			C	

Intersection Summary

HCM Average Control Delay	50.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	97.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0			2.0			2.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95			1.00			1.00	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	0.99			0.97			0.97	
Fit Protected	0.95	1.00	1.00	0.95	1.00			0.99			0.99	
Satd. Flow (prot)	1490	2980	1333	1490	2952			1507			1517	
Fit Permitted	0.95	1.00	1.00	0.95	1.00			0.76			0.93	
Satd. Flow (perm)	1490	2980	1333	1490	2952			1164			1418	
Volume (vph)	40	671	111	159	851	58	115	203	74	40	259	78
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	40	671	111	159	851	58	115	203	74	40	259	78
RTOR Reduction (vph)	0	0	22	0	4	0	0	7	0	0	8	0
Lane Group Flow (vph)	40	671	89	159	905	0	0	385	0	0	369	0
Turn Type	Prot		Perm	Prot			Perm			Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases			4				2			6		
Actuated Green, G (s)	6.0	31.1	31.1	19.0	44.1			57.9				57.9
Effective Green, g (s)	8.0	33.1	33.1	21.0	46.1			59.9				59.9
Actuated g/C Ratio	0.07	0.28	0.28	0.18	0.38			0.50				0.50
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0			4.0				4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0			3.0				3.0
Lane Grp Cap (vph)	99	822	368	261	1134			581				708
v/s Ratio Prot	0.03	c0.23		0.11	c0.31							
v/s Ratio Perm			0.07					c0.33				0.26
v/c Ratio	0.40	0.82	0.24	0.61	0.80			0.66				0.52
Uniform Delay, d1	53.7	40.6	33.7	45.7	32.8			22.5				20.4
Progression Factor	1.00	1.00	1.00	0.73	0.68			1.10				1.00
Incremental Delay, d2	2.7	6.3	0.3	2.1	2.1			5.9				2.7
Delay (s)	56.4	46.9	34.1	35.4	24.4			30.6				23.1
Level of Service	E	D	C	D	C			C				C
Approach Delay (s)		45.6			26.0			30.6				23.1
Approach LOS		D			C			C				C
Intersection Summary												
HCM Average Control Delay			32.3			HCM Level of Service					C	
HCM Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)					4.0	
Intersection Capacity Utilization			101.8%			ICU Level of Service					G	
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
Forecast Year 2030 WP Conditions

7: AVE P-12 & 3RD ST EAST  
PM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	24	4	7	86	5	102	4	197	22	48	487	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	24	4	7	86	5	102	4	197	22	48	487	24
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)							6					
Median type		None			None							
Median storage veh												
Upstream signal (ft)											1298	
pX, platoon unblocked												
vC, conflicting volume	854	822	499	797	812	197	511			219		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	854	822	499	797	812	197	511			219		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	90	99	99	70	98	88	100			96		
cM capacity (veh/h)	235	297	572	289	301	844	1054			1350		
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2					
Volume Total	35	193	4	197	22	48	511					
Volume Left	24	86	4	0	0	48	0					
Volume Right	7	102	0	0	22	0	24					
cSH	274	614	1054	1700	1700	1350	1700					
Volume to Capacity	0.13	0.31	0.00	0.12	0.01	0.04	0.30					
Queue Length 95th (ft)	11	34	0	0	0	3	0					
Control Delay (s)	20.1	16.1	8.4	0.0	0.0	7.8	0.0					
Lane LOS	C	C	A			A						
Approach Delay (s)	20.1	16.1	0.2			0.7						
Approach LOS	C	C										
Intersection Summary												
Average Delay			4.2									
Intersection Capacity Utilization			54.5%		ICU Level of Service				A			
Analysis Period (min)			15									

									
Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Lane Configurations									
Sign Control		Free	Free		Stop				
Grade		0%	0%		0%				
Volume (veh/h)	108	250	258	161	197	229			
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00			
Hourly flow rate (vph)	108	250	258	161	197	229			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)								2	
Median type								None	
Median storage veh									
Upstream signal (ft)								1283	
pX, platoon unblocked									
vC, conflicting volume	419					638	166		
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	419					638	166		
tC, single (s)	4.1					6.8	6.9		
tC, 2 stage (s)									
tF (s)	2.2					3.5	3.3		
p0 queue free %	90					47	73		
cM capacity (veh/h)	1137					370	849		
Direction, Lane #	EB 1	EB 2	EB 3	EB 4	WB 1	WB 2	WB 3	SB 1	
Volume Total	108	83	83	83	103	103	213	426	
Volume Left	108	0	0	0	0	0	0	197	
Volume Right	0	0	0	0	0	0	161	229	
cSH	1137	1700	1700	1700	1700	1700	1700	801	
Volume to Capacity	0.10	0.05	0.05	0.05	0.06	0.06	0.13	0.53	
Queue Length 95th (ft)	8	0	0	0	0	0	0	80	
Control Delay (s)	8.5	0.0	0.0	0.0	0.0	0.0	0.0	17.5	
Lane LOS	A								C
Approach Delay (s)	2.6					0.0			17.5
Approach LOS								C	
Intersection Summary									
Average Delay			7.0						
Intersection Capacity Utilization			40.3%	ICU Level of Service					A
Analysis Period (min)			15						

										
Movement	EBT	EBR	WBL	WBT	NBL	NBR				
Lane Configurations	↑↑↑		↑	↑↑↑	↑					
Sign Control	Free			Free	Stop					
Grade	0%			0%	0%					
Volume (veh/h)	437	9	61	348	71	94				
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00				
Hourly flow rate (vph)	437	9	61	348	71	94				
Pedestrians										
Lane Width (ft)										
Walking Speed (ft/s)										
Percent Blockage										
Right turn flare (veh)										
Median type	None									
Median storage veh										
Upstream signal (ft)										
pX, platoon unblocked										
vC, conflicting volume			446			680	150			
vC1, stage 1 conf vol										
vC2, stage 2 conf vol										
vCu, unblocked vol			446			680	150			
tC, single (s)			4.1			6.8	6.9			
tC, 2 stage (s)										
tF (s)			2.2			3.5	3.3			
p0 queue free %			95			80	89			
cM capacity (veh/h)			1111			364	869			
Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	WB 4	NB 1		
Volume Total	175	175	96	61	116	116	116	165		
Volume Left	0	0	0	61	0	0	0	71		
Volume Right	0	0	9	0	0	0	0	94		
cSH	1700	1700	1700	1111	1700	1700	1700	544		
Volume to Capacity	0.10	0.10	0.06	0.05	0.07	0.07	0.07	0.30		
Queue Length 95th (ft)	0	0	0	4	0	0	0	32		
Control Delay (s)	0.0	0.0	0.0	8.4	0.0	0.0	0.0	14.5		
Lane LOS					A				B	
Approach Delay (s)	0.0			1.3				14.5		
Approach LOS								B		
<b>Intersection Summary</b>										
Average Delay			2.8							
Intersection Capacity Utilization			35.8%	ICU Level of Service		A				
Analysis Period (min)			15							

Palmdale Transit Village TIA  
Forecast Year 2030 WP Conditions

10: PALMDALE BLVD & 3RD ST EAST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2810		1490	2910	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	2810		1490	2910	
Volume (vph)	35	2804	172	373	2696	143	98	737	454	167	407	76
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	35	2804	172	373	2696	143	98	737	454	167	407	76
RTOR Reduction (vph)	0	0	56	0	0	44	0	79	0	0	13	0
Lane Group Flow (vph)	35	2804	116	373	2696	99	98	1112	0	167	470	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	5.6	45.4	45.4	19.6	59.4	59.4	13.0	29.0		10.0	26.0	
Effective Green, g (s)	7.6	47.4	47.4	21.6	61.4	61.4	15.0	31.0		12.0	28.0	
Actuated g/C Ratio	0.06	0.39	0.39	0.18	0.51	0.51	0.12	0.26		0.10	0.23	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	94	1691	527	268	2191	682	186	726		149	679	
v/s Ratio Prot	0.02	c0.65		c0.25	0.63		0.07	c0.40		c0.11	0.16	
v/s Ratio Perm			0.09			0.07						
v/c Ratio	0.37	1.66	0.22	1.39	1.23	0.14	0.53	1.53		1.12	0.69	
Uniform Delay, d1	53.9	36.3	24.0	49.2	29.3	15.5	49.2	44.5		54.0	42.1	
Progression Factor	1.05	1.36	2.13	0.89	0.80	0.87	1.00	1.00		0.99	1.00	
Incremental Delay, d2	1.1	297.3	0.4	195.6	107.5	0.4	2.7	246.4		109.8	5.7	
Delay (s)	57.9	346.6	51.5	239.3	131.0	13.8	51.9	290.9		163.3	47.6	
Level of Service	E	F	D	F	F	B	D	F		F	D	
Approach Delay (s)		326.3			138.4			272.8			77.4	
Approach LOS		F			F			F			E	

Intersection Summary

HCM Average Control Delay	224.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.49		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	154.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	2787		1490	2838	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.54	1.00		0.49	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	846	2787		766	2838	
Volume (vph)	114	1923	174	139	1725	107	205	166	127	107	162	76
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	114	1923	174	139	1725	107	205	166	127	107	162	76
RTOR Reduction (vph)	0	0	82	0	0	51	0	86	0	0	46	0
Lane Group Flow (vph)	114	1923	93	139	1725	56	205	207	0	107	192	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	10.6	58.0	58.0	13.6	61.0	61.0	36.4	36.4		36.4	36.4	
Effective Green, g (s)	12.6	60.0	60.0	15.6	63.0	63.0	38.4	38.4		38.4	38.4	
Actuated g/C Ratio	0.10	0.50	0.50	0.13	0.52	0.52	0.32	0.32		0.32	0.32	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	156	2141	667	194	2248	700	271	892		245	908	
v/s Ratio Prot	0.08	c0.45		c0.09	c0.40			0.07			0.07	
v/s Ratio Perm			0.07			0.04	c0.24			0.14		
v/c Ratio	0.73	0.90	0.14	0.72	0.77	0.08	0.76	0.23		0.44	0.21	
Uniform Delay, d1	52.1	27.2	16.1	50.1	22.7	14.1	36.6	30.0		32.3	29.8	
Progression Factor	0.81	0.15	0.00	0.72	0.19	0.02	1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.6	0.7	0.0	1.2	0.2	0.0	17.8	0.6		5.6	0.5	
Delay (s)	43.7	4.8	0.1	37.0	4.6	0.3	54.4	30.6		37.8	30.3	
Level of Service	D	A	A	D	A	A	D	C		D	C	
Approach Delay (s)		6.5			6.7			40.4			32.6	
Approach LOS		A			A			D			C	

Intersection Summary

HCM Average Control Delay	11.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	88.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	27	202	119	239	337	24
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	27	202	119	239	337	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	826	349	361			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	826	349	361			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	91	71	90			
cM capacity (veh/h)	308	694	1198			
Direction, Lane #	EB 1	EB 2	NB 1	NB 2	SB 1	
Volume Total	27	202	119	239	361	
Volume Left	27	0	119	0	0	
Volume Right	0	202	0	0	24	
cSH	308	694	1198	1700	1700	
Volume to Capacity	0.09	0.29	0.10	0.14	0.21	
Queue Length 95th (ft)	7	30	8	0	0	
Control Delay (s)	17.8	12.3	8.3	0.0	0.0	
Lane LOS	C	B	A			
Approach Delay (s)	12.9		2.8		0.0	
Approach LOS	B					
<b>Intersection Summary</b>						
Average Delay			4.2			
Intersection Capacity Utilization			44.3%		ICU Level of Service	A
Analysis Period (min)			15			

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Volume (veh/h)	20	38	43	295	484	45
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	20	38	43	295	484	45
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)		1				
Median type	None					
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	888	506	529			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	888	506	529			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	93	93	96			
cM capacity (veh/h)	301	566	1038			
Direction, Lane #	EB 1	NB 1	NB 2	SB 1		
Volume Total	58	43	295	529		
Volume Left	20	43	0	0		
Volume Right	38	0	0	45		
cSH	864	1038	1700	1700		
Volume to Capacity	0.07	0.04	0.17	0.31		
Queue Length 95th (ft)	5	3	0	0		
Control Delay (s)	13.9	8.6	0.0	0.0		
Lane LOS	B	A				
Approach Delay (s)	13.9	1.1		0.0		
Approach LOS	B					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			50.2%		ICU Level of Service	A
Analysis Period (min)			15			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frnt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	1569	1333	1490	1569	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.37	1.00	1.00	0.54	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	581	1569	1333	848	1569	1333
Volume (vph)	108	2279	277	105	2400	216	132	190	110	377	335	141
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	2279	277	105	2400	216	132	190	110	377	335	141
RTOR Reduction (vph)	0	0	109	0	0	16	0	0	69	0	0	63
Lane Group Flow (vph)	108	2279	168	105	2400	200	132	190	41	377	335	79
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	10.0	55.3	55.3	9.7	55.0	55.0	43.0	43.0	43.0	43.0	43.0	43.0
Effective Green, g (s)	12.0	57.3	57.3	11.7	57.0	57.0	45.0	45.0	45.0	45.0	45.0	45.0
Actuated g/C Ratio	0.10	0.48	0.48	0.10	0.48	0.48	0.38	0.38	0.38	0.38	0.38	0.38
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	149	2045	637	145	2034	633	218	588	500	318	588	500
v/s Ratio Prot	0.07	c0.53		0.07	c0.56			0.12			0.21	
v/s Ratio Perm			0.13			0.15	0.23		0.03	c0.44		0.06
v/c Ratio	0.72	1.11	0.26	0.72	1.18	0.32	0.61	0.32	0.08	1.19	0.57	0.16
Uniform Delay, d1	52.4	31.4	18.7	52.6	31.5	19.5	30.3	26.7	24.2	37.5	29.8	24.9
Progression Factor	0.67	0.44	0.04	1.30	0.20	0.18	1.00	1.00	1.00	1.00	1.01	1.03
Incremental Delay, d2	11.9	57.1	0.7	1.6	81.5	0.1	11.9	1.5	0.3	110.8	4.0	0.7
Delay (s)	47.0	70.8	1.5	70.0	87.6	3.6	42.2	28.1	24.5	148.4	34.0	26.3
Level of Service	D	E	A	E	F	A	D	C	C	F	C	C
Approach Delay (s)		62.6			80.3			31.5			83.3	
Approach LOS		E			F			C			F	

Intersection Summary

HCM Average Control Delay	70.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	112.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1440	1600	1600	1440	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.86	0.86	0.97	0.91	1.00	0.97	0.91	1.00
Frts	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4027	1147	2602	4282	1333	2602	4282	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4027	1147	2602	4282	1333	2602	4282	1333
Volume (vph)	199	988	250	36	1300	985	509	971	38	1260	1162	261
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	988	250	36	1300	985	509	971	38	1260	1162	261
RTOR Reduction (vph)	0	0	145	0	3	356	0	0	0	0	0	187
Lane Group Flow (vph)	199	988	105	36	1341	585	509	971	38	1260	1162	74
Turn Type	Prot		Over	Prot		Over	Prot		Perm	Prot		Over
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases									2			
Actuated Green, G (s)	12.0	38.0	25.0	5.6	31.6	40.0	25.0	20.4	20.4	40.0	35.4	12.0
Effective Green, g (s)	14.0	40.0	27.0	7.6	33.6	42.0	27.0	22.4	22.4	42.0	37.4	14.0
Actuated g/C Ratio	0.12	0.33	0.22	0.06	0.28	0.35	0.22	0.19	0.19	0.35	0.31	0.12
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	174	1427	300	94	1128	401	585	799	249	911	1335	156
v/s Ratio Prot	c0.13	0.23	0.08	0.02	c0.33	c0.51	0.20	c0.23		0.48	0.27	0.06
v/s Ratio Perm									0.03			
v/c Ratio	1.14	0.69	0.35	0.38	1.19	1.46	0.87	1.22	0.15	1.38	0.87	0.47
Uniform Delay, d1	53.0	34.7	39.1	53.9	43.2	39.0	44.8	48.8	40.9	39.0	39.0	49.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.78	0.76	1.00	1.00	1.00
Incremental Delay, d2	112.1	1.5	0.7	2.6	94.1	220.4	12.4	107.4	1.2	179.3	8.0	2.3
Delay (s)	165.1	36.1	39.8	56.5	137.3	259.4	55.5	145.5	32.3	218.3	47.0	51.8
Level of Service	F	D	D	E	F	F	E	F	C	F	D	D
Approach Delay (s)		54.6			185.5			112.5			127.9	
Approach LOS		D			F			F			F	

Intersection Summary

HCM Average Control Delay	128.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	134.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	0.97	0.91	1.00	0.91	0.91	1.00
Fr <sub>t</sub>	0.92	0.85	1.00	1.00	1.00	0.85
Fl <sub>t</sub> Protected	0.98	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	2741	1213	1490	4282	4282	1333
Fl <sub>t</sub> Permitted	0.98	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	2741	1213	1490	4282	4282	1333
Volume (vph)	194	671	653	1383	1569	411
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	194	671	653	1383	1569	411
RTOR Reduction (vph)	165	172	0	0	0	234
Lane Group Flow (vph)	236	292	653	1383	1569	177
Turn Type		Over	Prot			Perm
Protected Phases	4	5	5	2	6	
Permitted Phases						6
Actuated Green, G (s)	15.0	50.0	50.0	97.0	43.0	43.0
Effective Green, g (s)	17.0	52.0	52.0	99.0	45.0	45.0
Actuated g/C Ratio	0.14	0.43	0.43	0.82	0.38	0.38
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	388	526	646	3533	1606	500
v/s Ratio Prot	c0.09	0.24	c0.44	0.32	c0.37	
v/s Ratio Perm						0.13
v/c Ratio	0.61	0.56	1.01	0.39	0.98	0.35
Uniform Delay, d <sub>1</sub>	48.4	25.4	34.0	2.7	37.0	27.0
Progression Factor	0.64	1.31	0.60	0.45	0.45	0.02
Incremental Delay, d <sub>2</sub>	1.9	0.9	23.7	0.1	15.7	1.6
Delay (s)	33.0	34.0	44.3	1.3	32.4	2.1
Level of Service	C	C	D	A	C	A
Approach Delay (s)	33.6			15.1	26.1	
Approach LOS	C			B	C	
<b>Intersection Summary</b>						
HCM Average Control Delay			22.8		HCM Level of Service	C
HCM Volume to Capacity ratio			0.93			
Actuated Cycle Length (s)			120.0		Sum of lost time (s)	6.0
Intersection Capacity Utilization			103.9%		ICU Level of Service	G
Analysis Period (min)			15			
c Critical Lane Group						

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	4216		1490	4075	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	4216		1490	4075	
Volume (vph)	376	2245	214	80	1861	290	284	991	114	400	991	474
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	376	2245	214	80	1861	290	284	991	114	400	991	474
RTOR Reduction (vph)	0	0	0	0	0	28	0	12	0	0	72	0
Lane Group Flow (vph)	376	2245	214	80	1861	262	284	1093	0	400	1393	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	21.8	51.0	120.0	8.0	37.2	37.2	16.0	23.0		22.0	29.0	
Effective Green, g (s)	23.8	53.0	120.0	10.0	39.2	39.2	18.0	25.0		24.0	31.0	
Actuated g/C Ratio	0.20	0.44	1.00	0.08	0.33	0.33	0.15	0.21		0.20	0.26	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	296	1891	1333	124	1399	435	224	878		298	1053	
v/s Ratio Prot	c0.25	c0.52		0.05	c0.43		0.19	c0.26		c0.27	c0.34	
v/s Ratio Perm			0.16			0.20						
v/c Ratio	1.27	1.19	0.16	0.65	1.33	0.60	1.27	1.25		1.34	1.32	
Uniform Delay, d1	48.1	33.5	0.0	53.3	40.4	33.9	51.0	47.5		48.0	44.5	
Progression Factor	0.63	0.72	1.00	1.00	1.00	1.00	1.00	1.00		0.61	0.48	
Incremental Delay, d2	124.1	84.8	0.0	11.0	153.6	6.0	150.9	119.8		163.7	148.3	
Delay (s)	154.5	108.9	0.0	64.2	194.0	39.9	201.9	167.3		193.0	169.5	
Level of Service	F	F	A	E	F	D	F	F		F	F	
Approach Delay (s)		106.7			169.3			174.4			174.6	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	150.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	134.8%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

**Mitigated Forecast Year 2030  
With Project Conditions**



Palmdale Transit Village TIA  
Mitigated Forecast Year 2030 WP Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑↑		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				0.97		1.00
Fr <sub>t</sub>		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		4282	1333		4282				2891		1333
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		4282	1333		4282				2891		1333
Volume (vph)	0	1387	505	0	1055	0	0	0	772	0	214
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1387	505	0	1055	0	0	0	772	0	214
RTOR Reduction (vph)	0	0	263	0	0	0	0	0	0	0	32
Lane Group Flow (vph)	0	1387	242	0	1055	0	0	0	772	0	182
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		50.0	22.0		22.0				20.0		20.0
Effective Green, g (s)		50.0	24.0		24.0				22.0		22.0
Actuated g/C Ratio		1.00	0.48		0.48				0.44		0.44
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		4282	640		2055				1272		587
v/s Ratio Prot		0.16			c0.25				c0.27		
v/s Ratio Perm		0.17	0.18								0.14
v/c Ratio		0.32	0.38		0.51				0.61		0.31
Uniform Delay, d1		0.0	8.3		9.0				10.7		9.1
Progression Factor		1.00	2.97		0.44				1.00		1.00
Incremental Delay, d2		0.1	1.2		0.9				2.2		1.4
Delay (s)		0.1	25.7		4.8				12.9		10.4
Level of Service		A	C		A				B		B
Approach Delay (s)		7.0			4.8		0.0			12.3	
Approach LOS		A			A		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			7.7			HCM Level of Service			A		
HCM Volume to Capacity ratio			0.55								
Actuated Cycle Length (s)			50.0			Sum of lost time (s)			4.0		
Intersection Capacity Utilization			52.8%			ICU Level of Service			A		
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
Mitigated Forecast Year 2030 WP Conditions

13: PALMDALE BLVD & 6TH ST  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frnt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	1569	1333	2891	1569	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	1569	1333	2891	1569	1333
Volume (vph)	96	1832	121	81	1895	220	103	130	51	259	130	69
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	96	1832	121	81	1895	220	103	130	51	259	130	69
RTOR Reduction (vph)	0	0	62	0	0	26	0	0	40	0	0	53
Lane Group Flow (vph)	96	1832	59	81	1895	194	103	130	11	259	130	16
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.9	46.4	46.4	7.9	46.4	46.4	8.0	18.9	18.9	10.8	21.7	21.7
Effective Green, g (s)	9.9	48.4	48.4	9.9	48.4	48.4	10.0	20.9	20.9	12.8	23.7	23.7
Actuated g/C Ratio	0.10	0.48	0.48	0.10	0.48	0.48	0.10	0.21	0.21	0.13	0.24	0.24
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	148	2072	645	148	2072	645	149	328	279	370	372	316
v/s Ratio Prot	c0.06	0.43		0.05	c0.44		0.07	c0.08		c0.09	c0.08	
v/s Ratio Perm			0.04			0.15			0.01			0.01
v/c Ratio	0.65	0.88	0.09	0.55	0.91	0.30	0.69	0.40	0.04	0.70	0.35	0.05
Uniform Delay, d1	43.4	23.3	13.9	42.9	23.9	15.6	43.5	34.1	31.5	41.8	31.7	29.5
Progression Factor	0.65	0.55	0.40	0.84	0.25	0.18	1.00	1.00	1.00	1.00	0.98	0.97
Incremental Delay, d2	7.3	4.7	0.2	2.5	4.9	0.7	13.0	3.6	0.3	5.9	2.6	0.3
Delay (s)	35.5	17.4	5.8	38.3	10.9	3.6	56.5	37.7	31.8	47.7	33.7	28.8
Level of Service	D	B	A	D	B	A	E	D	C	D	C	C
Approach Delay (s)		17.6			11.1			43.4			40.9	
Approach LOS		B			B			D			D	

Intersection Summary

HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	80.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
Mitigated Forecast Year 2030 WP Conditions

14: AVE P & SIERRA HWY  
AM Peak Hour

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1440	1600	1600	1440	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	0.86	0.97	0.91	1.00	0.97	0.91	1.00
Fr't	1.00	1.00	0.85	1.00	0.94	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	2891	4282	1333	1490	3818	1147	2602	4282	1333	2602	4282	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	2891	4282	1333	1490	3818	1147	2602	4282	1333	2602	4282	1333
Volume (vph)	203	1325	161	54	814	1272	152	903	76	914	637	134
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	203	1325	161	54	814	1272	152	903	76	914	637	134
RTOR Reduction (vph)	0	0	70	0	91	406	0	0	0	0	0	120
Lane Group Flow (vph)	203	1325	91	54	1216	373	152	903	76	914	637	14
Turn Type	Prot		Over	Prot		Over	Prot		Perm	Prot		Over
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases									2			
Actuated Green, G (s)	10.8	36.8	18.0	8.0	34.0	37.0	18.0	22.2	22.2	37.0	41.2	10.8
Effective Green, g (s)	12.8	38.8	20.0	10.0	36.0	39.0	20.0	24.2	24.2	39.0	43.2	12.8
Actuated g/C Ratio	0.11	0.32	0.17	0.08	0.30	0.32	0.17	0.20	0.20	0.32	0.36	0.11
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	308	1385	222	124	1145	373	434	864	269	846	1542	142
v/s Ratio Prot	c0.07	c0.31	0.07	0.04	c0.32	0.33	0.06	c0.21		c0.35	0.15	0.01
v/s Ratio Perm									0.06			
v/c Ratio	0.66	0.96	0.41	0.44	1.06	1.00	0.35	1.05	0.28	1.08	0.41	0.10
Uniform Delay, d1	51.5	39.8	44.7	52.3	42.0	40.5	44.2	47.9	40.6	40.5	28.9	48.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.96	0.96	0.95	1.00	1.00	1.00
Incremental Delay, d2	5.0	14.9	1.2	2.4	44.7	46.8	0.5	42.4	2.5	55.0	0.8	0.3
Delay (s)	56.5	54.7	46.0	54.8	86.7	87.3	42.9	88.6	41.1	95.5	29.7	48.7
Level of Service	E	D	D	D	F	F	D	F	D	F	C	D
Approach Delay (s)		54.1			86.1			79.3			66.9	
Approach LOS		D			F			E			E	

Intersection Summary

HCM Average Control Delay	71.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	105.3%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99	1.00	1.00	0.94	1.00
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	2891	4282	1333	1490	4282	1333	1490	4222	1490	4041	4041	1600
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	2891	4282	1333	1490	4282	1333	1490	4222	1490	4041	4041	1600
Volume (vph)	223	1603	262	127	1491	221	219	820	85	337	405	244
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	223	1603	262	127	1491	221	219	820	85	337	405	244
RTOR Reduction (vph)	0	0	0	0	0	32	0	13	0	0	109	0
Lane Group Flow (vph)	223	1603	262	127	1491	189	219	892	0	337	540	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	10.0	35.3	100.0	9.7	35.0	35.0	17.0	19.0		20.0	22.0	
Effective Green, g (s)	12.0	37.3	100.0	11.7	37.0	37.0	19.0	21.0		22.0	24.0	
Actuated g/C Ratio	0.12	0.37	1.00	0.12	0.37	0.37	0.19	0.21		0.22	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	347	1597	1333	174	1584	493	283	887		328	970	
v/s Ratio Prot	0.08	c0.37		0.09	c0.35		0.15	c0.21		c0.23	0.13	
v/s Ratio Perm			c0.20			0.14						
v/c Ratio	0.64	1.00	0.20	0.73	0.94	0.38	0.77	1.01		1.03	0.56	
Uniform Delay, d <sub>1</sub>	42.0	31.4	0.0	42.6	30.5	23.1	38.5	39.5		39.0	33.3	
Progression Factor	0.55	0.39	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d <sub>2</sub>	2.2	17.4	0.2	14.2	12.4	2.2	12.4	31.7		56.9	2.3	
Delay (s)	25.3	29.6	0.2	56.8	42.8	25.4	50.8	71.2		95.9	35.6	
Level of Service	C	C	A	E	D	C	D	E		F	D	
Approach Delay (s)		25.4			41.7			67.2			56.2	
Approach LOS		C			D			E			E	

Intersection Summary

HCM Average Control Delay	43.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	101.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
 Mitigated Forecast Year 2030 WP Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
 PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑↑		↑
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				0.97		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		4282	1333		4282				2891		1333
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		4282	1333		4282				2891		1333
Volume (vph)	0	1500	295	0	1496	0	0	0	1194	0	329
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1500	295	0	1496	0	0	0	1194	0	329
RTOR Reduction (vph)	0	0	167	0	0	0	0	0	0	0	5
Lane Group Flow (vph)	0	1500	128	0	1496	0	0	0	1194	0	325
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		60.0	24.0		24.0				28.0		28.0
Effective Green, g (s)		60.0	26.0		26.0				30.0		30.0
Actuated g/C Ratio		1.00	0.43		0.43				0.50		0.50
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		4282	578		1856				1446		667
v/s Ratio Prot		0.15			c0.35				c0.41		
v/s Ratio Perm		0.20	0.10								0.24
v/c Ratio		0.35	0.22		0.81				0.83		0.49
Uniform Delay, d1		0.0	10.7		14.8				12.8		9.9
Progression Factor		1.00	2.86		1.18				1.00		1.00
Incremental Delay, d2		0.0	0.1		3.7				5.5		2.5
Delay (s)		0.0	30.5		21.2				18.3		12.4
Level of Service		A	C		C				B		B
Approach Delay (s)		5.0			21.2		0.0			17.0	
Approach LOS		A			C		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			13.9		HCM Level of Service				B		
HCM Volume to Capacity ratio			0.80								
Actuated Cycle Length (s)			60.0		Sum of lost time (s)				4.0		
Intersection Capacity Utilization			65.2%		ICU Level of Service				C		
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
Mitigated Forecast Year 2030 WP Conditions

13: PALMDALE BLVD & 6TH ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	0.97	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1490	4282	1333	1490	4282	1333	1490	1569	1333	2891	1569	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1490	4282	1333	1490	4282	1333	1490	1569	1333	2891	1569	1333
Volume (vph)	108	2279	277	105	2400	216	132	190	110	377	335	141
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	2279	277	105	2400	216	132	190	110	377	335	141
RTOR Reduction (vph)	0	0	110	0	0	16	0	0	91	0	0	62
Lane Group Flow (vph)	108	2279	167	105	2400	200	132	190	19	377	335	79
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	9.8	62.0	62.0	9.8	62.0	62.0	10.0	18.2	18.2	14.0	22.2	22.2
Effective Green, g (s)	11.8	64.0	64.0	11.8	64.0	64.0	12.0	20.2	20.2	16.0	24.2	24.2
Actuated g/C Ratio	0.10	0.53	0.53	0.10	0.53	0.53	0.10	0.17	0.17	0.13	0.20	0.20
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	147	2284	711	147	2284	711	149	264	224	385	316	269
v/s Ratio Prot	c0.07	0.53		0.07	c0.56		0.09	0.12		c0.13	c0.21	
v/s Ratio Perm			0.13			0.15			0.01			0.06
v/c Ratio	0.73	1.00	0.24	0.71	1.05	0.28	0.89	0.72	0.08	0.98	1.06	0.29
Uniform Delay, d1	52.6	27.9	14.9	52.5	28.0	15.4	53.3	47.2	42.1	51.8	47.9	40.6
Progression Factor	0.71	0.74	1.19	0.86	0.26	0.24	1.00	1.00	1.00	1.00	1.01	1.02
Incremental Delay, d2	12.9	15.5	0.6	1.5	24.2	0.1	41.8	15.6	0.7	39.9	67.4	2.7
Delay (s)	50.2	36.1	18.3	46.6	31.6	3.8	95.1	62.8	42.8	91.8	115.6	44.1
Level of Service	D	D	B	D	C	A	F	E	D	F	F	D
Approach Delay (s)		34.8			30.0			67.6			93.3	
Approach LOS		C			C			E			F	

Intersection Summary

HCM Average Control Delay	42.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	105.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
Mitigated Forecast Year 2030 WP Conditions

14: AVE P & SIERRA HWY  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1440	1600	1600	1440	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	0.97	0.91	1.00	1.00	0.86	0.86	0.97	0.91	1.00	0.94	0.91	1.00
Frt	1.00	1.00	0.85	1.00	0.99	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	2891	4282	1333	1490	3990	1147	2602	4282	1333	3782	4282	1333
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	2891	4282	1333	1490	3990	1147	2602	4282	1333	3782	4282	1333
Volume (vph)	199	988	250	36	1300	985	509	971	38	1260	1162	261
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	199	988	250	36	1300	985	509	971	38	1260	1162	261
RTOR Reduction (vph)	0	0	145	0	9	391	0	0	0	0	0	187
Lane Group Flow (vph)	199	988	105	36	1427	458	509	971	38	1260	1162	74
Turn Type	Prot		Over	Prot		Over	Prot		Perm	Prot		Over
Protected Phases	7	4	5	3	8	1	5	2		1	6	7
Permitted Phases									2			
Actuated Green, G (s)	9.9	41.0	22.0	5.6	36.7	35.0	22.0	22.4	22.4	35.0	35.4	9.9
Effective Green, g (s)	11.9	43.0	24.0	7.6	38.7	37.0	24.0	24.4	24.4	37.0	37.4	11.9
Actuated g/C Ratio	0.10	0.36	0.20	0.06	0.32	0.31	0.20	0.20	0.20	0.31	0.31	0.10
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	287	1534	267	94	1287	354	520	871	271	1166	1335	132
v/s Ratio Prot	c0.07	0.23	0.08	0.02	c0.36	c0.40	0.20	c0.23		0.33	0.27	0.06
v/s Ratio Perm									0.03			
v/c Ratio	0.69	0.64	0.39	0.38	1.11	1.29	0.98	1.11	0.14	1.08	0.87	0.56
Uniform Delay, d1	52.3	32.1	41.7	53.9	40.6	41.5	47.7	47.8	39.2	41.5	39.0	51.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.99	0.76	0.74	1.00	1.00	1.00
Incremental Delay, d2	7.1	0.9	1.0	2.6	60.3	152.0	32.1	66.1	1.0	51.0	8.0	5.0
Delay (s)	59.4	33.1	42.6	56.5	101.0	193.5	79.2	102.3	30.1	92.5	47.0	56.6
Level of Service	E	C	D	E	F	F	E	F	C	F	D	E
Approach Delay (s)		38.4			134.1			92.8			69.3	
Approach LOS		D			F			F			E	

Intersection Summary

HCM Average Control Delay	87.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	112.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	0.97	0.91	1.00	1.00	0.91	1.00	1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	2891	4282	1333	1490	4282	1333	1490	4216		1490	4075	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	2891	4282	1333	1490	4282	1333	1490	4216		1490	4075	
Volume (vph)	376	2245	214	80	1861	290	284	991	114	400	991	474
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	376	2245	214	80	1861	290	284	991	114	400	991	474
RTOR Reduction (vph)	0	0	0	0	0	29	0	12	0	0	72	0
Lane Group Flow (vph)	376	2245	214	80	1861	261	284	1093	0	400	1393	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	12.8	50.0	120.0	8.0	45.2	45.2	16.0	23.0		23.0	30.0	
Effective Green, g (s)	14.8	52.0	120.0	10.0	47.2	47.2	18.0	25.0		25.0	32.0	
Actuated g/C Ratio	0.12	0.43	1.00	0.08	0.39	0.39	0.15	0.21		0.21	0.27	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	357	1856	1333	124	1684	524	224	878		310	1087	
v/s Ratio Prot	c0.13	c0.52		0.05	0.43		0.19	c0.26		c0.27	c0.34	
v/s Ratio Perm			0.16			0.20						
v/c Ratio	1.05	1.21	0.16	0.65	1.11	0.50	1.27	1.25		1.29	1.28	
Uniform Delay, d1	52.6	34.0	0.0	53.3	36.4	27.5	51.0	47.5		47.5	44.0	
Progression Factor	0.66	0.55	1.00	1.00	1.00	1.00	1.00	1.00		0.57	0.50	
Incremental Delay, d2	42.5	96.1	0.1	11.0	56.7	3.4	150.9	119.8		141.0	129.9	
Delay (s)	77.2	115.0	0.1	64.2	93.1	30.8	201.9	167.3		168.2	152.0	
Level of Service	E	F	A	E	F	C	F	F		F	F	
Approach Delay (s)		101.3			84.0			174.4			155.5	
Approach LOS		F			F			F			F	

Intersection Summary

HCM Average Control Delay	121.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	124.7%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

**APPENDIX C**  
**Internal Trip Capture**  
**Summary Calculation Sheets**



# Multi-Use Development Trip Generation and Internal Capture Summary

Analyst: JW Date: 26-Sep-06 Time Period: PM Peak Hour

Analyst: JW

Date: 26-Sep-06

## Land Use A Shopping Center

ITE LU Code		820	
Size		95.5 TSF	
Enter	172	Internal	154
Exit	186	External	154
Total	358	Total	312
%	100%	%	87%

Exit to External 158

Enter from External 154

3% Demand 6

Balanced 6

31% Demand 31

23% Demand 114

Balanced 3

2% Demand 3

12% Demand 22

Balanced 22

31% Demand 130

9% Demand 15

Balanced 15

53% Demand 121

## Land Use B General Office

ITE LU Code		710	
Size		399.5 TSF	
Enter	100	Internal	94
Exit	495	External	484
Total	595	Total	578
%	100%	%	97%

Exit to External 484

Enter from External 94

0% Demand 0

Balanced 0

0% Demand 0

2% Demand 10

Balanced 8

2% Demand 8

## Land Use C Residential

ITE LU Code		220	
Size		1027 DU	
Enter	420	Internal	390
Exit	229	External	214
Total	649	Total	604
%	100%	%	93%

Enter from External 390

Exit to External 214

0% Demand 0

Balanced 0

7% Demand 45

Balanced 45

93% Demand 604

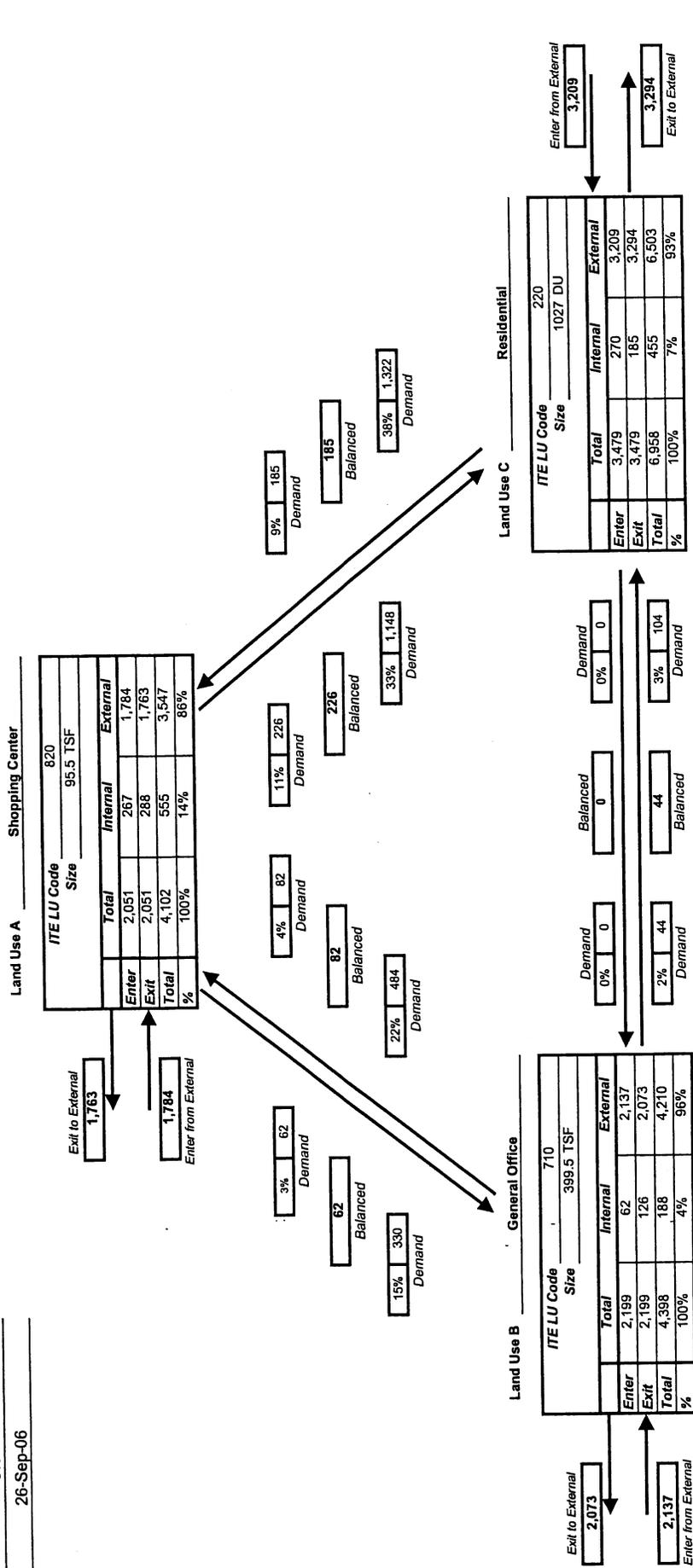
## Net External Trips for Multi-Use Development

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	154	94	390	638	
Exit	484	484	214	1,182	7%
Total	312	578	604	1,494	
Single-Use Trip Gen. Est.	358	595	649	1,602	

# Multi-Use Development Trip Generation and Internal Capture Summary

Time Period:          Daily

Analyst: JW  
Date: 26-Sep-06



**Net External Trips for Multi-Use Development**

	Land Use A	Land Use B	Land Use C	Total	Internal Capture
Enter	1,784	2,137	3,209	7,130	
Exit	1,763	2,073	3,294	7,130	8%
Total	3,547	4,210	6,503	14,260	
Single-Use Trip Gen. Est.	4,102	4,398	6,958	15,458	

**APPENDIX D**  
**CMP Intersections**  
**LOS Analysis Sheets**



**CMP Intersection Analysis  
Existing Conditions**



Tue Oct 31, 2006 10:57:19

E + A + C AM

Palmdale Transit Village TIA 10104580  
CMP Analysis Existing Conditions  
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)  
Intersection #16 SIERRA HWY/PALMDALE BLVD (SR-138)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.621  
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 53 Level Of Service: B

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected Protected  
Rights: Include Include Ignore Include  
Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10  
Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 3 0 1 1 0 3 0 1

Volume Module:  
Base Vol: 121 440 47 186 214 135 123 866 145 70 797 122  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 121 440 47 186 214 135 123 866 145 70 797 122  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Volume: 121 440 47 186 214 135 123 866 0 70 797 122  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 121 440 47 186 214 135 123 866 0 70 797 122  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 121 440 47 186 214 135 123 866 0 70 797 122

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.71 0.29 1.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00  
Final Sat.: 1600 4337 463 1600 3200 1600 1600 4800 1600 1600 4800 1600

Capacity Analysis Module:  
Vol/Sat: 0.08 0.10 0.10 0.12 0.07 0.08 0.08 0.18 0.00 0.04 0.17 0.08  
Crit Moves: \*\*\*\*  
\*\*\*\*\*

Tue Oct 31, 2006 10:57:06

E + A + C PM

Palmdale Transit Village TIA 10104580  
CMP Analysis Existing Conditions  
PM Peak Hour

Level Of Service Computation Report

ICU 1 (Loss as Cycle Length %) Method (Base Volume Alternative)

\*\*\*\*\*  
Intersection #16 SIERRA HWY/PALMDALE BLVD (SR-138)

Cycle (sec): 100 Critical Vol./Cap. (X): 0.763  
Loss time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 71 Level Of Service: C

\*\*\*\*\*  
Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R  
Control: Protected Protected Protected Protected Protected Protected  
Rights: Include Include Ignore Include Include  
Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10  
Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 3 0 1 1 0 3 0 1

Volume Module:

Base Vol: 157 536 63 221 530 262 208 1205 118 44 1005 160  
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Initial Bse: 157 536 63 221 530 262 208 1205 118 44 1005 160  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Volume: 157 536 63 221 530 262 208 1205 0 44 1005 160  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 157 536 63 221 530 262 208 1205 0 44 1005 160  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 157 536 63 221 530 262 208 1205 0 44 1005 160

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.68 0.32 1.00 2.01 0.99 1.00 3.00 1.00 1.00 3.00 1.00  
Final Sat.: 1600 4295 505 1600 3212 1588 1600 4800 1600 1600 4800 1600

Capacity Analysis Module:

Vol/Sat: 0.10 0.12 0.12 0.14 0.17 0.16 0.13 0.25 0.00 0.03 0.21 0.10  
Crit Moves: \*\*\*\*  
\*\*\*\*\*

**CMP Intersection Analysis  
Forecast Year 2030 Without Project Conditions**



Tue Oct 31, 2006 11:00:03

E + A + C AM

Palmdale Transit Village TIA 10104580  
CMP Analysis FY 2030 NP Conditions  
AM Peak Hour

Level Of Service Computation Report

ICU l(Loss as Cycle Length %) Method (Future Volume Alternative)  
Intersection #16 SIERRA HWY/PALMDALE BLVD (SR-138)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.994  
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
Optimal Cycle: 171 Level Of Service: E

Approach: North Bound South Bound East Bound West Bound  
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected Protected  
Rights: Include Include Ignore Include  
Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10  
Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 3 0 1 1 0 3 0 1

Volume Module:  
Base Vol: 121 440 47 186 214 135 123 866 145 70 797 122  
Growth Adj: 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81  
Initial Bse: 219 796 85 337 387 244 223 1567 262 127 1443 221  
Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
Initial Fut: 219 796 85 337 387 244 223 1567 262 127 1443 221  
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
PHF Volume: 219 796 85 337 387 244 223 1567 262 127 1443 221  
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
Reduced Vol: 219 796 85 337 387 244 223 1567 262 127 1443 221  
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Final Vol.: 219 796 85 337 387 244 223 1567 262 127 1443 221

Saturation Flow Module:  
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
Lanes: 1.00 2.71 0.29 1.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00  
Final Sat.: 1600 4337 463 1600 3200 1600 1600 4800 1600 1600 4800 1600

Capacity Analysis Module:  
Vol/Sat: 0.14 0.18 0.18 0.21 0.12 0.15 0.14 0.33 0.00 0.08 0.30 0.14  
Crit Moves: \*\*\*\*

E + A + C PM Tue Oct 31, 2006 11:01:08 Page 3-1

Palmdale Transit Village TIA 10104580  
 CMP Analysis FY 2030 NP Conditions  
 PM Peak Hour

Level Of Service Computation Report  
 ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)  
 Intersection #16 SIERRA HWY/PALMDALE BLVD (SR-138)

Cycle (sec): 100 Critical Vol./Cap.(X): 1.250  
 Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound  
 Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected Protected  
 Rights: Include Include Ignore Include Include  
 Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10  
 Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 3 0 1 1 0 3 0 1

Volume Module:  
 Base Vol: 157 536 63 221 530 262 208 1205 118 44 1005 160  
 Growth Adj: 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81  
 Initial Bse: 284 970 114 400 959 474 376 2181 214 80 1819 290  
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Initial Fut: 284 970 114 400 959 474 376 2181 214 80 1819 290  
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 PHF Volume: 284 970 114 400 959 474 376 2181 214 80 1819 290  
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0  
 Reduced Vol: 284 970 114 400 959 474 376 2181 214 80 1819 290  
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Final Vol.: 284 970 114 400 959 474 376 2181 214 80 1819 290

Saturation Flow Module:  
 Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600  
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00  
 Lanes: 1.00 2.68 0.32 1.00 2.01 0.99 1.00 3.00 1.00 1.00 3.00 1.00  
 Final Sat.: 1600 4295 505 1600 3212 1588 1600 4800 1600 1600 4800 1600

Capacity Analysis Module:  
 Vol/Sat: 0.18 0.23 0.23 0.25 0.30 0.30 0.24 0.45 0.00 0.05 0.38 0.18  
 Crit Moves: \*\*\*\*  
 \*\*\*\*\*

**CMP Intersection Analysis  
Forecast Year 2030 With Project Conditions**



Tue Oct 31, 2006 11:04:45

E + A + C AM

Palmdale Transit Village TIA 10104580  
CMP Analysis FY 2030 WP Conditions  
AM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 SIERRA HWY/PALMDALE BLVD (SR-138)

Cycle (sec): 100 Critical Vol./Cap. (X): 1.009

Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 180 Level of Service: F

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected Protected

Rights: Include Include Ignore Include

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10

Lanes: 1 0 2 1 0 1 0 2 1 0 1 0 3 0 1 1 0 3 0 1

Volume Module:

Base Vol: 121 440 47 186 214 135 123 866 145 70 797 122

Growth Adj: 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81

Initial Bse: 219 796 85 337 387 244 223 1567 262 127 1443 221

Added Vol: 0 24 0 0 18 0 0 36 0 0 48 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 219 820 85 337 405 244 223 1603 262 127 1491 221

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 219 820 85 337 405 244 223 1603 0 127 1491 221

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 219 820 85 337 405 244 223 1603 0 127 1491 221

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 219 820 85 337 405 244 223 1603 0 127 1491 221

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.72 0.28 1.00 2.00 1.00 1.00 3.00 1.00 1.00 3.00 1.00

Final Sat.: 1600 4349 451 1600 3200 1600 1600 4800 1600 1600 4800 1600

Capacity Analysis Module:

Vol/Sat: 0.14 0.19 0.19 0.21 0.13 0.15 0.14 0.33 0.00 0.08 0.31 0.14

Crit Moves: \*\*\*\*

\*\*\*\*\*

E + A + C PM Tue Oct 31, 2006 11:04:57 Page 3-1
Palmdale Transit Village TIA 10104580
CMP Analysis FY 2030 WP Conditions
PM Peak Hour

Level Of Service Computation Report
ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #16 SIERRA HWY/PALMDALE BLVD (SR-138)
Cycle (sec): 100 Critical Vol./Cap.(X): 1.266
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with 12 columns: Approach, Movement, North Bound, South Bound, East Bound, West Bound, Protected, Ignored, Include, Protected, Ignored, Include, Protected. Rows for Rights, Min. Green, Lanes.

Volume Module:
Base Vol: 157 536 63 221 530 262 208 1205 118 44 1005 160
Growth Adj: 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81
Initial Bse: 284 970 114 400 959 474 376 2181 214 80 1819 290
Added Vol: 0 21 0 0 32 0 0 64 0 0 42 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 284 991 114 400 991 474 376 2245 214 80 1861 290
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 284 991 114 400 991 474 376 2245 214 80 1861 290
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
PCE Adj: 284 991 114 400 991 474 376 2245 214 80 1861 290
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Vol.: 284 991 114 400 991 474 376 2245 214 80 1861 290

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 2.69 0.31 1.00 2.03 0.97 1.00 3.00 1.00 1.00 3.00 1.00
Final Sat.: 1600 4305 495 1600 3247 1553 1600 4800 1600 1600 4800 1600

Capacity Analysis Module:
Vol/Sat: 0.18 0.23 0.23 0.25 0.31 0.31 0.24 0.47 0.00 0.05 0.39 0.18
Crit Moves: \*\*\*\*

**CMP Intersection Analysis  
Mitigated Forecast Year 2030  
With Project Conditions**



Tue Oct 31, 2006 14:34:55

E + A + C AM

Palmdale Transit Village TIA 10104580  
CMP Analysis Mitigated FY 2030 WP Conditions  
AM Peak Hour

Level Of Service Computation Report

ICU l(loss as Cycle Length % Method (Future Volume Alternative)  
\*\*\*\*\*

Intersection #16 SIERRA HWY/PALMDALE BLVD (SR-138)

Cycle (sec): 100 Critical Vol./Cap.(X): 0.972

Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx

Optimal Cycle: 151 Level Of Service: E

\*\*\*\*\*

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected Protected

Rights: Include Include Ignore Include

Min. Green: 7 10 10 7 10 10 7 10 10 7 10 10

Lanes: 1 0 2 1 0 1 0 2 1 0 2 0 3 0 1 1 0 3 0 1

\*\*\*\*\*

Volume Module:

Base Vol: 121 440 47 186 214 135 123 866 145 70 797 122

Growth Adj: 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81 1.81

Initial Base: 219 796 85 337 387 244 223 1567 262 127 1443 221

Added Vol: 0 24 0 0 18 0 0 0 36 0 0 48 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 219 820 85 337 405 244 223 1603 262 127 1491 221

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Volume: 219 820 85 337 405 244 223 1603 0 127 1491 221

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 219 820 85 337 405 244 223 1603 0 127 1491 221

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Final Vol.: 219 820 85 337 405 244 223 1603 0 127 1491 221

\*\*\*\*\*

Saturation Flow Module:

Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600

Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Lanes: 1.00 2.72 0.28 1.00 2.00 1.00 2.00 3.00 1.00 1.00 3.00 1.00

Final Sat.: 1600 4349 451 1600 3200 1600 2880 4800 1600 1600 4800 1600

\*\*\*\*\*

Capacity Analysis Module:

Vol/Sat: 0.14 0.19 0.19 0.21 0.13 0.15 0.08 0.33 0.00 0.08 0.31 0.14

Crit Moves: \*\*\*\*

\*\*\*\*\*

E + A + C PM Tue Oct 31, 2006 14:35:04 Page 3-1
Palmdale Transit Village TIA 10104580
CMP Analysis Mitigated FY 2030 WP Conditions
PM Peak Hour

Level of Service Computation Report
Future Volume Alternative

ICU 1 (Loss as Cycle Length %) Method (Future Volume Alternative)
Intersection #16 SIERRA HWY/PALMDALE BLVD (SR-138)
Cycle (sec): 100 Critical Vol./Cap.(X): 1.160
Loss Time (sec): 16 (Y+R=4.0 sec) Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level of Service: F

Table with 12 columns: Approach, Movement, Control, Rights, Min. Green, Lanes, Volume Module, Base Vol., Growth Adj., Initial Bse, Added Vol., PasserByVol., Initial Fut, User Adj., PHF Adj., PHF Volume, Reduct Vol., Reduced Vol., FCE Adj., MLF Adj., Final Vol., Saturation Flow Module, Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module:
Vol/Sat: 0.18 0.23 0.23 0.25 0.31 0.31 0.13 0.47 0.00 0.05 0.39 0.18
Crit Moves: \*\*\*\*
\*\*\*\*\*

**APPENDIX E**  
**Freeway Segment Analysis Sheets**



# **Freeway Segment Analysis- Existing Conditions**



HCS+: Basic Freeway Segments Release 5.2

Phone:  
E-mail:  
Fax:

Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Existing  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	1378	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	363	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	498	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	498	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	7.1	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone:  
E-mail:  
Fax:

Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Existing  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	1270	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	334	V
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	459	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	0.0	mi/h
Lateral clearance adjustment, flc	0.0	mi/h
Interchange density adjustment, fid	0.0	mi/h
Number of lanes adjustment, fn	3.0	mi/h
Free-flow speed, ffs	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	459	pc/h/ln
Free-flow speed, ffs	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	6.6	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone:  
E-mail:  
Fax:

Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Existing  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	5462	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1437	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	1974	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	0.0	mi/h
Lateral clearance adjustment, flc	0.0	mi/h
Interchange density adjustment, fid	0.0	mi/h
Number of lanes adjustment, fn	3.0	mi/h
Free-flow speed, ffs	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1974	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	65.3	mi/h
Number of lanes, N	3	
Density, D	30.2	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Existing  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	5030	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1324	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	%
Grade	0.00	mi
Segment length	0.00	
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	pc/h/ln
Flow rate, vp	1818	

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1818	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	67.6	mi/h
Number of lanes, N	3	
Density, D	26.9	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Existing  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	5337	veh/h
Peak-hour factor, PHF	0.95	v
Peak 15-min volume, v15	1404	%
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	1929	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	0.0	mi/h
Lateral clearance adjustment, flc	0.0	mi/h
Interchange density adjustment, fid	0.0	mi/h
Number of lanes adjustment, fn	3.0	mi/h
Free-flow speed, ffs	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1929	pc/h/ln
Free-flow speed, ffs	70.0	mi/h
Average passenger-car speed, S	66.1	mi/h
Number of lanes, N	3	
Density, D	29.2	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Existing  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	4915	veh/h
Peak-hour factor, PHF	0.95	v
Peak 15-min volume, v15	1293	%
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	1776	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	0.0	mi/h
Lateral clearance adjustment, flc	0.0	mi/h
Interchange density adjustment, fid	0.0	mi/h
Number of lanes adjustment, fn	3.0	mi/h
Free-flow speed, ffs	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1776	pc/h/ln
Free-flow speed, ffs	70.0	mi/h
Average passenger-car speed, S	68.1	mi/h
Number of lanes, N	3	
Density, D	26.1	pc/mi/ln
Level of service, LOS	D	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Existing  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	2263	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	596	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:		
Level		%
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, FHV	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	818	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:		
Measured	70.0	mi/h
FFS or BFFS	0.0	mi/h
Lane width adjustment, FLW	0.0	mi/h
Lateral clearance adjustment, FLC	0.0	mi/h
Interchange density adjustment, FID	0.0	mi/h
Number of lanes adjustment, FN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
		Urban Freeway

LOS and Performance Measures

Flow rate, vp	818	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	11.7	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Existing  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	2085	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	549	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:		
Level		
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, FHV	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	754	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	3	
Free-flow speed:		
Measured		
FFS or BFFS	70.0	mi/h
Lane width adjustment, FLW	0.0	mi/h
Lateral clearance adjustment, FLC	0.0	mi/h
Interchange density adjustment, IID	0.0	mi/h
Number of lanes adjustment, FN	3.0	mi/h
Free-flow speed, FFS	70.0	mi/h
		Urban Freeway

LOS and Performance Measures

Flow rate, vp	754	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	3	
Density, D	10.8	pc/mi/ln
Level of service, LOS	A	

Overall results are not computed when free-flow speed is less than 55 mph.

**Freeway Segment Analysis-  
Forecast Year 2030 Without Project Conditions**



HCS+: Basic Freeway Segments Release 5.2

Phone:  
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Operational Analysis

Analyst: JW  
 Agency or Company: REF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 NP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	3088	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, V15	813	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, FHV	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	837	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	837	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	12.0	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.



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Operational Analysis

Analyst: JW  
 Agency or Company: REF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 NP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	12234	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	3219	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, FT	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	3316	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	3316	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	4	
Density, D		pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 NP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	11238	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	2957	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	1.0971	
Driver population factor, fp	1.00	
Flow rate, vp	3046	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	3046	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	4	mi/h
Number of lanes, N		
Density, D		pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst: JW  
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 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 NP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	11954	veh/h
Peak-hour factor, PHF	0.95	v
Peak 15-min volume, v15	3146	%
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	%
Grade	0.00	mi
Segment length	1.5	
Trucks and buses PCE, ET	1.2	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	3240	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	3240	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	4	
Density, D		pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 NP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	11010	veh/h
Peak-hour factor, PHF	0.95	v
Peak 15-min volume, v15	2897	%
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	level	%
Grade	0.00	mi
Segment length	0.00	
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, FHV	0.971	
Driver population factor, fp	1.00	pc/h/ln
Flow rate, vp	2984	

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, FLW	0.0	mi/h
Lateral clearance adjustment, FLC	0.0	mi/h
Interchange density adjustment, FID	0.0	mi/h
Number of lanes adjustment, FN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	2984	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	4	mi/h
Number of lanes, N	4	
Density, D	F	pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

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 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 NP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	5070	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, V15	1334	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:		
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	1374	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:		
FFS or BFFS	Measured	mi/h
Lane width adjustment, fLW	70.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1374	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	19.6	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.



**Freeway Segment Analysis-  
Forecast Year 2030 With Project Conditions**



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Phone: E-mail: JW RBF Consulting  
 Fax: 10/30/2006 AM Peak Hour  
 NB SR-14 North of Palmdale Blvd (SR-138)  
 Caltrans District 7  
 Forecast Year 2030 WP  
 Description: Palmdale Transit Village TIA

Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 WP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	3106	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	817	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:		
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fHV	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	842	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:		
FFS or BFFS	70.0	mi/h
Lane width adjustment, fLW	0.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
		Urban Freeway

LOS and Performance Measures

Flow rate, vp	842	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	12.0	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

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Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 WP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	2915	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	767	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:		
Grade	Level	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	790	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:		
FFS or BFFS	Measured	mi/h
Lane width adjustment, fLW	70.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	790	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	11.3	pc/mi/ln
Level of service, LOS	B	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:  
E-mail:

Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 WP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	12258	veh/h
Peak-hour factor, PHF	0.95	v
Peak 15-min volume, v15	3226	%
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	%
Grade	0.00	mi
Segment length	1.5	mi
Trucks and buses PCE, ET	1.2	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, FHV	0.971	
Driver population factor, fp	1.00	pc/h/ln
Flow rate, vp	3323	

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	mi/h
FFS or BFFS	70.0	mi/h
Lane width adjustment, FLW	0.0	mi/h
Lateral clearance adjustment, FLC	0.0	mi/h
Interchange density adjustment, FID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	3323	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	4	
Density, D		pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone:  
E-mail:  
Fax:

Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: AM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 WP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	11322	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, V15	2979	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:		
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, FHV	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	3069	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:		
FFS or BFFS	Measured	mi/h
Lane width adjustment, fLW	70.0	mi/h
Lateral clearance adjustment, fLC	0.0	mi/h
Interchange density adjustment, fID	0.0	mi/h
Number of lanes adjustment, fN	1.5	mi/h
Free-flow speed, FFS	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	3069	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	4	
Density, D		pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone:  
E-mail:

Fax:

Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 WP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	11986	veh/h
Peak-hour factor, PHF	0.95	v
Peak 15-min volume, v15	3154	%
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	%
Grade	0.00	mi
Segment length	0.00	
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	3249	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	0.0	mi/h
Lateral clearance adjustment, flc	0.0	mi/h
Interchange density adjustment, fid	0.0	mi/h
Number of lanes adjustment, fn	1.5	mi/h
Free-flow speed, ffs	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	3249	pc/h/ln
Free-flow speed, ffs	70.0	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	4	
Density, D		pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone:  
E-mail:  
Fax:

Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: NB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 WP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	11073	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	2914	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	%
Grade	0.00	mi
Segment length	0.00	
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	3001	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	mi/h
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	0.0	mi/h
Lateral clearance adjustment, flc	0.0	mi/h
Interchange density adjustment, fid	0.0	mi/h
Number of lanes adjustment, fn	1.5	mi/h
Free-flow speed, ffs	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	3001	pc/h/ln
Free-flow speed, ffs	70.0	mi/h
Average passenger-car speed, S		mi/h
Number of lanes, N	4	
Density, D		pc/mi/ln
Level of service, LOS	F	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone: Fax:  
 E-mail:

Operational Analysis

Analyst: JW  
 Agency or Company: REF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: North of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 Wp  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	5091	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, V15	1340	V
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	1380	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:	Measured	
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	0.0	mi/h
Lateral clearance adjustment, flc	0.0	mi/h
Interchange density adjustment, fid	0.0	mi/h
Number of lanes adjustment, fn	1.5	mi/h
Free-flow speed, ffs	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1380	pc/h/ln
Free-flow speed, FFS	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	19.7	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

HCS+: Basic Freeway Segments Release 5.2

Phone:  
E-mail:  
Fax:

Operational Analysis

Analyst: JW  
 Agency or Company: RBF Consulting  
 Date Performed: 10/30/2006  
 Analysis Time Period: PM Peak Hour  
 Freeway/Direction: SB SR-14  
 From/To: South of Palmdale Blvd (SR-138)  
 Jurisdiction: Caltrans District 7  
 Analysis Year: Forecast Year 2030 WP  
 Description: Palmdale Transit Village TIA

Flow Inputs and Adjustments

Volume, V	4766	veh/h
Peak-hour factor, PHF	0.95	
Peak 15-min volume, v15	1254	v
Trucks and buses	6	%
Recreational vehicles	0	%
Terrain type:	Level	
Grade	0.00	%
Segment length	0.00	mi
Trucks and buses PCE, ET	1.5	
Recreational vehicle PCE, ER	1.2	
Heavy vehicle adjustment, fhv	0.971	
Driver population factor, fp	1.00	
Flow rate, vp	1292	pc/h/ln

Speed Inputs and Adjustments

Lane width	12.0	ft
Right-shoulder lateral clearance	6.0	ft
Interchange density	0.50	interchange/mi
Number of lanes, N	4	
Free-flow speed:		
FFS or BFFS	70.0	mi/h
Lane width adjustment, flw	0.0	mi/h
Lateral clearance adjustment, flc	0.0	mi/h
Interchange density adjustment, fid	0.0	mi/h
Number of lanes adjustment, fn	1.5	mi/h
Free-flow speed, ffs	70.0	mi/h
	Urban Freeway	

LOS and Performance Measures

Flow rate, vp	1292	pc/h/ln
Free-flow speed, ffs	70.0	mi/h
Average passenger-car speed, S	70.0	mi/h
Number of lanes, N	4	
Density, D	18.5	pc/mi/ln
Level of service, LOS	C	

Overall results are not computed when free-flow speed is less than 55 mph.

**APPENDIX F**  
**State Highway Intersections**  
**LOS Analysis Sheets**



**State Highway Intersection Analysis-  
Existing Conditions**



Palmdale Transit Village TIA  
SH Analysis Existing Conditions

1: PALMDALE BLVD & 5TH ST WEST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕	↘	↙	↕	↘	↙	↕	↘	↙	↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.89	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3134	1770	3539	1583	1770
Flt Permitted	0.37	1.00	1.00	0.26	1.00	1.00	0.73	1.00	1.00	0.54	1.00	1.00
Satd. Flow (perm)	686	3539	1583	477	3539	1583	1368	3134	1000	3539	1583	1583
Volume (vph)	44	771	45	66	544	99	101	61	196	47	30	42
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	838	49	72	591	108	110	66	213	51	33	46
RTOR Reduction (vph)	0	0	16	0	0	50	0	82	0	0	0	27
Lane Group Flow (vph)	48	838	33	72	591	58	110	197	0	51	33	19
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)	52.0	52.0	52.0	52.0	52.0	52.0	40.0	40.0		40.0	40.0	40.0
Effective Green, g (s)	54.0	54.0	54.0	54.0	54.0	54.0	42.0	42.0		42.0	42.0	42.0
Actuated g/C Ratio	0.54	0.54	0.54	0.54	0.54	0.54	0.42	0.42		0.42	0.42	0.42
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	370	1911	855	258	1911	855	575	1316		420	1486	665
v/s Ratio Prot		c0.24			0.17			0.06			0.01	
v/s Ratio Perm	0.07		0.02	0.15		0.04	c0.08			0.05		0.01
v/c Ratio	0.13	0.44	0.04	0.28	0.31	0.07	0.19	0.15		0.12	0.02	0.03
Uniform Delay, d1	11.4	13.9	10.8	12.5	12.7	11.0	18.3	17.9		17.7	17.0	17.0
Progression Factor	1.00	1.00	1.00	0.27	0.26	0.01	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.7	0.7	0.1	2.5	0.4	0.1	0.7	0.2		0.6	0.0	0.1
Delay (s)	12.1	14.6	10.9	5.9	3.8	0.3	19.0	18.2		18.3	17.0	17.1
Level of Service	B	B	B	A	A	A	B	B		B	B	B
Approach Delay (s)		14.3			3.5			18.4			17.6	
Approach LOS		B			A			B			B	

Intersection Summary

HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑	↑		↑↑				↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.95	1.00		0.95				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		3539	1583		3539				1770		1583
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		3539	1583		3539				1770		1583
Volume (vph)	0	753	279	0	572	0	0	0	413	0	118
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	818	303	0	622	0	0	0	449	0	128
RTOR Reduction (vph)	0	0	182	0	0	0	0	0	0	0	56
Lane Group Flow (vph)	0	818	121	0	622	0	0	0	449	0	72
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		100.0	38.0		38.0				54.0		54.0
Effective Green, g (s)		100.0	40.0		40.0				56.0		56.0
Actuated g/C Ratio		1.00	0.40		0.40				0.56		0.56
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		3539	633		1416				991		886
v/s Ratio Prot		0.09			c0.18				c0.25		
v/s Ratio Perm		0.14	0.08								0.05
v/c Ratio		0.23	0.19		0.44				0.45		0.08
Uniform Delay, d1		0.0	19.5		21.8				13.0		10.1
Progression Factor		1.00	0.30		0.76				1.00		1.00
Incremental Delay, d2		0.1	0.6		1.0				1.5		0.2
Delay (s)		0.1	6.6		17.6				14.5		10.3
Level of Service		A	A		B				B		B
Approach Delay (s)		1.9			17.6		0.0			13.5	
Approach LOS		A			B		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			9.0			HCM Level of Service			A		
HCM Volume to Capacity ratio			0.44								
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			4.0		
Intersection Capacity Utilization			29.8%			ICU Level of Service			A		
Analysis Period (min)			15								
c Critical Lane Group											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER
Lane Configurations		↑↑↑			↑↑↑				↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0			2.0				2.0		2.0
Lane Util. Factor		0.91			0.91				1.00		1.00
Frt		1.00			0.92				1.00		0.85
Flt Protected		1.00			1.00				0.95		1.00
Satd. Flow (prot)		5085			4667				1770		1583
Flt Permitted		1.00			1.00				0.95		1.00
Satd. Flow (perm)		5085			4667				1770		1583
Volume (vph)	0	991	0	0	578	702	0	0	133	0	184
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1077	0	0	628	763	0	0	145	0	200
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	39
Lane Group Flow (vph)	0	1077	0	0	1391	0	0	0	145	0	161
Turn Type									Prot		custom
Protected Phases		4			8				2		
Permitted Phases					Free						2
Actuated Green, G (s)		50.0			100.0				42.0		42.0
Effective Green, g (s)		52.0			100.0				44.0		44.0
Actuated g/C Ratio		0.52			1.00				0.44		0.44
Clearance Time (s)		4.0			4.0				4.0		4.0
Vehicle Extension (s)		3.0			3.0				3.0		3.0
Lane Grp Cap (vph)		2644			4667				779		697
v/s Ratio Prot		c0.21			c0.15				0.08		
v/s Ratio Perm					0.14						0.10
v/c Ratio		0.41			0.30				0.19		0.23
Uniform Delay, d1		14.6			0.0				17.1		17.5
Progression Factor		0.73			1.00				1.00		1.00
Incremental Delay, d2		0.5			0.1				0.5		0.8
Delay (s)		11.1			0.1				17.6		18.2
Level of Service		B			A				B		B
Approach Delay (s)		11.1			0.1		0.0			18.0	
Approach LOS		B			A		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			6.5			HCM Level of Service			A		
HCM Volume to Capacity ratio			0.35								
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			2.0		
Intersection Capacity Utilization			37.2%			ICU Level of Service			A		
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

5: PALMDALE BLVD & DIVISION ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗↖↗		↖	↗↖↗		↖	↑	↗	↖	↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5005		1770	5076		1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00		0.95	1.00		0.70	1.00	1.00	0.70	1.00	1.00
Satd. Flow (perm)	1770	5005		1770	5076		1310	1863	1583	1302	1863	1583
Volume (vph)	80	980	115	71	676	8	474	75	34	34	72	118
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	87	1065	125	77	735	9	515	82	37	37	78	128
RTOR Reduction (vph)	0	14	0	0	1	0	0	0	18	0	0	63
Lane Group Flow (vph)	87	1176	0	77	743	0	515	82	19	37	78	65
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Actuated Green, G (s)	7.7	31.0		8.0	31.3		49.0	49.0	49.0	49.0	49.0	49.0
Effective Green, g (s)	9.7	33.0		10.0	33.3		51.0	51.0	51.0	51.0	51.0	51.0
Actuated g/C Ratio	0.10	0.33		0.10	0.33		0.51	0.51	0.51	0.51	0.51	0.51
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	172	1652		177	1690		668	950	807	664	950	807
v/s Ratio Prot	0.05	c0.23		0.04	c0.15			0.04			0.04	
v/s Ratio Perm							c0.39		0.01	0.03		0.04
v/c Ratio	0.51	0.71		0.44	0.44		0.77	0.09	0.02	0.06	0.08	0.08
Uniform Delay, d1	42.9	29.3		42.3	26.1		19.8	12.6	12.1	12.4	12.5	12.5
Progression Factor	0.69	0.54		0.50	0.30		1.00	1.00	1.00	0.99	0.99	0.97
Incremental Delay, d2	2.2	2.5		1.6	0.8		8.4	0.2	0.1	0.2	0.2	0.2
Delay (s)	31.7	18.4		22.9	8.5		28.2	12.7	12.2	12.4	12.6	12.3
Level of Service	C	B		C	A		C	B	B	B	B	B
Approach Delay (s)		19.3			9.9			25.2			12.4	
Approach LOS		B			A			C			B	
<b>Intersection Summary</b>												
HCM Average Control Delay			17.4			HCM Level of Service			B			
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)		4.0				
Intersection Capacity Utilization			70.3%			ICU Level of Service		C				
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

10: PALMDALE BLVD & 3RD ST EAST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0		2.0	2.0			2.0			2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.94			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	5042		1770	5042			1753			1849	
Flt Permitted	0.95	1.00		0.95	1.00			0.97			0.95	
Satd. Flow (perm)	1770	5042		1770	5042			1703			1755	
Volume (vph)	10	1302	78	183	912	54	23	195	154	28	305	9
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	1415	85	199	991	59	25	212	167	30	332	10
RTOR Reduction (vph)	0	6	0	0	6	0	0	25	0	0	1	0
Lane Group Flow (vph)	11	1494	0	199	1044	0	0	379	0	0	371	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)	2.0	41.6		14.4	54.0			32.0			32.0	
Effective Green, g (s)	4.0	43.6		16.4	56.0			34.0			34.0	
Actuated g/C Ratio	0.04	0.44		0.16	0.56			0.34			0.34	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	71	2198		290	2824			579			597	
v/s Ratio Prot	0.01	c0.30		c0.11	0.21							
v/s Ratio Perm								c0.22			0.21	
v/c Ratio	0.15	0.68		0.69	0.37			0.65			0.62	
Uniform Delay, d1	46.4	22.6		39.4	12.2			28.0			27.6	
Progression Factor	0.46	0.26		0.72	0.95			1.00			1.00	
Incremental Delay, d2	0.9	1.5		6.5	0.4			5.7			4.8	
Delay (s)	22.3	7.5		34.7	11.9			33.7			32.4	
Level of Service	C	A		C	B			C			C	
Approach Delay (s)		7.6			15.6			33.7			32.4	
Approach LOS		A			B			C			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			16.0			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			6.0			
Intersection Capacity Utilization			72.7%			ICU Level of Service			C			
Analysis Period (min)			15									
c	Critical Lane Group											

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

13: PALMDALE BLVD & 6TH ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.69	1.00	1.00	0.69	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1276	1863	1583	1276	1863	1583
Volume (vph)	40	1012	67	45	1047	95	57	72	28	123	72	28
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	1100	73	49	1138	103	62	78	30	134	78	30
RTOR Reduction (vph)	0	0	36	0	0	13	0	0	20	0	0	20
Lane Group Flow (vph)	43	1100	37	49	1138	90	62	78	10	134	78	10
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	5.8	48.4	48.4	8.0	50.6	50.6	31.6	31.6	31.6	31.6	31.6	31.6
Effective Green, g (s)	7.8	50.4	50.4	10.0	52.6	52.6	33.6	33.6	33.6	33.6	33.6	33.6
Actuated g/C Ratio	0.08	0.50	0.50	0.10	0.53	0.53	0.34	0.34	0.34	0.34	0.34	0.34
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	138	1784	798	177	1862	833	429	626	532	429	626	532
v/s Ratio Prot	0.02	c0.31		c0.03	c0.32			0.04			0.04	
v/s Ratio Perm			0.02			0.06	0.05		0.01	c0.11		0.01
v/c Ratio	0.31	0.62	0.05	0.28	0.61	0.11	0.14	0.12	0.02	0.31	0.12	0.02
Uniform Delay, d1	43.6	17.8	12.6	41.7	16.6	11.9	23.2	23.0	22.2	24.6	23.0	22.2
Progression Factor	0.93	0.24	0.01	0.90	0.29	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2	1.5	0.1	0.7	1.3	0.2	0.7	0.4	0.1	1.9	0.4	0.1
Delay (s)	41.9	5.8	0.3	38.1	6.1	2.5	23.9	23.4	22.3	26.5	23.4	22.3
Level of Service	D	A	A	D	A	A	C	C	C	C	C	C
Approach Delay (s)		6.8			7.0			23.4			25.0	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	9.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	57.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

16: PALMDALE BLVD & SIERRA HWY  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3488		1770	3334	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3488		1770	3334	
Volume (vph)	123	866	145	70	797	122	121	440	47	186	214	135
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	941	158	76	866	133	132	478	51	202	233	147
RTOR Reduction (vph)	0	0	0	0	0	23	0	8	0	0	99	0
Lane Group Flow (vph)	134	941	158	76	866	110	132	521	0	202	281	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	11.2	38.3	100.0	8.0	35.1	35.1	15.0	22.8		14.9	22.7	
Effective Green, g (s)	13.2	40.3	100.0	10.0	37.1	37.1	17.0	24.8		16.9	24.7	
Actuated g/C Ratio	0.13	0.40	1.00	0.10	0.37	0.37	0.17	0.25		0.17	0.25	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	234	1426	1583	177	1313	587	301	865		299	823	
v/s Ratio Prot	c0.08	c0.27		0.04	0.24		0.07	c0.15		c0.11	0.08	
v/s Ratio Perm			0.10			0.07						
v/c Ratio	0.57	0.66	0.10	0.43	0.66	0.19	0.44	0.60		0.68	0.34	
Uniform Delay, d1	40.8	24.3	0.0	42.3	26.2	21.3	37.2	33.2		39.0	31.0	
Progression Factor	0.73	0.30	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	2.8	2.0	0.1	1.7	2.6	0.7	1.0	3.1		5.9	1.1	
Delay (s)	32.6	9.3	0.1	44.0	28.8	22.0	38.2	36.4		44.9	32.1	
Level of Service	C	A	A	D	C	C	D	D		D	C	
Approach Delay (s)		10.6			29.0			36.7			36.5	
Approach LOS		B			C			D			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			25.3				HCM Level of Service				C	
HCM Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			100.0				Sum of lost time (s)				6.0	
Intersection Capacity Utilization			67.1%				ICU Level of Service				C	
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

43: PALMDALE BLVD & 5th Street East  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	
Fr't	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	5046		1770	5056		1770	1863	1583	1770	1771	
Flt Permitted	0.95	1.00		0.95	1.00		0.71	1.00	1.00	0.70	1.00	
Satd. Flow (perm)	1770	5046		1770	5056		1315	1863	1583	1299	1771	
Volume (vph)	35	894	49	41	793	32	140	64	39	30	40	19
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	972	53	45	862	35	152	70	42	33	43	21
RTOR Reduction (vph)	0	5	0	0	3	0	0	0	28	0	14	0
Lane Group Flow (vph)	38	1020	0	45	894	0	152	70	14	33	50	0
Turn Type	Prot			Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases							2		2		6	
Actuated Green, G (s)	3.3	43.8		12.2	52.7		32.0	32.0	32.0	32.0	32.0	
Effective Green, g (s)	5.3	45.8		14.2	54.7		34.0	34.0	34.0	34.0	34.0	
Actuated g/C Ratio	0.05	0.46		0.14	0.55		0.34	0.34	0.34	0.34	0.34	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	94	2311		251	2766		447	633	538	442	602	
v/s Ratio Prot	0.02	c0.20		0.03	c0.18			0.04			0.03	
v/s Ratio Perm							c0.12		0.01	0.03		
v/c Ratio	0.40	0.44		0.18	0.32		0.34	0.11	0.03	0.07	0.08	
Uniform Delay, d1	45.8	18.4		37.8	12.5		24.6	22.6	22.0	22.3	22.4	
Progression Factor	1.29	0.25		0.45	0.28		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.1	0.4		0.3	0.3		2.1	0.4	0.1	0.3	0.3	
Delay (s)	61.1	5.0		17.3	3.8		26.7	23.0	22.1	22.7	22.7	
Level of Service	E	A		B	A		C	C	C	C	C	
Approach Delay (s)		7.0			4.4			25.0			22.7	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

1: PALMDALE BLVD & 5TH ST WEST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Flt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.90	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3192	1770	3539	1583	1583
Flt Permitted	0.35	1.00	1.00	0.16	1.00	1.00	0.70	1.00	0.62	1.00	1.00	1.00
Satd. Flow (perm)	659	3539	1583	293	3539	1583	1313	3192	1153	3539	1583	1583
Volume (vph)	34	1298	49	191	674	172	47	42	80	115	70	54
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	1411	53	208	733	187	51	46	87	125	76	59
RTOR Reduction (vph)	0	0	10	0	0	41	0	71	0	0	0	48
Lane Group Flow (vph)	37	1411	43	208	733	146	51	62	0	125	76	11
Turn Type	Perm		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Actuated Green, G (s)	76.0	76.0	76.0	76.0	76.0	76.0	16.0	16.0		16.0	16.0	16.0
Effective Green, g (s)	78.0	78.0	78.0	78.0	78.0	78.0	18.0	18.0		18.0	18.0	18.0
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.78	0.78	0.18	0.18		0.18	0.18	0.18
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	514	2760	1235	229	2760	1235	236	575		208	637	285
v/s Ratio Prot		0.40			0.21			0.02			0.02	
v/s Ratio Perm	0.06		0.03	c0.71		0.09	0.04			c0.11		0.01
v/c Ratio	0.07	0.51	0.03	0.91	0.27	0.12	0.22	0.11		0.60	0.12	0.04
Uniform Delay, d1	2.6	4.0	2.5	8.3	3.1	2.7	35.0	34.3		37.7	34.4	33.8
Progression Factor	1.00	1.00	1.00	1.47	0.18	0.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	0.3	0.7	0.1	35.1	0.2	0.2	2.1	0.4		12.2	0.4	0.2
Delay (s)	2.8	4.7	2.5	47.4	0.8	0.2	37.1	34.7		49.9	34.7	34.1
Level of Service	A	A	A	D	A	A	D	C		D	C	C
Approach Delay (s)		4.6			9.3			35.3			41.9	
Approach LOS		A			A			D			D	

Intersection Summary

HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑	↑		↑↑				↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.95	1.00		0.95				1.00		1.00
Flt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		3539	1583		3539				1770		1583
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		3539	1583		3539				1770		1583
Volume (vph)	0	817	163	0	809	0	0	0	648	0	182
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	888	177	0	879	0	0	0	704	0	198
RTOR Reduction (vph)	0	0	112	0	0	0	0	0	0	0	18
Lane Group Flow (vph)	0	888	65	0	879	0	0	0	704	0	180
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		100.0	35.0		35.0				57.0		57.0
Effective Green, g (s)		100.0	37.0		37.0				59.0		59.0
Actuated g/C Ratio		1.00	0.37		0.37				0.59		0.59
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		3539	586		1309				1044		934
v/s Ratio Prot		0.09			c0.25				c0.40		
v/s Ratio Perm		0.16	0.04								0.11
v/c Ratio		0.25	0.11		0.67				0.67		0.19
Uniform Delay, d1		0.0	20.7		26.4				14.0		9.5
Progression Factor		1.00	1.31		0.61				1.00		1.00
Incremental Delay, d2		0.1	0.3		2.7				3.5		0.5
Delay (s)		0.1	27.5		18.9				17.4		9.9
Level of Service		A	C		B				B		A
Approach Delay (s)		4.7			18.9		0.0			15.8	
Approach LOS		A			B		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			12.6			HCM Level of Service			B		
HCM Volume to Capacity ratio			0.67								
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			4.0		
Intersection Capacity Utilization			40.3%			ICU Level of Service			A		
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

3: PALMDALE BLVD & SR-14 NB ON-RAMP  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER
Lane Configurations		↑↑↑			↑↑↑				↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0			2.0				2.0		2.0
Lane Util. Factor		0.91			0.91				1.00		1.00
Fr <sub>t</sub>		1.00			0.93				1.00		0.85
Fl <sub>t</sub> Protected		1.00			1.00				0.95		1.00
Satd. Flow (prot)		5085			4716				1770		1583
Fl <sub>t</sub> Permitted		1.00			1.00				0.95		1.00
Satd. Flow (perm)		5085			4716				1770		1583
Volume (vph)	0	1259	0	0	783	736	0	0	218	0	252
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1368	0	0	851	800	0	0	237	0	274
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	17
Lane Group Flow (vph)	0	1368	0	0	1651	0	0	0	237	0	257
Turn Type									Prot		custom
Protected Phases		4			8				2		
Permitted Phases					Free						2
Actuated Green, G (s)		50.0			100.0				42.0		42.0
Effective Green, g (s)		52.0			100.0				44.0		44.0
Actuated g/C Ratio		0.52			1.00				0.44		0.44
Clearance Time (s)		4.0			4.0				4.0		4.0
Vehicle Extension (s)		3.0			3.0				3.0		3.0
Lane Grp Cap (vph)		2644			4716				779		697
v/s Ratio Prot		c0.27			c0.18				0.13		
v/s Ratio Perm					0.17						0.16
v/c Ratio		0.52			0.35				0.30		0.37
Uniform Delay, d1		15.8			0.0				18.1		18.7
Progression Factor		0.66			1.00				1.00		1.00
Incremental Delay, d2		0.7			0.2				1.0		1.5
Delay (s)		11.1			0.2				19.1		20.2
Level of Service		B			A				B		C
Approach Delay (s)		11.1			0.2		0.0			19.7	
Approach LOS		B			A		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			7.2			HCM Level of Service			A		
HCM Volume to Capacity ratio			0.44								
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			2.0		
Intersection Capacity Utilization			46.6%			ICU Level of Service			A		
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

5: PALMDALE BLVD & DIVISION ST  
PM Peak Hour

Movement												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	1.00	0.98		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Fl <sub>t</sub> Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5000		1770	5079		1770	1863	1583	1770	1863	1583
Fl <sub>t</sub> Permitted	0.95	1.00		0.95	1.00		0.72	1.00	1.00	0.70	1.00	1.00
Satd. Flow (perm)	1770	5000		1770	5079		1343	1863	1583	1303	1863	1583
Volume (vph)	82	1322	167	72	1176	10	274	64	48	31	51	58
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	89	1437	182	78	1278	11	298	70	52	34	55	63
RTOR Reduction (vph)	0	16	0	0	1	0	0	0	33	0	0	40
Lane Group Flow (vph)	89	1603	0	78	1288	0	298	70	19	34	55	23
Turn Type	Prot			Prot			Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2		2	6		6
Actuated Green, G (s)	7.7	46.0		8.0	46.3		34.0	34.0	34.0	34.0	34.0	34.0
Effective Green, g (s)	9.7	48.0		10.0	48.3		36.0	36.0	36.0	36.0	36.0	36.0
Actuated g/C Ratio	0.10	0.48		0.10	0.48		0.36	0.36	0.36	0.36	0.36	0.36
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	172	2400		177	2453		483	671	570	469	671	570
v/s Ratio Prot	0.05	c0.32		0.04	c0.25			0.04			0.03	
v/s Ratio Perm							c0.22		0.01	0.03		0.01
v/c Ratio	0.52	0.67		0.44	0.53		0.62	0.10	0.03	0.07	0.08	0.04
Uniform Delay, d1	42.9	19.9		42.4	17.9		26.3	21.3	20.7	21.0	21.1	20.8
Progression Factor	1.19	0.54		0.41	0.17		1.00	1.00	1.00	0.97	0.97	0.92
Incremental Delay, d2	2.3	1.3		1.2	0.6		5.8	0.3	0.1	0.3	0.2	0.1
Delay (s)	53.4	12.1		18.7	3.6		32.1	21.6	20.8	20.7	20.6	19.2
Level of Service	D	B		B	A		C	C	C	C	C	B
Approach Delay (s)		14.3			4.4			29.0			20.1	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

10: PALMDALE BLVD & 3RD ST EAST  
PM Peak Hour

Movement												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0		2.0	2.0			2.0			2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.95			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			0.99	
Satd. Flow (prot)	1770	5041		1770	5046			1767			1820	
Flt Permitted	0.95	1.00		0.95	1.00			0.95			0.58	
Satd. Flow (perm)	1770	5041		1770	5046			1683			1069	
Volume (vph)	9	1537	95	206	1471	79	54	407	251	92	225	25
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	10	1671	103	224	1599	86	59	442	273	100	245	27
RTOR Reduction (vph)	0	7	0	0	5	0	0	20	0	0	3	0
Lane Group Flow (vph)	10	1767	0	224	1680	0	0	754	0	0	369	0
Turn Type	Prot			Prot			Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases							2			6		
Actuated Green, G (s)	2.0	35.0		11.0	44.0			42.0			42.0	
Effective Green, g (s)	4.0	37.0		13.0	46.0			44.0			44.0	
Actuated g/C Ratio	0.04	0.37		0.13	0.46			0.44			0.44	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)	71	1865		230	2321			741			470	
v/s Ratio Prot	0.01	c0.35		c0.13	0.33							
v/s Ratio Perm								c0.45			0.35	
v/c Ratio	0.14	0.95		0.97	0.72			1.02			0.79	
Uniform Delay, d1	46.3	30.6		43.3	21.9			28.0			24.0	
Progression Factor	0.62	0.52		0.83	1.02			1.00			1.00	
Incremental Delay, d2	0.8	10.4		51.2	2.0			37.7			12.4	
Delay (s)	29.3	26.2		87.0	24.2			65.7			36.4	
Level of Service	C	C		F	C			E			D	
Approach Delay (s)		26.3			31.6			65.7			36.4	
Approach LOS		C			C			E			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			35.5			HCM Level of Service				D		
HCM Volume to Capacity ratio			0.97									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			6.0			
Intersection Capacity Utilization			95.8%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

13: PALMDALE BLVD & 6TH ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.49	1.00	1.00	0.62	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	917	1863	1583	1161	1863	1583
Volume (vph)	48	1259	153	58	1326	96	73	105	61	173	185	60
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	1368	166	63	1441	104	79	114	66	188	201	65
RTOR Reduction (vph)	0	0	76	0	0	11	0	0	46	0	0	45
Lane Group Flow (vph)	52	1368	90	63	1441	93	79	114	20	188	201	20
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	7.3	52.2	52.2	7.3	52.2	52.2	28.5	28.5	28.5	28.5	28.5	28.5
Effective Green, g (s)	9.3	54.2	54.2	9.3	54.2	54.2	30.5	30.5	30.5	30.5	30.5	30.5
Actuated g/C Ratio	0.09	0.54	0.54	0.09	0.54	0.54	0.30	0.30	0.30	0.30	0.30	0.30
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	165	1918	858	165	1918	858	280	568	483	354	568	483
v/s Ratio Prot	0.03	0.39		c0.04	c0.41			0.06			0.11	
v/s Ratio Perm			0.06			0.06	0.09		0.01	c0.16		0.01
v/c Ratio	0.32	0.71	0.10	0.38	0.75	0.11	0.28	0.20	0.04	0.53	0.35	0.04
Uniform Delay, d1	42.4	17.1	11.1	42.6	17.7	11.1	26.4	25.7	24.5	28.8	27.1	24.5
Progression Factor	0.92	0.32	0.03	0.88	0.21	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	2.2	0.2	0.9	1.6	0.1	2.5	0.8	0.2	5.6	1.7	0.2
Delay (s)	39.9	7.6	0.6	38.3	5.4	2.2	28.9	26.5	24.6	34.4	28.8	24.6
Level of Service	D	A	A	D	A	A	C	C	C	C	C	C
Approach Delay (s)		7.9			6.5			26.8			30.5	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

16: PALMDALE BLVD & SIERRA HWY  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↕	↘	↙	↕	↘	↙	↕	↘	↙	↕	↘
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95		1.00	0.95	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3484		1770	3363	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3484		1770	3363	
Volume (vph)	208	1205	118	44	1005	160	157	536	63	221	530	262
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	226	1310	128	48	1092	174	171	583	68	240	576	285
RTOR Reduction (vph)	0	0	0	0	0	25	0	9	0	0	61	0
Lane Group Flow (vph)	226	1310	128	48	1092	149	171	642	0	240	800	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	15.3	43.7	100.0	6.0	34.4	34.4	10.0	20.4		13.9	24.3	
Effective Green, g (s)	17.3	45.7	100.0	8.0	36.4	36.4	12.0	22.4		15.9	26.3	
Actuated g/C Ratio	0.17	0.46	1.00	0.08	0.36	0.36	0.12	0.22		0.16	0.26	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	306	1617	1583	142	1288	576	212	780		281	884	
v/s Ratio Prot	c0.13	c0.37		0.03	c0.31		0.10	c0.18		0.14	c0.24	
v/s Ratio Perm			0.08			0.09						
v/c Ratio	0.74	0.81	0.08	0.34	0.85	0.26	0.81	0.82		0.85	0.90	
Uniform Delay, d1	39.2	23.4	0.0	43.5	29.3	22.3	42.9	36.9		40.9	35.6	
Progression Factor	0.80	0.39	1.00	1.00	1.00	1.00	1.00	1.00		0.60	0.52	
Incremental Delay, d2	6.9	3.5	0.1	1.4	7.1	1.1	19.6	9.6		19.0	12.8	
Delay (s)	38.3	12.6	0.1	44.9	36.3	23.4	62.5	46.5		43.6	31.2	
Level of Service	D	B	A	D	D	C	E	D		D	C	
Approach Delay (s)		15.2			34.9			49.9			33.9	
Approach LOS		B			C			D			C	

Intersection Summary

HCM Average Control Delay	30.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
SH Analysis Existing Conditions

43: PALMDALE BLVD & 5th Street East  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	1.00	1.00	1.00	1.00	
Fr't	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	5022		1770	5040		1770	1863	1583	1770	1759	
Flt Permitted	0.95	1.00		0.95	1.00		0.61	1.00	1.00	0.67	1.00	
Satd. Flow (perm)	1770	5022		1770	5040		1135	1863	1583	1242	1759	
Volume (vph)	63	1051	96	77	935	59	113	80	70	59	72	42
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	1142	104	84	1016	64	123	87	76	64	78	46
RTOR Reduction (vph)	0	10	0	0	5	0	0	0	52	0	21	0
Lane Group Flow (vph)	68	1236	0	84	1075	0	123	87	24	64	103	0
Turn Type	Prot			Prot			Perm		Perm	Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases							2		2		6	
Actuated Green, G (s)	5.8	44.6		14.4	53.2		29.0	29.0	29.0	29.0	29.0	
Effective Green, g (s)	7.8	46.6		16.4	55.2		31.0	31.0	31.0	31.0	31.0	
Actuated g/C Ratio	0.08	0.47		0.16	0.55		0.31	0.31	0.31	0.31	0.31	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	138	2340		290	2782		352	578	491	385	545	
v/s Ratio Prot	0.04	c0.25		0.05	c0.21			0.05			0.06	
v/s Ratio Perm							c0.11		0.01	0.05		
v/c Ratio	0.49	0.53		0.29	0.39		0.35	0.15	0.05	0.17	0.19	
Uniform Delay, d1	44.2	18.9		36.7	12.8		26.7	25.0	24.2	25.1	25.3	
Progression Factor	1.10	0.34		0.52	0.21		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.9	0.3		0.4	0.3		2.7	0.6	0.2	0.9	0.8	
Delay (s)	49.5	6.8		19.3	3.0		29.4	25.5	24.3	26.0	26.0	
Level of Service	D	A		B	A		C	C	C	C	C	
Approach Delay (s)		9.0			4.2			26.9			26.0	
Approach LOS		A			A			C			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			9.9			HCM Level of Service			A			
HCM Volume to Capacity ratio			0.44									
Actuated Cycle Length (s)			100.0			Sum of lost time (s)			4.0			
Intersection Capacity Utilization			51.2%			ICU Level of Service			A			
Analysis Period (min)			15									
c Critical Lane Group												

**State Highway Intersection Analysis-  
Forecast Year 2030 Without Project Conditions**



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Flt Protected	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	3539	1583
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	44	771	45	66	544	99	101	61	196	47	30	42
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	80	1396	81	119	985	179	183	110	355	85	54	76
RTOR Reduction (vph)	0	0	21	0	0	62	0	0	227	0	0	64
Lane Group Flow (vph)	80	1396	60	119	985	117	183	110	128	85	54	12
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.0	44.3	44.3	14.8	51.1	51.1	18.9	26.9	26.9	8.0	16.0	16.0
Effective Green, g (s)	10.0	46.3	46.3	16.8	53.1	53.1	20.9	28.9	28.9	10.0	18.0	18.0
Actuated g/C Ratio	0.09	0.42	0.42	0.15	0.48	0.48	0.19	0.26	0.26	0.09	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	161	2140	666	270	2455	764	336	930	416	161	579	259
v/s Ratio Prot	0.05	c0.27		0.07	c0.19		c0.10	0.03		0.05	0.02	
v/s Ratio Perm			0.04			0.07			c0.08			0.01
v/c Ratio	0.50	0.65	0.09	0.44	0.40	0.15	0.54	0.12	0.31	0.53	0.09	0.05
Uniform Delay, d1	47.6	25.4	19.2	42.3	18.3	15.9	40.3	30.9	32.5	47.7	39.1	38.8
Progression Factor	1.00	1.00	1.00	0.86	0.79	1.25	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	1.6	0.3	1.0	0.4	0.4	1.8	0.3	1.9	3.1	0.3	0.4
Delay (s)	50.0	27.0	19.4	37.6	14.9	20.3	42.1	31.1	34.4	50.9	39.4	39.1
Level of Service	D	C	B	D	B	C	D	C	C	D	D	D
Approach Delay (s)		27.8			17.7			36.0			43.8	
Approach LOS		C			B			D			D	

Intersection Summary

HCM Average Control Delay	26.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
SH Analysis 2030 NP Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		5085	1583		5085				1770		1583
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		5085	1583		5085				1770		1583
Volume (vph)	0	753	279	0	572	0	0	0	413	0	118
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	0	1363	505	0	1035	0	0	0	748	0	214
RTOR Reduction (vph)	0	0	340	0	0	0	0	0	0	0	6
Lane Group Flow (vph)	0	1363	165	0	1035	0	0	0	748	0	208
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		55.0	16.0		16.0				31.0		31.0
Effective Green, g (s)		55.0	18.0		18.0				33.0		33.0
Actuated g/C Ratio		1.00	0.33		0.33				0.60		0.60
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		5085	518		1664				1062		950
v/s Ratio Prot		0.09			c0.20				c0.42		
v/s Ratio Perm		0.18	0.10								0.13
v/c Ratio		0.27	0.32		0.62				0.70		0.22
Uniform Delay, d1		0.0	13.9		15.6				7.6		5.1
Progression Factor		1.00	4.21		0.62				1.00		1.00
Incremental Delay, d2		0.1	1.3		1.7				3.9		0.5
Delay (s)		0.1	59.8		11.4				11.5		5.6
Level of Service		A	E		B				B		A
Approach Delay (s)		16.2			11.4		0.0			10.2	
Approach LOS		B			B		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			13.5		HCM Level of Service				B		
HCM Volume to Capacity ratio			0.66								
Actuated Cycle Length (s)			55.0		Sum of lost time (s)				4.0		
Intersection Capacity Utilization			44.1%		ICU Level of Service				A		
Analysis Period (min)			15								
c Critical Lane Group											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER
Lane Configurations		↑↑↑			↑↑↑	↑			↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0			2.0	2.0			2.0		2.0
Lane Util. Factor		0.91			0.91	1.00			1.00		1.00
Fr <sub>t</sub>		1.00			1.00	0.85			1.00		0.85
Flt Protected		1.00			1.00	1.00			0.95		1.00
Satd. Flow (prot)		5085			5085	1583			1770		1583
Flt Permitted		1.00			1.00	1.00			0.95		1.00
Satd. Flow (perm)		5085			5085	1583			1770		1583
Volume (vph)	0	991	0	0	578	702	0	0	133	0	184
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	0	1794	0	0	1046	1271	0	0	241	0	333
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	7
Lane Group Flow (vph)	0	1794	0	0	1046	1271	0	0	241	0	326
Turn Type						Free			Prot		custom
Protected Phases		4			8				2		
Permitted Phases					Free	Free					2
Actuated Green, G (s)		58.0			110.0	110.0			44.0		44.0
Effective Green, g (s)		60.0			110.0	110.0			46.0		46.0
Actuated g/C Ratio		0.55			1.00	1.00			0.42		0.42
Clearance Time (s)		4.0			4.0				4.0		4.0
Vehicle Extension (s)		3.0			3.0				3.0		3.0
Lane Grp Cap (vph)		2774			5085	1583			740		662
v/s Ratio Prot		0.35			0.11				0.14		
v/s Ratio Perm					0.09	c0.80					0.21
v/c Ratio		0.65			0.21	0.80			0.33		0.49
Uniform Delay, d1		17.6			0.0	0.0			21.6		23.4
Progression Factor		0.42			1.00	1.00			1.00		1.00
Incremental Delay, d2		1.1			0.1	2.9			1.2		2.6
Delay (s)		8.5			0.1	2.9			22.7		26.1
Level of Service		A			A	A			C		C
Approach Delay (s)		8.5			1.6		0.0			24.7	
Approach LOS		A			A		A			C	
Intersection Summary											
HCM Average Control Delay			7.1				HCM Level of Service			A	
HCM Volume to Capacity ratio			0.80								
Actuated Cycle Length (s)			110.0				Sum of lost time (s)			0.0	
Intersection Capacity Utilization			61.9%				ICU Level of Service			B	
Analysis Period (min)			15								
c Critical Lane Group											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	3433	5085	1583	1770	5085	1583
Volume (vph)	80	980	115	71	676	8	474	75	34	34	72	118
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	145	1774	208	129	1224	14	858	136	62	62	130	214
RTOR Reduction (vph)	0	0	116	0	0	9	0	0	40	0	0	163
Lane Group Flow (vph)	145	1774	92	129	1224	5	858	136	22	62	130	51
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	12.0	39.5	39.5	9.7	37.2	37.2	27.8	36.8	36.8	8.0	17.0	17.0
Effective Green, g (s)	14.0	41.5	41.5	11.7	39.2	39.2	29.8	38.8	38.8	10.0	19.0	19.0
Actuated g/C Ratio	0.13	0.38	0.38	0.11	0.36	0.36	0.27	0.35	0.35	0.09	0.17	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	225	1918	597	188	1812	564	930	1794	558	161	878	273
v/s Ratio Prot	0.08	c0.35		c0.07	0.24		c0.25	0.03		0.04	0.03	
v/s Ratio Perm			0.06			0.00			0.01			c0.03
v/c Ratio	0.64	0.92	0.15	0.69	0.68	0.01	0.92	0.08	0.04	0.39	0.15	0.19
Uniform Delay, d1	45.6	32.8	22.6	47.4	30.0	22.9	39.0	23.7	23.4	47.1	38.6	38.9
Progression Factor	0.71	0.59	0.10	0.72	0.95	0.97	1.00	1.00	1.00	1.19	0.77	0.34
Incremental Delay, d2	4.9	7.4	0.4	9.1	1.9	0.0	14.3	0.1	0.1	1.5	0.4	1.5
Delay (s)	37.4	26.7	2.7	43.0	30.5	22.2	53.2	23.8	23.5	57.4	30.0	14.6
Level of Service	D	C	A	D	C	C	D	C	C	E	C	B
Approach Delay (s)		25.1			31.6			47.7			26.1	
Approach LOS		C			C			D			C	

Intersection Summary

HCM Average Control Delay	31.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
SH Analysis 2030 NP Conditions

10: PALMDALE BLVD & 3RD ST EAST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	1.00	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3305		1770	3524	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.20	1.00		0.20	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	373	3305		373	3524	
Volume (vph)	10	1302	78	183	912	54	23	195	154	28	305	9
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	18	2357	141	331	1651	98	42	353	279	51	552	16
RTOR Reduction (vph)	0	0	42	0	0	28	0	130	0	0	2	0
Lane Group Flow (vph)	18	2357	99	331	1651	70	42	502	0	51	566	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	3.2	55.6	55.6	24.4	76.8	76.8	18.0	18.0		18.0	18.0	
Effective Green, g (s)	5.2	57.6	57.6	26.4	78.8	78.8	20.0	20.0		20.0	20.0	
Actuated g/C Ratio	0.05	0.52	0.52	0.24	0.72	0.72	0.18	0.18		0.18	0.18	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	84	2663	829	425	3643	1134	68	601		68	641	
v/s Ratio Prot	0.01	c0.46		c0.19	0.32			0.15			c0.16	
v/s Ratio Perm			0.06			0.04	0.11			0.14		
v/c Ratio	0.21	0.89	0.12	0.78	0.45	0.06	0.62	0.84		0.75	0.88	
Uniform Delay, d <sub>1</sub>	50.4	23.3	13.3	39.1	6.6	4.6	41.5	43.4		42.6	43.9	
Progression Factor	1.51	0.22	0.00	0.65	0.34	0.06	1.00	1.00		0.98	0.99	
Incremental Delay, d <sub>2</sub>	1.0	3.7	0.2	7.9	0.4	0.1	35.5	12.9		53.7	16.3	
Delay (s)	77.0	8.9	0.2	33.4	2.6	0.4	76.9	56.3		95.6	59.6	
Level of Service	E	A	A	C	A	A	E	E		F	E	
Approach Delay (s)		8.9			7.4			57.6			62.5	
Approach LOS		A			A			E			E	
Intersection Summary												
HCM Average Control Delay			19.6				HCM Level of Service				B	
HCM Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			110.0				Sum of lost time (s)				6.0	
Intersection Capacity Utilization			104.2%				ICU Level of Service				G	
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis 2030 NP Conditions

13: PALMDALE BLVD & 6TH ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.61	1.00	1.00	0.61	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1142	1863	1583	1142	1863	1583
Volume (vph)	40	1012	67	45	1047	95	57	72	28	123	72	28
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	72	1832	121	81	1895	172	103	130	51	223	130	51
RTOR Reduction (vph)	0	0	60	0	0	18	0	0	33	0	0	33
Lane Group Flow (vph)	72	1832	61	81	1895	154	103	130	18	223	130	18
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	7.8	53.2	53.2	7.8	53.2	53.2	37.0	37.0	37.0	37.0	37.0	37.0
Effective Green, g (s)	9.8	55.2	55.2	9.8	55.2	55.2	39.0	39.0	39.0	39.0	39.0	39.0
Actuated g/C Ratio	0.09	0.50	0.50	0.09	0.50	0.50	0.35	0.35	0.35	0.35	0.35	0.35
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	158	2552	794	158	2552	794	405	661	561	405	661	561
v/s Ratio Prot	0.04	0.36		c0.05	c0.37			0.07			0.07	
v/s Ratio Perm			0.04			0.10	0.09		0.01	c0.20		0.01
v/c Ratio	0.46	0.72	0.08	0.51	0.74	0.19	0.25	0.20	0.03	0.55	0.20	0.03
Uniform Delay, d1	47.6	21.3	14.2	47.8	21.8	15.1	25.2	24.6	23.2	28.5	24.6	23.2
Progression Factor	0.61	0.69	0.95	0.91	0.29	0.23	1.00	1.00	1.00	1.00	1.00	1.01
Incremental Delay, d2	1.8	1.5	0.2	2.1	1.5	0.4	1.5	0.7	0.1	5.3	0.7	0.1
Delay (s)	30.9	16.2	13.7	45.7	7.9	3.9	26.7	25.3	23.3	33.9	25.4	23.5
Level of Service	C	B	B	D	A	A	C	C	C	C	C	C
Approach Delay (s)		16.6			9.0			25.4			29.8	
Approach LOS		B			A			C			C	
Intersection Summary												
HCM Average Control Delay			14.8			HCM Level of Service					B	
HCM Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)				6.0		
Intersection Capacity Utilization			76.4%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91		1.00	0.91	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.94	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	5012		1770	4790	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	5012		1770	4790	
Volume (vph)	123	866	145	70	797	122	121	440	47	186	214	135
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	223	1567	262	127	1443	221	219	796	85	337	387	244
RTOR Reduction (vph)	0	0	0	0	0	30	0	12	0	0	104	0
Lane Group Flow (vph)	223	1567	262	127	1443	191	219	869	0	337	527	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	14.0	42.3	110.0	9.7	38.0	38.0	18.0	20.3		21.7	24.0	
Effective Green, g (s)	16.0	44.3	110.0	11.7	40.0	40.0	20.0	22.3		23.7	26.0	
Actuated g/C Ratio	0.15	0.40	1.00	0.11	0.36	0.36	0.18	0.20		0.22	0.24	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	257	2048	1583	188	1849	576	322	1016		381	1132	
v/s Ratio Prot	0.13	c0.31		0.07	c0.28		0.12	c0.17		c0.19	c0.11	
v/s Ratio Perm			0.17			0.12						
v/c Ratio	0.87	0.77	0.17	0.68	0.78	0.33	0.68	0.86		0.88	0.47	
Uniform Delay, d1	46.0	28.4	0.0	47.3	31.1	25.3	42.0	42.3		41.8	36.0	
Progression Factor	0.59	0.37	1.00	1.00	1.00	1.00	1.00	1.00		0.57	0.42	
Incremental Delay, d2	19.5	2.0	0.2	9.2	3.3	1.5	5.8	9.2		20.1	1.3	
Delay (s)	46.5	12.5	0.2	56.5	34.4	26.9	47.8	51.5		44.1	16.3	
Level of Service	D	B	A	E	C	C	D	D		D	B	
Approach Delay (s)		14.6			35.1			50.7			26.0	
Approach LOS		B			D			D			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			29.4			HCM Level of Service				C		
HCM Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)			4.0			
Intersection Capacity Utilization			89.5%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis 2030 NP Conditions

43: PALMDALE BLVD & 5th Street East  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.95	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3338		1770	3369	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.68	1.00		0.61	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1272	3338		1130	3369	
Volume (vph)	35	894	49	41	793	32	140	64	39	30	40	19
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	63	1618	89	74	1435	58	253	116	71	54	72	34
RTOR Reduction (vph)	0	0	48	0	0	31	0	43	0	0	21	0
Lane Group Flow (vph)	63	1618	41	74	1435	27	253	144	0	54	85	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	7.7	49.2	49.2	7.7	49.2	49.2	41.1	41.1		41.1	41.1	
Effective Green, g (s)	9.7	51.2	51.2	9.7	51.2	51.2	43.1	43.1		43.1	43.1	
Actuated g/C Ratio	0.09	0.47	0.47	0.09	0.47	0.47	0.39	0.39		0.39	0.39	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	156	2367	737	156	2367	737	498	1308		443	1320	
v/s Ratio Prot	0.04	c0.32		c0.04	0.28			0.04			0.03	
v/s Ratio Perm			0.03			0.02	c0.20			0.05		
v/c Ratio	0.40	0.68	0.06	0.47	0.61	0.04	0.51	0.11		0.12	0.06	
Uniform Delay, d1	47.4	23.0	16.1	47.7	21.9	16.0	25.4	21.3		21.4	20.9	
Progression Factor	0.70	0.27	0.10	0.77	0.13	0.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	0.8	0.1	1.6	0.8	0.1	3.7	0.2		0.6	0.1	
Delay (s)	34.2	7.1	1.6	38.3	3.8	0.1	29.1	21.4		21.9	21.0	
Level of Service	C	A	A	D	A	A	C	C		C	C	
Approach Delay (s)		7.8			5.3			25.8			21.3	
Approach LOS		A			A			C			C	

Intersection Summary

HCM Average Control Delay	9.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	72.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Palmdale Transit Village TIA  
SH Analysis 2030 NP Conditions

1: PALMDALE BLVD & 5TH ST WEST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	34	1298	49	191	674	172	47	42	80	115	70	54
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	62	2349	89	346	1220	311	85	76	145	208	127	98
RTOR Reduction (vph)	0	0	13	0	0	82	0	0	123	0	0	79
Lane Group Flow (vph)	62	2349	76	346	1220	229	85	76	22	208	127	19
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.0	51.4	51.4	22.8	66.2	66.2	9.0	16.0	16.0	13.8	20.8	20.8
Effective Green, g (s)	10.0	53.4	53.4	24.8	68.2	68.2	11.0	18.0	18.0	15.8	22.8	22.8
Actuated g/C Ratio	0.08	0.44	0.44	0.21	0.57	0.57	0.09	0.15	0.15	0.13	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	148	2263	704	366	2890	900	162	531	237	233	672	301
v/s Ratio Prot	0.04	c0.46		c0.20	0.24		c0.05	c0.02		c0.12	0.04	
v/s Ratio Perm			0.05			0.14			0.01			0.01
v/c Ratio	0.42	1.04	0.11	0.95	0.42	0.25	0.52	0.14	0.09	0.89	0.19	0.06
Uniform Delay, d1	52.2	33.3	19.4	46.9	14.7	13.1	52.0	44.3	44.0	51.3	40.8	39.8
Progression Factor	1.00	1.00	1.00	0.72	0.18	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	29.6	0.3	22.7	0.3	0.4	3.0	0.6	0.8	31.9	0.6	0.4
Delay (s)	54.2	62.9	19.7	56.7	2.8	0.4	55.1	44.9	44.7	83.2	41.5	40.2
Level of Service	D	E	B	E	A	A	E	D	D	F	D	D
Approach Delay (s)		61.2			12.4			47.6			61.2	
Approach LOS		E			B			D			E	
<b>Intersection Summary</b>												
HCM Average Control Delay			42.5			HCM Level of Service				D		
HCM Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				8.0		
Intersection Capacity Utilization			97.7%			ICU Level of Service				F		
Analysis Period (min)			15									
c Critical Lane Group												

											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		5085	1583		5085				1770		1583
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		5085	1583		5085				1770		1583
Volume (vph)	0	817	163	0	809	0	0	0	648	0	182
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	0	1479	295	0	1464	0	0	0	1173	0	329
RTOR Reduction (vph)	0	0	147	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1479	148	0	1464	0	0	0	1173	0	329
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		120.0	34.0		34.0				78.0		78.0
Effective Green, g (s)		120.0	36.0		36.0				80.0		80.0
Actuated g/C Ratio		1.00	0.30		0.30				0.67		0.67
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		5085	475		1526				1180		1055
v/s Ratio Prot		0.09			0.29				0.66		
v/s Ratio Perm		0.20	0.09								0.21
v/c Ratio		0.29	0.31		0.96				0.99		0.31
Uniform Delay, d1		0.0	32.4		41.3				19.8		8.4
Progression Factor		1.00	1.35		0.68				1.00		1.00
Incremental Delay, d2		0.0	0.5		15.0				24.8		0.8
Delay (s)		0.0	44.4		43.0				44.6		9.2
Level of Service		A	D		D				D		A
Approach Delay (s)		7.4			43.0		0.0			36.8	
Approach LOS		A			D		A			D	
<b>Intersection Summary</b>											
HCM Average Control Delay			27.7			HCM Level of Service				C	
HCM Volume to Capacity ratio			0.97								
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			4.0		
Intersection Capacity Utilization			55.4%			ICU Level of Service			B		
Analysis Period (min)			15								
c Critical Lane Group											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER
Lane Configurations		↑↑↑			↑↑↑	↑			↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0			2.0	2.0			2.0		2.0
Lane Util. Factor		0.91			0.91	1.00			1.00		1.00
Fr <sub>t</sub>		1.00			1.00	0.85			1.00		0.85
Fl <sub>t</sub> Protected		1.00			1.00	1.00			0.95		1.00
Satd. Flow (prot)		5085			5085	1583			1770		1583
Fl <sub>t</sub> Permitted		1.00			1.00	1.00			0.95		1.00
Satd. Flow (perm)		5085			5085	1583			1770		1583
Volume (vph)	0	1259	0	0	783	736	0	0	218	0	252
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	0	2279	0	0	1417	1332	0	0	395	0	456
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	2
Lane Group Flow (vph)	0	2279	0	0	1417	1332	0	0	395	0	454
Turn Type						Free			Prot		custom
Protected Phases		4			8				2		
Permitted Phases					Free	Free					2
Actuated Green, G (s)		67.0			120.0	120.0			45.0		45.0
Effective Green, g (s)		69.0			120.0	120.0			47.0		47.0
Actuated g/C Ratio		0.57			1.00	1.00			0.39		0.39
Clearance Time (s)		4.0			4.0				4.0		4.0
Vehicle Extension (s)		3.0			3.0				3.0		3.0
Lane Grp Cap (vph)		2924			5085	1583			693		620
v/s Ratio Prot		0.45			0.16				0.22		
v/s Ratio Perm					0.12	c0.84					0.29
v/c Ratio		0.78			0.28	0.84			0.57		0.73
Uniform Delay, d <sub>1</sub>		19.6			0.0	0.0			28.6		31.1
Progression Factor		0.55			1.00	1.00			1.00		1.00
Incremental Delay, d <sub>2</sub>		1.7			0.1	3.3			3.4		7.5
Delay (s)		12.4			0.1	3.3			32.0		38.6
Level of Service		B			A	A			C		D
Approach Delay (s)		12.4			1.7		0.0			35.5	
Approach LOS		B			A		A			D	
<b>Intersection Summary</b>											
HCM Average Control Delay			10.7				HCM Level of Service			B	
HCM Volume to Capacity ratio			0.84								
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			0.0	
Intersection Capacity Utilization			78.9%				ICU Level of Service			D	
Analysis Period (min)			15								
c Critical Lane Group											

Palmdale Transit Village TIA  
SH Analysis 2030 NP Conditions

5: PALMDALE BLVD & DIVISION ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00	1.00	0.91	1.00
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	3433	5085	1583	1770	5085	1583
Volume (vph)	82	1322	167	72	1176	10	274	64	48	31	51	58
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	148	2393	302	130	2129	18	496	116	87	56	92	105
RTOR Reduction (vph)	0	0	115	0	0	8	0	0	67	0	0	89
Lane Group Flow (vph)	148	2393	187	130	2129	10	496	116	20	56	92	16
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	10.0	60.2	60.2	10.0	60.2	60.2	17.0	25.8	25.8	8.0	16.8	16.8
Effective Green, g (s)	12.0	62.2	62.2	12.0	62.2	62.2	19.0	27.8	27.8	10.0	18.8	18.8
Actuated g/C Ratio	0.10	0.52	0.52	0.10	0.52	0.52	0.16	0.23	0.23	0.08	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	177	2636	821	177	2636	821	544	1178	367	148	797	248
v/s Ratio Prot	0.08	c0.47		0.07	c0.42		c0.14	c0.02		c0.03	0.02	
v/s Ratio Perm			0.12			0.01			0.01			0.01
v/c Ratio	0.84	0.91	0.23	0.73	0.81	0.01	0.91	0.10	0.05	0.38	0.12	0.07
Uniform Delay, d1	53.0	26.3	15.8	52.5	23.9	14.0	49.7	36.2	35.9	52.1	43.5	43.1
Progression Factor	1.06	0.53	0.05	0.68	0.46	0.25	1.00	1.00	1.00	0.41	0.36	0.31
Incremental Delay, d2	19.4	4.0	0.4	5.5	1.0	0.0	19.6	0.2	0.3	1.5	0.3	0.5
Delay (s)	75.8	17.8	1.2	41.0	12.1	3.5	69.3	36.4	36.2	22.9	15.8	13.9
Level of Service	E	B	A	D	B	A	E	D	D	C	B	B
Approach Delay (s)		19.1			13.7			59.7			16.6	
Approach LOS		B			B			E			B	
Intersection Summary												
HCM Average Control Delay			21.6	HCM Level of Service				C				
HCM Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			120.0	Sum of lost time (s)				6.0				
Intersection Capacity Utilization			84.3%	ICU Level of Service				E				
Analysis Period (min)			15									
c Critical Lane Group												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Flt Protected	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94	1.00	1.00	0.99	1.00
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3337	1770	3486	3486	1770
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3337	1770	3486	3486	1770
Volume (vph)	9	1537	95	206	1471	79	54	407	251	92	225	25
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	16	2782	172	373	2663	143	98	737	454	167	407	45
RTOR Reduction (vph)	0	0	57	0	0	44	0	79	0	0	7	0
Lane Group Flow (vph)	16	2782	115	373	2663	99	98	1112	0	167	445	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	4.0	44.6	44.6	20.4	61.0	61.0	13.0	29.0		10.0	26.0	
Effective Green, g (s)	6.0	46.6	46.6	22.4	63.0	63.0	15.0	31.0		12.0	28.0	
Actuated g/C Ratio	0.05	0.39	0.39	0.19	0.52	0.52	0.12	0.26		0.10	0.23	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	89	1975	615	330	2670	831	221	862		177	813	
v/s Ratio Prot	0.01	c0.55		c0.21	c0.52		0.06	c0.33		c0.09	0.13	
v/s Ratio Perm			0.07			0.06						
v/c Ratio	0.18	1.41	0.19	1.13	1.00	0.12	0.44	1.29		0.94	0.55	
Uniform Delay, d1	54.6	36.7	24.2	48.8	28.4	14.4	48.6	44.5		53.7	40.4	
Progression Factor	0.65	0.83	1.14	0.86	0.84	1.11	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	185.9	0.4	88.1	16.2	0.3	1.4	139.4		51.0	2.6	
Delay (s)	36.1	216.5	28.0	130.1	40.0	16.3	50.1	183.9		104.9	43.3	
Level of Service	D	F	C	F	D	B	D	F		F	D	
Approach Delay (s)		204.6			49.5			173.7			59.9	
Approach LOS		F			D			F			E	
<b>Intersection Summary</b>												
HCM Average Control Delay			127.4			HCM Level of Service				F		
HCM Volume to Capacity ratio			1.23									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				6.0		
Intersection Capacity Utilization			131.9%			ICU Level of Service				H		
Analysis Period (min)			15									
c Critical Lane Group												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.34	1.00	1.00	0.53	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	641	1863	1583	980	1863	1583
Volume (vph)	48	1259	153	58	1326	96	73	105	61	173	185	60
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	87	2279	277	105	2400	174	132	190	110	313	335	109
RTOR Reduction (vph)	0	0	111	0	0	13	0	0	72	0	0	48
Lane Group Flow (vph)	87	2279	166	105	2400	161	132	190	38	313	335	61
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	8.0	58.2	58.2	10.3	60.5	60.5	39.5	39.5	39.5	39.5	39.5	39.5
Effective Green, g (s)	10.0	60.2	60.2	12.3	62.5	62.5	41.5	41.5	41.5	41.5	41.5	41.5
Actuated g/C Ratio	0.08	0.50	0.50	0.10	0.52	0.52	0.35	0.35	0.35	0.35	0.35	0.35
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	148	2551	794	181	2648	824	222	644	547	339	644	547
v/s Ratio Prot	0.05	0.45		c0.06	c0.47			0.10			0.18	
v/s Ratio Perm			0.10			0.10	0.21		0.02	c0.32		0.04
v/c Ratio	0.59	0.89	0.21	0.58	0.91	0.20	0.59	0.30	0.07	0.92	0.52	0.11
Uniform Delay, d1	53.0	27.0	16.6	51.4	26.1	15.3	32.3	28.6	26.3	37.7	31.3	26.7
Progression Factor	0.73	0.85	1.42	0.78	0.26	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.9	4.5	0.5	0.4	0.6	0.0	11.2	1.2	0.2	32.8	3.0	0.4
Delay (s)	43.6	27.6	24.1	40.3	7.4	2.9	43.5	29.8	26.6	70.5	34.3	27.0
Level of Service	D	C	C	D	A	A	D	C	C	E	C	C
Approach Delay (s)		27.8			8.4			33.1			48.2	
Approach LOS		C			A			C			D	

Intersection Summary

HCM Average Control Delay	22.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	92.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement												
	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91		1.00	0.91	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.95	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	5005		1770	4833	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	5005		1770	4833	
Volume (vph)	208	1205	118	44	1005	160	157	536	63	221	530	262
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	376	2181	214	80	1819	290	284	970	114	400	959	474
RTOR Reduction (vph)	0	0	0	0	0	29	0	12	0	0	75	0
Lane Group Flow (vph)	376	2181	214	80	1819	261	284	1072	0	400	1358	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	21.8	50.0	120.0	8.0	36.2	36.2	16.0	23.0		23.0	30.0	
Effective Green, g (s)	23.8	52.0	120.0	10.0	38.2	38.2	18.0	25.0		25.0	32.0	
Actuated g/C Ratio	0.20	0.43	1.00	0.08	0.32	0.32	0.15	0.21		0.21	0.27	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	351	2204	1583	148	1619	504	266	1043		369	1289	
v/s Ratio Prot	c0.21	c0.43		0.05	c0.36		0.16	c0.21		c0.23	c0.28	
v/s Ratio Perm			0.14			0.16						
v/c Ratio	1.07	0.99	0.14	0.54	1.12	0.52	1.07	1.03		1.08	1.05	
Uniform Delay, d <sub>1</sub>	48.1	33.7	0.0	52.8	40.9	33.4	51.0	47.5		47.5	44.0	
Progression Factor	0.78	0.49	1.00	1.00	1.00	1.00	1.00	1.00		0.58	0.54	
Incremental Delay, d <sub>2</sub>	55.2	11.6	0.1	4.0	64.3	3.8	74.2	35.2		63.8	36.7	
Delay (s)	93.0	28.1	0.1	56.8	105.2	37.1	125.2	82.7		91.6	60.5	
Level of Service	F	C	A	E	F	D	F	F		F	E	
Approach Delay (s)		34.8			94.4			91.6			67.3	
Approach LOS		C			F			F			E	

Intersection Summary

HCM Average Control Delay	67.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	114.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.94	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3291		1770	3343	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.57	1.00		0.51	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1061	3291		944	3343	
Volume (vph)	63	1051	96	77	935	59	113	80	70	59	72	42
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor (vph)	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%	181%
Adj. Flow (vph)	114	1902	174	139	1692	107	205	145	127	107	130	76
RTOR Reduction (vph)	0	0	83	0	0	54	0	87	0	0	52	0
Lane Group Flow (vph)	114	1902	91	139	1692	54	205	185	0	107	154	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2				6
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	13.8	59.0	59.0	12.8	58.0	58.0	36.2	36.2		36.2	36.2	
Effective Green, g (s)	15.8	61.0	61.0	14.8	60.0	60.0	38.2	38.2		38.2	38.2	
Actuated g/C Ratio	0.13	0.51	0.51	0.12	0.50	0.50	0.32	0.32		0.32	0.32	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	233	2585	805	218	2543	792	338	1048		301	1064	
v/s Ratio Prot	0.06	c0.37		c0.08	0.33			0.06			0.05	
v/s Ratio Perm			0.06			0.03	c0.19			0.11		
v/c Ratio	0.49	0.74	0.11	0.64	0.67	0.07	0.61	0.18		0.36	0.14	
Uniform Delay, d1	48.4	23.2	15.4	50.0	22.5	15.5	34.6	29.5		31.4	29.2	
Progression Factor	0.82	0.14	0.00	0.83	0.13	0.00	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.1	0.2	0.0	3.0	0.7	0.1	7.9	0.4		3.3	0.3	
Delay (s)	40.0	3.4	0.0	44.4	3.7	0.1	42.4	29.9		34.7	29.5	
Level of Service	D	A	A	D	A	A	D	C		C	C	
Approach Delay (s)		5.0			6.4			35.3			31.3	
Approach LOS		A			A			D			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			10.2				HCM Level of Service				B	
HCM Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			6.0		
Intersection Capacity Utilization			77.5%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

**State Highway Intersection Analysis-  
Forecast Year 2030 With Project Conditions**



Palmdale Transit Village TIA  
 SH Analysis Forecast Year 2030 WP Conditions

1: PALMDALE BLVD & 5TH ST WEST  
 AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr't	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	80	1420	81	119	1003	179	183	110	355	85	54	76
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	80	1420	81	119	1003	179	183	110	355	85	54	76
RTOR Reduction (vph)	0	0	20	0	0	61	0	0	226	0	0	64
Lane Group Flow (vph)	80	1420	61	119	1003	118	183	110	129	85	54	12
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.0	44.3	44.3	14.8	51.1	51.1	18.9	26.9	26.9	8.0	16.0	16.0
Effective Green, g (s)	10.0	46.3	46.3	16.8	53.1	53.1	20.9	28.9	28.9	10.0	18.0	18.0
Actuated g/C Ratio	0.09	0.42	0.42	0.15	0.48	0.48	0.19	0.26	0.26	0.09	0.16	0.16
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	161	2140	666	270	2455	764	336	930	416	161	579	259
v/s Ratio Prot	0.05	c0.28		0.07	c0.20		c0.10	0.03		0.05	0.02	
v/s Ratio Perm			0.04			0.07			c0.08			0.01
v/c Ratio	0.50	0.66	0.09	0.44	0.41	0.16	0.54	0.12	0.31	0.53	0.09	0.05
Uniform Delay, d1	47.6	25.6	19.2	42.3	18.3	15.9	40.3	30.9	32.5	47.7	39.1	38.8
Progression Factor	1.00	1.00	1.00	0.87	0.79	1.25	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	1.6	0.3	1.0	0.4	0.4	1.8	0.3	1.9	3.1	0.3	0.4
Delay (s)	50.0	27.2	19.5	37.6	15.0	20.2	42.1	31.1	34.5	50.9	39.4	39.1
Level of Service	D	C	B	D	B	C	D	C	C	D	D	D
Approach Delay (s)		28.0			17.8			36.0			43.8	
Approach LOS		C			B			D			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			26.7								C	
HCM Volume to Capacity ratio			0.52									
Actuated Cycle Length (s)			110.0							6.0		
Intersection Capacity Utilization			67.8%							C		
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
 SH Analysis Forecast Year 2030 WP Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
 AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				1.00		1.00
Frt		1.00	0.85		1.00				1.00		0.85
Flt Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		5085	1583		5085				1770		1583
Flt Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		5085	1583		5085				1770		1583
Volume (vph)	0	1387	505	0	1055	0	0	0	772	0	214
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1387	505	0	1055	0	0	0	772	0	214
RTOR Reduction (vph)	0	0	340	0	0	0	0	0	0	0	5
Lane Group Flow (vph)	0	1387	165	0	1055	0	0	0	772	0	209
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		55.0	16.0		16.0				31.0		31.0
Effective Green, g (s)		55.0	18.0		18.0				33.0		33.0
Actuated g/C Ratio		1.00	0.33		0.33				0.60		0.60
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		5085	518		1664				1062		950
v/s Ratio Prot		0.09			c0.21				c0.44		
v/s Ratio Perm		0.18	0.10								0.13
v/c Ratio		0.27	0.32		0.63				0.73		0.22
Uniform Delay, d1		0.0	13.9		15.7				7.8		5.1
Progression Factor		1.00	4.17		0.68				1.00		1.00
Incremental Delay, d2		0.1	1.3		1.8				4.4		0.5
Delay (s)		0.1	59.2		12.5				12.2		5.6
Level of Service		A	E		B				B		A
Approach Delay (s)		15.9			12.5		0.0			10.7	
Approach LOS		B			B		A			B	
<b>Intersection Summary</b>											
HCM Average Control Delay			13.7			HCM Level of Service				B	
HCM Volume to Capacity ratio			0.68								
Actuated Cycle Length (s)			55.0			Sum of lost time (s)			4.0		
Intersection Capacity Utilization			45.0%			ICU Level of Service			A		
Analysis Period (min)			15								
c Critical Lane Group											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER	
Lane Configurations		↑↑↑			↑↑↑	↑			↓		↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		2.0			2.0	2.0			2.0		2.0	
Lane Util. Factor		0.91			0.91	1.00			1.00		1.00	
Fr <sub>t</sub>		1.00			1.00	0.85			1.00		0.85	
Fl <sub>t</sub> Protected		1.00			1.00	1.00			0.95		1.00	
Satd. Flow (prot)		5085			5085	1583			1770		1583	
Fl <sub>t</sub> Permitted		1.00			1.00	1.00			0.95		1.00	
Satd. Flow (perm)		5085			5085	1583			1770		1583	
Volume (vph)	0	1841	0	0	1118	1289	0	0	241	0	404	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Adj. Flow (vph)	0	1841	0	0	1118	1289	0	0	241	0	404	
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	5	
Lane Group Flow (vph)	0	1841	0	0	1118	1289	0	0	241	0	399	
Turn Type						Free			Prot		custom	
Protected Phases		4				8			2			
Permitted Phases					Free	Free					2	
Actuated Green, G (s)		56.0			110.0	110.0			46.0		46.0	
Effective Green, g (s)		58.0			110.0	110.0			48.0		48.0	
Actuated g/C Ratio		0.53			1.00	1.00			0.44		0.44	
Clearance Time (s)		4.0			4.0				4.0		4.0	
Vehicle Extension (s)		3.0			3.0				3.0		3.0	
Lane Grp Cap (vph)		2681			5085	1583			772		691	
v/s Ratio Prot		0.36			0.12				0.14			
v/s Ratio Perm					0.10	c0.81					0.25	
v/c Ratio		0.69			0.22	0.81			0.31		0.58	
Uniform Delay, d1		19.3			0.0	0.0			20.2		23.4	
Progression Factor		0.40			1.00	1.00			1.00		1.00	
Incremental Delay, d2		1.3			0.1	3.0			1.1		3.5	
Delay (s)		9.0			0.1	3.0			21.3		26.9	
Level of Service		A			A	A			C		C	
Approach Delay (s)		9.0			1.6		0.0			24.8		
Approach LOS		A			A		A			C		
<b>Intersection Summary</b>												
HCM Average Control Delay			7.5		HCM Level of Service				A			
HCM Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			110.0		Sum of lost time (s)				0.0			
Intersection Capacity Utilization			67.3%		ICU Level of Service				C			
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis Forecast Year 2030 WP Conditions

5: PALMDALE BLVD & DIVISION ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑	↗	↖↗	↑↑↑	↗	↖	↑↑↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	0.97	0.91	1.00	1.00	1.00	0.91
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	3433	5085	1583	1770	5085	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	3433	5085	1583	1770	5085	1583
Volume (vph)	216	1821	208	129	1260	14	858	136	62	62	130	265
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	216	1821	208	129	1260	14	858	136	62	62	130	265
RTOR Reduction (vph)	0	0	113	0	0	9	0	0	41	0	0	178
Lane Group Flow (vph)	216	1821	95	129	1260	5	858	136	21	62	130	87
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	14.0	40.5	40.5	9.7	36.2	36.2	27.0	35.8	35.8	8.0	16.8	16.8
Effective Green, g (s)	16.0	42.5	42.5	11.7	38.2	38.2	29.0	37.8	37.8	10.0	18.8	18.8
Actuated g/C Ratio	0.15	0.39	0.39	0.11	0.35	0.35	0.26	0.34	0.34	0.09	0.17	0.17
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	257	1965	612	188	1766	550	905	1747	544	161	869	271
v/s Ratio Prot	0.12	c0.36		0.07	c0.25		c0.25	0.03		0.04	0.03	
v/s Ratio Perm			0.06			0.00			0.01			c0.05
v/c Ratio	0.84	0.93	0.16	0.69	0.71	0.01	0.95	0.08	0.04	0.39	0.15	0.32
Uniform Delay, d1	45.8	32.3	22.0	47.4	31.2	23.5	39.8	24.3	24.0	47.1	38.8	40.0
Progression Factor	0.74	0.63	0.14	0.74	0.93	1.02	1.00	1.00	1.00	0.76	0.73	0.39
Incremental Delay, d2	16.5	7.0	0.4	8.9	2.2	0.0	18.4	0.1	0.1	1.5	0.4	3.1
Delay (s)	50.4	27.4	3.5	43.9	31.2	24.1	58.1	24.4	24.2	37.5	28.9	18.5
Level of Service	D	C	A	D	C	C	E	C	C	D	C	B
Approach Delay (s)		27.4			32.3			51.8			24.0	
Approach LOS		C			C			D			C	

Intersection Summary

HCM Average Control Delay	33.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
 SH Analysis Forecast Year 2030 WP Conditions

10: PALMDALE BLVD & 3RD ST EAST  
 AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.99	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3305		1770	3510	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.19	1.00		0.19	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	355	3305		355	3510	
Volume (vph)	41	2381	141	331	1671	98	42	353	279	51	552	32
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	41	2381	141	331	1671	98	42	353	279	51	552	32
RTOR Reduction (vph)	0	0	43	0	0	31	0	130	0	0	4	0
Lane Group Flow (vph)	41	2381	98	331	1671	67	42	502	0	51	580	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	5.4	55.4	55.4	23.6	73.6	73.6	19.0	19.0		19.0	19.0	
Effective Green, g (s)	7.4	57.4	57.4	25.6	75.6	75.6	21.0	21.0		21.0	21.0	
Actuated g/C Ratio	0.07	0.52	0.52	0.23	0.69	0.69	0.19	0.19		0.19	0.19	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	119	2653	826	412	3495	1088	68	631		68	670	
v/s Ratio Prot	0.02	c0.47		c0.19	0.33			0.15			c0.17	
v/s Ratio Perm			0.06			0.04	0.12			0.14		
v/c Ratio	0.34	0.90	0.12	0.80	0.48	0.06	0.62	0.80		0.75	0.87	
Uniform Delay, d1	49.0	23.7	13.4	39.8	8.0	5.6	40.8	42.4		42.0	43.1	
Progression Factor	1.48	0.23	0.01	0.63	0.34	0.06	1.00	1.00		0.98	0.98	
Incremental Delay, d2	1.3	4.1	0.2	9.7	0.4	0.1	35.5	10.0		53.7	14.0	
Delay (s)	74.0	9.5	0.4	34.7	3.1	0.4	76.3	52.4		94.9	56.2	
Level of Service	E	A	A	C	A	A	E	D		F	E	
Approach Delay (s)		10.0			8.0			53.9			59.3	
Approach LOS		B			A			D			E	
<b>Intersection Summary</b>												
HCM Average Control Delay			19.5			HCM Level of Service					B	
HCM Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)				6.0		
Intersection Capacity Utilization			104.7%			ICU Level of Service				G		
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis Forecast Year 2030 WP Conditions

13: PALMDALE BLVD & 6TH ST  
AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.62	1.00	1.00	0.62	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1151	1863	1583	1151	1863	1583
Volume (vph)	96	1832	121	81	1895	220	103	130	51	259	130	69
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	96	1832	121	81	1895	220	103	130	51	259	130	69
RTOR Reduction (vph)	0	0	62	0	0	23	0	0	32	0	0	43
Lane Group Flow (vph)	96	1832	59	81	1895	197	103	130	19	259	130	26
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	7.9	51.2	51.2	7.9	51.2	51.2	38.9	38.9	38.9	38.9	38.9	38.9
Effective Green, g (s)	9.9	53.2	53.2	9.9	53.2	53.2	40.9	40.9	40.9	40.9	40.9	40.9
Actuated g/C Ratio	0.09	0.48	0.48	0.09	0.48	0.48	0.37	0.37	0.37	0.37	0.37	0.37
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	159	2459	766	159	2459	766	428	693	589	428	693	589
v/s Ratio Prot	c0.05	0.36		0.05	c0.37			0.07			0.07	
v/s Ratio Perm			0.04			0.12	0.09		0.01	c0.22		0.02
v/c Ratio	0.60	0.75	0.08	0.51	0.77	0.26	0.24	0.19	0.03	0.61	0.19	0.04
Uniform Delay, d1	48.2	22.9	15.2	47.7	23.4	16.7	23.8	23.3	22.0	28.0	23.3	22.1
Progression Factor	0.60	0.68	0.80	0.81	0.25	0.18	1.00	1.00	1.00	1.02	1.02	1.07
Incremental Delay, d2	5.3	1.7	0.2	1.8	1.7	0.6	1.3	0.6	0.1	6.2	0.6	0.1
Delay (s)	34.2	17.4	12.4	40.6	7.6	3.5	25.2	23.9	22.1	34.9	24.4	23.7
Level of Service	C	B	B	D	A	A	C	C	C	C	C	C
Approach Delay (s)		17.9			8.4			24.0			30.2	
Approach LOS		B			A			C			C	

Intersection Summary

HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	6.0
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
 SH Analysis Forecast Year 2030 WP Conditions

16: PALMDALE BLVD & SIERRA HWY  
 AM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91		1.00	0.91	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.99		1.00	0.94	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	5014		1770	4799	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	5014		1770	4799	
Volume (vph)	223	1603	262	127	1491	221	219	820	85	337	405	244
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	223	1603	262	127	1491	221	219	820	85	337	405	244
RTOR Reduction (vph)	0	0	0	0	0	29	0	11	0	0	99	0
Lane Group Flow (vph)	223	1603	262	127	1491	192	219	894	0	337	550	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	14.0	41.0	110.0	10.0	37.0	37.0	18.0	21.3		21.7	25.0	
Effective Green, g (s)	16.0	43.0	110.0	12.0	39.0	39.0	20.0	23.3		23.7	27.0	
Actuated g/C Ratio	0.15	0.39	1.00	0.11	0.35	0.35	0.18	0.21		0.22	0.25	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	257	1988	1583	193	1803	561	322	1062		381	1178	
v/s Ratio Prot	c0.13	c0.32		0.07	c0.29		0.12	c0.18		c0.19	c0.11	
v/s Ratio Perm			0.17			0.12						
v/c Ratio	0.87	0.81	0.17	0.66	0.83	0.34	0.68	0.84		0.88	0.47	
Uniform Delay, d <sub>1</sub>	46.0	29.8	0.0	47.0	32.4	26.1	42.0	41.6		41.8	35.4	
Progression Factor	0.66	0.55	1.00	1.00	1.00	1.00	1.00	1.00		0.57	0.42	
Incremental Delay, d <sub>2</sub>	18.9	2.6	0.2	7.9	4.5	1.7	5.8	8.1		20.1	1.3	
Delay (s)	49.3	19.0	0.2	54.9	36.9	27.7	47.8	49.7		43.8	16.3	
Level of Service	D	B	A	D	D	C	D	D		D	B	
Approach Delay (s)		19.9			37.1			49.3			25.7	
Approach LOS		B			D			D			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			31.5			HCM Level of Service				C		
HCM Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)			4.0			
Intersection Capacity Utilization			90.9%			ICU Level of Service			E			
Analysis Period (min)			15									
c Critical Lane Group												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.95		1.00	0.96	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3361		1770	3394	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.67	1.00		0.59	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1241	3361		1093	3394	
Volume (vph)	63	1642	89	74	1453	58	253	140	71	54	90	34
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	63	1642	89	74	1453	58	253	140	71	54	90	34
RTOR Reduction (vph)	0	0	48	0	0	32	0	43	0	0	20	0
Lane Group Flow (vph)	63	1642	41	74	1453	26	253	168	0	54	104	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	7.7	48.2	48.2	7.7	48.2	48.2	42.1	42.1		42.1	42.1	
Effective Green, g (s)	9.7	50.2	50.2	9.7	50.2	50.2	44.1	44.1		44.1	44.1	
Actuated g/C Ratio	0.09	0.46	0.46	0.09	0.46	0.46	0.40	0.40		0.40	0.40	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	156	2321	722	156	2321	722	498	1347		438	1361	
v/s Ratio Prot	0.04	c0.32		c0.04	0.29			0.05			0.03	
v/s Ratio Perm			0.03			0.02	c0.20			0.05		
v/c Ratio	0.40	0.71	0.06	0.47	0.63	0.04	0.51	0.13		0.12	0.08	
Uniform Delay, d <sub>1</sub>	47.4	24.0	16.7	47.7	22.8	16.5	24.8	20.8		20.8	20.4	
Progression Factor	0.64	0.35	0.22	0.67	0.25	0.08	1.00	1.00		1.00	1.00	
Incremental Delay, d <sub>2</sub>	0.8	0.9	0.1	1.6	0.9	0.1	3.7	0.2		0.6	0.1	
Delay (s)	31.2	9.2	3.7	33.4	6.6	1.3	28.5	21.0		21.3	20.5	
Level of Service	C	A	A	C	A	A	C	C		C	C	
Approach Delay (s)		9.7			7.7			25.1			20.7	
Approach LOS		A			A			C			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			11.1				HCM Level of Service				B	
HCM Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			110.0				Sum of lost time (s)			6.0		
Intersection Capacity Utilization			73.2%				ICU Level of Service			D		
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis Forecast Year 2030 WP Conditions

1: PALMDALE BLVD & 5TH ST WEST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Fr't	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	62	2370	89	346	1252	311	85	76	145	208	127	98
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	62	2370	89	346	1252	311	85	76	145	208	127	98
RTOR Reduction (vph)	0	0	13	0	0	79	0	0	123	0	0	79
Lane Group Flow (vph)	62	2370	76	346	1252	232	85	76	22	208	127	19
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	8.0	51.4	51.4	22.8	66.2	66.2	9.0	16.0	16.0	13.8	20.8	20.8
Effective Green, g (s)	10.0	53.4	53.4	24.8	68.2	68.2	11.0	18.0	18.0	15.8	22.8	22.8
Actuated g/C Ratio	0.08	0.44	0.44	0.21	0.57	0.57	0.09	0.15	0.15	0.13	0.19	0.19
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	148	2263	704	366	2890	900	162	531	237	233	672	301
v/s Ratio Prot	0.04	c0.47		c0.20	0.25		c0.05	c0.02		c0.12	0.04	
v/s Ratio Perm			0.05			0.15			0.01			0.01
v/c Ratio	0.42	1.05	0.11	0.95	0.43	0.26	0.52	0.14	0.09	0.89	0.19	0.06
Uniform Delay, d1	52.2	33.3	19.4	46.9	14.8	13.1	52.0	44.3	44.0	51.3	40.8	39.8
Progression Factor	1.00	1.00	1.00	0.97	0.14	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	32.7	0.3	20.9	0.2	0.3	3.0	0.6	0.8	31.9	0.6	0.4
Delay (s)	54.2	66.0	19.7	66.4	2.4	0.3	55.1	44.9	44.7	83.2	41.5	40.2
Level of Service	D	E	B	E	A	A	E	D	D	F	D	D
Approach Delay (s)		64.1			13.6			47.6			61.2	
Approach LOS		E			B			D			E	
<b>Intersection Summary</b>												
HCM Average Control Delay			44.2				HCM Level of Service				D	
HCM Volume to Capacity ratio			0.88									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			98.2%				ICU Level of Service			F		
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis Forecast Year 2030 WP Conditions

2: PALMDALE BLVD & SR-14 SB OFF-RAMP  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NWL	NWR	SWL2	SWL	SWR
Lane Configurations		↑↑↑	↑		↑↑↑				↑		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0	2.0		2.0				2.0		2.0
Lane Util. Factor		0.91	1.00		0.91				1.00		1.00
Fr <sub>t</sub>		1.00	0.85		1.00				1.00		0.85
Fl <sub>t</sub> Protected		1.00	1.00		1.00				0.95		1.00
Satd. Flow (prot)		5085	1583		5085				1770		1583
Fl <sub>t</sub> Permitted		1.00	1.00		1.00				0.95		1.00
Satd. Flow (perm)		5085	1583		5085				1770		1583
Volume (vph)	0	1500	295	0	1496	0	0	0	1194	0	329
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	1500	295	0	1496	0	0	0	1194	0	329
RTOR Reduction (vph)	0	0	145	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	1500	150	0	1496	0	0	0	1194	0	329
Turn Type			Perm						Prot		custom
Protected Phases		4			8				6		
Permitted Phases		Free	4								6
Actuated Green, G (s)		120.0	36.0		36.0				76.0		76.0
Effective Green, g (s)		120.0	38.0		38.0				78.0		78.0
Actuated g/C Ratio		1.00	0.32		0.32				0.65		0.65
Clearance Time (s)		4.0	4.0		4.0				4.0		4.0
Vehicle Extension (s)		3.0	3.0		3.0				3.0		3.0
Lane Grp Cap (vph)		5085	501		1610				1151		1029
v/s Ratio Prot		0.09			c0.29				c0.67		
v/s Ratio Perm		0.20	0.09								0.21
v/c Ratio		0.29	0.30		0.93				1.04		0.32
Uniform Delay, d1		0.0	31.0		39.7				21.0		9.3
Progression Factor		1.00	2.50		0.67				1.00		1.00
Incremental Delay, d2		0.0	0.4		10.7				36.7		0.8
Delay (s)		0.0	77.7		37.4				57.7		10.1
Level of Service		A	E		D				E		B
Approach Delay (s)		12.8			37.4		0.0			47.4	
Approach LOS		B			D		A			D	
<b>Intersection Summary</b>											
HCM Average Control Delay			31.4		HCM Level of Service				C		
HCM Volume to Capacity ratio			0.99								
Actuated Cycle Length (s)			120.0		Sum of lost time (s)				4.0		
Intersection Capacity Utilization			55.9%		ICU Level of Service				B		
Analysis Period (min)			15								
c	Critical Lane Group										

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SER	NEL2	NEL	NER
Lane Configurations		↑↑↑			↑↑↑	↑			↓		↑
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		2.0			2.0	2.0			2.0		2.0
Lane Util. Factor		0.91			0.91	1.00			1.00		1.00
Fr <sub>t</sub>		1.00			1.00	0.85			1.00		0.85
Fl <sub>t</sub> Protected		1.00			1.00	1.00			0.95		1.00
Satd. Flow (prot)		5085			5085	1583			1770		1583
Fl <sub>t</sub> Permitted		1.00			1.00	1.00			0.95		1.00
Satd. Flow (perm)		5085			5085	1583			1770		1583
Volume (vph)	0	2321	0	0	1545	1364	0	0	395	0	519
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	2321	0	0	1545	1364	0	0	395	0	519
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	2
Lane Group Flow (vph)	0	2321	0	0	1545	1364	0	0	395	0	517
Turn Type						Free			Prot		custom
Protected Phases		4			8				2		
Permitted Phases					Free	Free					2
Actuated Green, G (s)		66.0			120.0	120.0			46.0		46.0
Effective Green, g (s)		68.0			120.0	120.0			48.0		48.0
Actuated g/C Ratio		0.57			1.00	1.00			0.40		0.40
Clearance Time (s)		4.0			4.0				4.0		4.0
Vehicle Extension (s)		3.0			3.0				3.0		3.0
Lane Grp Cap (vph)		2882			5085	1583			708		633
v/s Ratio Prot		0.46			0.17				0.22		
v/s Ratio Perm					0.13	0.86					0.33
v/c Ratio		0.81			0.30	0.86			0.56		0.82
Uniform Delay, d <sub>1</sub>		20.7			0.0	0.0			27.8		32.1
Progression Factor		0.42			1.00	1.00			1.00		1.00
Incremental Delay, d <sub>2</sub>		2.0			0.1	3.3			3.2		11.1
Delay (s)		10.7			0.1	3.3			31.0		43.2
Level of Service		B			A	A			C		D
Approach Delay (s)		10.7			1.6		0.0			37.9	
Approach LOS		B			A		A			D	
<b>Intersection Summary</b>											
HCM Average Control Delay			10.4				HCM Level of Service			B	
HCM Volume to Capacity ratio			0.86								
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			0.0	
Intersection Capacity Utilization			83.6%				ICU Level of Service			E	
Analysis Period (min)			15								
c Critical Lane Group											



Palmdale Transit Village TIA  
SH Analysis Forecast Year 2030 WP Conditions

10: PALMDALE BLVD & 3RD ST EAST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑↑	↗	↘	↑↑↑	↗	↘	↑↑		↘	↑↑	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.94		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3337		1770	3456	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	3337		1770	3456	
Volume (vph)	35	2804	172	373	2696	143	98	737	454	167	407	76
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	35	2804	172	373	2696	143	98	737	454	167	407	76
RTOR Reduction (vph)	0	0	56	0	0	44	0	79	0	0	13	0
Lane Group Flow (vph)	35	2804	116	373	2696	99	98	1112	0	167	470	0
Turn Type	Prot		Perm	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8						
Actuated Green, G (s)	5.3	45.4	45.4	19.6	59.7	59.7	13.0	29.0		10.0	26.0	
Effective Green, g (s)	7.3	47.4	47.4	21.6	61.7	61.7	15.0	31.0		12.0	28.0	
Actuated g/C Ratio	0.06	0.39	0.39	0.18	0.51	0.51	0.12	0.26		0.10	0.23	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	108	2009	625	319	2615	814	221	862		177	806	
v/s Ratio Prot	0.02	c0.55		c0.21	0.53		0.06	c0.33		c0.09	0.14	
v/s Ratio Perm			0.07			0.06						
v/c Ratio	0.32	1.40	0.19	1.17	1.03	0.12	0.44	1.29		0.94	0.58	
Uniform Delay, d1	54.0	36.3	23.7	49.2	29.2	15.1	48.6	44.5		53.7	40.8	
Progression Factor	1.06	1.34	2.15	0.89	0.82	0.89	1.00	1.00		0.99	1.00	
Incremental Delay, d2	1.1	180.1	0.4	103.1	25.6	0.3	1.4	139.4		51.0	3.1	
Delay (s)	58.5	228.7	51.3	146.9	49.5	13.7	50.1	183.9		104.2	43.7	
Level of Service	E	F	D	F	D	B	D	F		F	D	
Approach Delay (s)		216.6			59.2			173.7			59.3	
Approach LOS		F			E			F			E	
<b>Intersection Summary</b>												
HCM Average Control Delay			135.4			HCM Level of Service			F			
HCM Volume to Capacity ratio			1.25									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)			8.0			
Intersection Capacity Utilization			132.3%			ICU Level of Service			H			
Analysis Period (min)			15									
c Critical Lane Group												

Palmdale Transit Village TIA  
SH Analysis Forecast Year 2030 WP Conditions

13: PALMDALE BLVD & 6TH ST  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑↑↑	↗	↖	↑↑↑	↗	↖	↑	↗	↖	↑	↗
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.37	1.00	1.00	0.54	1.00	1.00
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	691	1863	1583	1007	1863	1583
Volume (vph)	108	2279	277	105	2400	216	132	190	110	377	335	141
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	108	2279	277	105	2400	216	132	190	110	377	335	141
RTOR Reduction (vph)	0	0	109	0	0	16	0	0	69	0	0	63
Lane Group Flow (vph)	108	2279	168	105	2400	200	132	190	41	377	335	79
Turn Type	Prot		Perm	Prot		Perm	Perm		Perm	Perm		Perm
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2		2	6		6
Actuated Green, G (s)	10.0	55.5	55.5	9.5	55.0	55.0	43.0	43.0	43.0	43.0	43.0	43.0
Effective Green, g (s)	12.0	57.5	57.5	11.5	57.0	57.0	45.0	45.0	45.0	45.0	45.0	45.0
Actuated g/C Ratio	0.10	0.48	0.48	0.10	0.48	0.48	0.38	0.38	0.38	0.38	0.38	0.38
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	177	2437	759	170	2415	752	259	699	594	378	699	594
v/s Ratio Prot	0.06	c0.45		0.06	c0.47			0.10			0.18	
v/s Ratio Perm			0.11			0.13	0.19		0.03	c0.37		0.05
v/c Ratio	0.61	0.94	0.22	0.62	0.99	0.27	0.51	0.27	0.07	1.00	0.48	0.13
Uniform Delay, d1	51.8	29.5	18.2	52.1	31.3	18.9	29.0	26.1	24.1	37.4	28.6	24.7
Progression Factor	0.67	0.43	0.05	1.30	0.20	0.19	1.00	1.00	1.00	1.00	1.00	1.02
Incremental Delay, d2	5.1	7.1	0.6	0.6	4.3	0.1	7.0	1.0	0.2	45.6	2.3	0.5
Delay (s)	39.8	19.8	1.5	68.3	10.6	3.6	36.0	27.1	24.3	83.2	31.1	25.6
Level of Service	D	B	A	E	B	A	D	C	C	F	C	C
Approach Delay (s)		18.7			12.2			29.1			53.2	
Approach LOS		B			B			C			D	
<b>Intersection Summary</b>												
HCM Average Control Delay			21.1			HCM Level of Service				C		
HCM Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				4.0		
Intersection Capacity Utilization			96.6%			ICU Level of Service				F		
Analysis Period (min)			15									
c Critical Lane Group												

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.91		1.00	0.91	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98		1.00	0.95	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	5007		1770	4838	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1770	5007		1770	4838	
Volume (vph)	376	2245	214	80	1861	290	284	991	114	400	991	474
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	376	2245	214	80	1861	290	284	991	114	400	991	474
RTOR Reduction (vph)	0	0	0	0	0	28	0	12	0	0	72	0
Lane Group Flow (vph)	376	2245	214	80	1861	262	284	1093	0	400	1393	0
Turn Type	Prot		Free	Prot		Perm	Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			Free			8						
Actuated Green, G (s)	21.8	51.0	120.0	8.0	37.2	37.2	16.0	23.0		22.0	29.0	
Effective Green, g (s)	23.8	53.0	120.0	10.0	39.2	39.2	18.0	25.0		24.0	31.0	
Actuated g/C Ratio	0.20	0.44	1.00	0.08	0.33	0.33	0.15	0.21		0.20	0.26	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	351	2246	1583	148	1661	517	266	1043		354	1250	
v/s Ratio Prot	c0.21	c0.44		0.05	c0.37		0.16	c0.22		c0.23	c0.29	
v/s Ratio Perm			0.14			0.17						
v/c Ratio	1.07	1.00	0.14	0.54	1.12	0.51	1.07	1.05		1.13	1.11	
Uniform Delay, d1	48.1	33.5	0.0	52.8	40.4	32.6	51.0	47.5		48.0	44.5	
Progression Factor	0.64	0.70	1.00	1.00	1.00	1.00	1.00	1.00		0.58	0.54	
Incremental Delay, d2	52.3	12.3	0.1	4.0	62.9	3.5	74.2	41.3		79.4	59.3	
Delay (s)	83.1	35.6	0.1	56.8	103.3	36.1	125.2	88.8		107.3	83.2	
Level of Service	F	D	A	E	F	D	F	F		F	F	
Approach Delay (s)		39.3			92.9			96.3			88.4	
Approach LOS		D			F			F			F	

Intersection Summary

HCM Average Control Delay	74.2	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	4.0
Intersection Capacity Utilization	115.6%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Palmdale Transit Village TIA  
SH Analysis Forecast Year 2030 WP Conditions

43: PALMDALE BLVD & 5th Street East  
PM Peak Hour

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0		2.0	2.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.91	1.00	1.00	0.95		1.00	0.95	
Fr <sub>t</sub>	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.93		1.00	0.95	
Fl <sub>t</sub> Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	5085	1583	1770	3309		1770	3370	
Fl <sub>t</sub> Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.54	1.00		0.49	1.00	
Satd. Flow (perm)	1770	5085	1583	1770	5085	1583	1005	3309		911	3370	
Volume (vph)	114	1923	174	139	1725	107	205	166	127	107	162	76
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	114	1923	174	139	1725	107	205	166	127	107	162	76
RTOR Reduction (vph)	0	0	82	0	0	51	0	86	0	0	46	0
Lane Group Flow (vph)	114	1923	93	139	1725	56	205	207	0	107	192	0
Turn Type	Prot		Perm	Prot		Perm	Perm			Perm		
Protected Phases	7	4		3	8			2			6	
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	10.4	58.0	58.0	13.4	61.0	61.0	36.6	36.6		36.6	36.6	
Effective Green, g (s)	12.4	60.0	60.0	15.4	63.0	63.0	38.6	38.6		38.6	38.6	
Actuated g/C Ratio	0.10	0.50	0.50	0.13	0.52	0.52	0.32	0.32		0.32	0.32	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	183	2543	792	227	2670	831	323	1064		293	1084	
v/s Ratio Prot	0.06	c0.38		c0.08	c0.34			0.06				0.06
v/s Ratio Perm			0.06			0.04	c0.20			0.12		
v/c Ratio	0.62	0.76	0.12	0.61	0.65	0.07	0.63	0.19		0.37	0.18	
Uniform Delay, d1	51.6	24.1	15.9	49.5	20.5	14.0	34.7	29.4		31.3	29.3	
Progression Factor	0.81	0.16	0.00	0.72	0.20	0.02	1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.6	0.2	0.0	1.8	0.4	0.1	9.2	0.4		3.5	0.4	
Delay (s)	42.3	4.1	0.1	37.2	4.6	0.4	43.9	29.9		34.8	29.6	
Level of Service	D	A	A	D	A	A	D	C		C	C	
Approach Delay (s)		5.7			6.7			35.6			31.2	
Approach LOS		A			A			D			C	
<b>Intersection Summary</b>												
HCM Average Control Delay			10.8			HCM Level of Service				B		
HCM Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			120.0			Sum of lost time (s)				4.0		
Intersection Capacity Utilization			77.9%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

## **15.4 Air Quality Data**

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Title : Mojave Desert Air Basin Avg 2030 Winter Default Title  
 Version : Emfac2002 V2.2 Sept 23 2002  
 Run Date : 11/15/06 11:06:53  
 Scen Year: 2030 -- Model Years: 1985 to 2030  
 Season : Winter  
 Area : Mojave Desert AB

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Year:2030 -- Model Years 1985 to 2030 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Mojave Desert A Basin Average Basin  
 Average

Table 1: Running Exhaust Emissions (grams/mile)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity:  
 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.056	0.100	0.151	0.514	1.486	4.810	0.131
35	0.009	0.016	0.026	0.155	0.253	1.877	0.031

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity:  
 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	1.019	1.563	2.130	5.113	16.418	23.832	1.652
35	0.605	0.909	1.136	1.069	3.126	15.462	0.878

Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity:  
 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.110	0.202	0.359	1.983	5.853	1.461	0.260
35	0.062	0.111	0.210	1.168	3.562	1.332	0.152

Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity:  
 0%

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	943.669	1189.748	1704.769	2120.139	2408.601	266.309	1145.463
35	306.974	387.166	521.303	1539.240	1310.944	139.933	405.783

Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity:  
 0%

palmdale.rts

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.009	0.011	0.016	0.020	0.023	0.003	0.011
35	0.003	0.004	0.005	0.015	0.013	0.002	0.004

0% Pollutant Name: PM10 Temperature: 60F Relative Humidity:

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.071	0.114	0.143	0.187	0.205	0.030	0.098
35	0.012	0.019	0.024	0.059	0.045	0.014	0.017

0% Pollutant Name: PM10 - Tire Wear Temperature: 60F Relative Humidity:

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.008	0.008	0.009	0.024	0.010	0.004	0.009
35	0.008	0.008	0.009	0.024	0.010	0.004	0.009

0% Pollutant Name: PM10 - Break Wear Temperature: 60F Relative Humidity:

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.013	0.013	0.013	0.013	0.013	0.013	0.013
35	0.013	0.013	0.013	0.013	0.013	0.013	0.013

0% Pollutant Name: Gasoline - mi/gal Temperature: 60F Relative Humidity:

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	9.369	7.424	5.111	3.514	3.453	26.481	8.304
35	28.770	22.794	16.929	17.761	17.472	50.171	25.493

0% Pollutant Name: Diesel - mi/gal Temperature: 60F Relative Humidity:

Speed MPH	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	29.156	29.156	19.648	5.296	4.415	0.000	7.451
35	29.156	29.156	19.648	5.296	4.415	0.000	7.451

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Title : Mojave Desert Air Basin Avg 2030 winter Default Title  
 Version : Emfac2002 V2.2 Sept 23 2002  
 Run Date : 11/15/06 11:06:53  
 Scen Year: 2030 -- Model Years: 1985 to 2030  
 Season : Winter  
 Area : Mojave Desert AB  
 \*\*\*\*\*

Year:2030 -- Model Years 1985 to 2030 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Mojave Desert A Basin Average Basin  
 Average

Table 2: Starting Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity:  
 ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.007	0.012	0.045	0.092	0.286	0.859	0.024
10	0.014	0.024	0.089	0.180	0.557	1.049	0.042
20	0.028	0.047	0.172	0.341	1.056	1.415	0.076
30	0.040	0.069	0.251	0.483	1.497	1.762	0.107
40	0.052	0.088	0.325	0.607	1.880	2.091	0.136
50	0.063	0.106	0.394	0.711	2.205	2.401	0.163
60	0.072	0.123	0.459	0.797	2.471	2.626	0.187
120	0.110	0.184	0.707	0.760	2.357	2.705	0.257
180	0.085	0.143	0.607	0.807	2.501	2.448	0.218
240	0.090	0.152	0.645	0.852	2.640	2.603	0.231
300	0.096	0.161	0.683	0.895	2.775	2.755	0.244
360	0.101	0.170	0.721	0.937	2.905	2.904	0.257
420	0.106	0.178	0.758	0.978	3.030	3.050	0.270
480	0.111	0.187	0.795	1.017	3.152	3.193	0.283
540	0.116	0.195	0.831	1.055	3.268	3.333	0.295
600	0.121	0.203	0.868	1.091	3.380	3.469	0.308
660	0.126	0.212	0.904	1.125	3.487	3.603	0.320
720	0.130	0.220	0.939	1.159	3.590	3.733	0.332

Pollutant Name: Carbon Monoxide Temperature: 60F Relative Humidity:  
 ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.131	0.209	0.584	1.528	3.426	3.349	0.292
10	0.258	0.413	1.153	2.995	6.713	4.328	0.557
20	0.503	0.805	2.252	5.741	12.868	6.189	1.063
30	0.736	1.174	3.296	8.239	18.467	7.919	1.539
40	0.955	1.522	4.286	10.489	23.510	9.517	1.985
50	1.162	1.848	5.220	12.490	27.995	10.983	2.400
60	1.356	2.152	6.101	14.243	31.924	12.318	2.784
120	2.118	3.258	9.391	12.069	27.051	16.473	3.918

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180	1.503	2.344	6.746	12.422	27.842	12.328	2.941
240	1.629	2.531	7.329	12.786	28.658	13.430	3.164
300	1.740	2.697	7.843	13.162	29.501	14.445	3.363
360	1.837	2.843	8.288	13.550	30.370	15.373	3.539
420	1.919	2.967	8.664	13.949	31.265	16.213	3.691
480	1.987	3.070	8.970	14.360	32.186	16.967	3.819
540	2.040	3.152	9.208	14.783	33.134	17.633	3.924
600	2.078	3.214	9.376	15.217	34.107	18.212	4.005
660	2.102	3.254	9.476	15.663	35.106	18.704	4.063
720	2.110	3.273	9.506	16.120	36.131	19.109	4.097

ALL Pollutant Name: Oxides of Nitrogen Temperature: 60F Relative Humidity:

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.052	0.095	0.675	0.306	1.191	0.165	0.157
10	0.056	0.102	0.715	0.460	1.794	0.207	0.172
20	0.062	0.114	0.789	0.732	2.854	0.281	0.199
30	0.067	0.124	0.852	0.954	3.718	0.343	0.221
40	0.071	0.132	0.905	1.125	4.385	0.391	0.239
50	0.074	0.139	0.947	1.246	4.857	0.427	0.253
60	0.077	0.144	0.978	1.317	5.131	0.449	0.263
120	0.083	0.155	1.063	1.336	5.208	0.454	0.282
180	0.086	0.161	1.073	1.332	5.189	0.452	0.286
240	0.086	0.160	1.065	1.324	5.160	0.445	0.284
300	0.085	0.158	1.052	1.314	5.121	0.437	0.281
360	0.083	0.155	1.033	1.301	5.071	0.426	0.276
420	0.081	0.152	1.010	1.286	5.012	0.413	0.270
480	0.079	0.148	0.981	1.268	4.942	0.399	0.264
540	0.076	0.143	0.948	1.248	4.862	0.383	0.255
600	0.073	0.137	0.909	1.225	4.772	0.365	0.246
660	0.070	0.131	0.865	1.199	4.672	0.345	0.235
720	0.066	0.124	0.816	1.171	4.562	0.323	0.224

ALL Pollutant Name: Carbon Dioxide Temperature: 60F Relative Humidity:

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	12.262	15.384	21.696	2.841	5.160	13.181	14.258
10	13.740	17.272	24.581	5.666	10.292	15.375	16.114
20	17.199	21.679	31.226	11.270	20.469	19.683	20.398
30	21.330	26.926	39.036	16.810	30.532	23.885	25.445
40	26.133	33.014	48.011	22.288	40.481	27.979	31.255
50	31.609	39.941	58.151	27.703	50.316	31.967	37.827
60	37.756	47.708	69.456	33.055	60.037	35.848	45.162
120	88.200	111.154	159.962	56.220	102.112	53.275	104.123
180	100.087	126.172	181.807	66.420	120.638	57.529	118.272
240	111.962	141.166	203.565	76.018	138.070	61.533	132.373
300	123.824	156.135	225.235	85.014	154.409	65.288	146.424
360	135.673	171.079	246.817	93.407	169.654	68.793	160.427
420	147.509	186.000	268.311	101.199	183.806	72.048	174.381
480	159.333	200.896	289.717	108.389	196.865	75.053	188.286
540	171.144	215.767	311.034	114.976	208.830	77.809	202.142
600	182.942	230.615	332.264	120.962	219.702	80.315	215.950
660	194.728	245.437	353.407	126.346	229.480	82.571	229.708

720 206.500 260.236 374.461 131.127 238.165 84.578 243.418

ALL Pollutant Name: Sulfur Dioxide Temperature: 60F Relative Humidity:

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.000	0.000	0.000	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20	0.000	0.000	0.000	0.000	0.000	0.000	0.000
30	0.000	0.000	0.000	0.000	0.001	0.000	0.000
40	0.000	0.000	0.001	0.000	0.001	0.001	0.000
50	0.000	0.000	0.001	0.000	0.001	0.001	0.000
60	0.000	0.000	0.001	0.001	0.001	0.001	0.000
120	0.001	0.001	0.002	0.001	0.002	0.001	0.001
180	0.001	0.001	0.002	0.001	0.002	0.001	0.001
240	0.001	0.001	0.002	0.001	0.002	0.001	0.001
300	0.001	0.002	0.002	0.001	0.002	0.001	0.001
360	0.001	0.002	0.003	0.001	0.002	0.001	0.002
420	0.001	0.002	0.003	0.001	0.002	0.001	0.002
480	0.002	0.002	0.003	0.001	0.003	0.001	0.002
540	0.002	0.002	0.003	0.001	0.003	0.001	0.002
600	0.002	0.002	0.003	0.001	0.003	0.001	0.002
660	0.002	0.002	0.004	0.002	0.003	0.001	0.002
720	0.002	0.003	0.004	0.002	0.003	0.001	0.002

ALL Pollutant Name: PM10 Temperature: 60F Relative Humidity:

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.001	0.001	0.001	0.000	0.001	0.007	0.001
10	0.001	0.002	0.002	0.001	0.002	0.006	0.002
20	0.002	0.004	0.004	0.002	0.003	0.005	0.003
30	0.004	0.006	0.006	0.002	0.005	0.004	0.005
40	0.005	0.008	0.008	0.003	0.006	0.003	0.006
50	0.006	0.009	0.010	0.003	0.007	0.003	0.008
60	0.007	0.011	0.012	0.004	0.008	0.003	0.009
120	0.011	0.018	0.020	0.005	0.011	0.006	0.014
180	0.013	0.020	0.022	0.005	0.011	0.008	0.016
240	0.014	0.022	0.024	0.006	0.012	0.010	0.018
300	0.015	0.024	0.026	0.006	0.012	0.012	0.019
360	0.016	0.025	0.027	0.006	0.013	0.014	0.020
420	0.017	0.026	0.028	0.006	0.013	0.016	0.021
480	0.017	0.027	0.029	0.006	0.013	0.017	0.022
540	0.018	0.028	0.030	0.006	0.014	0.018	0.022
600	0.018	0.028	0.031	0.007	0.014	0.018	0.023
660	0.018	0.028	0.031	0.007	0.014	0.019	0.023
720	0.018	0.028	0.031	0.007	0.015	0.019	0.023

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Version : Emfac2002 v2.2 Sept 23 2002  
 Run Date : 11/15/06 11:06:53  
 Scen Year: 2030 -- Model Years: 1985 to 2030  
 Season : Winter  
 Area : Mojave Desert AB

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Year:2030 -- Model Years 1985 to 2030 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Mojave Desert A Basin Average Basin  
 Average

Table 4: Hot Soak Emissions (grams/trip)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity:  
 ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
5	0.007	0.012	0.012	0.004	0.024	0.059	0.010
10	0.013	0.024	0.023	0.007	0.046	0.114	0.019
20	0.025	0.046	0.045	0.014	0.084	0.215	0.036
30	0.036	0.066	0.066	0.020	0.116	0.307	0.052
40	0.041	0.076	0.076	0.023	0.130	0.351	0.060

Hot soak results are scaled to reflect zero emissions for trip lengths of less than 5 minutes (about 25% of in-use trips).

Title : Mojave Desert Air Basin Avg 2030 Winter Default Title  
 Version : Emfac2002 v2.2 Sept 23 2002  
 Run Date : 11/15/06 11:06:53  
 Scen Year: 2030 -- Model Years: 1985 to 2030  
 Season : Winter  
 Area : Mojave Desert AB

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Year:2030 -- Model Years 1985 to 2030 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Mojave Desert A Basin Average Basin  
 Average

Table 5a: Partial Day Diurnal Loss Emissions

(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:  
 ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
60	0.000	0.000	0.000	0.000	0.000	0.035	0.001

Title : Mojave Desert Air Basin Avg 2030 Winter Default Title  
 Version : Emfac2002 V2.2 Sept 23 2002  
 Run Date : 11/15/06 11:06:53  
 Scen Year: 2030 -- Model Years: 1985 to 2030  
 Season : Winter  
 Area : Mojave Desert AB

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Year:2030 -- Model Years 1985 to 2030 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Mojave Desert A Basin Average Basin  
 Average

Table 5b: Multi-Day Diurnal Loss Emissions

(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:  
 ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
60	0.000	0.000	0.000	0.000	0.000	0.003	0.000

Title : Mojave Desert Air Basin Avg 2030 Winter Default Title  
 Version : Emfac2002 V2.2 Sept 23 2002  
 Run Date : 11/15/06 11:06:53  
 Scen Year: 2030 -- Model Years: 1985 to 2030  
 Season : Winter  
 Area : Mojave Desert AB

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Year:2030 -- Model Years 1985 to 2030 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Mojave Desert A Basin Average Basin  
 Average

Table 6a: Partial Day Resting Loss Emissions

(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:  
 ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
60	0.007	0.017	0.022	0.001	0.001	0.040	0.012

Title : Mojave Desert Air Basin Avg 2030 Winter Default Title  
 Version : Emfac2002 V2.2 Sept 23 2002  
 Run Date : 11/15/06 11:06:53  
 Scen Year: 2030 -- Model Years: 1985 to 2030  
 Season : Winter  
 Area : Mojave Desert AB

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Year:2030 -- Model Years 1985 to 2030 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Mojave Desert A Basin Average Basin  
 Average

Table 6b: Multi-Day Resting Loss Emissions

(grams/hour)

Pollutant Name: Reactive Org Gases Temperature: ALL Relative Humidity:  
 ALL

Temp degF	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
60	0.001	0.001	0.001	0.000	0.000	0.004	0.001

Title : Mojave Desert Air Basin Avg 2030 Winter Default Title  
 Version : Emfac2002 V2.2 Sept 23 2002  
 Run Date : 11/15/06 11:06:53  
 Scen Year: 2030 -- Model Years: 1985 to 2030  
 Season : Winter  
 Area : Mojave Desert AB

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Year:2030 -- Model Years 1985 to 2030 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Mojave Desert A Basin Average Basin  
 Average

Table 7: Estimated Travel Fractions

Pollutant Name: Temperature: ALL Relative Humidity:  
 ALL

	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
%VMT	0.496	0.371	0.084	0.041	0.002	0.006	1.000
%TRIP	0.476	0.353	0.128	0.034	0.000	0.008	1.000
%VEH	0.487	0.366	0.080	0.039	0.001	0.027	1.000

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Title : Mojave Desert Air Basin Avg 2030 winter Default Title  
 Version : Emfac2002 V2.2 Sept 23 2002  
 Run Date : 11/15/06 11:06:53  
 Scen Year: 2030 -- Model Years: 1985 to 2030  
 Season : Winter  
 Area : Mojave Desert AB

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Year:2030 -- Model Years 1985 to 2030 Inclusive -- Winter  
 Emfac2002 Emission Factors: V2.2 Sept 23 2002

Mojave Desert A Basin Average Basin  
 Average

Table 8: Evaporative Running Loss Emissions

(grams/minute)

Pollutant Name: Reactive Org Gases Temperature: 60F Relative Humidity:  
 ALL

Time min	LDA	LDT	MDT	HDT	UBUS	MCY	ALL
1	0.006	0.154	0.272	0.244	0.660	0.003	0.094
2	0.005	0.080	0.141	0.125	0.339	0.037	0.050
3	0.006	0.057	0.099	0.086	0.234	0.055	0.037
4	0.007	0.047	0.080	0.067	0.183	0.067	0.031
5	0.008	0.041	0.069	0.056	0.152	0.075	0.028
10	0.011	0.031	0.047	0.034	0.094	0.095	0.023
15	0.013	0.029	0.042	0.027	0.078	0.106	0.023
20	0.014	0.029	0.042	0.024	0.073	0.115	0.023
25	0.015	0.030	0.042	0.023	0.072	0.123	0.024
30	0.015	0.031	0.043	0.023	0.075	0.128	0.025
35	0.016	0.033	0.045	0.023	0.078	0.133	0.026
40	0.016	0.034	0.046	0.023	0.080	0.138	0.027
45	0.017	0.035	0.047	0.023	0.083	0.143	0.027
50	0.018	0.036	0.048	0.023	0.085	0.148	0.028
55	0.018	0.037	0.049	0.023	0.088	0.152	0.029
60	0.019	0.038	0.051	0.024	0.090	0.156	0.030



1.5thwest-Palmdale.txt  
 JOB: 1. 5th Street west and Palmdale Boulevar  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. Recpt 1	*	806	1100	1.8
2. Recpt 2	*	691	1157	1.8
3. Recpt 3	*	729	1094	1.8
4. Recpt 4	*	778	1180	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	*	BRG (DEG)	* PRED * CONC * (PPM)	CONC/LINK (PPM)								
				A	B	C	D	E	F	G	H	
1. Recpt 1	*	302.	* 2.7 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	*	109.	* 2.8 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	*	50.	* 2.7 *	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	*	228.	* 2.7 *	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0



2.SR-14-Palmdale.txt  
 JOB: 2. SR-14 SB Ramp and Palmdale Boulevard  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. Recpt 1	*	806	1100	1.8
2. Recpt 2	*	691	1157	1.8
3. Recpt 3	*	729	1094	1.8
4. Recpt 4	*	778	1180	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	*	BRG (DEG)	* PRED * CONC * (PPM)	*	CONC/LINK (PPM)								
					A	B	C	D	E	F	G	H	
1. Recpt 1	*	312.	* 2.7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	*	99.	* 2.8	*	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	*	49.	* 2.7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	*	183.	* 2.7	*	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0



5.Division-Palmdale.txt  
 JOB: 5. Division and Palmdale  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	X	Y	Z
1. Recpt 1	806	1100	1.8
2. Recpt 2	691	1157	1.8
3. Recpt 3	729	1094	1.8
4. Recpt 4	778	1180	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM)								
			A	B	C	D	E	F	G	H	
1. Recpt 1	295.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	120.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	49.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	228.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0



9.3rdE-Palmdale.txt  
 JOB: 9. 3rd St. E and Palmdale  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	X	Y	Z
1. Recpt 1	806	1100	1.8
2. Recpt 2	691	1157	1.8
3. Recpt 3	729	1094	1.8
4. Recpt 4	778	1180	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM)								
			A	B	C	D	E	F	G	H	
1. Recpt 1	302.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	109.	2.9	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	51.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	178.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0



13.6thE-Palmdale.txt  
 JOB: 13. 6th St. E and Palmdale  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (M)		
	X	Y	Z
1. Recpt 1	806	1100	1.8
2. Recpt 2	691	1157	1.8
3. Recpt 3	729	1094	1.8
4. Recpt 4	778	1180	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM)								
			A	B	C	D	E	F	G	H	
1. Recpt 1	303.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	106.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	49.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	228.	2.8	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	CONC/LINK (PPM)											
	I	J	K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
4. Recpt 4	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0



14.SierraHwy-AveP.txt  
 JOB: 13. 6th St. E and Palmdale  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. Recpt 1	*	806	1100	1.8
2. Recpt 2	*	691	1157	1.8
3. Recpt 3	*	729	1094	1.8
4. Recpt 4	*	778	1180	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	*	BRG (DEG)	* PRED * CONC * (PPM)	*	CONC/LINK (PPM)								
					A	B	C	D	E	F	G	H	
1. Recpt 1	*	302.	* 2.8 *	*	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	*	109.	* 2.8 *	*	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	*	3.	* 2.8 *	*	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	*	229.	* 2.8 *	*	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0



16.SierraHwy-Palmdale.txt  
 JOB: 16. Sierra Highway and Palmdale Boulevar  
 RUN: Hour 1 (WORST CASE ANGLE)  
 POLLUTANT: Carbon Monoxide

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M)		
		X	Y	Z
1. Recpt 1	*	806	1100	1.8
2. Recpt 2	*	691	1157	1.8
3. Recpt 3	*	729	1094	1.8
4. Recpt 4	*	778	1180	1.8

IV. MODEL RESULTS (WORST CASE WIND ANGLE )

RECEPTOR	*	BRG (DEG)	* PRED * CONC * (PPM)	*	CONC/LINK (PPM)								
					A	B	C	D	E	F	G	H	
1. Recpt 1	*	302.	* 2.9 *	*	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	*	109.	* 2.9 *	*	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	*	6.	* 2.8 *	*	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	*	228.	* 2.8 *	*	.0	.0	.0	.0	.0	.0	.0	.0	.0

RECEPTOR	*	CONC/LINK (PPM)											
		I	J	K	L	M	N	O	P	Q	R	S	T
1. Recpt 1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
2. Recpt 2	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3. Recpt 3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
4. Recpt 4	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0



## **15.5 CULTURAL RESOURCES ASSESSMENT**

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**HISTORICAL/ARCHAEOLOGICAL RESOURCES RECONNAISSANCE REPORT**

**PALMDALE TRANSIT VILLAGE SPECIFIC PLAN**

**City of Palmdale  
Los Angeles County, California**

**For Submittal to:**

City of Palmdale Planning Department  
38250 Sierra Highway  
Palmdale, CA 93550  
(661) 267-5200

**Prepared for:**

Starla Hack  
RBF Consulting  
14725 Alton Parkway  
Irvine, CA 92618-2027

**Prepared by:**

CRM TECH  
4472 Orange Street  
Riverside, CA 92501

Bai "Tom" Tang, Principal Investigator  
Michael Hogan, Principal Investigator

November 14, 2006  
CRM TECH Contract No. 1788



## NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

**Author(s):** Bai "Tom" Tang, Historian/ Architectural Historian  
Josh Smallwood, Historical Archaeologist

**Consulting Firm:** CRM TECH  
4472 Orange Street  
Riverside, CA 92501  
(951) 784-3051

**Date:** November 14, 2006

**Title:** Historical/ Archaeological Resources Reconnaissance Report:  
Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles  
County, California

**For Submittal to:** City of Palmdale  
Planning Department  
38250 Sierra Highway  
Palmdale, CA 93550  
(661) 267-5200

**Prepared for:** Starla Hack  
RBF Consulting  
14725 Alton Parkway  
Irvine, CA 92618-2027  
(949) 855-5771

**USGS Quadrangle:** Palmdale and Ritter Ridge, Calif., 7.5' quadrangles  
Sections 23 and 26, T6N R12W, San Bernardino Base Meridian

**Keywords:** City of Palmdale; historical/ archaeological resources reconnaissance;  
late historic-period buildings; Site CA-LAN-3645H/ 19-003645  
(historic-period trash dump and possible irrigation features)



## MANAGEMENT SUMMARY

Between January and November, 2006, at the request of RBF Consulting, CRM TECH performed a historical/archaeological resources reconnaissance survey on the Area of Potential Effects (APE) for the Palmdale Transit Village Specific Plan in the City of Palmdale, Los Angeles County, California. The APE is located in general between Technology Drive, Avenue Q-3, Sierra Highway, and 3rd Street East, encompassing the northwestern portion of Palmdale's downtown area. It lies in the south half of Section 23 and the north half of Section 26, T6N R12W, San Bernardino Base Meridian. The survey is a part of the environmental review process for the specific plan. The City of Palmdale, as Lead Agency for the specific plan, initiated the survey pursuant to the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act.

The purpose of the survey is to assist the City of Palmdale in identifying any cultural resources within the APE that may constitute "historic properties," as defined by Section 106 (36 CFR 800.16(l)), or "historical resources," as defined by CEQA (PRC §21084.1). In order to accomplish this objective, CRM TECH initiated a historical/archaeological resources records search, pursued limited historical background research, and carried out a systematic field survey. Since the entire APE has been extensively disturbed by past agricultural activities and residential development, the survey procedures were focused primarily on the identification of historic-period archaeological sites and buildings/structures that are more than 45 years old and retain at least a recognizable level of historic characteristics.

As a result of the survey, a total of 73 buildings, including 69 single-family residences, 3 commercial buildings, and 1 apartment/motel, and an archaeological site, since designated CA-LAN-3645H (19-003645), were recorded within the APE. The archaeological site consisted of a historic-period refuse dump, earthen ditches, and an earthen reservoir. According to guidelines set forth by the State of California Office of Historic Preservation, Site CA-LAN-3645H and the 73 buildings recorded during this study, all of which are more than 45 years old, meet the age threshold to be considered potential "historic properties" and/or "historical resources." In order for the Palmdale Transit Village Specific Plan to comply with CEQA and Section 106 provisions on the proper evaluation and protection of cultural resources, CRM TECH presents the following recommendations to the City of Palmdale:

- The 73 pre-1961 buildings within the APE and Site CA-LAN-3645H should be presumed to be historically significant for CEQA- and Section 106-compliance purposes until proven otherwise;
- If future redevelopment activities threaten to compromise the historic integrity of CA-LAN-3645H or any of the 73 buildings, further research should be conducted on the affected properties to establish whether they qualify as "historic properties" or "historical resources;"
- Since no other potential "historic properties" or "historical resources" are identified within the APE, no additional historical/archaeological investigations will be necessary for the Palmdale Transit Village Specific Plan except at the 74 locations mentioned above;
- If buried archaeological remains are discovered during any earth-moving operations associated with future development, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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## INTRODUCTION

Between January and November, 2006, at the request of RBF Consulting, CRM TECH performed a historical / archaeological resources reconnaissance survey on the Area of Potential Effects (APE) for the Palmdale Transit Village Specific Plan in the City of Palmdale, Los Angeles County, California (Fig. 1). The APE is located in general between Technology Drive, Avenue Q-3, Sierra Highway, and 3rd Street East, encompassing the northwestern portion of Palmdale's downtown area. It lies in the south half of Section 23 and the north half of Section 26, T6N R12W, San Bernardino Base Meridian (Fig. 2). The survey is a part of the environmental review process for the specific plan. The City of Palmdale, as Lead Agency for the specific plan, initiated the survey pursuant to the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act.

The purpose of the survey is to assist the City of Palmdale in identifying any cultural resources within the APE that may constitute "historic properties," as defined by Section 106 (36 CFR 800.16(l)), or "historical resources," as defined by CEQA (PRC §21084.1). In order to accomplish this objective, CRM TECH initiated a historical / archaeological resources records search, pursued limited historical background research, and carried out a systematic field survey. The following report is a complete account of the methods and results of the various avenues of research, and the final conclusion of the study.

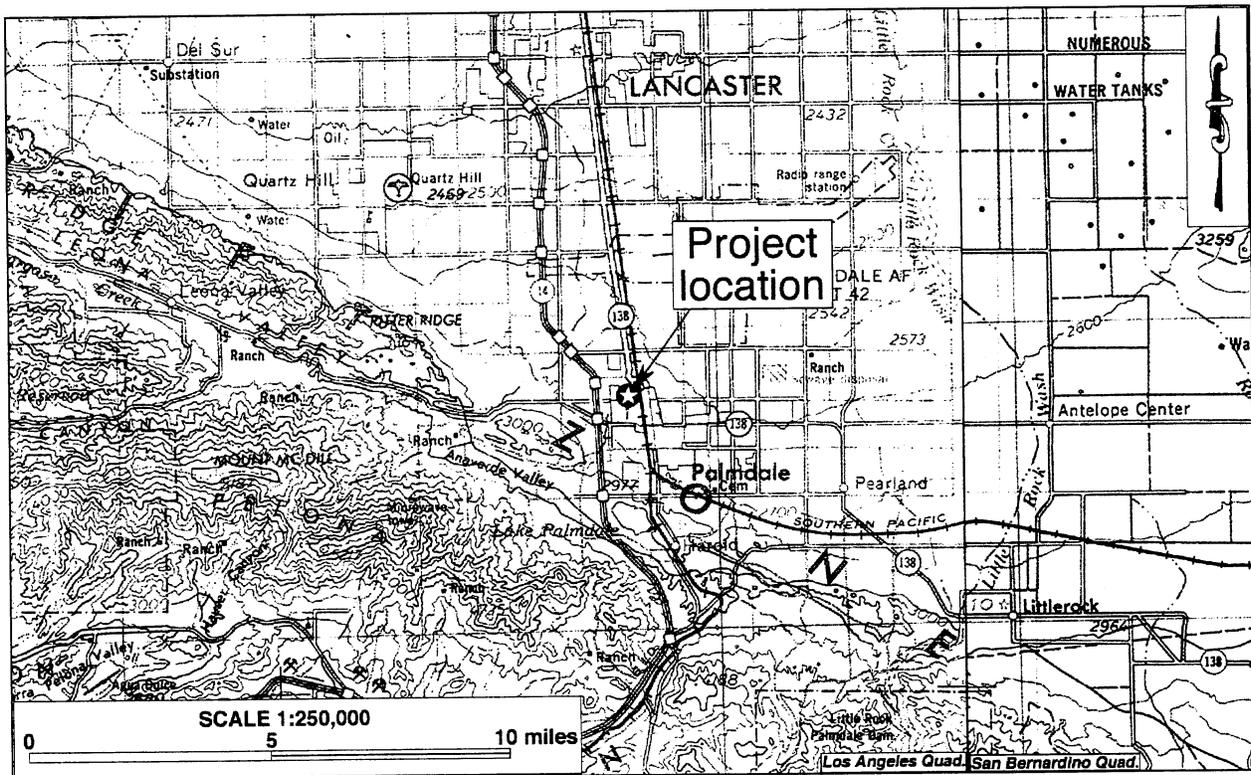


Figure 1. Project vicinity. (Based on USGS Los Angeles and San Bernardino, Calif., 1:250,000 quadrangles [USGS 1969; 1975])

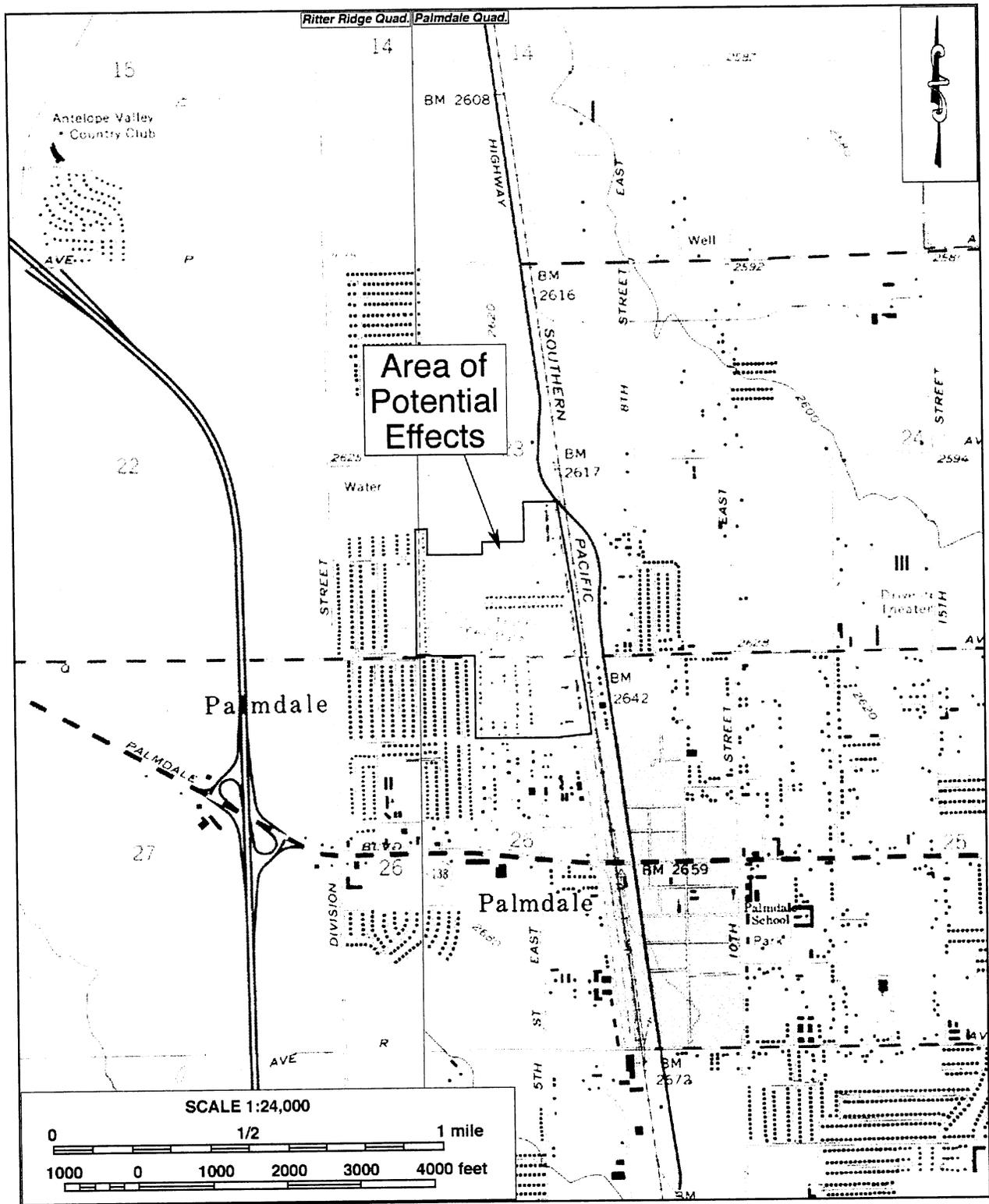


Figure 2. Area of Potential Effects. (Based on USGS Palmdale and Ritter Ridge, Calif., 1:24,000 quadrangles [USGS 1974a; 1974b])

## CULTURAL SETTING

### ARCHAEOLOGICAL CONTEXT

In order to understand Native American cultures prior to European contact, archaeologists have devised chronological frameworks on the basis of artifacts and site types dating back some 12,000 years. One of the more frequently used time frames for the Mojave Desert divides the region's prehistory into five periods marked by changes in archaeological remains, reflecting different ways in which Native peoples adapted to their surroundings. According to Warren (1984) and Warren and Crabtree (1986), these five periods are the Lake Mojave Period (12,000-7,000 years ago), the Pinto Period (7,000-4,000 years ago), the Gypsum Period (4,000-1,500 years ago), the Saratoga Springs Period (1,500-800 years ago), and the Protohistoric Period (800 years ago to European contact).

This time frame is based on general technological changes that progressed from large stone projectile points, with few milling stones for grinding food products, to smaller projectile points with an increase in milling stones. The scheme also notes increases in population, changes in food procurement and resource exploitation strategies, and more cultural complexity over time. During the Protohistoric Period, there is evidence of contact with the Colorado River tribes and the introduction of pottery across the Mojave Desert.

### ETHNOHISTORICAL CONTEXT

The APE lies in the northeastern edge of the traditional homeland of the Tataviam, a small Native American group located principally in the upper reaches of the Santa Clara River drainage, on south-facing slopes of the Liebre and Sawmill Mountains (King and Blackburn 1978:535). The general ecological adaptation and subsistence technology of the Tataviam differed little from that of their neighbors, such as the Kitanemuk, Chumash, and Gabrielino. Their language is thought to belong to the Takic family, although it appears to have diverged from other languages in the family around 1,000 B.C. and became unrecognizable to neighboring groups in historic times (*ibid.*). Little historical information is available today on this small group, which had less than 1,000 members at the time of historic contact (*ibid.*:536).

### HISTORICAL CONTEXT\*

In 1772, a group of Spanish soldiers, led by Captain Pedro Fages, became the first white men to set foot in the Antelope Valley. Over the next 70 years, a number of famous explorers, including Father Francisco Garcés, Jedediah Smith, Kit Carson, and John C. Fremont, traversed the Antelope Valley, but their explorations led to little change in the region. Nor did the earliest gold discovery in California, which took place in nearby Placerita Canyon in 1842, have a significant impact. The Antelope Valley continued to be used as hunting grounds—for its legendary herds of antelopes—and a route for travelers. Don Alexander and Phineas Banning's first stage line between Los Angeles and northern California, for example, ran through the southern edge of the Antelope Valley.

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\* This brief overview of the Palmdale area's history during the Spanish, Mexican, and American Periods is adopted primarily from a brochure that the Palmdale City Library compiled in 1991 on the basis of its local history collection (Palmdale City Library 1991:1-7).

During the 1870s, settlers began to set up homesteads wherever surface water was found. In 1876, the Southern Pacific (SP) Railroad completed its Antelope Valley line, finally ending the isolation of the region. During the next decade, a string of new towns were created around the SP stations along the line. Palmdale, however, was not among the original railway stations. Rather, it had its roots in two earlier communities, Harold and Palmenthal. Harold, also known as Alpine and Trejo, was one of the original SP stations. The small community, consisting of five buildings in the early 1890s, was located at today's intersection of Barrel Springs Road and Sierra Highway, and populated mainly by railroad employees. In the late 1890s, the SP abandoned Harold in favor of Palmdale when it needed a larger station on flat land to accommodate its booster engines for the San Gabriel Mountain grade.

Palmenthal came into being in 1886, when 50 or 60 families of German and Swiss descent, predominantly from Nebraska and Illinois, settled near the present-day intersection of Avenue R-8 and 27th Street East. In 1888, the Palmenthal post office was established in the thriving little community, which by then boasted a church, a school, a general store, and several other businesses. By the end of the 19th century, however, due to the severe drought of 1894-1897 and problems with its land title, Palmenthal was almost completely abandoned. Even the post office was discontinued in Palmenthal and moved to the budding town at the new SP station named Palmdale.

Around 1900, a group of residents who later organized the Palmdale Water District in 1918 constructed a seven-mile ditch from Little Rock Creek to present-day Lake Palmdale, known then as Harold Reservoir, in order to irrigate the arid land near the new townsite. With the completion of the Los Angeles Aqueduct in 1914 and the adoption of electric water pumps, irrigated agriculture became the primary means of livelihood in the area. Alfalfa and deciduous fruits, especially pears and apples, comprised the staple crops throughout the early 20th century, while poultry-raising also grew into an important aspect of the local economy by the 1930s and 1940s.

After World War II, with the establishment of U.S. Air Force Plant 42, Palmdale became a center of aerospace and defense industry, which remains the largest industry in the Antelope Valley today. In 1962, Palmdale was incorporated as the Antelope Valley's first city. During the 1980s, Palmdale was named the fastest growing city in California, mainly because of the availability of affordable housing, as a "bedroom community" in support of the Greater Los Angeles area.

## **RESEARCH METHODS**

### **RECORDS SEARCH**

The South Central Coastal Information Center (SCCIC), located at the California State University, Fullerton, provided the records search service for this study. During the records search, Sarah Galaz, SCCIC staff researcher, examined maps and records on file for previously identified cultural resources in or near the APE, and existing cultural resources reports pertaining to the vicinity. Previously identified cultural resources include properties designated as California Historical Landmarks, or Points of Historical Interest, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resource Information System.

## **FIELD SURVEY**

On October 13, 2006, CRM TECH field director Josh Smallwood and crewmember Darlene Harr (see App. 1 for qualifications) carried out the field survey of the APE. Vacant lands in the APE were surveyed at an intensive level for archaeological remains by walking parallel north-south and east-west transects spaced 15 meters (approx. 50 feet) apart, and the developed residential neighborhoods were surveyed from the public roads to identify all buildings that appeared to date to the historic period.

Using these methods, the entire APE was systematically and carefully examined for any evidence of human activities dating to the prehistoric or historic periods (i.e., 45 years ago or older). Ground visibility was good (80-100%) in areas where the surface had recently been disked or cleared of vegetation, and fair (50%) in other areas due to dense vegetation. Since the entire APE has been extensively disturbed by past agricultural activities and residential development, the survey procedures were focused primarily on the identification of historic-period archaeological sites and buildings/structures.

After the initial field survey, Smallwood composed a list of all potential historic-period buildings found in the APE. Smallwood and CRM TECH historian Terri Jacquemain (see App. 1 for qualifications) then reviewed the Los Angeles County Assessor's online database to ascertain the construction dates of these buildings. As a result, a list of properties that both appeared to be pre-1961 in origin (i.e., with a recognizable level of historic integrity) and proved to predate 1961 through the preliminary research was developed.

On October 25, 2006, Smallwood and Harr returned to the APE to complete field recording procedures on buildings in the APE that proved to be historical in origin. Josh Smallwood, a historical archaeologist, has received extensive training in the identification and recordation of historic-period buildings, and has had five years of experience in that capacity for various past studies with CRM TECH. Darlene Harr, an archaeologist with nearly 10 years of experience, has also been cross-trained in the basic techniques of building recordation.

In order to facilitate the proper recordation of these older buildings, Smallwood and Harr made detailed notations and preliminary photo-documentation of their structural and architectural characteristics and current conditions. A total of 73 buildings or groups of buildings were recorded during this phase of the survey. In addition to the buildings, a previously unknown archaeological site was also recorded in the APE. Written descriptions, maps, field sketches, and/or photographs of these 74 cultural resources were then compiled on the State of California's standard site record forms, commonly known as DPR 523 forms, and submitted to the SCCIC for inclusion in the California Historical Resource Information System (see App. 2). Due to the reconnaissance nature of this survey, only Primary Records (DPR 523A) were completed for the buildings.

## **HISTORICAL BACKGROUND RESEARCH**

Also dictated by the reconnaissance nature of the survey, the scope of historical research was limited to the determination of the construction dates of the buildings in the APE within the context of the overall development of the Palmdale area during the historic period. As mentioned above, Terri Jacquemain and Josh Smallwood researched the Los

Angeles County Assessor's online database to ascertain the construction dates of all properties noted in the field. In addition, Smallwood reviewed historic maps of the APE and its vicinity, including the U.S. General Land Office's (GLO) land survey plat map dated 1856 and the U.S. Geological Survey's (USGS) topographic maps dated 1917, 1937, and 1958. These maps are collected at the Science Library of the University of California, Riverside, and the California Desert District of the U.S. Bureau of Land Management, located in Moreno Valley.

## **RESULTS AND FINDINGS**

### **PREVIOUS CULTURAL RESOURCES STUDIES**

According to records on file at the South Central Coastal Information Center, a small portion of the APE was covered by a previous cultural resources survey completed in 1990 (Fig. 3; Robinson 1990), but the APE as a whole had not been surveyed systematically for cultural resources prior to this study. No cultural resources were previously recorded within or adjacent to the boundaries of the APE. Outside the APE but within a one-mile radius, SCCIC records show more than 30 previous cultural resources studies on various tracts of land and linear features, including two linear surveys along Sierra Highway (Fig. 3). As a result of these and other similar studies, 52 potential cultural resources, including 9 archaeological sites and 43 historic-period buildings, were recorded within the scope of the records search but outside the APE.

The nine archaeological sites all dated to the historic period, and typically consisted of trash deposits, irrigation features, and structural remains. The historic-period buildings included both single-family and multi-family residences. None of these previously identified cultural resources was found in the immediate vicinity of the APE, and thus none of them requires further consideration during this study. However, the presence of these resources suggests a relative high sensitivity of the APE for as-yet unrecorded cultural resources, especially those from the historic period.

### **HISTORICAL OVERVIEW OF THE APE**

Historic maps consulted for this study indicate that no evidence of any human activities were noted in or near the APE in the 1850s, when the U.S. government conducted the first surveys of the Antelope Valley (Fig. 4). Sixty years later, the APE remained vacant and probably undeveloped despite its location in close proximity to the town of Palmdale and to the Southern Pacific Railroad and Sierra Highway, the two principal transportation arteries across the valley (Fig. 5). At that time, the only man-made feature known to be present within the APE was the forerunner of today's Avenue Q (Fig. 5).

The earliest settlement and/or development activities within the APE evidently occurred sometime after WWI. By the early 1930s, at least two buildings had appeared within the APE, on the west side of Sierra Highway, along with a reservoir in the central portion of the APE, which presumably held water for irrigation purposes (Fig. 6). Both of the buildings were probably removed between the 1930s and the 1950s, as an apparent residential tract was located at that location in 1956, along present-day Avenue P-14 (Fig. 7).

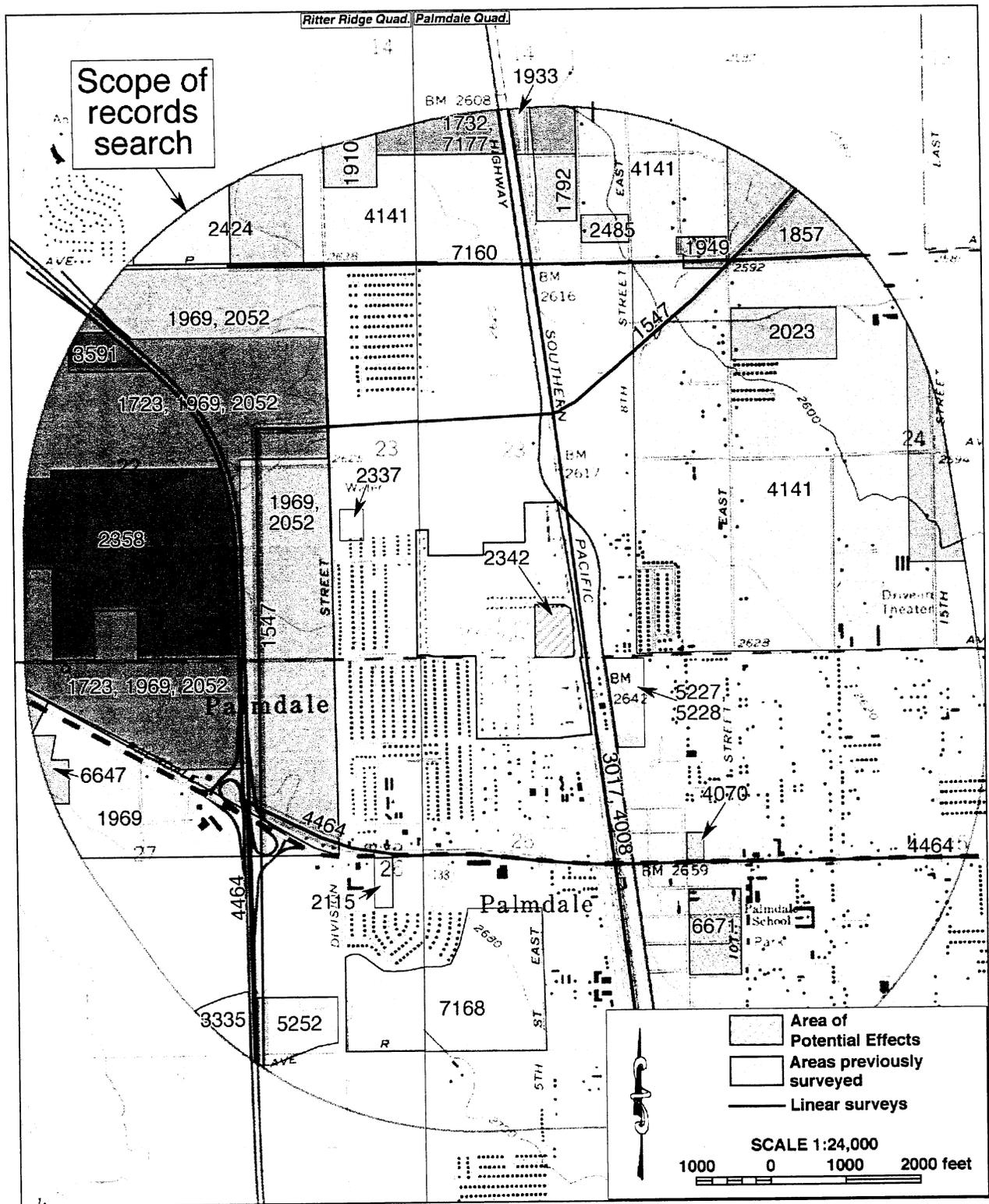


Figure 3. Previous cultural resources surveys in the vicinity of the APE, listed by SCCIC file number. Locations of previously identified cultural resources are not shown as a protective measure.

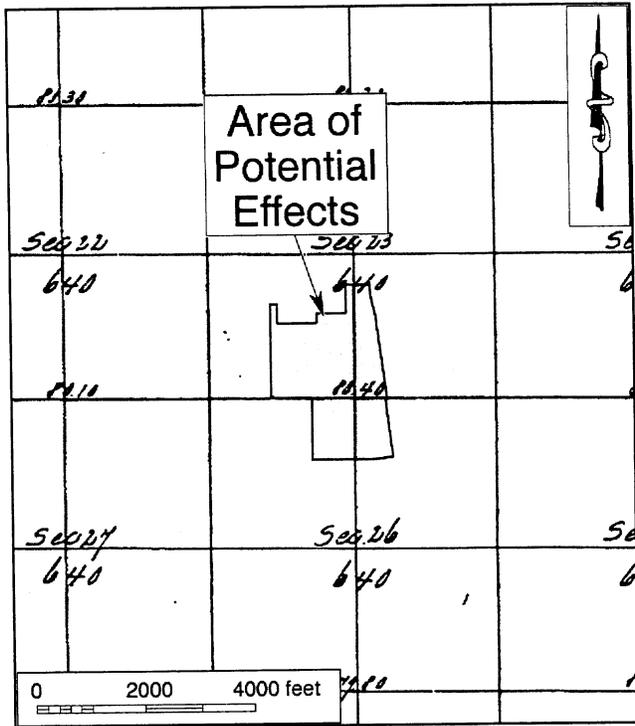


Figure 4. The APE and vicinity in 1856. (Source: GLO 1856)

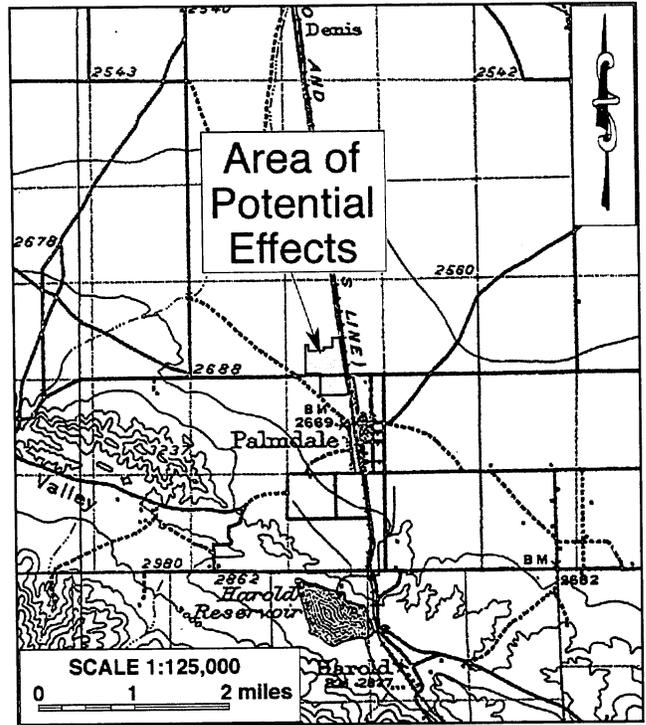


Figure 5. The APE and vicinity in 1915. (Source: USGS 1917)

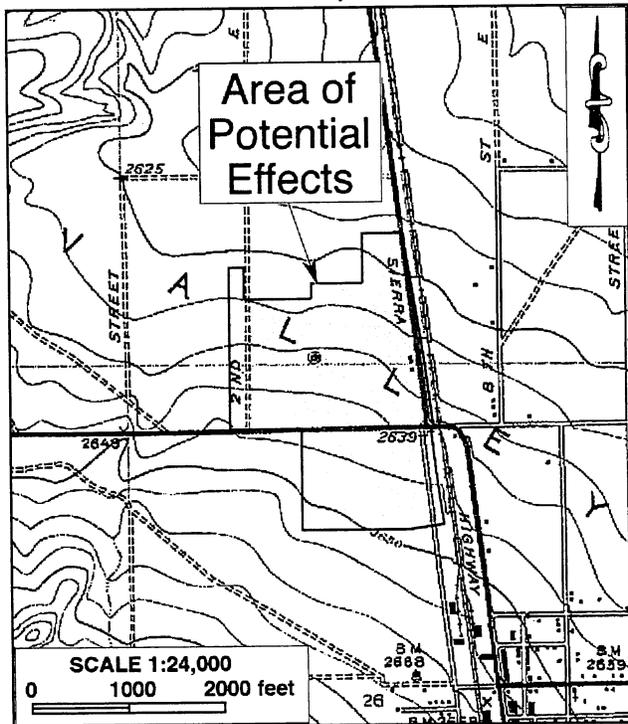


Figure 6. The APE and vicinity in 1931-1932. (Source: USGS 1937)

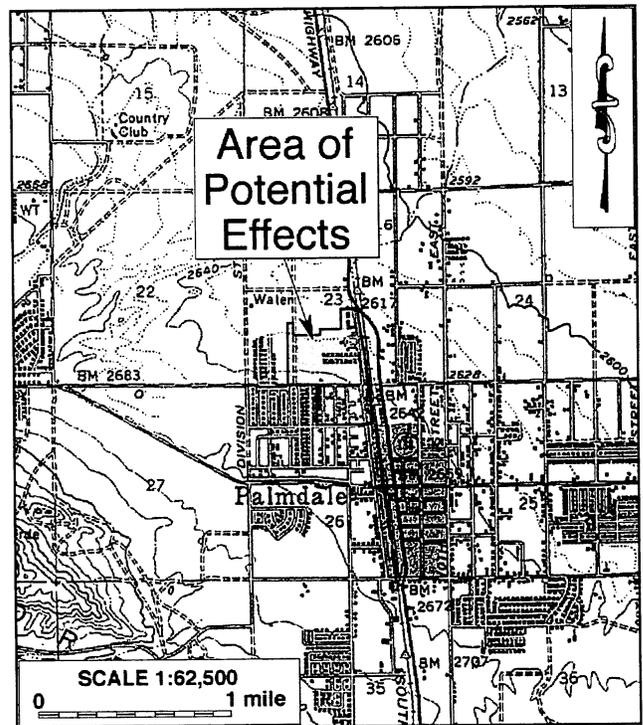


Figure 7. The APE and vicinity in 1956. (Source: USGS 1958)

In the meantime, a similar but much more extensive residential neighborhood had sprung up to the south, which encompassed the southern portion of the APE between Avenue Q and Avenue Q-3, and a number of other buildings had been constructed along Sierra Highway (Fig. 7). While the neighborhood along Avenue P-14 was fully developed by 1956, the southern portion of the APE demonstrated a different development pattern, with buildings scattered randomly along the various streets, leaving many vacant lots for later infill development (Fig. 7). The greatly accelerated growth in and around the APE clearly reflected the rapid expansion of Palmdale as a suburban community during the post-WWII boom era, and the development of Sierra Highway as a major commercial corridor.

## POTENTIAL CULTURAL RESOURCES WITHIN THE APE

During the field survey, no evidence of any prehistoric—i.e., Native American—cultural resources was found within the APE. However, a large number of buildings are present in the APE, including mainly single-family residences but also an apartment/motel and three commercial buildings. A total of 73 of these buildings evidently date to the 1950s or earlier and were recorded during this study as potential historical resources. These included 69 single-family residences, 3 commercial buildings, and 1 apartment/motel. Three of the buildings, located at 38605, 38611, and 38616 4th Street, exhibit physical characteristics of pre-1950s architecture, but the Los Angeles County Assessor's online database lists all three as being constructed between 1954 and 1957.

Many other buildings and structures in the APE were determined to be of modern origin, and their appearance is characteristic of those constructed in the Palmdale area during the 1960s-1980s. A few others, such as the Palmdale-Metrolink Transportation Center and the Rex Parris High School, are more recent additions to the area. None of these modern buildings demonstrates any outstanding architectural, artistic, or aesthetic qualities, and none of them was recorded as potential historical resources. The 73 buildings recorded during this study are listed below and their locations are identified in Figure 8.

### List of Historic-Period Buildings within the APE (See Fig. 8 for locations and App. 2 for further detail)

Parcel No.	Address	Property Type	Const. Date*
3006-007-001	38862 4th Street East	Single-family residence	Ca. 1952
3006-007-002	38904 4th Street East	Single-family residence	Ca. 1951
3006-007-003	409 Avenue P-14	Single-family residence	Ca. 1951
3006-007-004	406 Avenue P-14	Single-family residence	Ca. 1952
3006-007-005	412 Avenue P-14	Single-family residence	Ca. 1952
3006-007-006	413 Avenue P-14	Single-family residence	Ca. 1951
3006-007-007	419 Avenue P-14	Single-family residence	Ca. 1954
3006-007-008	416 Avenue P-14	Single-family residence	Ca. 1951
3006-007-009	422 Avenue P-14	Single-family residence	Ca. 1951
3006-007-010	423 Avenue P-14	Single-family residence	Ca. 1951
3006-007-011	429 Avenue P-14	Single-family residence	Ca. 1951
3006-007-012	428 Avenue P-14	Single-family residence	Ca. 1951
3006-007-013	432 Avenue P-14	Single-family residence	Ca. 1951
3006-007-014	433 Avenue P-14	Single-family residence	Ca. 1951

\* Source: Los Angeles County Assessor's online database.

**List of Historic-Period Buildings within the APE (Continued)**

<b>Parcel No.</b>	<b>Address</b>	<b>Property Type</b>	<b>Const. Date</b>
3006-007-015	439 Avenue P-14	Single-family residence	Ca. 1951
3006-007-016	438 Avenue P-14	Single-family residence	Ca. 1951
3006-007-017	442 Avenue P-14	Single-family residence	Ca. 1951
3006-007-018	443 Avenue P-14	Single-family residence	Ca. 1951
3006-007-019	449 Avenue P-14	Single-family residence	Ca. 1951
3006-007-020	448 Avenue P-14	Single-family residence	Ca. 1952
3006-007-021	502 Avenue P-14	Single-family residence	Ca. 1951
3006-007-022	503 Avenue P-14	Single-family residence	Ca. 1951
3006-007-023	509 Avenue P-14	Single-family residence	Ca. 1951
3006-007-024	508 Avenue P-14	Single-family residence	Ca. 1951
3006-007-025	512 Avenue P-14	Single-family residence	Ca. 1951
3006-007-026	513 Avenue P-14	Single-family residence	Ca. 1951
3006-007-027	519 Avenue P-14	Single-family residence	Ca. 1951
3006-007-028	518 Avenue P-14	Single-family residence	Ca. 1952
3006-007-029	522 Avenue P-14	Single-family residence	Ca. 1952
3006-007-030	523 Avenue P-14	Single-family residence	Ca. 1951
3006-007-031	527 Avenue P-14	Single-family residence	Ca. 1951
3006-007-032	528 Avenue P-14	Single-family residence	Ca. 1952
3006-007-033	534 Avenue P-14	Single-family residence	Ca. 1952
3006-007-034	533 Avenue P-14	Single-family residence	Ca. 1951
3006-007-035	539 Avenue P-14	Single-family residence	Ca. 1951
3006-007-036	540 Avenue P-14	Single-family residence	Ca. 1952
3006-007-037	544 Avenue P-14	Single-family residence	Ca. 1952
3006-007-038	543 Avenue P-14	Single-family residence	Ca. 1951
3006-007-039	547 Avenue P-14	Single-family residence	Ca. 1951
3006-009-015	38845 3rd Street East	Single-family residence	Ca. 1958
3008-007-002	38745 4th Street East	Single-family residence	Ca. 1957
3008-007-003	38739 4th Street East	Single-family residence	Ca. 1957
3008-007-004	38731 4th Street East	Single-family residence	Ca. 1957
3008-007-006	38721 4th Street East	Single-family residence	Ca. 1955
3008-007-008	38709 4th Street East	Single-family residence	Ca. 1956
3008-007-009	38703 4th Street East	Single-family residence	Ca. 1953
3008-007-010	38647 4th Street East	Single-family residence	Ca. 1957
3008-007-013	38629 4th Street East	Single-family residence	Ca. 1957
3008-007-016	38611 4th Street East	Single-family residence	Ca. 1956
3008-007-017	38605 4th Street East	Single-family residence	Ca. 1957
3008-008-002	38610 4th Street East	Single-family residence	Ca. 1955
3008-008-003	38616 4th Street East	Single-family residence	Ca. 1954
3008-008-012	38720 4th Street East	Single-family residence	Ca. 1956
3008-009-024	38715 5th Street East	Single-family residence	Ca. 1956
3008-009-025	38709 5th Street East	Single-family residence	Ca. 1957
3008-009-028	38641 5th Street East	Single-family residence	Ca. 1957
3008-009-030	38629 5th Street East	Single-family residence	Ca. 1956
3008-009-031	38623 5th Street East	Single-family residence	Ca. 1956
3008-009-032	38617 5th Street East	Single-family residence	Ca. 1957
3008-011-007	38717 6th Street East	Apartment/motel	Ca. 1951

### List of Historic-Era Buildings within the APE (Continued)

Parcel No.	Address	Property Type	Const. Date
3008-011-028	38644 6th Street East	Commercial building	Ca. 1954
3008-011-029	38646 6th Street East	Commercial building	Ca. 1953
3008-011-030	38702 6th Street East	Commercial building	Ca. 1952
3006-007-040	38865 6th Street East	Single-family residence	Ca. 1952
3008-008-022	38727 Larkin Avenue	Single-family residence	Ca. 1956
3008-008-032	38617 Larkin Avenue	Single-family residence	Ca. 1956
3008-008-033	38611 Larkin Avenue	Single-family residence	Ca. 1955
3008-009-005	38628 Larkin Avenue	Single-family residence	Ca. 1955
3008-009-006	38634 Larkin Avenue	Single-family residence	Ca. 1956
3008-009-007	38640 Larkin Avenue	Single-family residence	Ca. 1956
3008-009-011	38714 Larkin Avenue	Single-family residence	Ca. 1955
3008-009-012	38720 Larkin Avenue	Single-family residence	Ca. 1956
3008-009-021	38733 Larkin Avenue	Single-family residence	Ca. 1956

Field observations confirmed that the development of the neighborhood between Avenue Q and Avenue Q-3 has been a gradual process that has extended over several decades, with later constructions continuously filling vacant lots left between older buildings. In contrast, the neighborhood along Avenue P-14 shows a sufficiently distinctive and coherent historical characteristic to be considered a potential historic district, albeit one of relatively late vintage, namely the early 1950s. All 40 of the single-family residences in this residential tract are of similar ground plans but have three different roof styles, including hip, gable, and gable-on-hip. All of the houses are one-story tall, are less than 1,000 square feet in size, and have a rather plain appearance, typical of the Minimal Traditional style that prevailed during the WWII and early post-WWII years.

Besides the buildings, a previously unknown archaeological site consisting of a historic-period refuse dump, two segments of earthen ditches, and an earthen reservoir was identified and recorded in the northwestern portion of the APE (Fig. 8), and has been designated by the SCCIC as Site CA-LAN-3645H (19-003645; see App. 2 for detail). The location of the reservoir closely resembles that of the reservoir shown in the 1937 USGS map (Fig. 6). Artifacts in the refuse dump include more than 50 cans from various consumer products, ceramic sherds from broken china, bottle bases dating to 1929-1957 (Toulouse 1971:332, 403), and a piece of sun-altered amethyst glass (ca. 1880-1920).

Two concrete slab foundations were noted on the west side of 3rd Street East, representing the remains of two buildings that once stood at the location. The northeastern portion of the APE, north of the Palmdale-Metrolink Transportation Center, includes an overgrown, nearly level field with a number of erect metal poles, evidently the remnants of a drive-in movie theater. The central portion of the APE also shows signs of once being used for an unknown purpose, most notably a nearly-level grade, pieces of manufactured gravel, fragmented building materials, plastic drip-lines, and a partially buried vertical water pipe. None of these locations exhibits any surficial evidence of substantial archaeological deposits dating to the historic period. With little historic integrity to relate to their past history and little potential to yield any important archaeological finds, these locations show no promise for historic significance under the provisions of CEQA and Section 106, and thus they were not formally recorded during the survey.

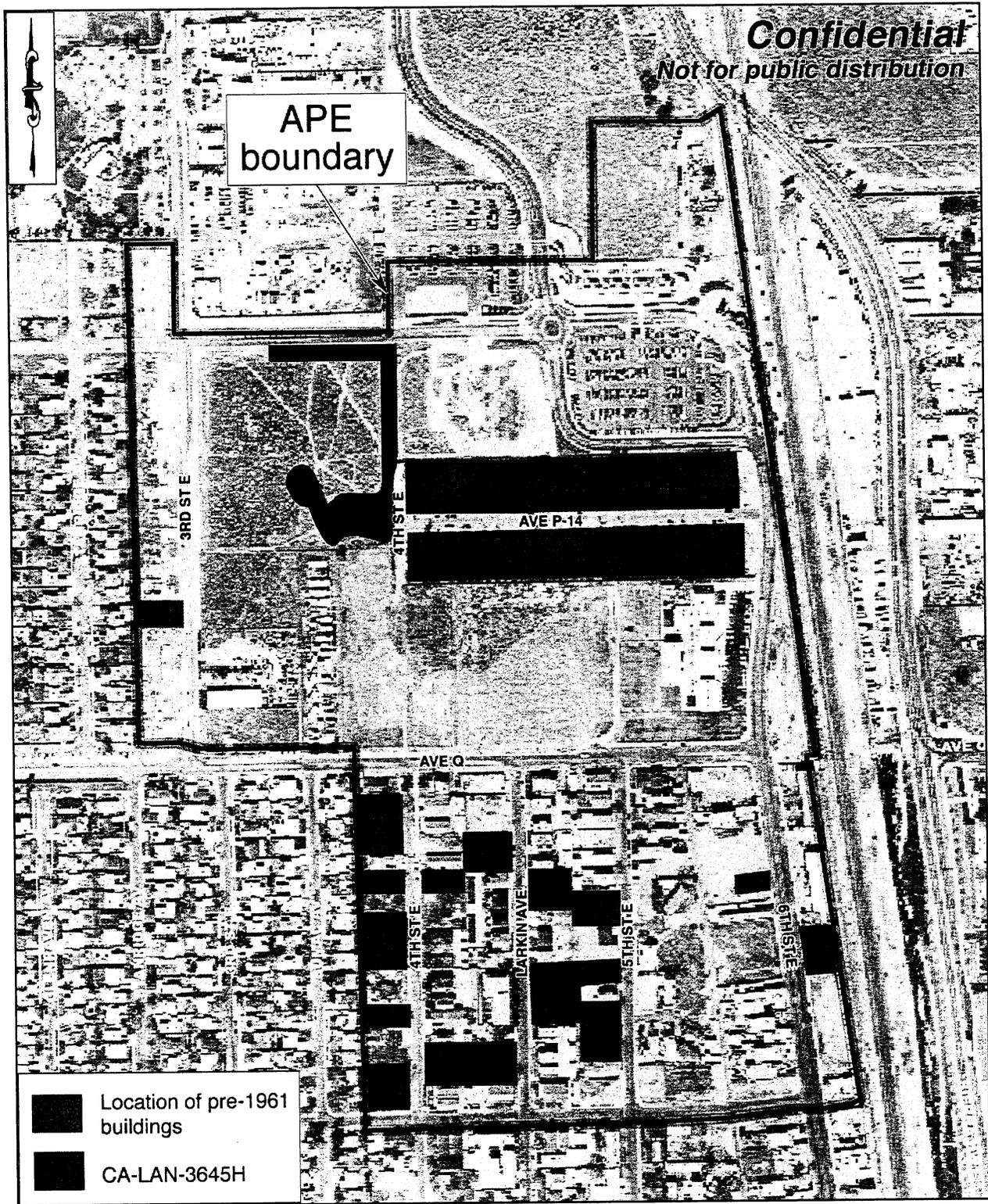


Figure 8. Locations of pre-1961 buildings and Site CA-LAN-3645H in the APE.

## MANAGEMENT CONSIDERATIONS

The objective of this survey, as outlined by the City of Palmdale, is to identify and inventory all buildings, structures, sites, and other cultural features within the APE that may constitute "historic properties," as defined by Section 106, or "historical resources," as defined by CEQA. Since the 73 buildings and the archaeological site recorded in the APE during this study are known to be more than 45 years old, the age threshold established by the State of California Office of Historic Preservation for the recordation and evaluation of such resources, they should be considered potential "historic properties" and "historical resources," pending formal evaluation in the future.

"Historic properties," as defined by the Advisory Council on Historic Preservation, include "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior" (36 CFR 800.16(1)). The eligibility for inclusion in the National Register is determined by applying the following criteria, developed by the National Park Service as per provision of the National Historic Preservation Act:

- The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and
- (a) that are associated with events that have made a significant contribution to the broad patterns of our history; or
  - (b) that are associated with the lives of persons significant in our past; or
  - (c) that embody the distinctive 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 represent a significant and distinguishable entity whose components may lack individual distinction; or
  - (d) that have yielded, or may be likely to yield, information important in prehistory or history. (36 CFR 60.4)

For CEQA-compliance considerations, the State of California's Public Resources Code (PRC) establishes the definitions and criteria for "historical resources," which require similar protection to what NHPA Section 106 mandates for historic properties. "Historical resources," according to PRC §5020.1(j), "includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California." More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the Lead Agency (Title 14 CCR §15064.5(a)(1)-(3)).

Regarding the proper criteria of historical significance, CEQA guidelines mandate that "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" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) 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.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

Under Section 106 provisions, federal agencies, as well as state or local agencies receiving federal funding, are required to take into account the effects of their undertakings on historic properties and seek ways to avoid, minimize, or mitigate any adverse effects on such properties (36 CFR 800.1(a)). Similarly, CEQA establishes that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of an historical resource would be impaired."

Due to its limited scope, the present study did not pursue in-depth investigations, such as focused historical research and, for Site CA-LAN-3645H, archaeological testing, on the properties recorded within the APE to assess their historical significance and their qualifications as "historic properties" and/or "historical resources." If future redevelopment activities will affect any of these 74 properties, they will need to be evaluated under the National Register and/or California Register criteria.

## RECOMMENDATIONS

The present survey has identified and recorded in the Area of Potential Effects a total of 73 buildings and one archaeological site, CA-LAN-3645H, that meet the age threshold to be considered potential "historic properties" and/or "historical resources," but the scope of this reconnaissance-level survey did not allow for sufficient historical/archaeological investigations to adequately evaluate their historical significance. In order for the Palmdale Transit Village Specific Plan to comply with CEQA and Section 106 provisions on the proper evaluation and protection of cultural resources, CRM TECH presents the following recommendations to the City of Palmdale:

- The 73 pre-1961 buildings within the APE and Site CA-LAN-3645H should be presumed to be historically significant for CEQA- and Section 106-compliance purposes until proven otherwise;
- If future redevelopment activities threaten to compromise the historic integrity of CA-LAN-3645H or any of the 73 buildings, further research should be conducted on the affected properties to establish whether they qualify as "historic properties" or "historical resources;"
- Since no other potential "historic properties" or "historical resources" are identified within the APE, no additional historical/archaeological investigations will be necessary for the Palmdale Transit Village Specific Plan except at the 74 locations mentioned above;

- If buried archaeological remains are discovered during any earth-moving operations associated with future development, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

Further studies on the historic-period buildings should include, at a minimum, additional and more focused historical research to clarify the following issues:

- Whether any of the buildings is closely associated with a person or an event, either a specific event or a pattern of events, that is recognized as being significant in national, state, or local history;
- Whether any of the buildings or a group of buildings collectively represents an important example of a particular pattern of development, method of construction, or the work of a significant architect, designer, developer, or builder;
- Whether a building retains sufficient historic integrity to relate to its period of potential significance if it determined to possess any of the historic merits identified above.

Further studies on Site CA-LAN-3645H, in addition to more focused research to ascertain its historical background, should also include limited archaeological testing to assess the site's potential to produce artifact deposits and/or features that may yield important information for the study of local history.

If Site CA-LAN-3645H or any of the 73 historic-period buildings in the APE proves to qualify as a "historic property" or a "historical resource," Section 106 and CEQA provisions mandate a further determination on whether the proposed project would have an adverse effect on the historic integrity of the property, especially those characteristics of the property from which the property derives its historic significance. Such effects, if present, need to be prevented or mitigated to a level less than significant, as required by Section 106 and CEQA. For an archaeological site, prevention of project effect may be achieved by avoidance of disturbances and capping, which would preserve the site under a layer of fill soil, and mitigation typically consists primarily of data recovery excavations aimed at salvaging the important archaeological information contained in the site.

For historic-period buildings, when project effects cannot be avoided, possible mitigation measures include—but are not limited to—relocation of the buildings or a comprehensive documentation program to preserve the historical and architectural data about them. Based on the buildings' level of significance, documentation programs of different intensity may be implemented. For buildings of local historic interest, as is most commonly the case, a detailed architectural description, compilation of historical background, photographic recordation, and scaled mapping, if necessary, would usually meet the documentation requirement. Depending upon the various aspects of a building's historic significance, however, additional mitigation measures may be required and formulated on a case-by-case basis.

## REFERENCES

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1917 Map: Elizabeth Lake, Calif. (30', 1:125,000); surveyed in 1915.  
1937 Map: Palmdale, California (6', 1:24,000); surveyed in 1931-1932.  
1958 Map: Lancaster, Calif. (15', 1:62,500); aerial photographs taken in 1956.  
1969 Map: San Bernardino, Calif. (1:250,000); 1958 edition revised.  
1974a Map: Palmdale, Calif. (7.5', 1:24,000); 1958 edition photorevised in 1974.  
1974b Map: Ritter Ridge, Calif. (7.5', 1:24,000); 1958 edition photorevised in 1974.  
1975 Map: Los Angeles, Calif. (1:250,000); aerial photographs taken in 1972.
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1986 Prehistory of the Southwestern Area. In Warren L. d'Azevedo (ed.): *Handbook of North American Indians*, Vol. 11: *Great Basin*; pp. 183-193. Smithsonian Institution, Washington, D.C.

**APPENDIX 1**  
**PERSONNEL QUALIFICATIONS**

**PRINCIPAL INVESTIGATOR/HISTORIAN/ARCHITECTURAL HISTORIAN**  
**Bai "Tom" Tang, M.A.**

**Education**

- 1988-1993 Graduate Program in Public History / Historic Preservation, UC Riverside.  
1987 M.A., American History, Yale University, New Haven, Connecticut.  
1982 B.A., History, Northwestern University, Xi'an, China.
- 2000 "Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.  
1994 "Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

**Professional Experience**

- 2002- Principal Investigator, CRM TECH, Riverside, California.  
1993-2002 Project Historian / Architectural Historian, CRM TECH, Riverside, California.  
1993-1997 Project Historian, Greenwood and Associates, Pacific Palisades, California.  
1991-1993 Project Historian, Archaeological Research Unit, UC Riverside.  
1990 Intern Researcher, California State Office of Historic Preservation, Sacramento.  
1990-1992 Teaching Assistant, History of Modern World, UC Riverside.  
1988-1993 Research Assistant, American Social History, UC Riverside.  
1985-1988 Research Assistant, Modern Chinese History, Yale University.  
1985-1986 Teaching Assistant, Modern Chinese History, Yale University.  
1982-1985 Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

**Honors and Awards**

- 1988-1990 University of California Graduate Fellowship, UC Riverside.  
1985-1987 Yale University Fellowship, Yale University Graduate School.  
1980, 1981 President's Honor List, Northwestern University, Xi'an, China.

**Cultural Resources Management Reports**

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (With Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

**Membership**

California Preservation Foundation.

**PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST**  
**Michael Hogan, Ph.D., RPA\***

**Education**

- 1991 Ph.D., Anthropology, University of California, Riverside.  
1981 B.S., Anthropology, University of California, Riverside; with honors.  
1980-1981 Education Abroad Program, Lima, Peru.
- 2002 "Historic Artifact Workshop," presented by Richard Norwood.  
2002 "Wending Your Way through the Regulatory Maze," presented by the Association of Environmental Professionals.
- 1992 "Southern California Ceramics Workshop," presented by Jerry Schaefer.  
1992 "Historic Artifact Workshop," presented by Anne Duffield-Stoll.

**Awards and Honors**

- 1987-1988 Humanities Graduate Students Research Grant, U. C. Riverside.  
1986-1987 Humanities Graduate Students Research Grant, U. C. Riverside.  
1986-1987 Chancellor's Patent Fund, U. C. Riverside.  
1982-1983 Graduate Council Fellow, Regents Fellowship Program, U. C. Riverside.  
1981 Phi Beta Kappa.

**Professional Experience**

- 2002- Principal Investigator, CRM TECH, Riverside, California.  
1999-2002 Project Archaeologist/ Field Director, CRM TECH, Riverside.  
1996-1998 Project Director and Ethnographer, Statistical Research, Inc., Redlands.  
1992-1998 Assistant Research Anthropologist, University of California, Riverside  
1992-1995 Project Director, Archaeological Research Unit, U. C. Riverside.  
1993-1994 Adjunct Professor, Riverside Community College, Mt. San Jacinto College,  
University of California, Riverside, Chapman University, and San Bernardino Valley  
College.
- 1991-1992 Crew Chief, Archaeological Research Unit, U. C. Riverside.  
1984-1998 Archaeological Technician, Field Director, and Project Director for various southern  
California cultural resources management firms.

**Research Interests**

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

**Cultural Resources Management Reports**

Author, co-author, and contributor to numerous cultural resources management reports since 1986 while with the Archaeological Research Unit, Statistical Research, Inc., and CRM TECH.

**Memberships**

\* Register of Professional Archaeologists.  
Society for American Archaeology.  
Society for California Archaeology.

## HISTORICAL ARCHAEOLOGIST Josh Smallwood, B.A.

### Education

- 1998 B.A., Anthropology, Humboldt State University, Arcata, CA.  
1997 Archaeological Field School, Fort Ross Historic District, Fort Ross, CA.  
Archaeological Field School, Coastal Test and Mitigation Projects, Eureka, CA.  
1996 Archaeological Field School, Mad River Watershed Surveys, Blue Lake, CA.  
1994 A.A., Anthropology, Palomar College, San Marcos, CA.  
1993 Archaeological Field School, San Pasqual Battlefield, San Pasqual, CA.  
Archaeological Field School, Las Flores Asistència, Camp Pendleton, CA.  
1992 Archaeological Field School, Palomar College Campus Late Prehistoric Sites, San Marcos, CA.
- 1997- Extensive study of historic-period bottle, can, and pottery manufacture, morphology, embossed marks, and dating techniques. Emphasis on historic-period artifact analysis, site interpretation, site evaluation, and treatment strategies.
- 2002 "Historic Archaeology Workshop," presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base.
- 2001 "CEQA and Section 106 Basics," presented by Richard Carrico, Principal Investigator, Mooney & Associates, San Diego.
- 2001 "OSHA Safety Training for Construction Monitors," presented by OSHA and City of San Diego.
- 2000 "HABS/HAER Recording Methods for Historic Structures," presented by Robert Case, Historic Archaeologist, Mooney & Associates, San Diego.
- 1998 "Unexploded Ordinance Training," presented by EOD officers, Fort Irwin Army Training Facility, Barstow.

### Professional Experience

- 2002- Project Archaeologist/Report Writer, CRM TECH, Riverside, CA.  
• Writer/co-author of cultural resource reports for BLM, FCC, and Caltrans-led projects and city general plans.  
• Historic archaeologist, archaeological field work, site interpretation, evaluation, and treatment.  
• Historic-period artifact analysis, building surveys and recordation, historical research based on published literature, historic maps, oral interviews, county and city archival records, internet sources, and consultation with local historical societies.
- 1997-2002 Archaeologist for several cultural resource management/environmental consultants, Department of Defense subcontractors, and Humboldt State University.

### Cultural Resources Management Reports

Co-author of and contributor to numerous CEQA and Section 106 compliance studies since 1997.

**PROJECT HISTORIAN**  
**Terri Jacquemain, M.A.**

**Education**

- 2004 M.A., Program in Historic Resource Management, University of California, Riverside.  
2002 B.S., Anthropology, University of California, Riverside.

**Professional Experience**

- 2003- Project Historian, CRM TECH, Riverside.  
2002- Teaching Assistant, Religious Studies Department, University of California, Riverside.  
1997-1999 Reporter, *Inland Valley Daily Bulletin*, Ontario, California.  
1991-1997 Reporter, *The Press-Enterprise*, Riverside.

**PROJECT ARCHAEOLOGIST**  
**Darlene M. Harr**

**Education**

- 2007 B.A. (expected), Anthropology, California State University, San Bernardino, California.  
1985-1991 Anthropology, Riverside Community College, Riverside, California.  
1975-1977 Anthropology, Fresno City College, Fresno, California.

**Experience**

- 2006 Archaeologist/Report Writer, CRM TECH, Riverside, California.  
2005-2006 Archaeologist, McKenna et al., Whittier, California.  
1992-2003 Assistant Museum Curator, Antelope Valley Indian Museum, Lancaster, California.  
2001-2003 Collections Manager, Lancaster Museum/ Art Gallery, Lancaster, California.  
1980-1983 District Archaeologist, U.S. Forest Service, Shaver Lake, California.

**APPENDIX 2**  
**SITE RECORD FORMS**

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # 19-003645  
HRI # \_\_\_\_\_  
Trinomial CA-LAN-3645H  
NRHP Status Code 7R

Other Listings \_\_\_\_\_  
Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

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\*Resource Name or # (Assigned by recorder) CRM TECH 1788-1

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location:  Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NW 1/4 of SE 1/4 of SW 1/4 Sec 23 ; S.B.B.M.  
Elevation: Approx. 2,630 feet above mean sea level  
c. Address N/A City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11; A: 396,940 mE/ 3,828,000 mN  
B: 397,080 mE/ 3,828,000 mN  
C: 396,960 mE/ 3,827,900 mN  
D: 397,080 mE/ 3,827,850 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The site is located on the south side of Avenue P-12, near the northern end of 4th Street East, and approximately 210 feet east of 3rd Street East.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The site consists of a historic-period refuse dump, two segments of an abandoned earthen ditch, and an earthen reservoir. Most of the items at the refuse dump were concentrated in an area measuring approximately 50 feet in diameter.

\*P3b. Resource Attributes: (List attributes and codes) AH4: Trash scatter; AH6: Water conveyance system

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
 Isolate  Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) \_\_\_\_\_

\*P6. Date Constructed/Age and Sources:  Historic  Prehistoric  Both \_\_\_\_\_

\*P7. Owner and Address: Unknown

\*P8. Recorded by: (Name, affiliation, and address) Josh Smallwood, CRM TECH, 4472 Orange Street, Riverside, CA 92501

\*P9. Date Recorded: October 13, 2006

\*P10. Survey Type: (Describe) Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Sketch Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  Rock Art Record  
 Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

ARCHAEOLOGICAL SITE RECORD

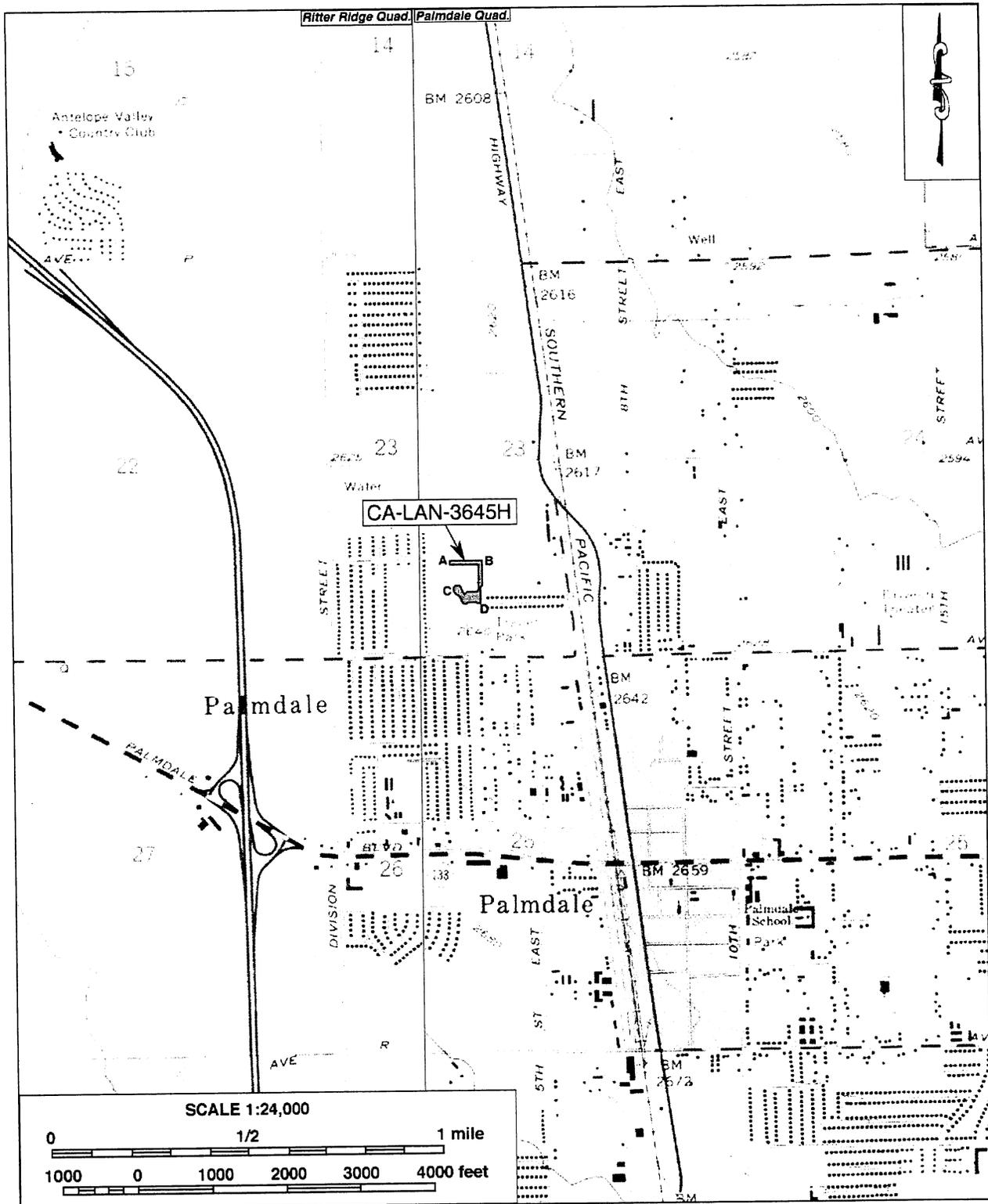
Page 2 of 5

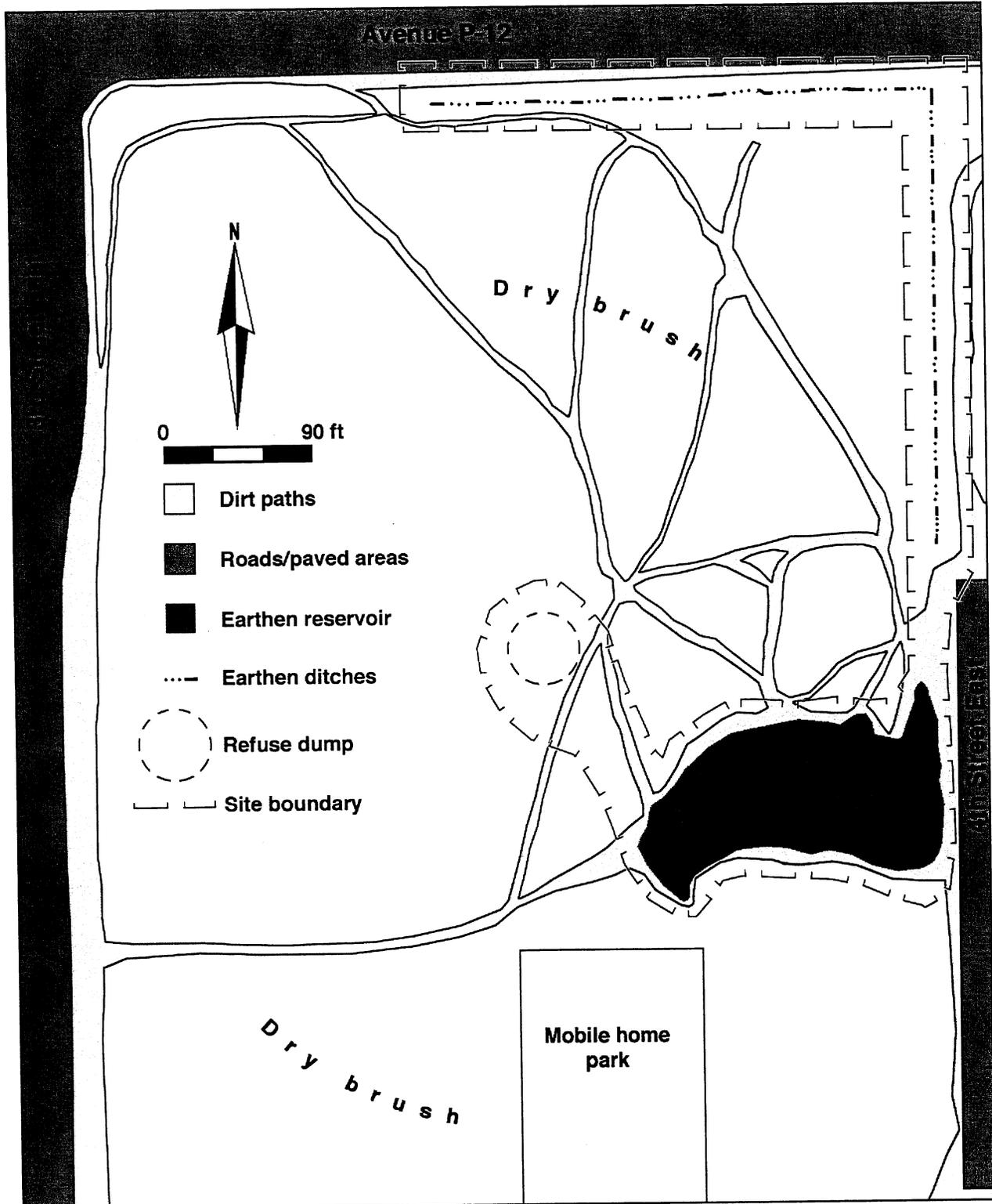
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-1

- A1. Dimensions: a. Length 510 feet (N-S) b. Width 330 feet (E-W)  
Method of Measurement:  Paced  Taped  Visual estimate  Other: Map scale  
Method of Determination: (Check any that apply.):  Artifacts  Features  Soil  Vegetation  
 Topography  Cut bank  Animal burrow  Excavation  Property boundary  Other (Explain):  
Reliability of Determination:  High  Medium  Low Explain:  
Limitations (Check any that apply):  Restricted access  Paved/built over  Site limits incompletely defined  
 Disturbances  Vegetation  Other (Explain):
- A2. Depth:  None  Unknown Method of Determination:
- \*A3. Human Remains:  Present  Absent  Possible  Unknown (Explain):
- \*A4. Features: (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.) Two segments of an abandoned earthen ditch were found at the site. One of the segments runs east-west along the south side of Avenue P-12 and the other runs north-south along the extension of 4th Street East. Together the two segments extend a total length of approximately 570 feet, and measures approximately five feet wide from crest to crest and 1-2 feet deep. An earthen reservoir was found to the west of the intersection of Avenue P-14 and 4th Street East. It measures approximately 180 feet long, 90 feet wide, and 3-5 feet deep. It is dry and covered with brush, apparently abandoned a long time ago.
- \*A5. Cultural Constituents: (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.) Artifacts in the refuse dump included more than 50 cans from consumer products such as fruits, vegetables, sauce, condensed milk, coffee, paint, sardines, soda, and beer; ceramic sherds from a plate, a bowl, and a cup; two bottle bases embossed with an Owens-Illinois Glass Company manufacturer's (Continued on next page)
- \*A6. Were Specimens Collected?  No  Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)
- \*A7. Site Condition:  Good  Fair  Poor (Describe disturbances):
- \*A8. Nearest Water (Type, distance, and direction.): Historically, water would have been conveyed along the ditch and held in the reservoir.
- \*A9. Elevation: Approx. 2,630 feet above mean sea level
- A10. Environmental Setting: (Describe vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The site is situated in a vacant field that is overgrown with brush. The land is relatively level and the soil is composed of hard sandy silt.
- A11. Historical Information: The location of the reservoir closely resembles that of a reservoir shown in the 1937 USGS Palmdale 6' map.
- \*A12. Age:  Prehistoric  Protohistoric  1542-1769  1769-1848  1848-1880  1880-1914  1914-1945  
 Post 1945  Undetermined Describe position in regional prehistoric chronology or factual historic dates if known:
- A13. Interpretations: (Discuss scientific, interpretive, ethnic, and other values of site, if known) The household refuse at the site appears to represent a dump probably deposited by a local resident. The irrigation features are common in areas that were once used for agricultural purposes.
- A14. Remarks:
- A15. References: (Documents, informants, maps, and other references.): Julian Harrison Toulouse (1971): Bottle Makers and Their Marks (Thomas Nelson, Inc., New York); United States Geological Survey (1937): Palmdale, California, 6' (1:24,000) quadrangle.
- A16. Photographs: (List subjects, direction of view, and accession numbers or attach a Photograph Record.):  
Original Media/Negatives Kept at: CRM TECH, 4472 Orange Street, Riverside, CA 92501
- \*A17. Form Prepared by: Josh Smallwood Date: November 27, 2006  
Affiliation and Address: CRM TECH, 4472 Orange Street, Riverside, CA 92501

**CONTINUATION SHEET**

- \*A5. Cultural Constituents (continued): mark dated between 1929 and 1954; a cork-top purex bleach bottle base embossed with a Latchford-Marble Glass Company manufacturer's mark dated between 1939 and 1957, and one piece of sun-altered amethyst glass (ca. 1880-1920). Among the cans observed are cone-top and steel-top church-key opened beverage cans.





State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 5

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-2

- P1.** Other Identifier: Avenue P-14 residential tract
- \*P2.** Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
**\*b.** USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; S 1/2 of Sec 23; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level
- c.** Address 406 to 547 Avenue P-14; 38862 and 38904 4th Street East; and 38865 6th Street East City Palmdale Zip 93550
- d.** UTM: (Give more than one for large and/or linear resources) Zone 11; A: 397065 mE/ 3827905 mN  
B: 397418 mE/ 3827815 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS
- e.** Other Locational Data: The subdivision comprises APNs 3006-007-001 through -040, located on both sides of Avenue P-14 between 4th Street East and 6th Street East.

**\*P3a.** Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The Avenue P-14 residential tract consists of 40 single-family residential lots arranged in rectilinear rows along the north and south sides of Avenue P-14 between 4th Street East and Clock Tower Plaza Drive (formerly 6th Street East). The lots include Assessor's Parcel Numbers 3006-007-001 through -040. The tract is bounded by the Palmdale Metrolink Transportation Center on the northeast, Rex Parris High School on the southeast, and vacant land on the northwest and the southwest. The surrounding area hosts a number of other residential tracts of similar vintage. The majority of the lots in this subdivision measure approximately 150 feet by 50 feet.

Of the 40 lots, 28 are occupied by residences constructed in 1951. These are located at 409, 413, 416, 422, 423, 428, 429, 432, 433, 438, 439, 442, 443, 449, 502, 503, 508, 509, 512, 513, 519, 523, 527, 533, 539, 543, and 547 Avenue P-14 and 38904 4th Street East. The residences on 11 lots were constructed in 1952, (Continued on next page)

**\*P3b.** Resource Attributes: (List attributes and codes) HP2: Single-family properties

**\*P4.** Resources Present: Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site  District \_\_\_\_\_ Element of District \_\_\_\_\_ Other \_\_\_\_\_

**P5a.** Photograph or Drawing (Photograph required for buildings, structures, and objects.)

(See pp. 4-5)

**P5b.** Description of Photo: (view, date, accession #)  
Photos taken on October 25, 2006; see pp. 4-5

**\*P6.** Date Constructed/Age and Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1951-1954

**\*P7.** Owner and Address: Various

**\*P8.** Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

**\*P9.** Date Recorded: October 25, 2006

**\*P10.** Survey Type: Reconnaissance-level survey

**\*P11.** Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

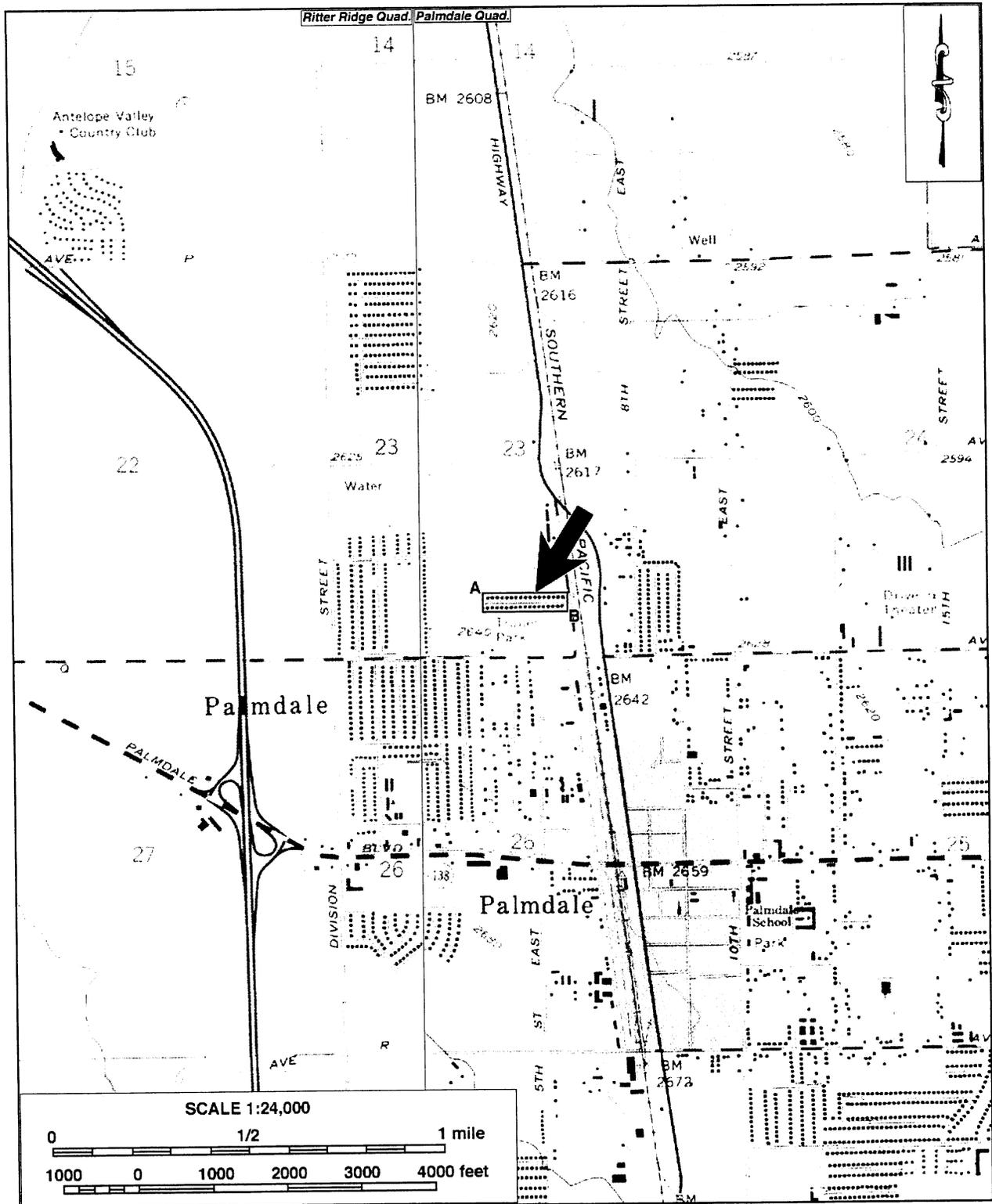
**\*Attachments:** \_\_\_\_\_ None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. Description (continued): including 406, 412, 448, 518, 522, 528, 534, 540, and 544 Avenue P-14, 38862 4th Street East, and 38865 6th Street East. One of the residences, 419 Avenue P-14, was not built until 1954.

All 40 of the single-family residences in this subdivision are of similar ground plans, but there are three different roof styles among them, including hip, gable, and gable-on-hip. All of the houses are one-story tall, are less than 1,000 square feet in size, and have narrow eaves and a plain appearance, typical of the early post-WWII Minimal Traditional-style homes. The medium-pitched roofs are usually covered with composition shingles, and feature relatively narrow eaves with exposed rafters and, in some cases, fascia boards. The exterior walls are usually clad in stucco, and occasionally with horizontal boards, stone, or brick veneers covering portions of the main façades. Fenestration usually consists of steel-framed casement windows, although some of these have been replaced with aluminum windows. The most notable feature found in the simple façade of all the residences are a row of three equal-sized windows to the right of the front door and a space for an optional window to the left.

Many of the buildings have been altered to some extent, including restuccoing, veneer wall covering, carport additions, and window replacement.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**CONTINUATION SHEET**

Primary # \_\_\_\_\_

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

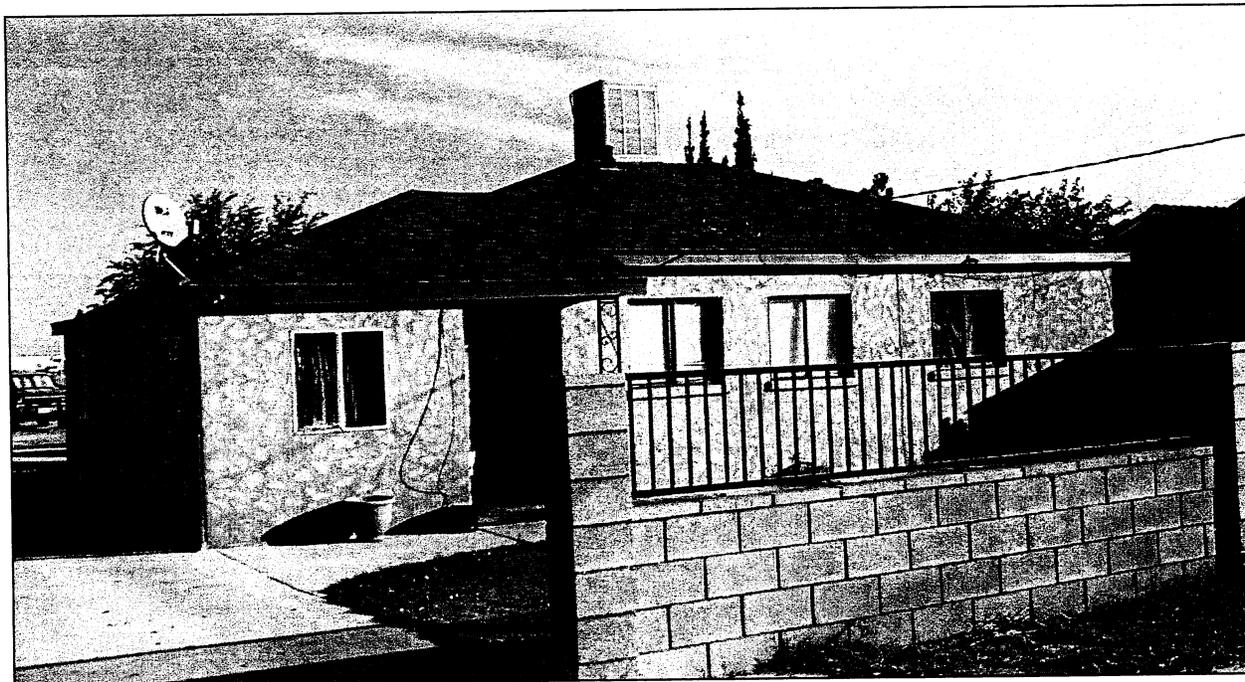
Page 4 of 5

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-2

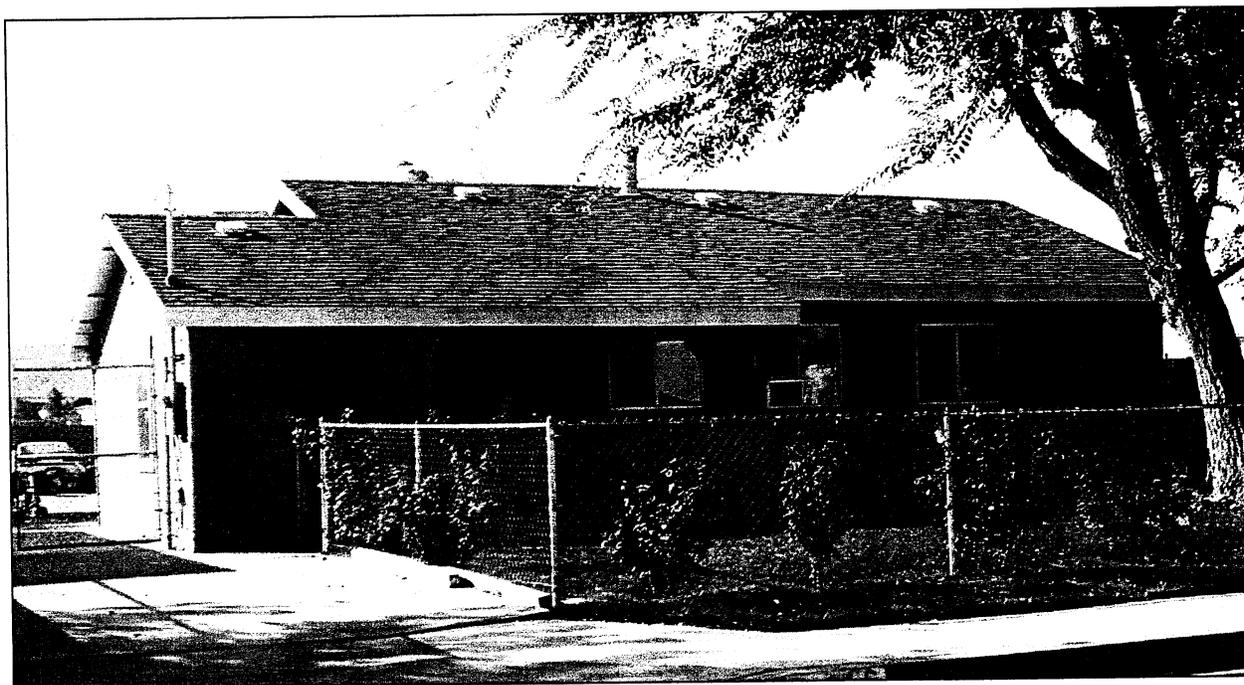
Recorded by Josh Smallwood

\*Date October 25, 2006

Continuation  Update



Residence at 433 Avenue P-14, with a hip roof (view to the northeast)



Residence at 416 Avenue P-14, with a side-gabled roof (view to the southwest)

**CONTINUATION SHEET**

Primary # \_\_\_\_\_

HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

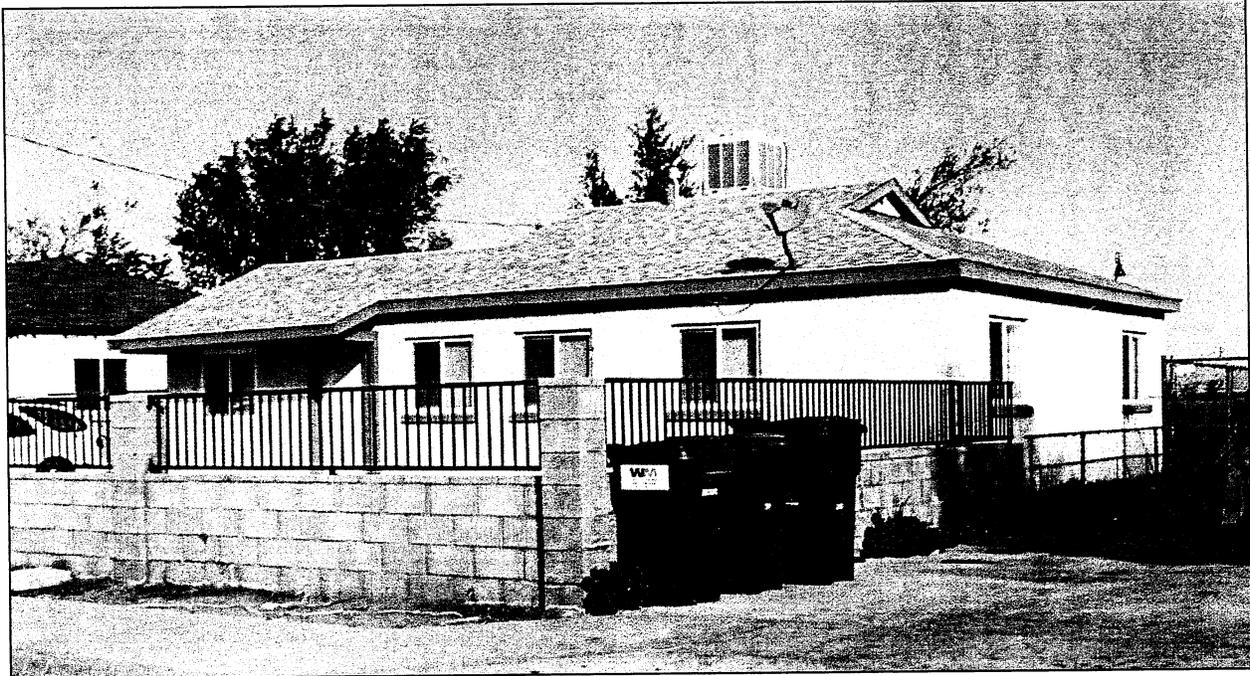
Page 5 of 5

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-2

Recorded by Josh Smallwood

\*Date October 25, 2006

Continuation  Update



Residence at 527 Avenue P-14, with a gable-on-hip roof (view to the northwest)

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

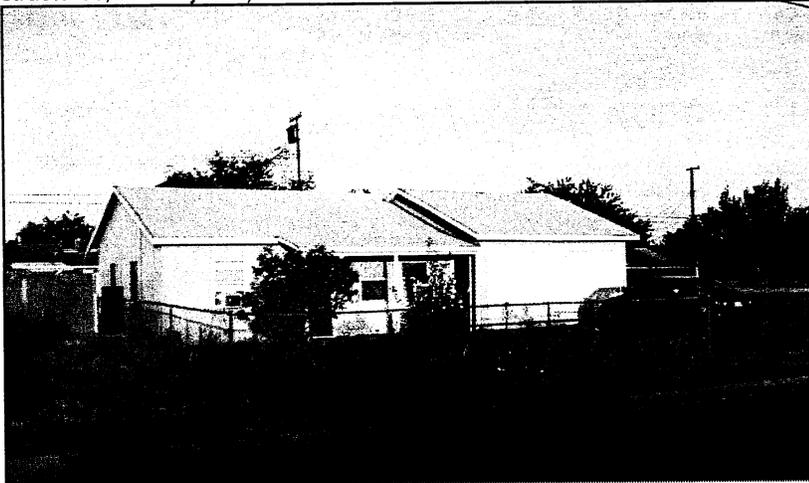
Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; SW 1/4 of SW 1/4 of Sec 23 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level
- c. Address 38845 3rd Street East City Palmdale Zip 93550
- d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 396845 mE/ 3827780 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS \_\_\_\_\_
- e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3006-009-015, on the west side of 3rd Street East and north of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is green with white trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style home is sheathed with stucco and has horizontal flush boards on the façade beneath the windows. It is surmounted by a medium-pitched side-gable roof with wide eaves and covered with composition shingles. The asymmetrical, east-facing façade features a front entry that  
*(Continued on next page)*
- \*P3b.Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest

\*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1958

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

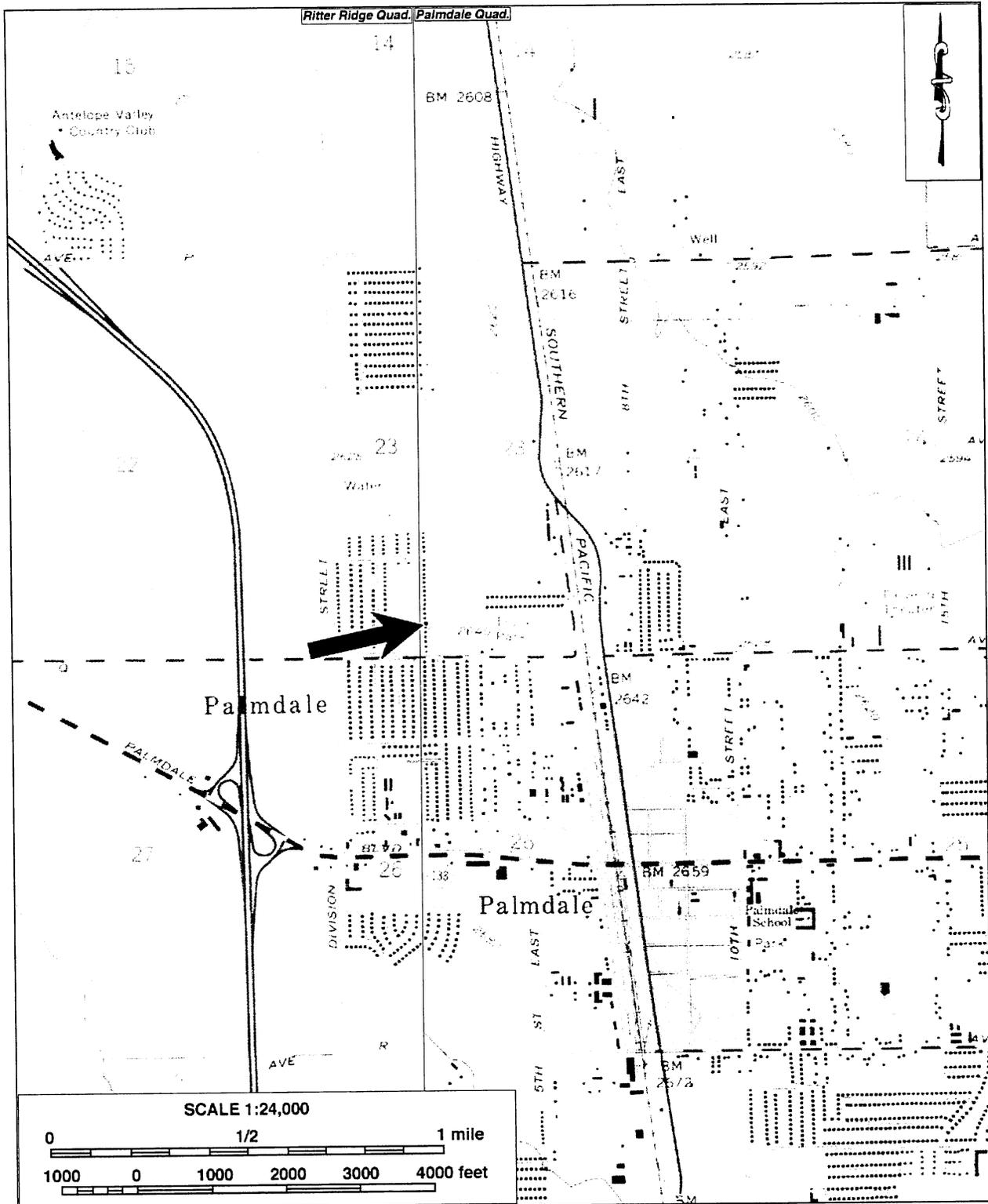
\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record \_\_\_\_\_  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record \_\_\_\_\_  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. Description (continued): flanked by wood-framed double-hung windows. The front door is sheltered beneath a roof extension supported by three square wood posts. The right side of the façade is occupied by an attached two-car garage.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-4

Page 1 of 3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38745 4th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397079 mE/ 3827534 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-002, on the west side of 4th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is tan with white trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style building is sheathed with stucco and is surmounted by a low-pitched front-gable roof with wide eaves and covered with composition shingles. A recessed entry with a wood door is set on the left side of the asymmetrical, east-facing façade, sheltered by an eave extension supported by  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest

\*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both  
Ca. 1957

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record \_\_\_\_\_  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record \_\_\_\_\_  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. Description (continued): square wood posts. Fenestration on the building consists of aluminum-framed sliding windows. An attached carport covered with a shed roof and supported by a freestanding stucco wall is also located on the left side of the building. The front yard is enclosed with a white wrought-iron fence, and an in-line gate secures the driveway.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

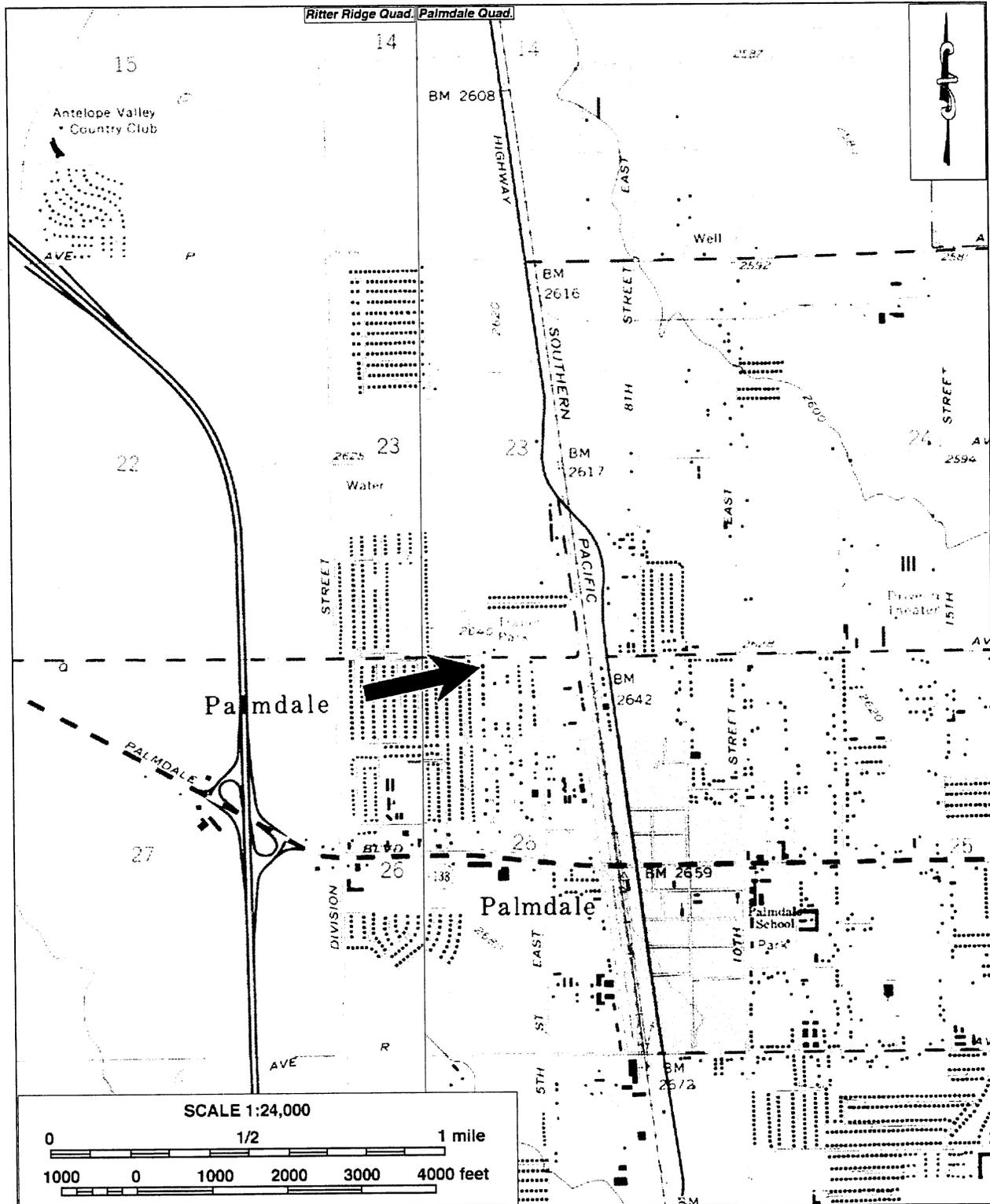
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-4

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-5

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38739 4th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397082 mE/ 3827527 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-003, on the west side of 4th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story, Ranch-style single-family residence is white with green trim, L-shaped in plan, and rests on a concrete slab foundation. The wood-framed structure is sheathed with stucco and has wide, vertical boards on the façade above the garage door. It is surmounted by a low-pitched gable-on-hip roof with wide eaves and covered with composition shingles. The asymmetrical, east-facing façade features an off-centered wood  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



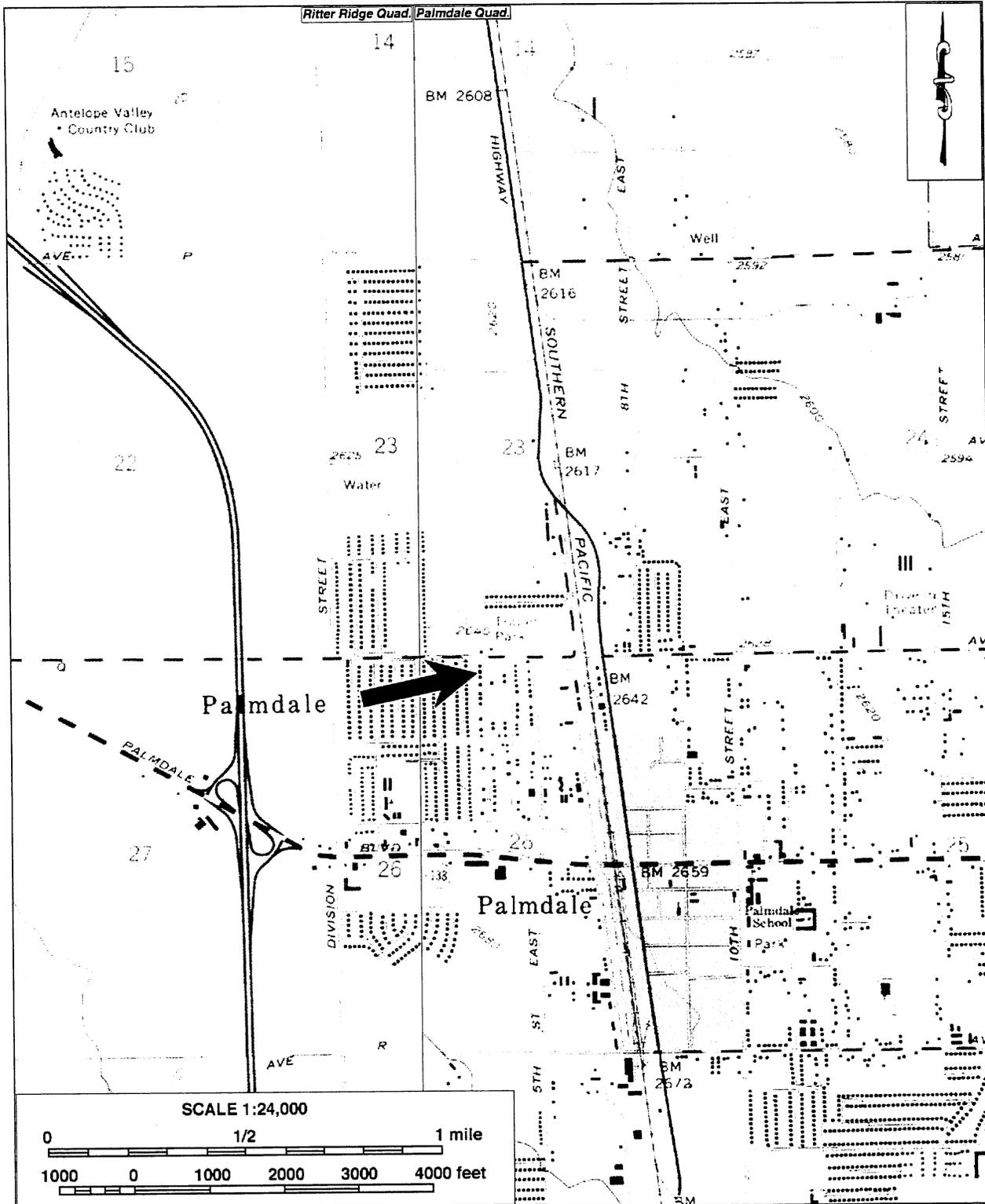
- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest
- \*P6. Date Constructed/Age of Sources:  Historic  Prehistoric  Both  
Ca. 1957
- \*P7. Owner and Address: Unknown
- \*P8. Recorded by: (Name, affiliation, and address) Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. Description (continued): door flanked by aluminum-framed sliding windows. The left side of the residence consists of an attached garage with a front-gable roof, which may be a later addition.



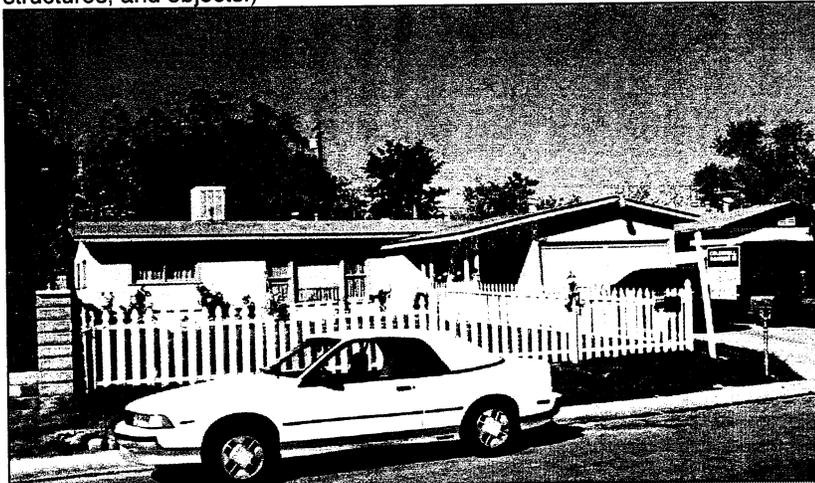
State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-6

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.) \*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38731 4th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397078 mE/ 3827515 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-004, on the west side of 4th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story, Ranch-style single-family residence is tan with brown trim, L-shaped in plan, and rests on a concrete slab foundation. The wood-framed structure is sheathed in stucco and is surmounted by a low-pitched cross-gable roof with wide eaves and covered with composition shingles. The asymmetrical, east-facing façade features a recessed front entry, a protruding garage, and wood-framed windows fixed, double-hung, and (Continued on next page)
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest
- \*P6. Date Constructed/Age of Sources:  
 Historic  Prehistoric  Both  
Ca. 1957
- \*P7. Owner and Address:  
Unknown
- \*P8. Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION

Primary # \_\_\_\_\_

HRI # \_\_\_\_\_

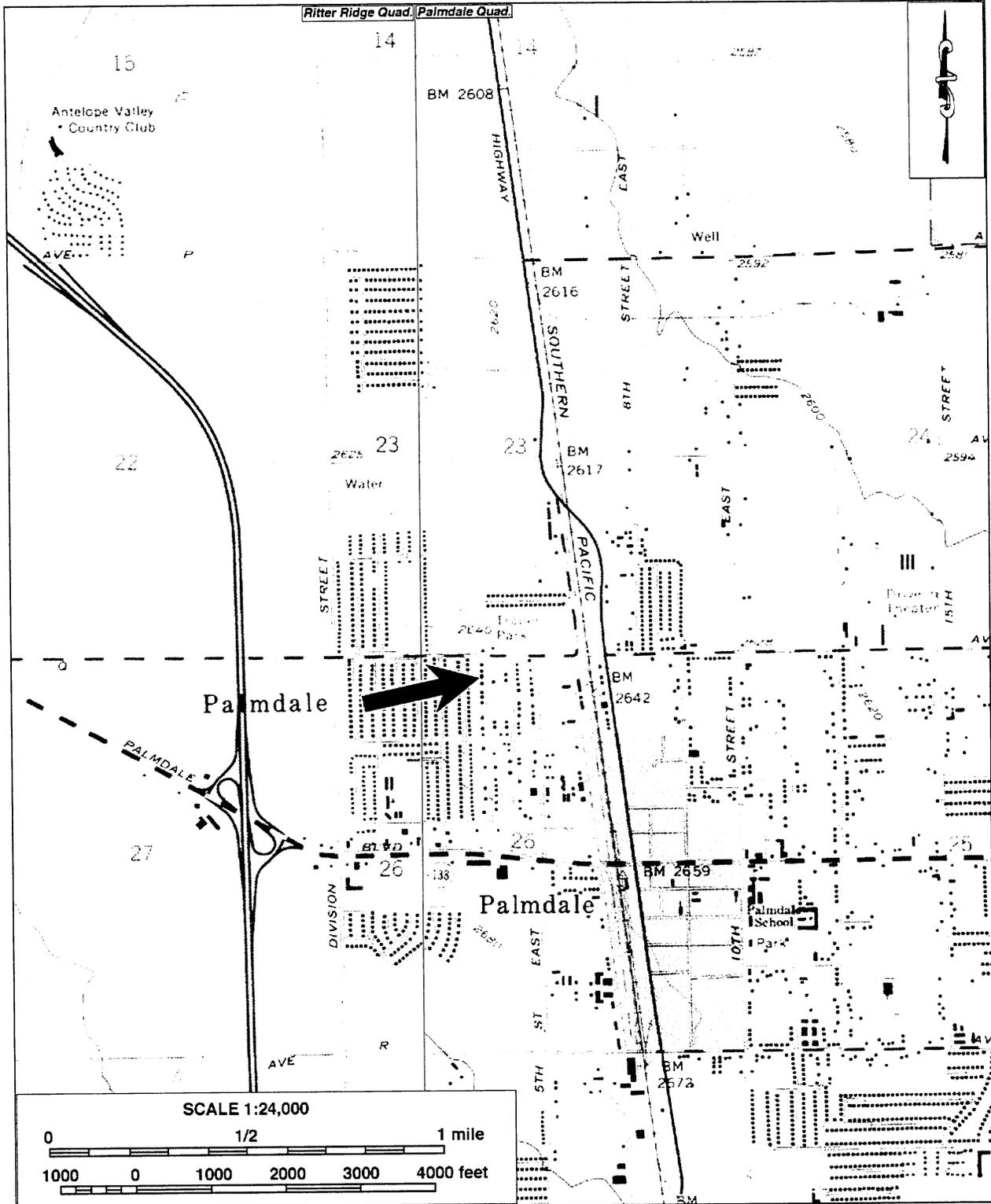
**CONTINUATION SHEET**

Trinomial \_\_\_\_\_

Page 2 of 3

Resource Name or # (Assigned by recorder) CRM TECH 1788-6

\*P3a. Description (continued): sliding sashes. The entryway is sheltered by a wide eave extension supported by square wood posts. The front yard is enclosed by a white picket fence.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

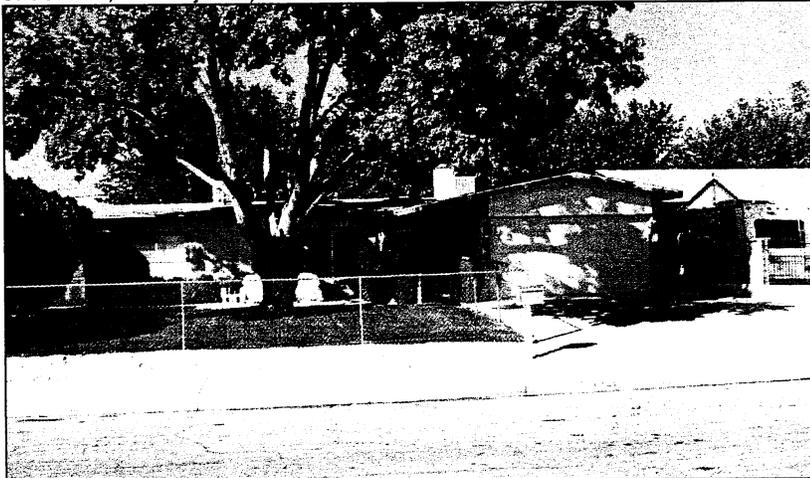
Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-7

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38721 4th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397075 mE/ 3827504 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS \_\_\_\_\_  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-006, on the west side of 4th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This wood-framed, one-story, Ranch-style single-family residence is white with grayish-blue trim, L-shaped in plan, and rests on a concrete slab foundation. It is sheathed in vertical boards, brick veneer, and stucco on the façade and is surmounted by a low-pitched cross-gable roof with wide eaves and covered with composition shingles. The asymmetrical, east-facing façade features a recessed front entry, a protruding garage, and  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the west
- \*P6. Date Constructed/Age of Sources:  Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1955
- \*P7. Owner and Address: Unknown
- \*P8. Recorded by: (Name, affiliation, and address) Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet Building, Structure, and Object Record  
Archaeological Record District Record Linear Resource Record Milling Station Record  
Rock Art Record Artifact Record Photograph Record Other (List): \_\_\_\_\_

\*P3a. Description (continued): aluminum-framed sliding windows. The entryway is sheltered by a wide eave extension supported by wood and decorative wrought-iron posts. The front yard is enclosed by a chain-link fence.

State of California--The Resources Agency  
 DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
 HRI # \_\_\_\_\_  
 Trinomial \_\_\_\_\_

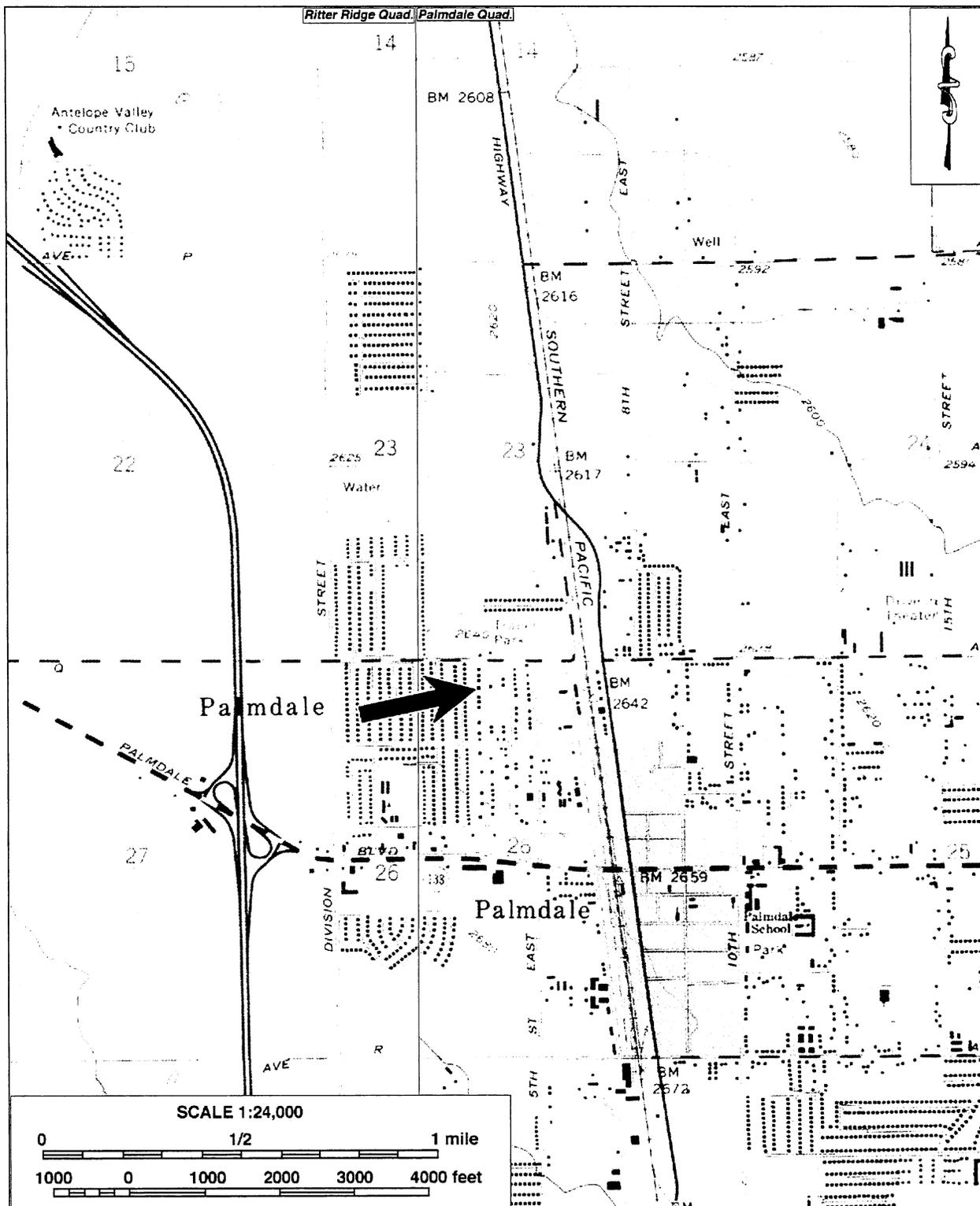
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-7

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-8

Page 1 of 3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted and (P2b and P2c or P2d. Attach a Location Map as necessary.) \*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level
- c. Address 38709 4th Street East City Palmdale Zip 93550
- d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397082 mE/ 3827484 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS \_\_\_\_\_
- e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-008, on the west side of 4th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This wood-framed, one-story, single-family Ranch-style residence is tan with brown trim, rectangular in plan, and rests on a concrete slab foundation. It is clad in stucco with stone veneer on the façade, and is surmounted by a low-pitched side-gable roof with wide eaves and exposed rafters, covered with composition shingles. The asymmetrical, east-facing façade features an off-centered door flanked by aluminum-framed  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



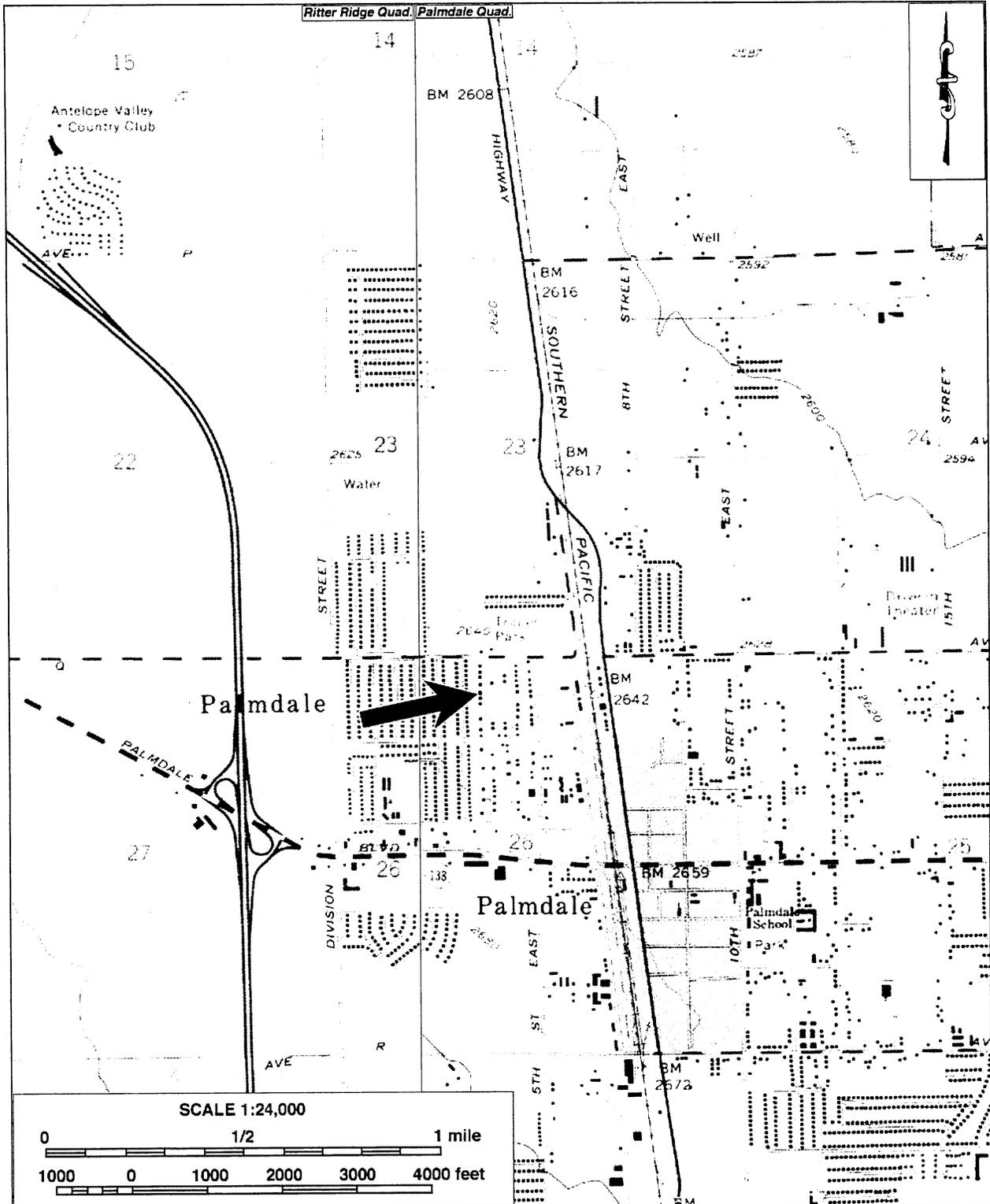
P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the west

- \*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1956
- \*P7. Owner and Address:  
Unknown
- \*P8. Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet Building, Structure, and Object Record  
Archaeological Record District Record Linear Resource Record Milling Station Record  
Rock Art Record Artifact Record Photograph Record Other (List): \_\_\_\_\_

\*P3a. **Description** (continued): sliding windows. A concrete driveway leads to an attached two-car garage on the right side of the house. The front yard has a white picket fence along one side.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

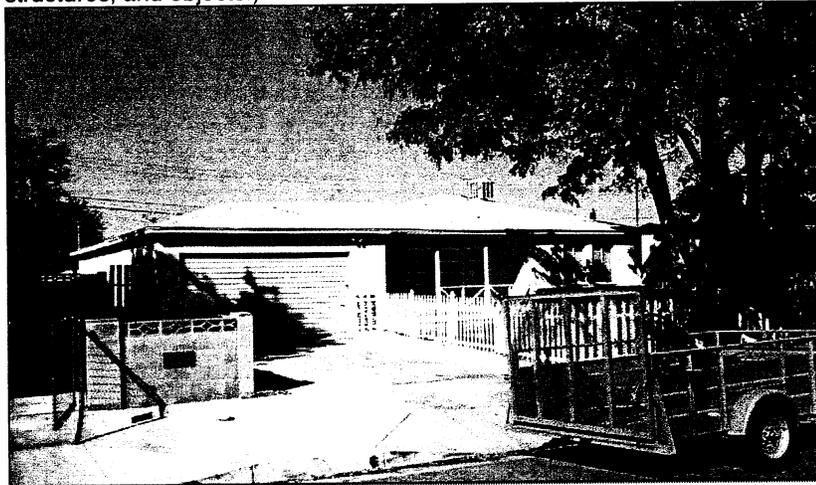
Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-9

Page 1 of 3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted and (P2b and P2c or P2d. Attach a Location Map as necessary.) \*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38703 4th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397082 mE/ 3827477 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS \_\_\_\_\_  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-009, on the west side of 4th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This wood-framed, one-story, Ranch-style, single-family residence is beige in color, rectangular-shaped, and rests on a concrete slab foundation. It is clad in stucco with brick veneer on the facade and is surmounted by a medium-pitched hip roof with narrow, boxed eaves, which is covered with composition shingles. The asymmetrical, east-facing façade features a recessed entryway that includes a glazed wood door accompanied by  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest
- \*P6. Date Constructed/Age of Sources:  Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1953
- \*P7. Owner and Address: Unknown
- \*P8. Recorded by: (Name, affiliation, and address) Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record \_\_\_\_\_  
Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record \_\_\_\_\_  
Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. Description (continued): wood-framed double-hung windows. Aluminum-framed windows are also found on the façade, and an attached two-car garage is set on the left side of the house. The front yard is enclosed by a white picket fence.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

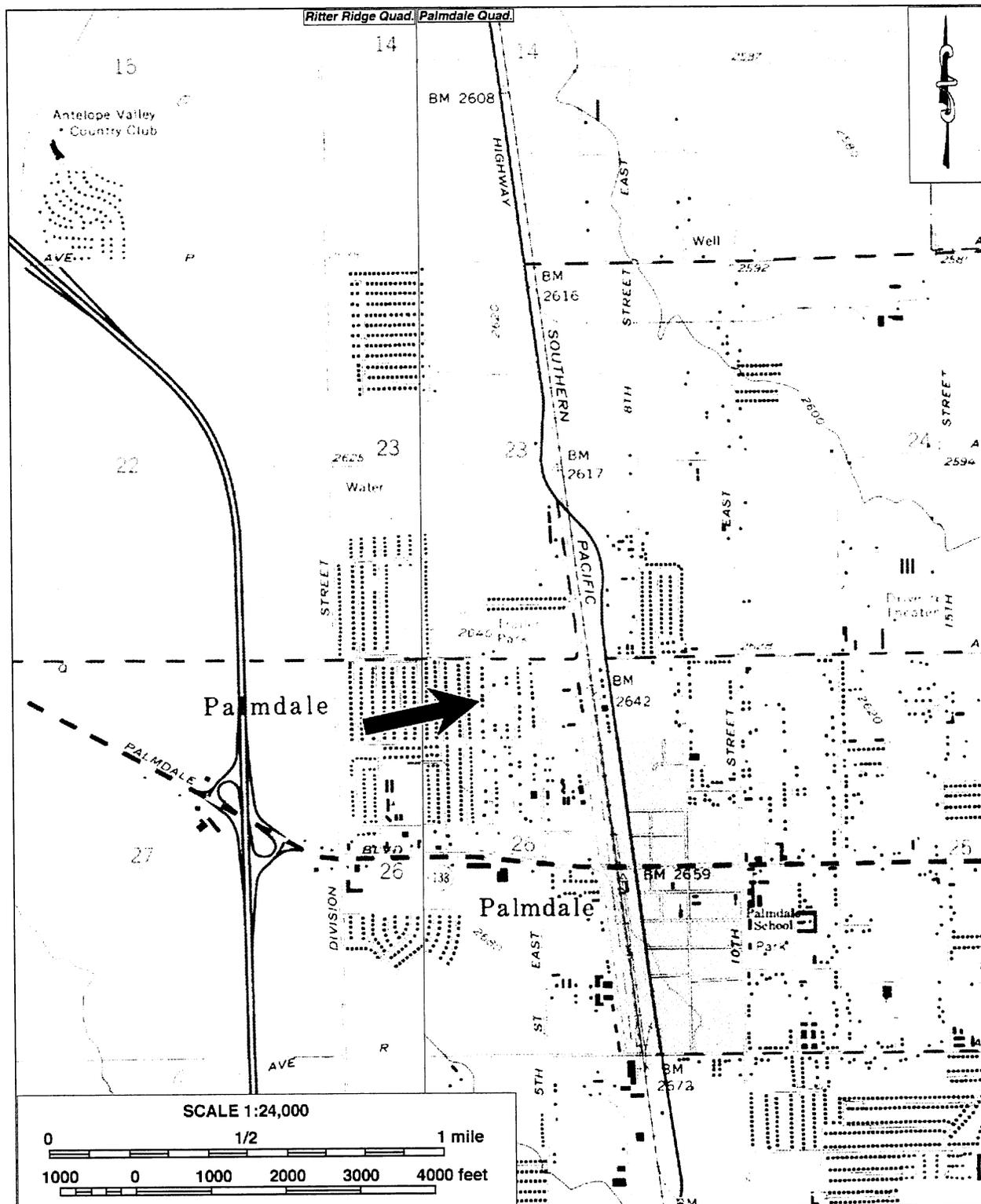
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-9

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-10

Page 1 of 3

P1. Other Identifier: \_\_\_\_\_  
\*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level

c. Address 38647 4th Street East City Palmdale Zip 93550

d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397073 mE/ 3827400 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS \_\_\_\_\_

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-010, on the west side of 4th Street East and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is tan with white trim, L-shaped in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style building is sheathed with stucco and is surmounted by a low-pitched cross-gable roof with wide eaves. The roof is covered with composition shingles. The asymmetrical, east-facing façade features a recessed front entry sheltered by a flat-roof patio cover, which is supported  
*(Continued on next page)*

\*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property

\*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the west

\*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1957

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

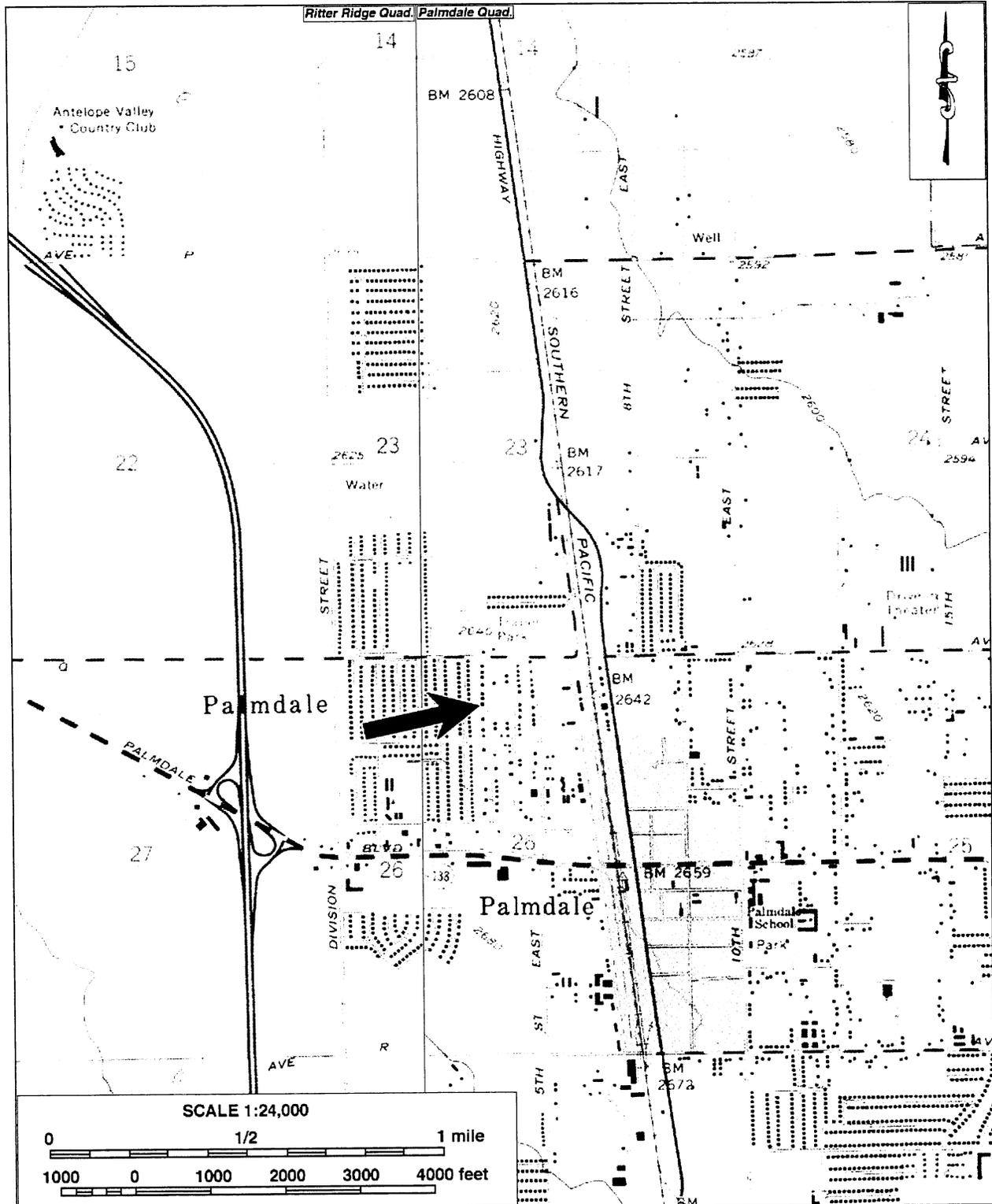
\*P9. Date Recorded: October 25, 2006

\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: \_\_\_\_\_ None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record \_\_\_\_\_  
Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record \_\_\_\_\_  
Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

\*P3a. **Description** (continued): by square wood posts and also functions as a carport. The front door is flanked by aluminum-framed sliding windows. The front yard is shaded by trees and bordered by a cobblestone walkway, block wall, and hedges.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-11

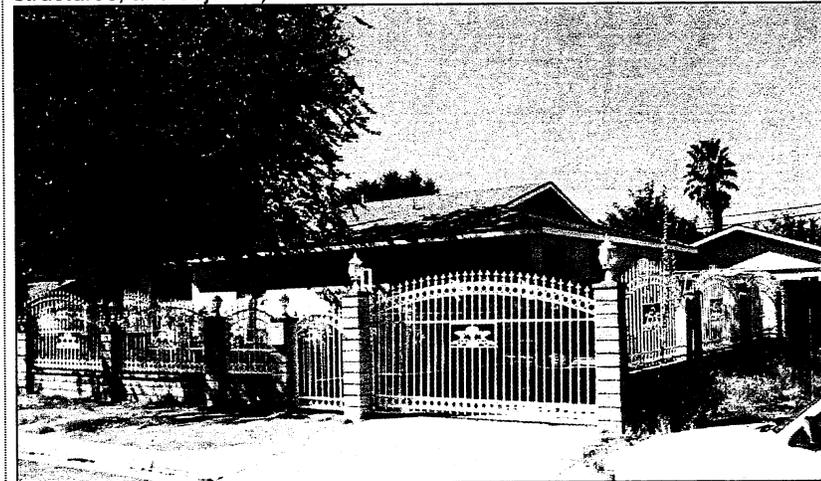
P1. Other Identifier: \_\_\_\_\_  
\*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level  
c. Address 38629 4th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397088 mE/ 3827377 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-013, on the west side of 4th Street East and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This building is a one-story single-family residence, rectangular in plan and painted tan with white trim. The wood-framed Ranch-style building rests on a concrete slab foundation and is sheathed with stucco. It is surmounted by a medium-pitched gable-on-hip roof, which has wide, boxed eaves and is covered with composition shingles. The asymmetrical, north-facing façade features a recessed entry that is flanked  
*(Continued on next page)*

\*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property

\*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southwest

\*P6. Date Constructed/Age of Sources:

Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both  
Ca. 1957

\*P7. Owner and Address:

Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH

4472 Orange Street

Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: \_\_\_\_\_ None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. **Description** (continued): by aluminum-framed sliding windows. A small vent is located under the gable peak. Fenestration on the east elevation, facing the street, includes three aluminum-framed sliding windows of various sizes. A wrought-iron fence with concrete block piers bounds the front yard on three sides.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

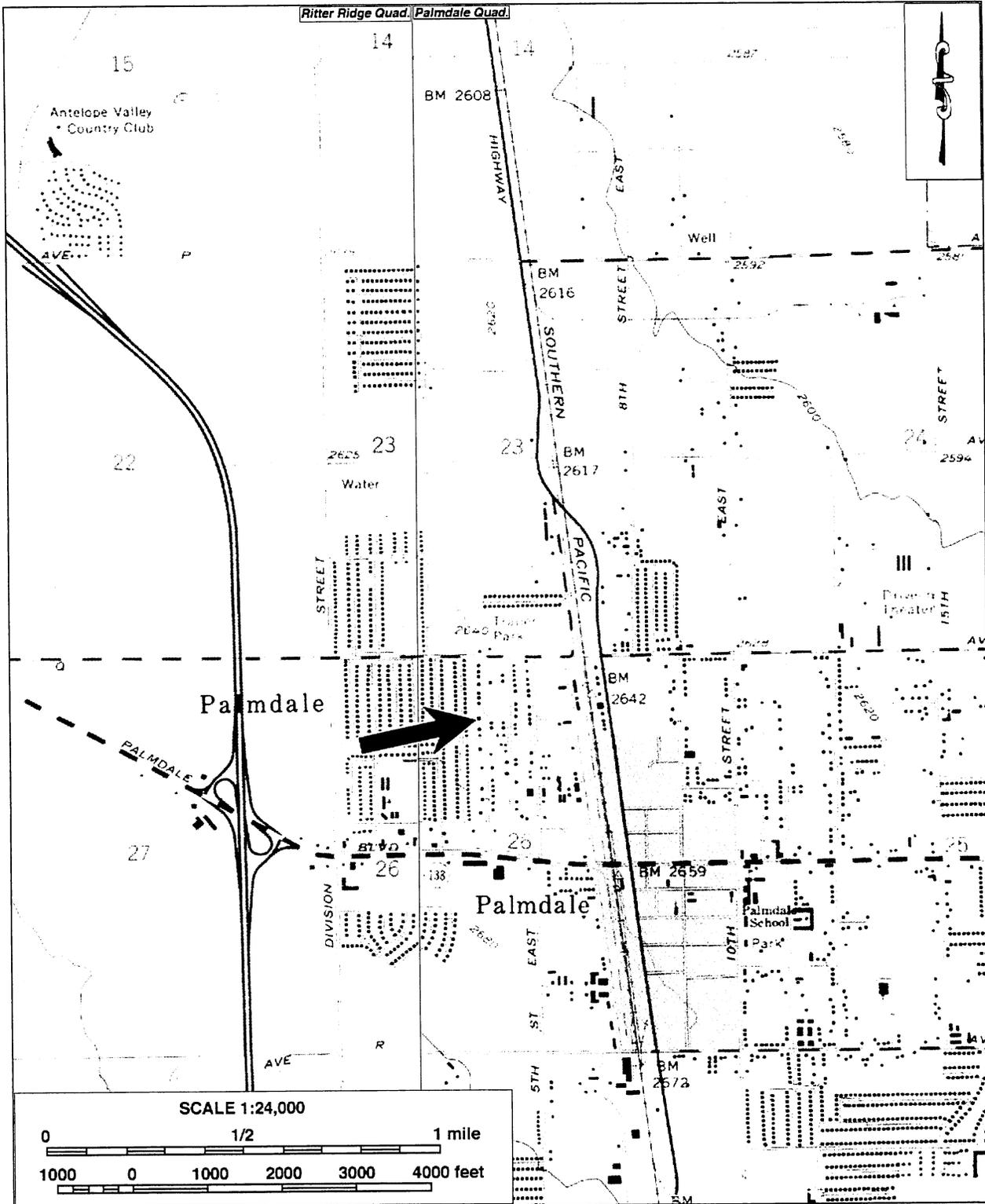
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-11

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-12

Page 1 Of 3

- P1. Other Identifier:** \_\_\_\_\_
- \*P2. Location:** Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
- \*a. County** Los Angeles
- \*b. USGS 7.5' Quad** Palmdale, Calif. **Date** 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
**Elevation:** Approx. 2,650 feet above mean sea level
- c. Address** 38611 4th Street East **City** Palmdale **Zip** 93550
- d. UTM:** (Give more than one for large and/or linear resources) **Zone** 11 ; 397080 mE/ 3827350 mN  
**UTM Derivation:**  USGS Quad GPS
- e. Other Locational Data:** (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-016, on the west side of 4th Street East and south of Avenue Q.
- \*P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is tan with reddish-brown trim, irregularly shaped in plan, and rests on a concrete perimeter footing. The wood-framed Craftsman-influenced home is sheathed with stucco and is surmounted by a medium-pitched side-gable roof. The roof has wide eaves with exposed rafter ends and is covered with composition shingles. The asymmetrical façade, facing east, features a recessed entry porch on the  
*(Continued on next page)*
- \*P3b. Resource Attributes:** (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.)

**P5a. Photograph or Drawing** (Photograph required for buildings, structures, and objects.)



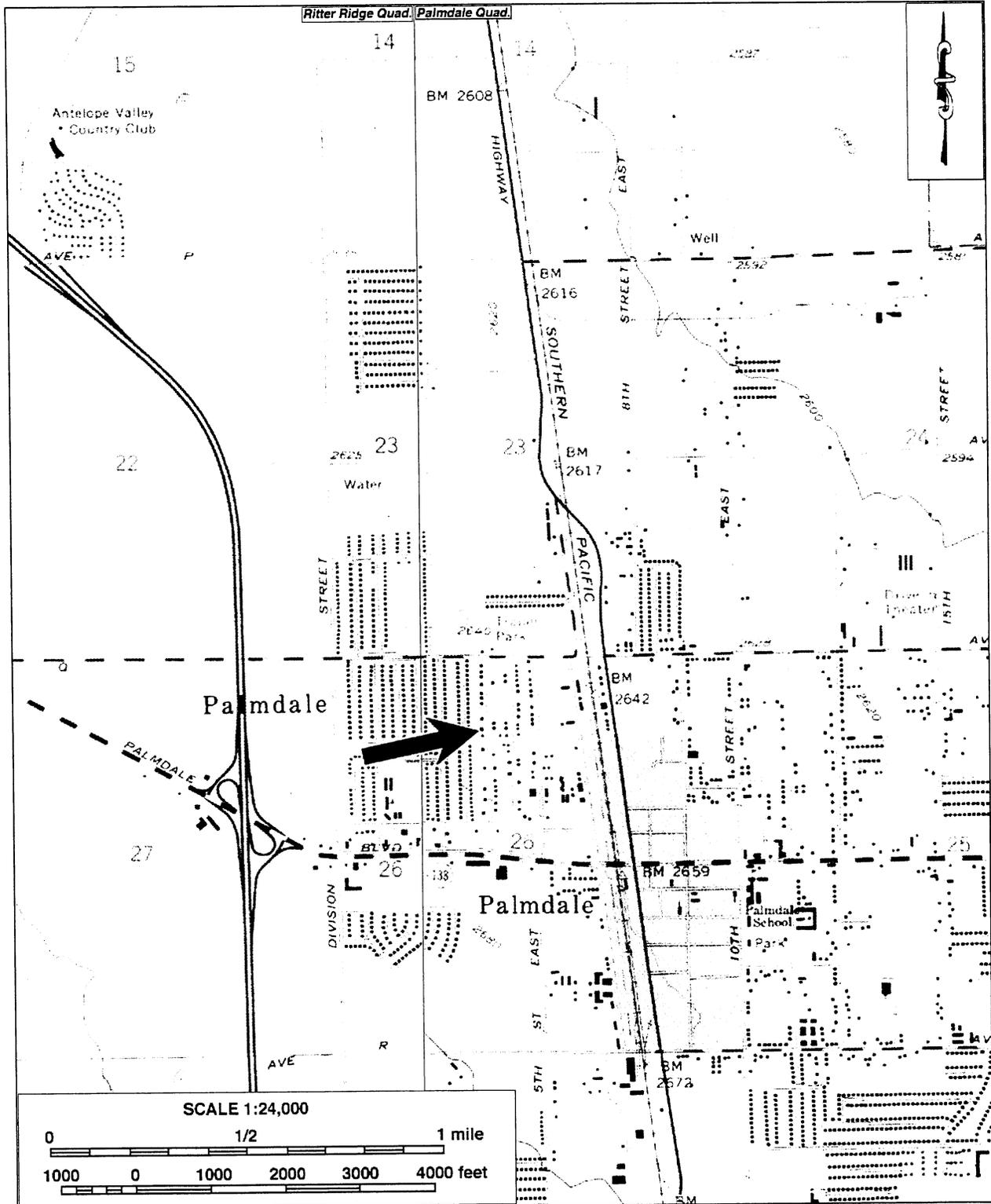
- P5b. Description of Photo:** (view, date, accession #) Photo taken on October 25, 2006; view to the southwest
- \*P6. Date Constructed/Age of Sources:**  
 Historic  Prehistoric  Both  
Ca. 1956
- \*P7. Owner and Address:**  
Unknown
- \*P8. Recorded by:** (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded:** October 25, 2006
- \*P10. Survey Type:** Reconnaissance-level survey

**\*P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

**\*Attachments:**  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List):

**CONTINUATION SHEET**

\*P3a. **Description** (continued): northeast corner of the main mass, supported by square wood posts. The northern end of the building consists of a smaller secondary gable with a recessed rear entry of similar configuration on the northwest corner. The exterior walls are punctuated by aluminum-framed windows, wood doors, and vents beneath the gable peaks. The front yard is enclosed by a wrought-iron fence with concrete block piers.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

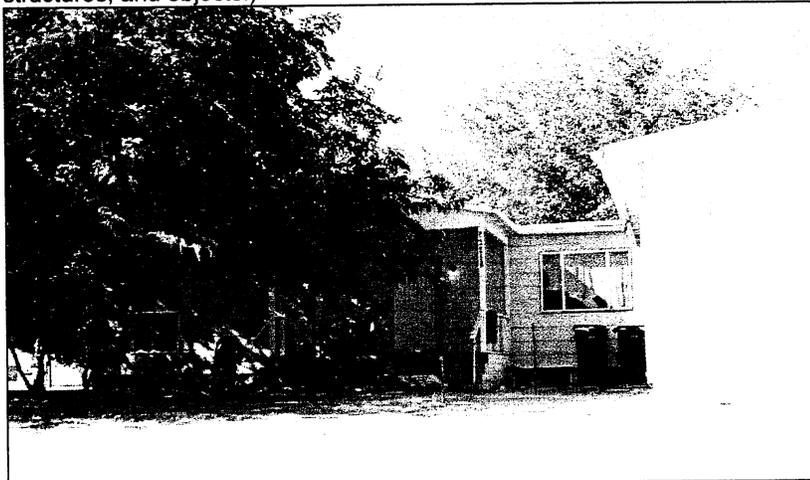
Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-13

Page 1 of 3

- P1. Other Identifier:** \_\_\_\_\_
- \*P2. Location:** Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.) **\*a. County** Los Angeles  
**\*b. USGS 7.5' Quad** Palmdale, Calif. **Date** 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
**Elevation:** Approx. 2,650 feet above mean sea level
- c. Address** 38605 4th Street East **City** Palmdale **Zip** 93550
- d. UTM:** (Give more than one for large and/or linear resources) **Zone** 11 ; 397080 mE/ 3827342 mN  
**UTM Derivation:**  USGS Quad  GPS
- e. Other Locational Data:** (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-007-017, on the west side of 4th Street East and south of Avenue Q.
- \*P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is light gray with white trim, rectangular in plan, and rests on concrete footings. The wood-framed home is sheathed with wide clapboard siding and is surmounted by a low-pitched side-gable roof. The roof has narrow eaves with exposed rafters and fascia boards and is covered with metal sheets. The asymmetrical façade, facing east, features a concrete stoop beneath a front-gabled porch supported  
*(Continued on next page)*
- \*P3b. Resource Attributes:** (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.)

**P5a. Photograph or Drawing** (Photograph required for buildings, structures, and objects.)



- P5b. Description of Photo:** (view, date, accession #) Photo taken on October 25, 2006; view to the west
- \*P6. Date Constructed/Age of Sources:**  
 Historic  Prehistoric  Both  
Ca. 1957
- \*P7. Owner and Address:**  
Unknown
- \*P8. Recorded by:** (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded:** October 25, 2006
- \*P10. Survey Type:** Reconnaissance-level survey

**\*P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

**\*Attachments:**  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List):

\*P3a. Description (continued): by four square wood posts. The front entry is flanked by aluminum-framed windows of various sizes, and to the right of the entry is a detached garage of similar design and construction.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

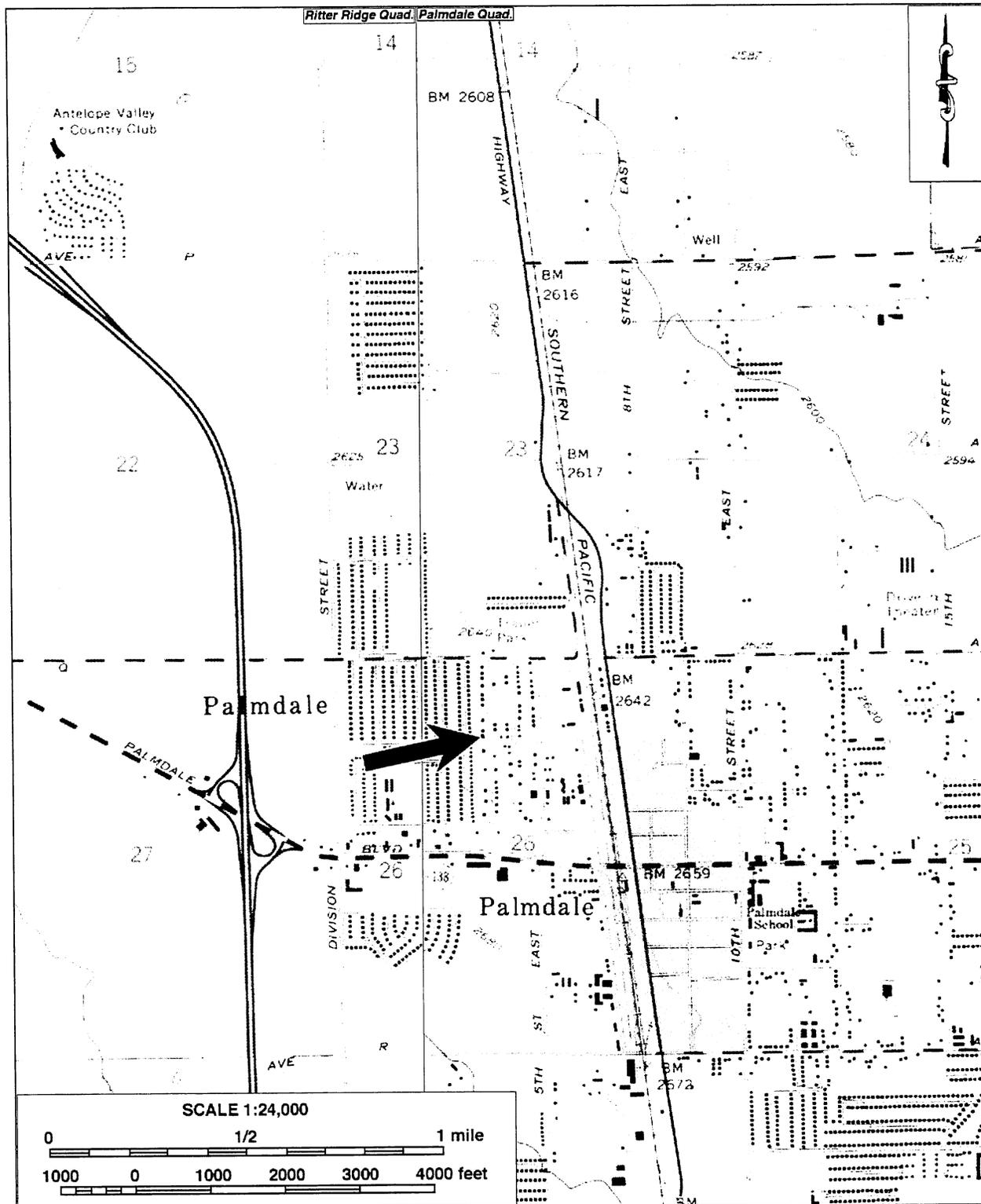
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-13

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

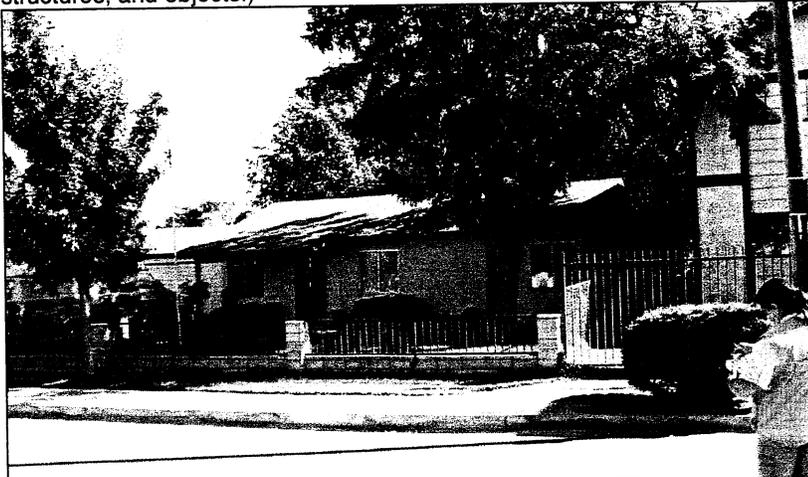
Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-14

Page 1 of 3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location:  Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level
- c. Address 38610 4th Street East City Palmdale Zip 93550
- d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397103 mE/ 3827350 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS \_\_\_\_\_
- e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-008-002, on the east side of 4th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is white with green trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style home is sheathed with stucco, and surmounted by a medium-pitched side-gable roof. The roof has wide, boxed eaves and is covered with composition shingles. The asymmetrical façade, facing west, features a front entry that is sheltered by a roof extension supported by two  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



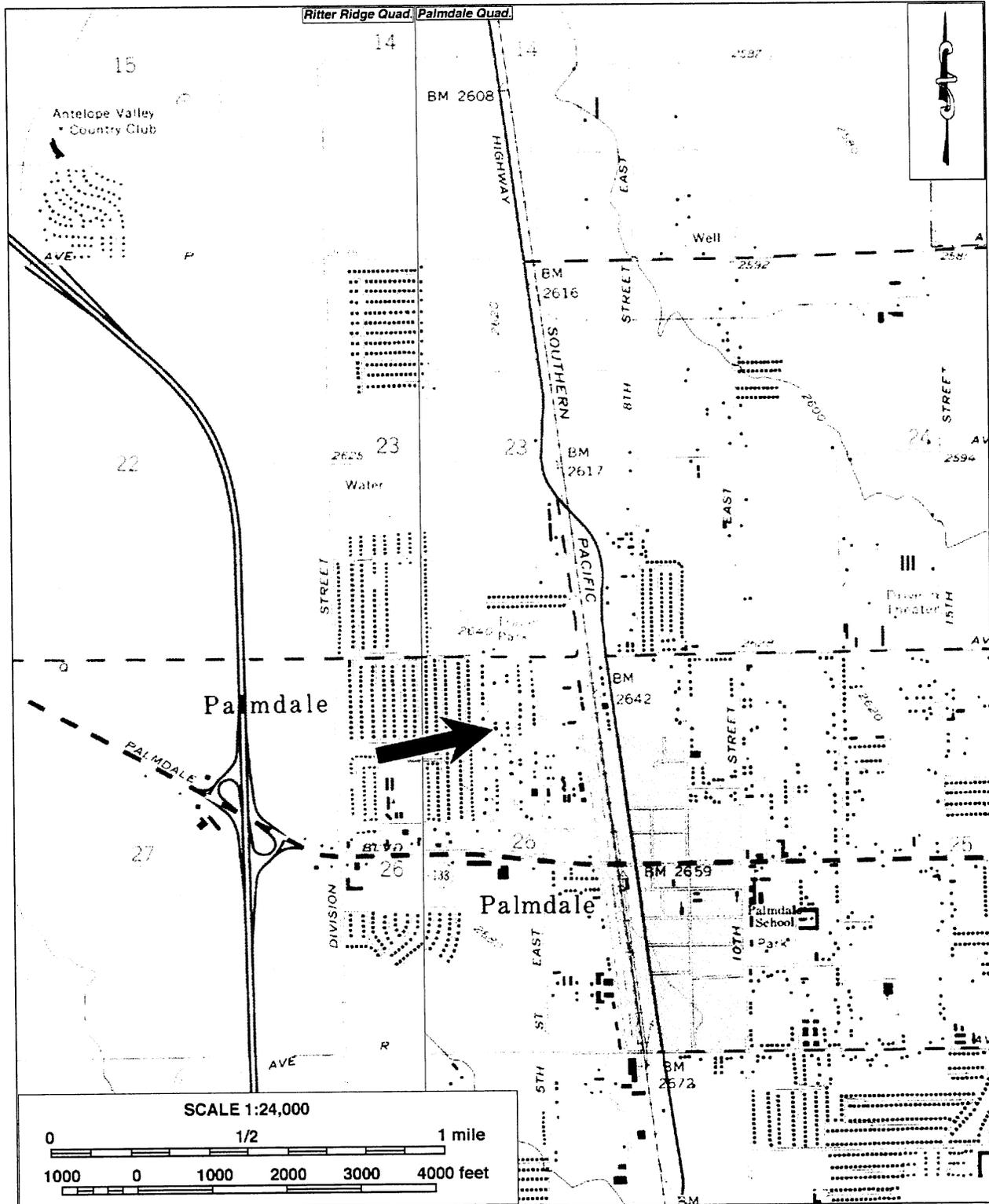
- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northeast
- \*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1955
- \*P7. Owner and Address:  
Unknown
- \*P8. Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. Description (continued): square wood posts. The front door is flanked by aluminum-framed sliding windows, and on the left side of the building is an attached garage. The front yard is bounded by an iron fence with concrete block piers.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-15

Page 1 of 3

P1. Other Identifier: \_\_\_\_\_

\*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level

c. Address 38616 4th Street East City Palmdale Zip 93550

d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397103 mE/ 3827357 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS

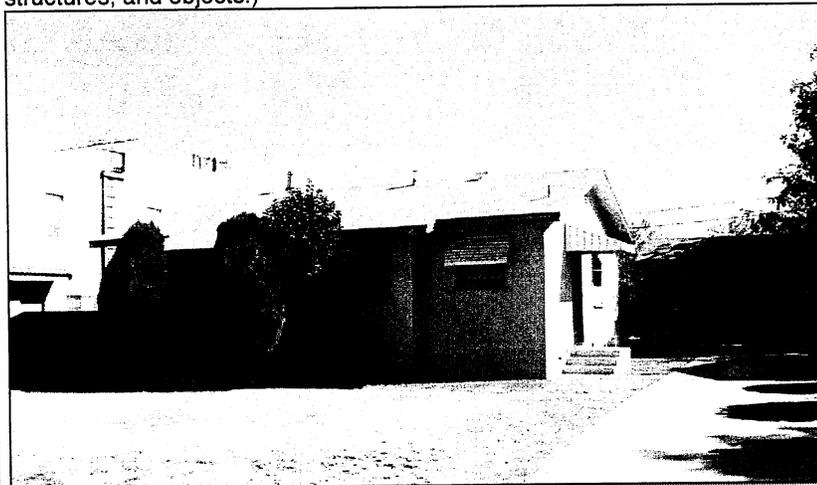
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-008-003, on the east side of 4th Street East and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is yellow with tan trim, rectangular in plan, and rests on concrete footings. The wood-framed building is sheathed with stucco, and is surmounted by a medium-pitched side-gable roof. The roof has wide eaves with exposed rafters and fascia boards, and is covered with composition shingles. Small vents are located under the gable peaks and along the base of the exterior walls. The asymmetrical  
*(Continued on next page)*

\*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property

\*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northeast

\*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both  
Ca. 1954

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

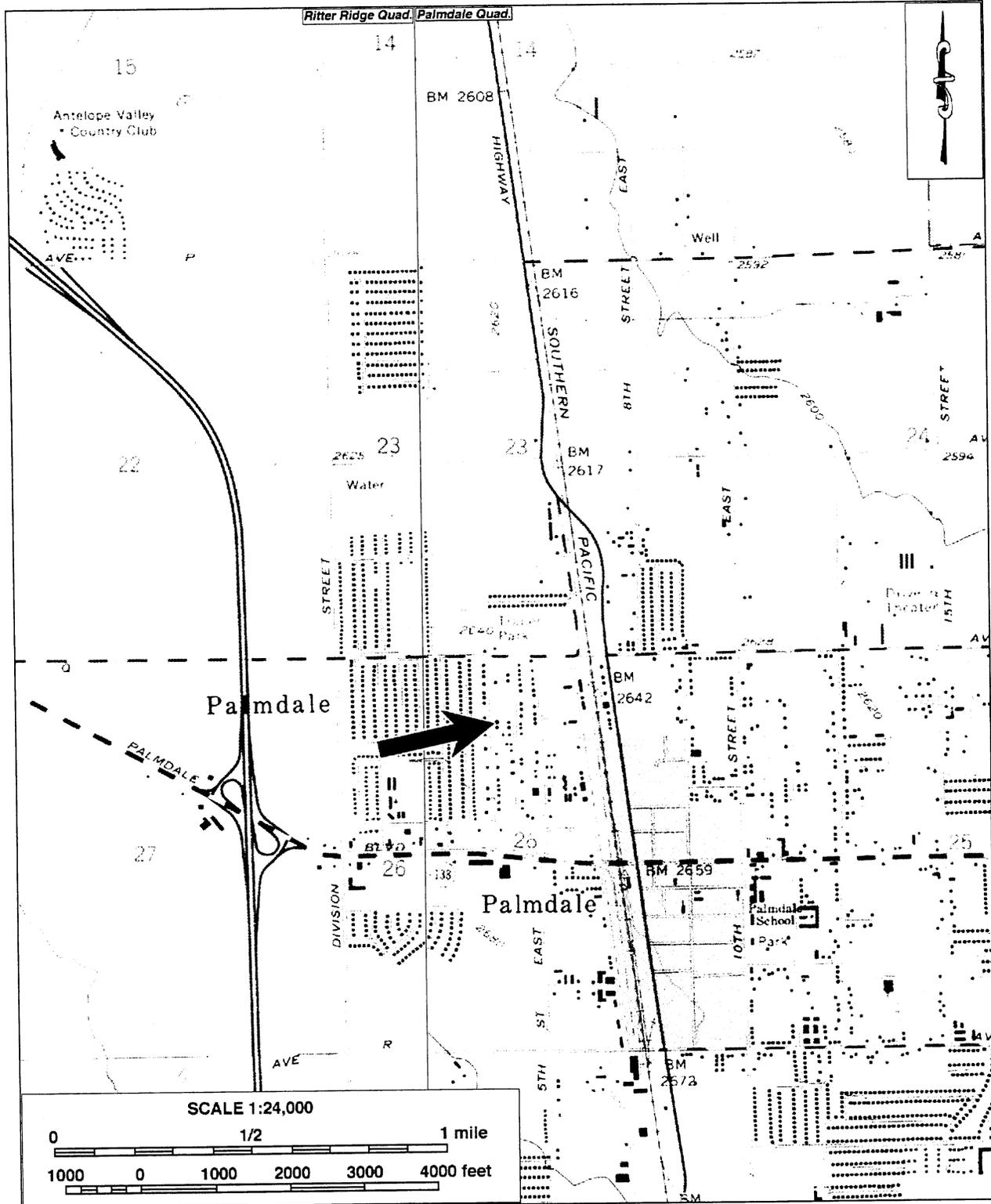
\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record \_\_\_\_\_  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record \_\_\_\_\_  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. **Description** (continued): façade, facing west, features concrete steps that leads up to the front door, which is sheltered beneath a wide eave extension supported by two square wood posts. The front entry is flanked by wood-framed double-hung windows of various sizes. The gable end on the south side features a side-entry accompanied by a concrete stoop and a double-hung window. At the rear of the residence is a detached garage of similar design and construction.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

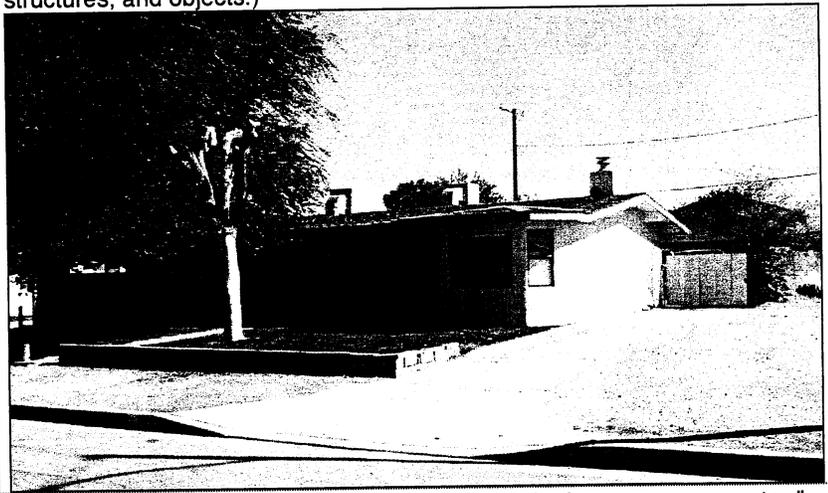
Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-16

Page 1 of 3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38720 4th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397118 mE/ 3827365 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-008-012, on the east side of 4th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is rectangular-shaped and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof ends in wide eaves with exposed rafters and fascia boards and is covered with composition shingles. The asymmetrical façade, facing west, features a front door flanked by aluminum-framed windows of various sizes. (Continued on next page)
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northeast
- \*P6. Date Constructed/Age of Sources:  
 Historic  Prehistoric  Both  
Ca. 1956
- \*P7. Owner and Address:  
Unknown
- \*P8. Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION

Primary # \_\_\_\_\_

HRI # \_\_\_\_\_

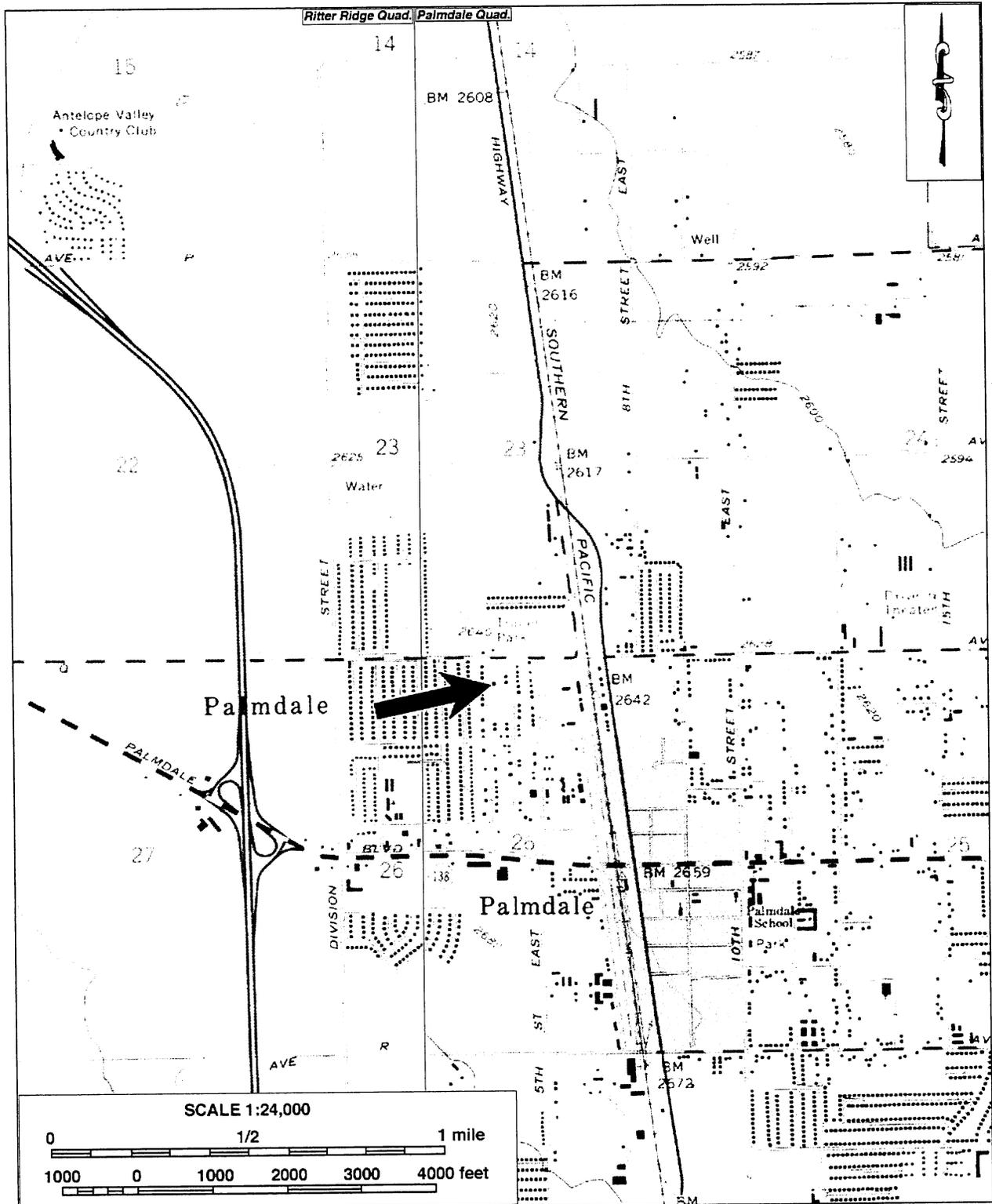
**CONTINUATION SHEET**

Trinomial \_\_\_\_\_

Page 2 of 3

Resource Name or # (Assigned by recorder) CRM TECH 1788-16

\*P3a. **Description** (continued): The right side of the façade has been altered to create more interior space. A paved driveway leads to the back yard where a detached garage is located to the rear of the residence.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-17

Page 1 of 3

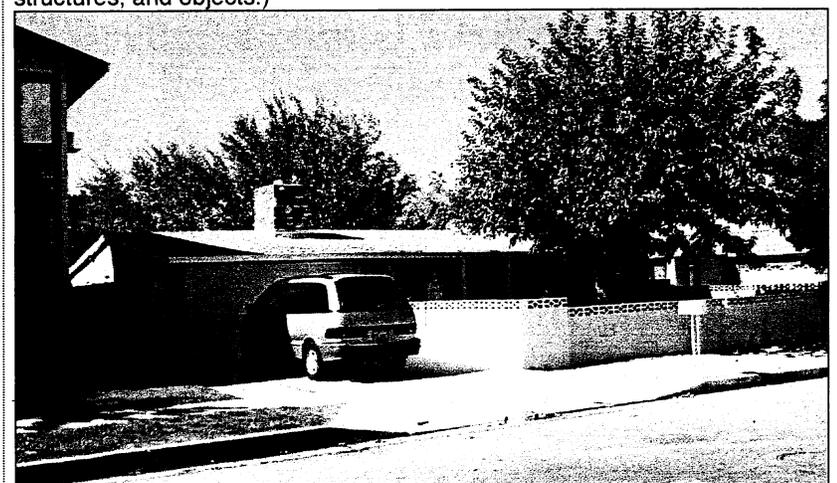
P1. Other Identifier: \_\_\_\_\_  
\*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38727 Larkin Avenue City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397185 mE/ 3827371 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-008-022, on the west side of Larkin Avenue and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is blue with white trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof has wide eaves with exposed rafters and is covered with composition shingles. The asymmetrical façade, facing east, features a front door sheltered beneath an extended eave, flanked by  
*(Continued on next page)*

\*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest

\*P6. Date Constructed/Age of Sources:  Historic  Prehistoric  Both  
Ca. 1956

\*P7. Owner and Address: Unknown

\*P8. Recorded by: (Name, affiliation, and address) Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

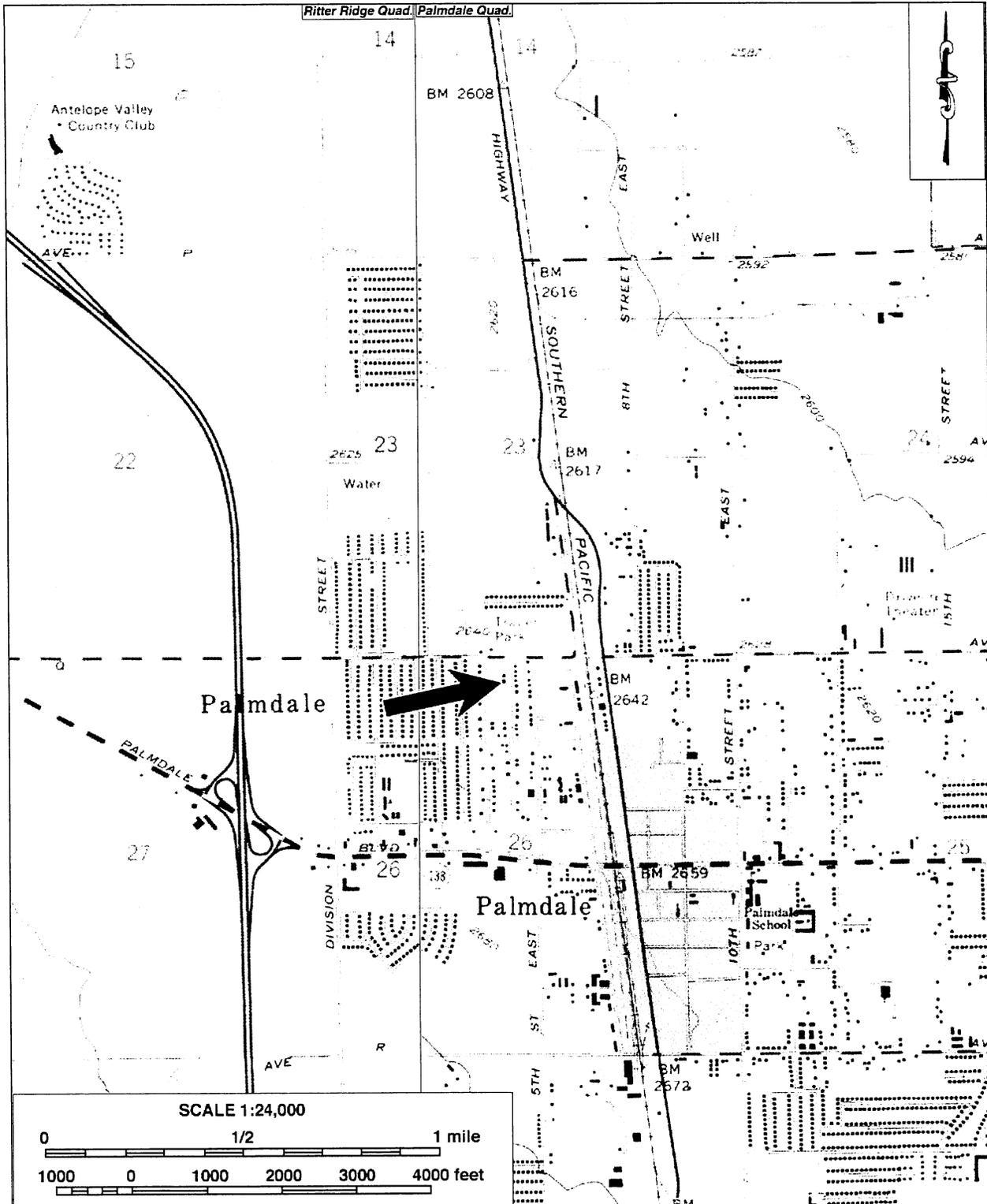
\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. **Description** (continued): aluminum-framed sliding windows of various sizes. An attached garage is located on the left side of the building. The front yard is bounded by a low concrete block wall.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

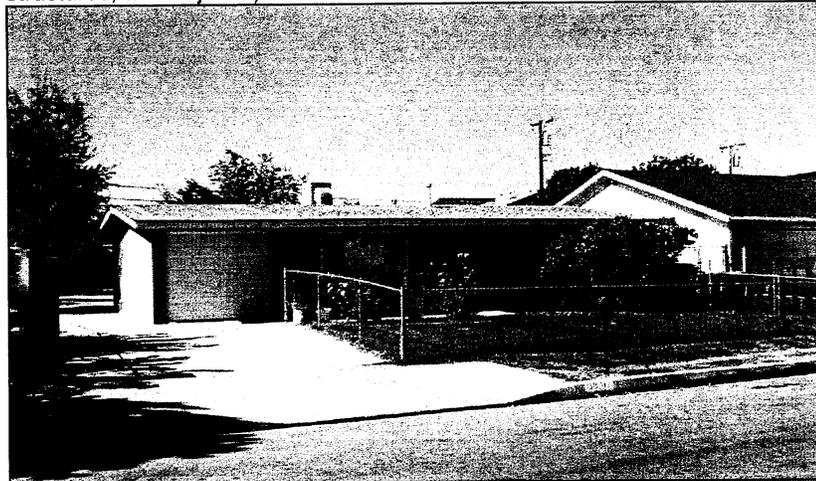
Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-18

Page 1 of 3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level  
c. Address 38617 Larkin Avenue City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397181 mE/ 3827356 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-008-032, on the west side of Larkin Avenue and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is green with white trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco, and surmounted by a low-pitched side-gable roof. The roof has wide eaves with exposed rafters and fascia boards, and is covered with composition shingles. The asymmetrical façade, facing east, features a front door flanked by aluminum-  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest

\*P6. Date Constructed/Age of Sources:  
 Historic  Prehistoric  Both  
Ca. 1956

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

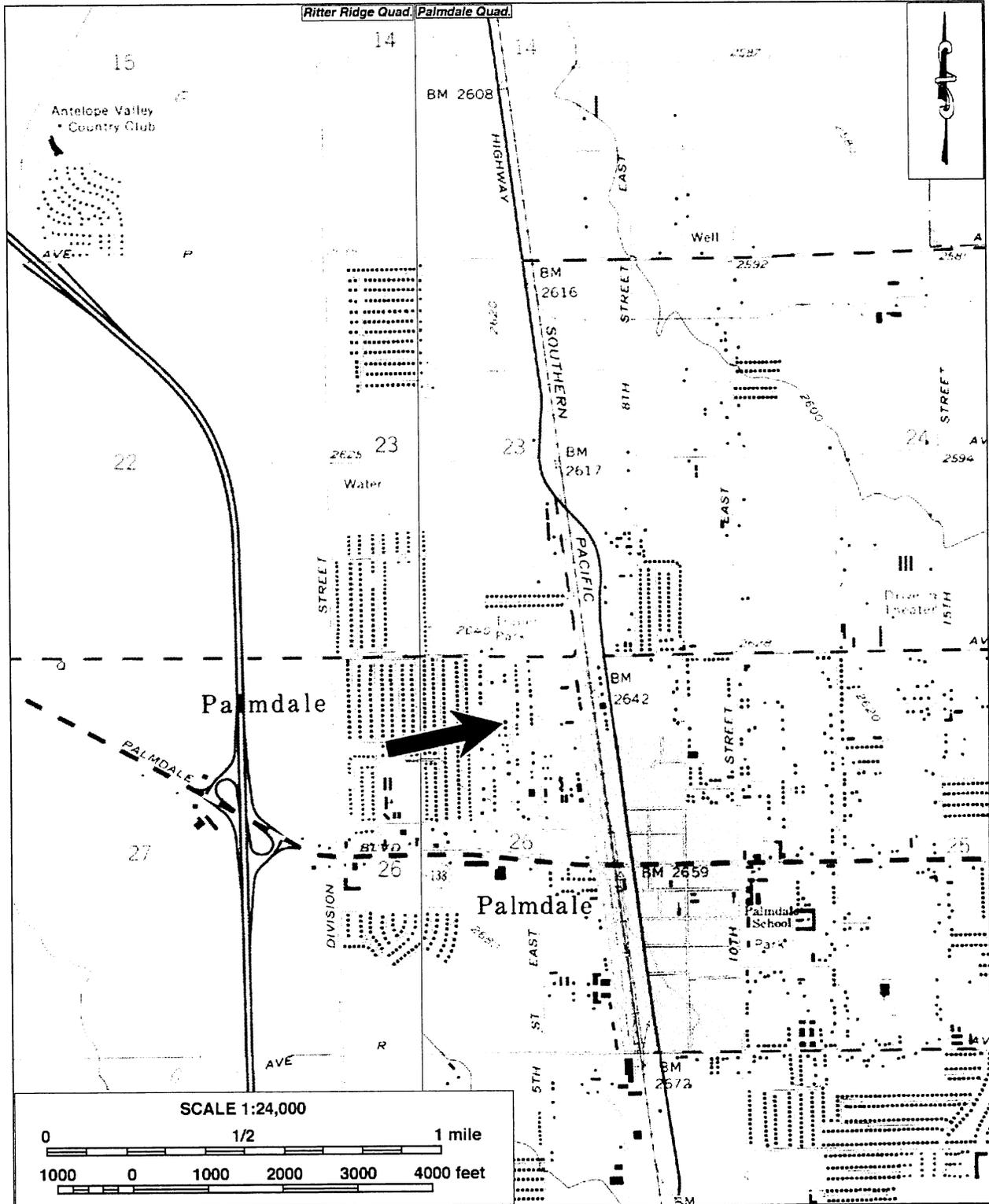
\*P9. Date Recorded: October 25, 2006

\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

\*P3a. **Description** (continued): framed sliding windows. An attached single-car garage is located on the left side of the façade. The front yard is bounded by a chain-link fence.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

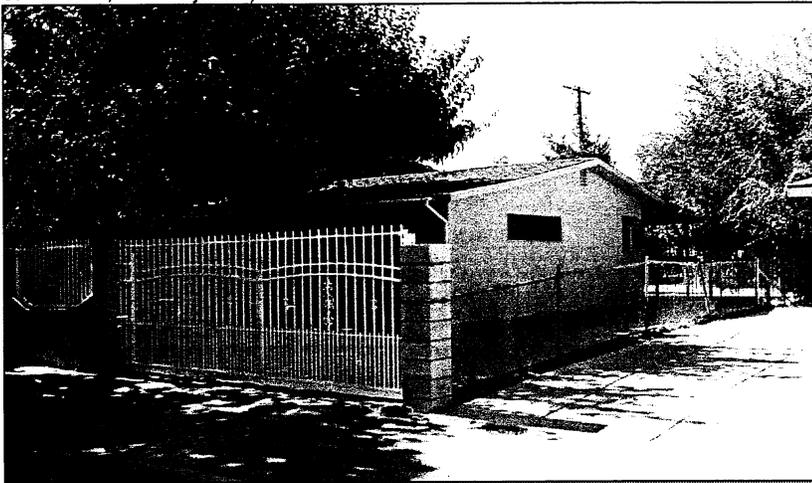
Page 1 of 2 \*Resource Name or # (Assigned by recorder) CRM TECH 1788-19

P1. Other Identifier: \_\_\_\_\_  
\*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.) \*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level  
c. Address 38611 Larkin Avenue City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397177 mE/ 3827349 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-008-033, on the west side of Larkin Avenue and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is rectangular-shaped and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof ends in wide, boxed eaves and is covered with composition shingles. The asymmetrical façade, facing east, features a front door flanked by aluminum-framed sliding windows. The front yard is enclosed by a wrought-iron fence with concrete block piers and a chain-link fence.

\*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property  
\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.)

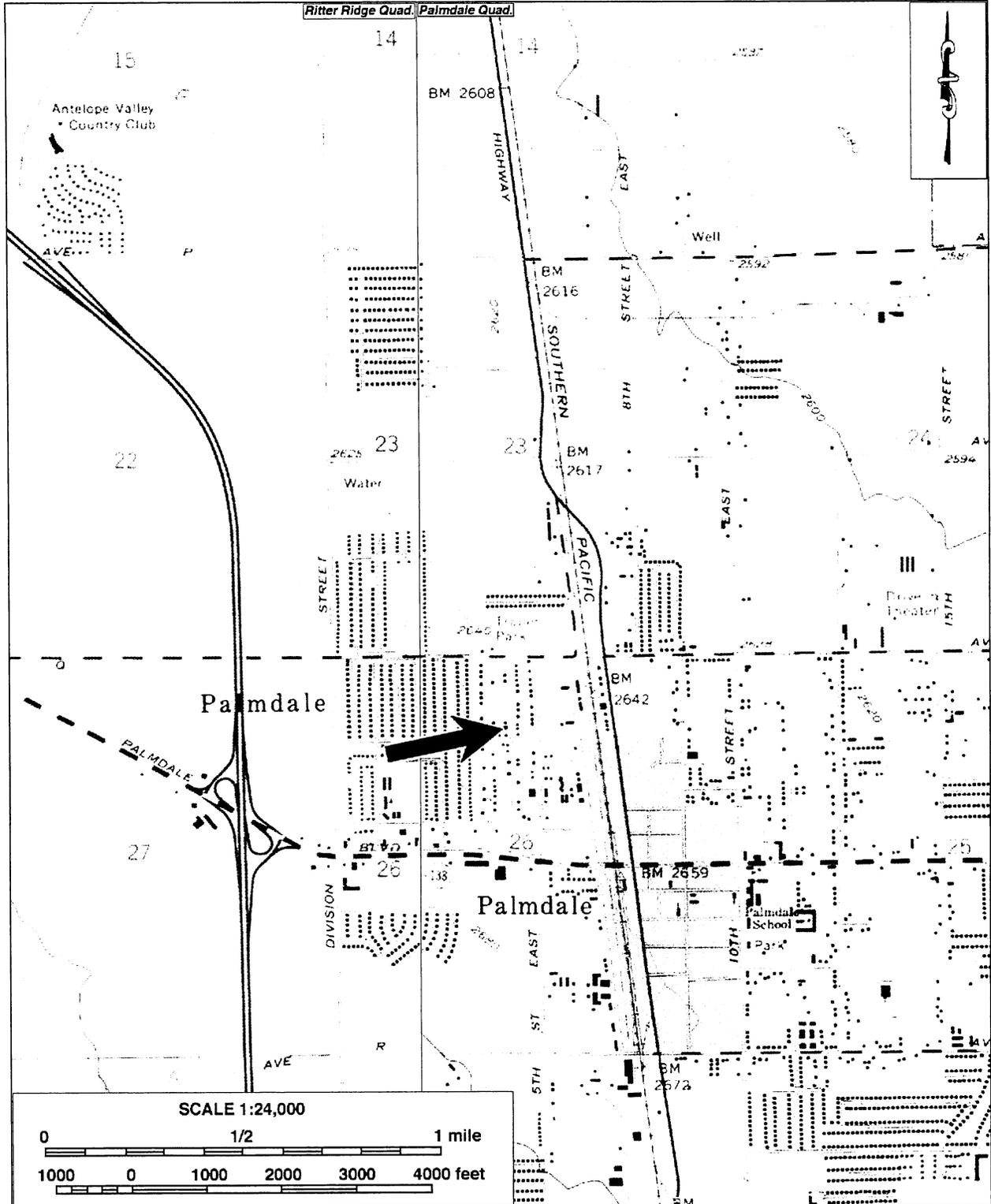
P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southwest  
\*P6. Date Constructed/Age of Sources:  Historic  Prehistoric  Both  
Ca. 1955  
\*P7. Owner and Address: Unknown  
\*P8. Recorded by: (Name, affiliation, and address) Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501  
\*P9. Date Recorded: October 25, 2006  
\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List):



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-20

P1. Other Identifier: \_\_\_\_\_

\*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)

\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974

T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.

Elevation: Approx. 2,650 feet above mean sea level

c. Address 38628 Larkin Avenue City Palmdale Zip 93550

d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397200mE/ 3827375 mN

UTM Derivation:  USGS Quad  GPS

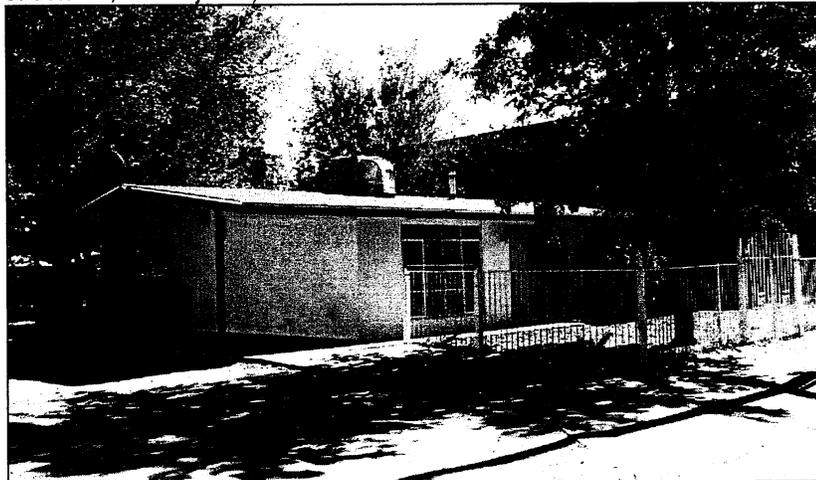
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-005, on the east side of Larkin Avenue and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is white with blue trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Modern-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof has wide eaves with exposed rafters and fascia boards, and is covered with composition shingles. The asymmetrical façade, facing west, features a front door flanked on one side  
*(Continued on next page)*

\*P3b.Resource Attributes: (List attributes and codes) HP2: Single-family property

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southeast

\*P6. Date Constructed/Age of Sources:

Historic  Prehistoric  Both

Ca. 1955

\*P7. Owner and Address:

Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH

4472 Orange Street

Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

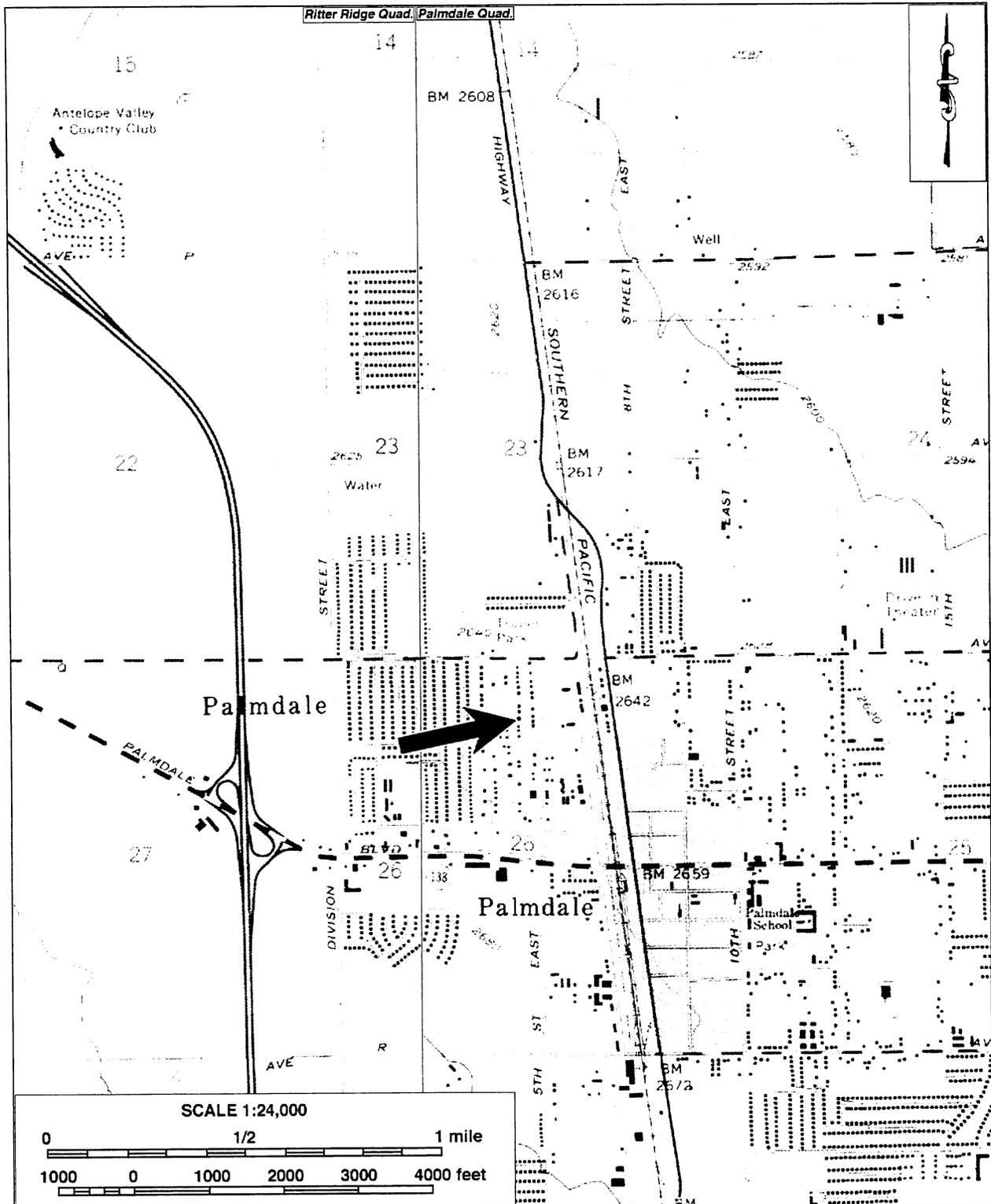
\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. Description (continued): by a large panel of steel-framed fixed and casement windows and on the other by aluminum-framed sliding windows. A driveway leads to a carport on the left side of the building, which is sheltered by an extension of the main roof, supported by five wood posts. The front yard is fenced with iron railings.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

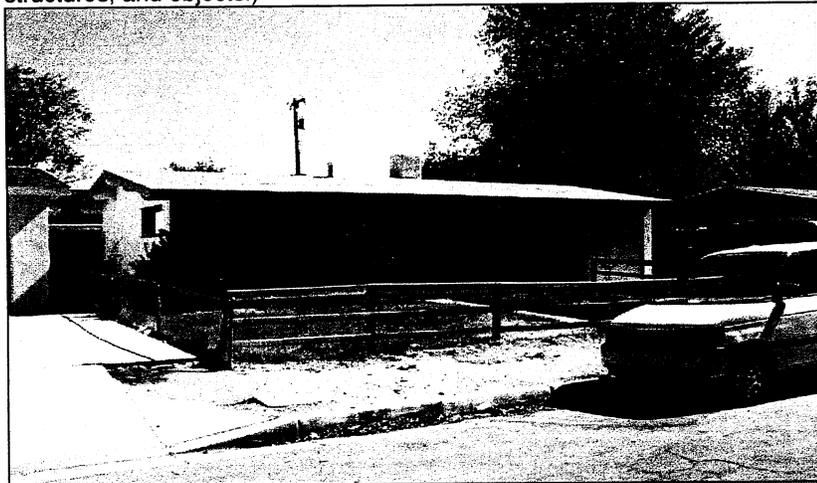
Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-21

Page 1 of 3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level  
c. Address 38634 Larkin Avenue City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397196 mE/ 3827383 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-006, on the east side of Larkin Avenue and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is painted white with light blue trim, is rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof has wide eaves with exposed rafters and fascia boards, and is covered with composition shingles. The asymmetrical façade, facing west, features a plain front door (Continued on next page)
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southeast

\*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both  
Ca. 1956

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: \_\_\_\_\_ None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. **Description** (continued): flanked by steel-framed casement windows of various sizes. A driveway leads to a single-car garage located on the right side of the building. The front yard is enclosed with cedar railings and a chain-link fence.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

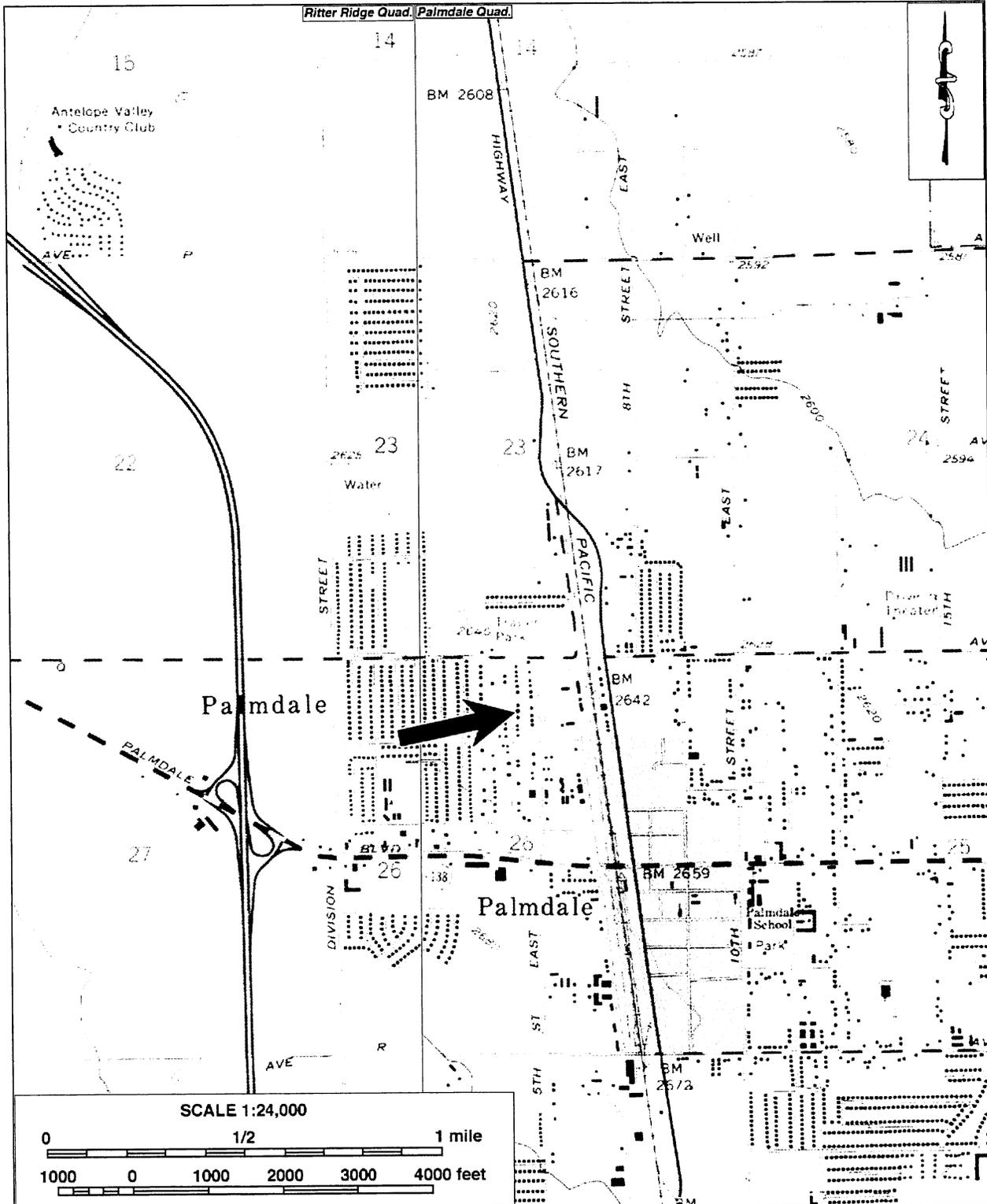
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-21

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3 \*Resource Name or # (Assigned by recorder) CRM TECH 1788-22

P1. Other Identifier: \_\_\_\_\_  
\*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level  
c. Address 38640 Larkin Avenue City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397185 mE/ 3827391 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-007, on the east side of Larkin Avenue and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is cream-colored with white trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof has wide eaves with exposed rafter ends and is covered with composition shingles. The asymmetrical façade, facing west, features a front door that is sheltered by  
*(Continued on next page)*

\*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property  
\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northeast

\*P6. Date Constructed/Age of Sources:  
 Historic  Prehistoric  Both  
Ca. 1956

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List):

**CONTINUATION SHEET**

\*P3a. Description (continued): an eave extension and flanked on one side by a wood-framed tripartite window and on the other side by a wood-framed sliding window. A driveway leads to a single-car garage located on the right side of the building. The front yard is bounded by a chain-link fence.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

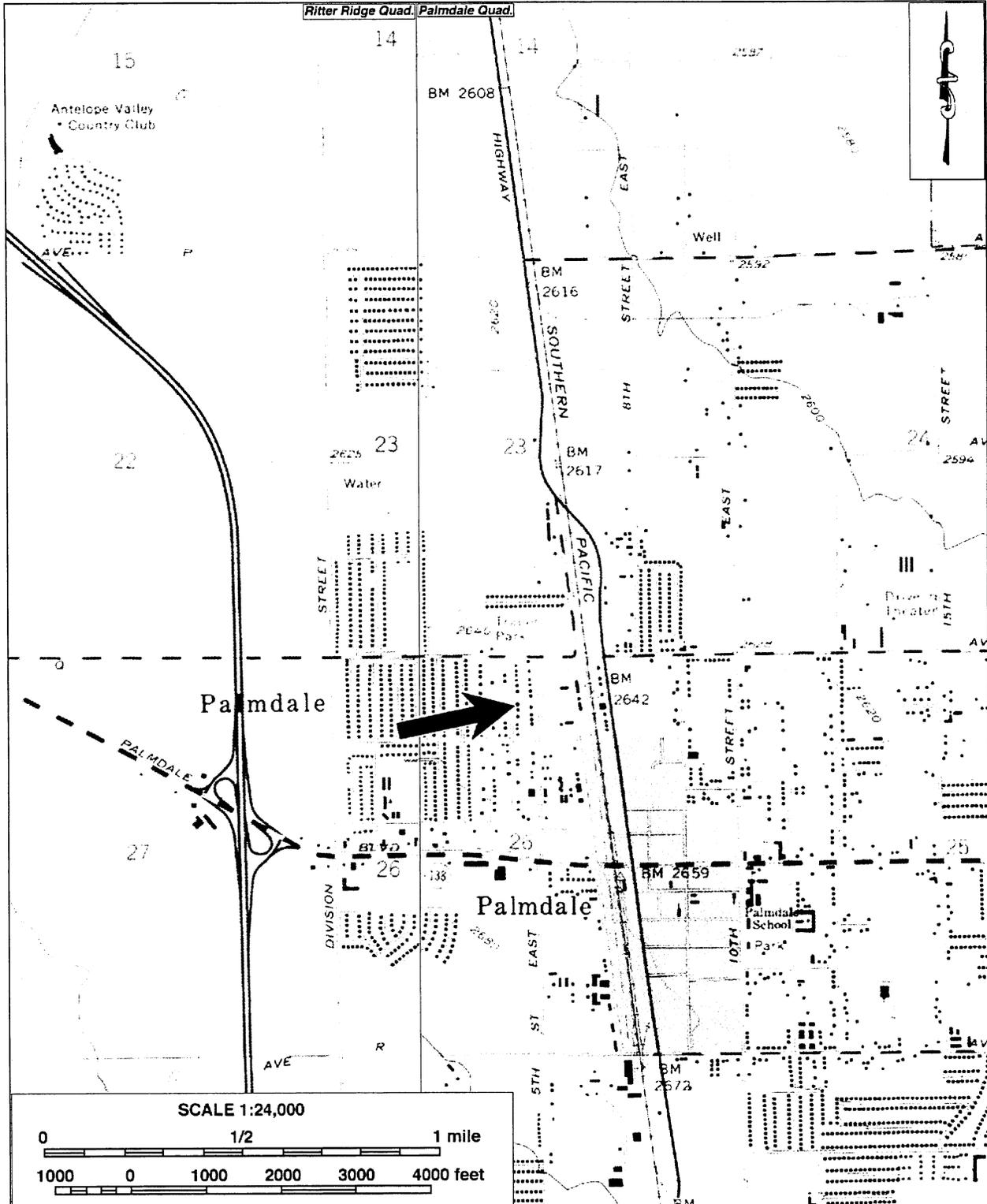
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-22

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

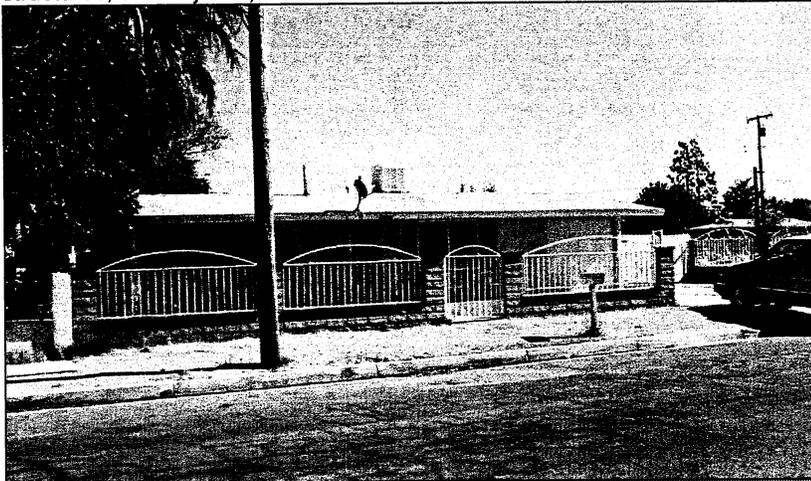
Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-23

Page 1 of 3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*a. County Los Angeles  
Date 1958, photorevised 1974  
\*b. USGS 7.5' Quad Palmdale, Calif.  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38714 Larkin Avenue City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397198 mE/ 3827494 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-011, on the east side of Larkin Avenue and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is yellow with white trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof has wide eaves with exposed rafter ends and is covered with composition shingles. The asymmetrical façade, facing west, features a front door flanked by aluminum-framed sliding windows (Continued on next page)
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

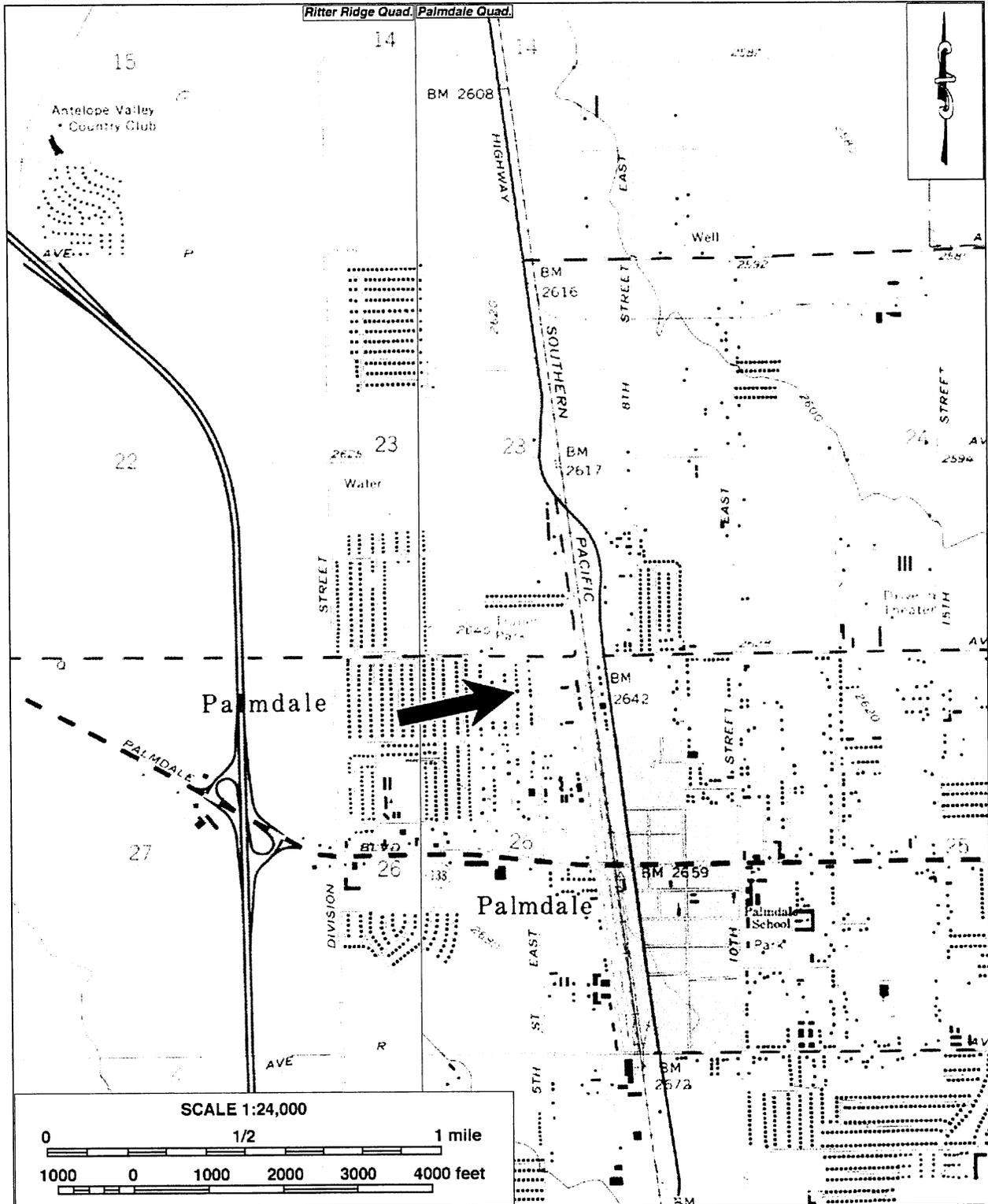


- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southeast
- \*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both  
Ca. 1955
- \*P7. Owner and Address:  
Unknown
- \*P8. Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

\*P3a. **Description** (continued): of various sizes. A driveway leads to a single-car garage located on the right side of the building. The front yard is bounded, except for the driveway, by a wrought-iron fence with concrete block piers.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-24

P1. Other Identifier: \_\_\_\_\_  
\*P2. Location: Not for Publication  Unrestricted and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38720 Larkin Avenue City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397198 mE/ 3827501 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-012, on the east side of Larkin Avenue and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is rectangular-shaped and rests on a concrete slab foundation. The wood-framed residence has undergone substantial remodeling to the primary façade, which now features a Spanish-style arcade, but the rest of the building retains much of its original Ranch-style characteristics. The building is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof has wide  
*(Continued on next page)*

\*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property  
\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the east

\*P6. Date Constructed/Age of Sources:  Historic  Prehistoric  Both  
Ca. 1956  
\*P7. Owner and Address: Unknown  
\*P8. Recorded by: (Name, affiliation, and address) Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501  
\*P9. Date Recorded: October 25, 2006  
\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

Primary # \_\_\_\_\_

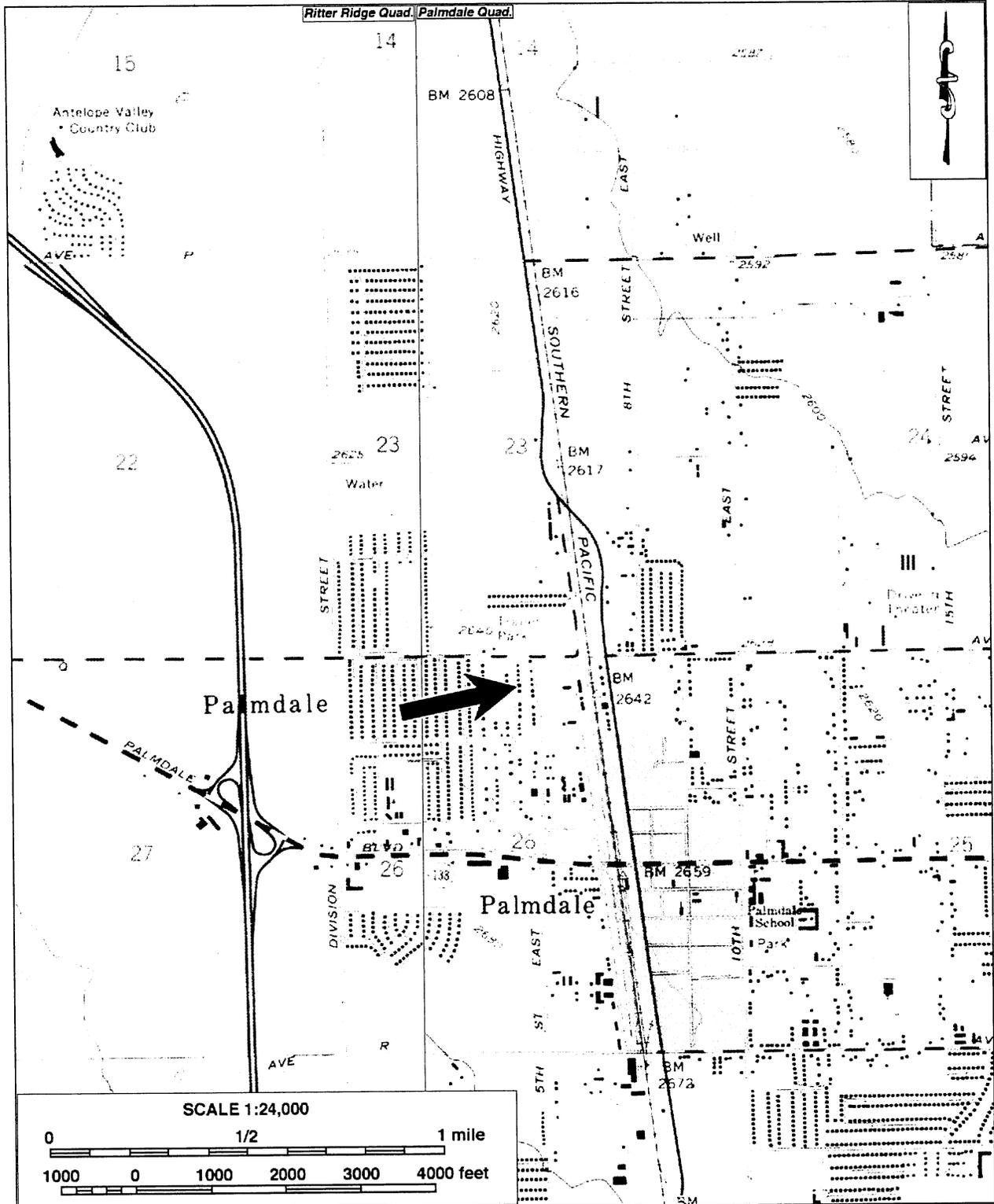
HRI # \_\_\_\_\_

Trinomial \_\_\_\_\_

Page 2 of 3

Resource Name or # (Assigned by recorder) CRM TECH 1788-24

\*P3a. **Description** (continued): eaves with exposed rafters and is covered with composition shingles. The asymmetrical primary façade, facing west, is dominated by the three large stuccoed arches in the arcade, and the flat roof of the porch is accented with clay tiles along the edge. In front of the arches is a patio area that is enclosed by a low stucco wall topped with brick borders and sections of wrought-iron fences. The front door, behind the center arch, is flanked by aluminum-framed sliding windows of various sizes. A driveway on the left side of the building leads to a detached garage of similar appearance in the rear.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-25

Page 1 of 3

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted and (P2b and P2c or P2d. Attach a Location Map as necessary.) \*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38733 Larkin Avenue City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397179 mE/ 3827517 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-021, on the west side of Larkin Avenue and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is brown with greenish-blue trim, L-shaped in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched gable-on-hip roof. The roof has wide eaves with exposed rafters and is covered with composition shingles. The asymmetrical façade, facing east, features a front door sheltered beneath a  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

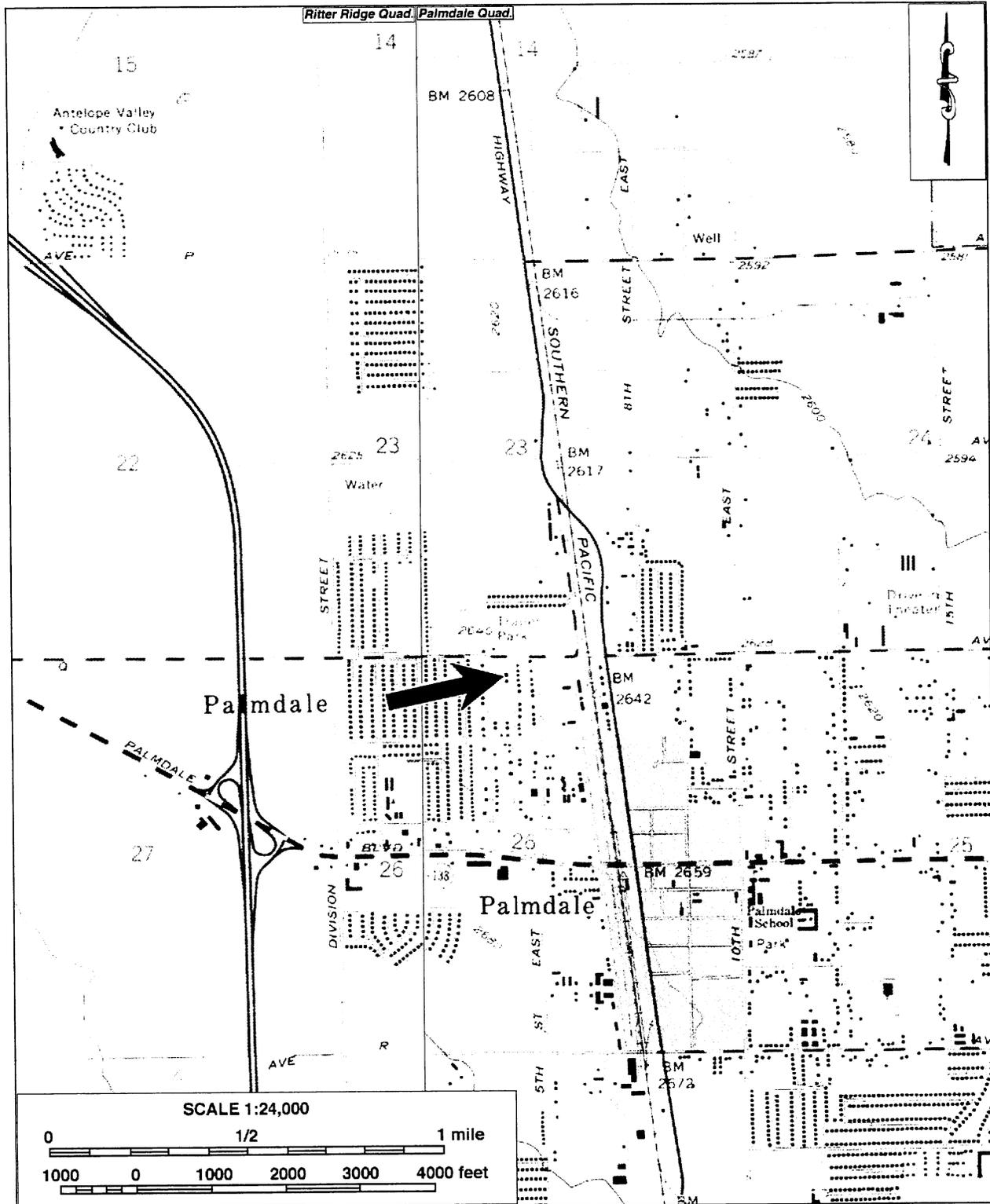


- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest
- \*P6. Date Constructed/Age of Sources:  Historic  Prehistoric  Both  
Ca. 1956
- \*P7. Owner and Address: Unknown
- \*P8. Recorded by: (Name, affiliation, and address) Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

\*P3a. **Description** (continued): small gable supported by two slightly battered columns. The front entry is flanked by aluminum-framed sliding windows with protruding sills. On the right side of the building is a front-gabled two-car garage. The front yard is enclosed by a wrought-iron fence with concrete block piers.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-26

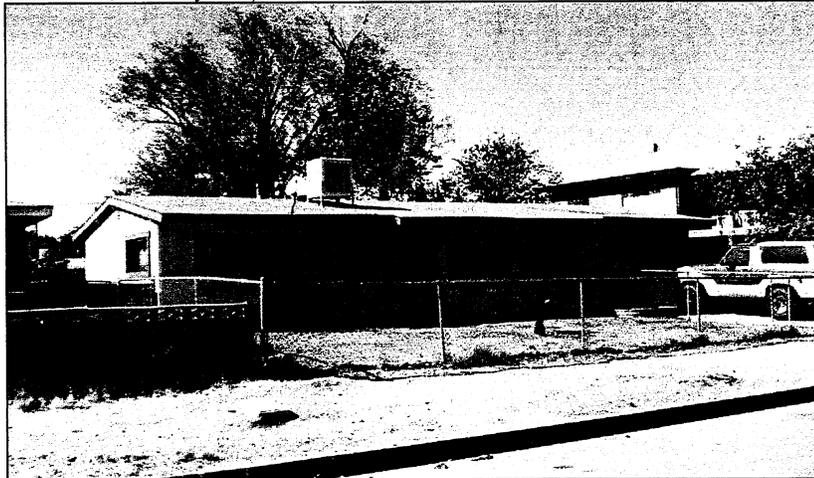
P1. Other Identifier: \_\_\_\_\_  
\*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.) \*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38715 5th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397273 mE/ 3827380 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-024, on the west side of 5th Street East and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is white with brown trim, rectangular-shaped in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof has wide eaves with exposed rafters and is topped with composition shingles. The asymmetrical façade, facing east, features a front door sheltered beneath an extended eave, (Continued on next page)

\*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest

\*P6. Date Constructed/Age of Sources:

Historic  Prehistoric  Both  
Ca. 1956

\*P7. Owner and Address:

Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH

4472 Orange Street

Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

\*P3a. **Description** (continued): flanked on one side by wood-framed double-hung windows and on the other by wood sliding windows. A narrow, gently sloping driveway leads up to a garage located on the right side of the building. The front yard is sparsely landscaped and bounded by a chain-link fence.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

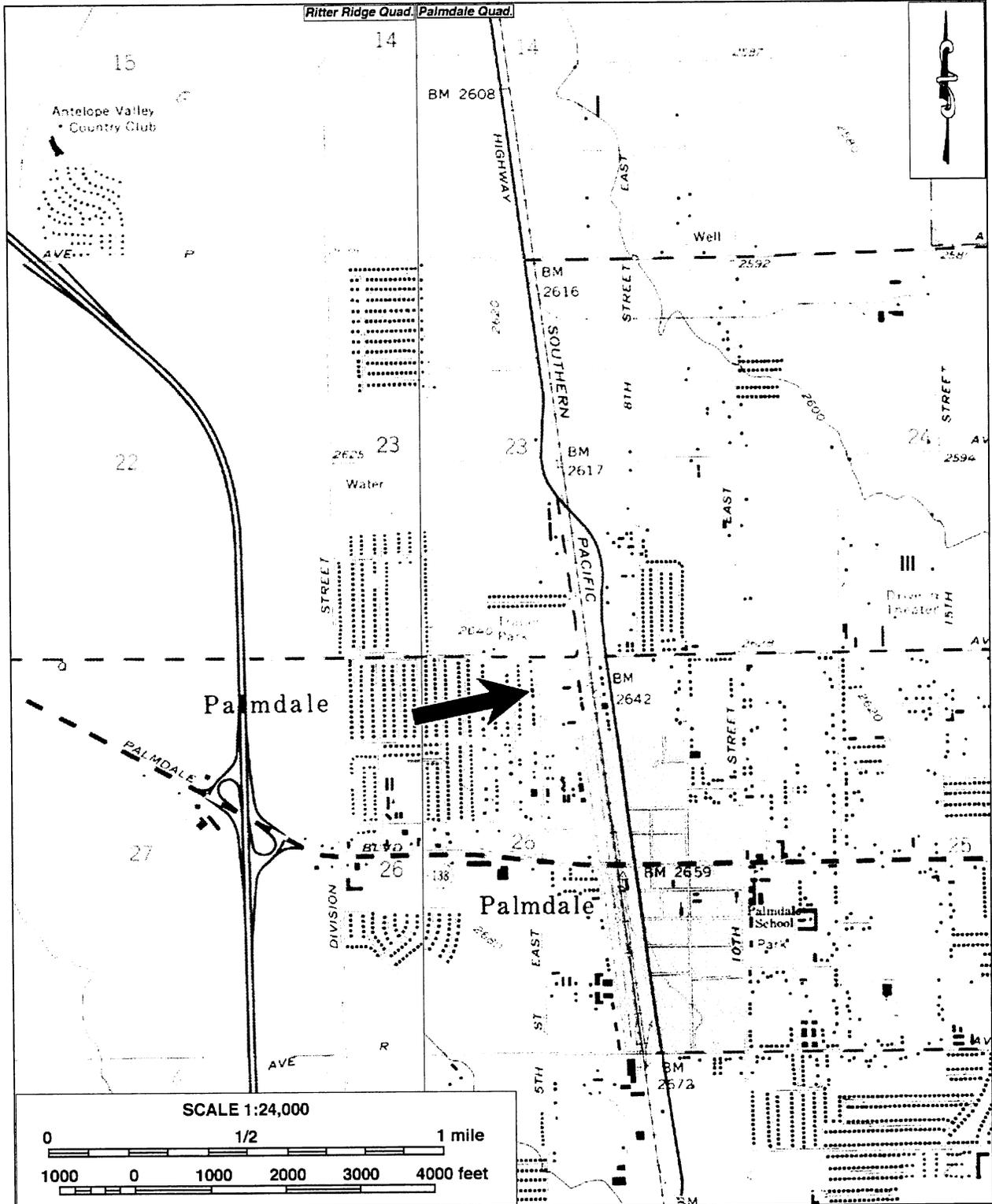
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-26

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-27

Page 1 of 3

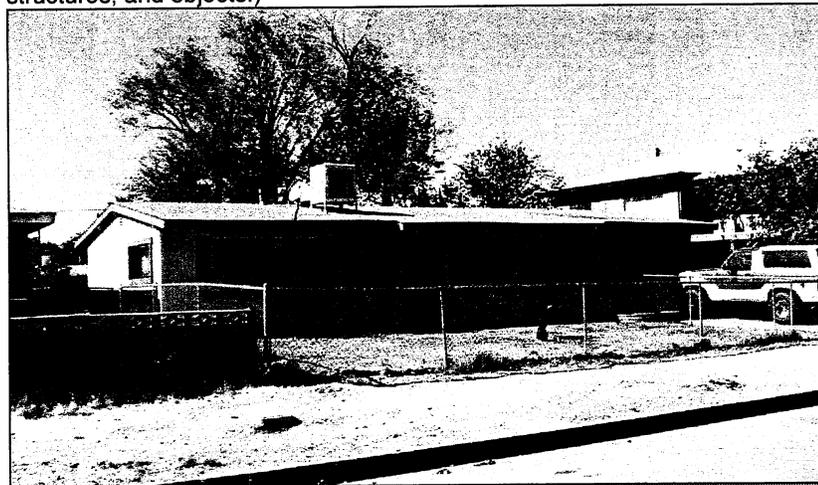
P1. Other Identifier: \_\_\_\_\_  
\*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38709 5th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397284 mE/ 3827375 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-025, on the west side of 5th Street East and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is painted light green and rose with white trim, is rectangular in plan, and rests on a concrete slab foundation. The exterior walls of this wood-framed Ranch-style residence are sheathed with both stucco and vertical flush boards. The low-pitched hip roof has wide eaves with exposed rafters and is covered with composition shingles. The asymmetrical façade, facing east, features a front  
*(Continued on next page)*

\*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the northwest

\*P6. Date Constructed/Age of Sources:  
 Historic  Prehistoric  Both  
Ca. 1957

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH

4472 Orange Street  
Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

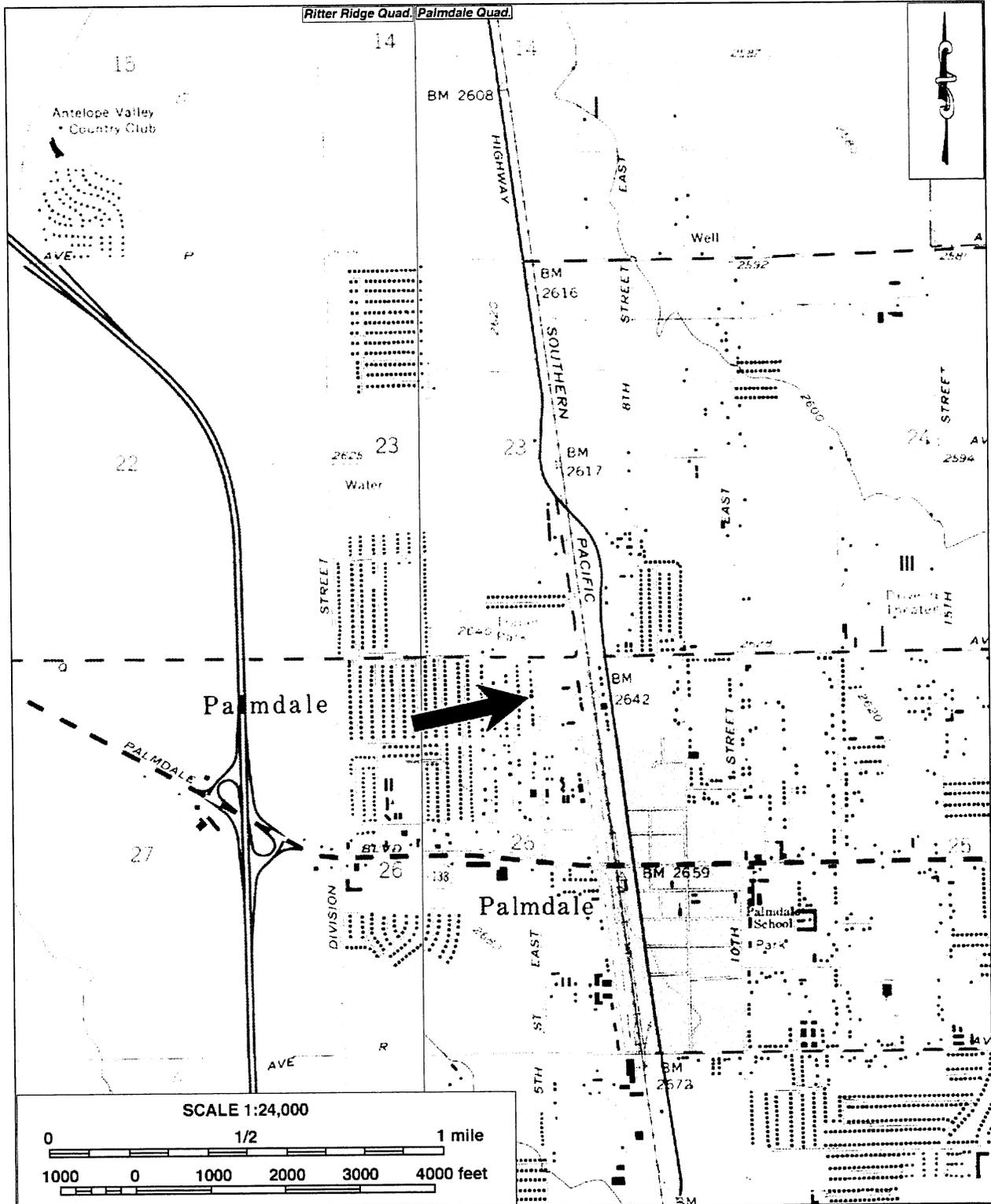
\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. **Description** (continued): door sheltered by a roof extension that is supported by wood posts. Fenestration on the façade includes three windows of various sizes, all of them now covered with plywood boards. A driveway leads to a two-car garage on the left side of the building. The front yard is bounded by a low concrete block wall. The exterior of the building, especially the roof, exhibits recent fire damage, and it is currently unoccupied.



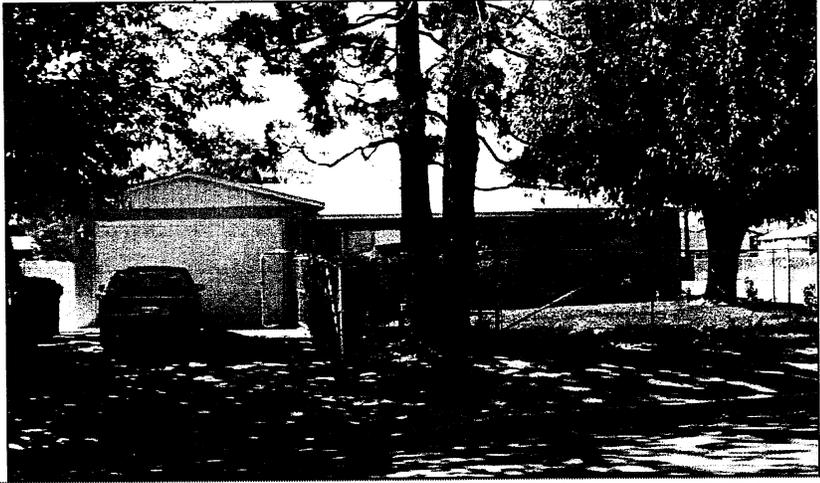
State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-28

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38641 5th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397280 mE/ 3827225 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-028, on the west side of 5th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is peach-colored with white trim, L-shaped in plan, and rests on a concrete slab foundation. It is a wood-framed Ranch-style residence sheathed mostly with stucco and surmounted by a low-pitched cross-gable roof. The roof ends in wide eaves with exposed rafters and is covered with composition shingles. The asymmetrical façade, facing east, features a front door sheltered by a roof  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the west
- \*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both  
Ca. 1957
- \*P7. Owner and Address:  
Unknown
- \*P8. Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. **Description** (continued): extension and flanked on one side by a wood-framed double-hung window and on the other by an octagonal window and a rectangular wood-framed sliding window. A driveway leads to a projecting garage located on the left side of the building. The gable peak on the garage is covered with vertical flush boards. The front yard is bounded by a chain-link fence.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

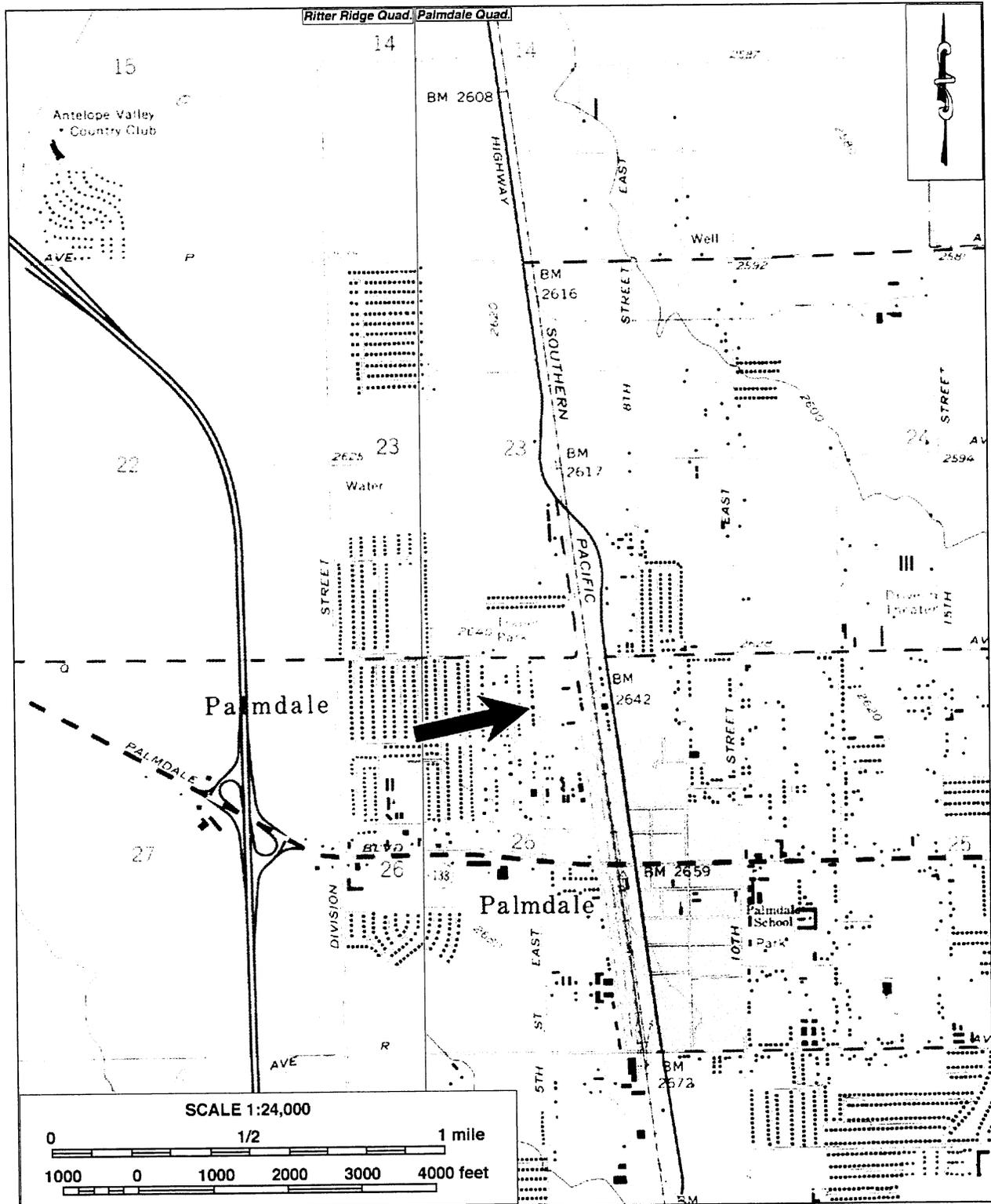
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-28

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

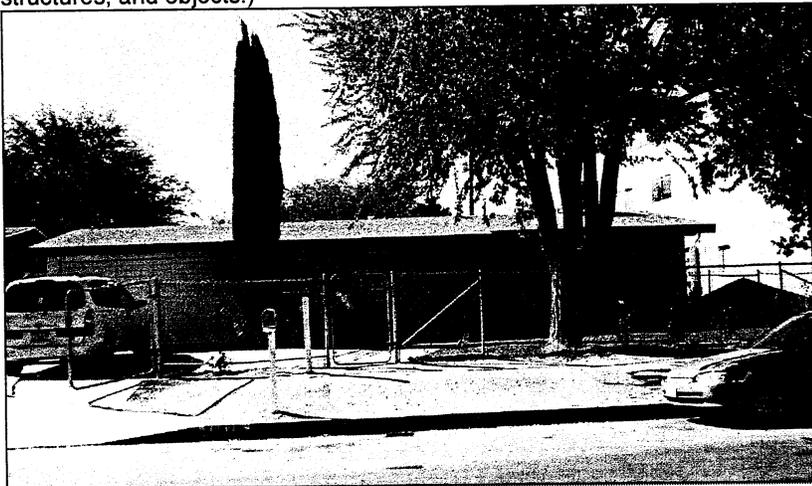
Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-29

Page 1 of 3

- P1. Other Identifier:** \_\_\_\_\_
- \*P2. Location:** Not for Publication  Unrestricted **\*a. County** Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
**\*b. USGS 7.5' Quad** Palmdale, Calif. **Date** 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
**Elevation:** Approx. 2,650 feet above mean sea level  
**c. Address** 38629 5th Street East **City** Palmdale **Zip** 93550  
**d. UTM:** (Give more than one for large and/or linear resources) **Zone** 11 ; 397284 mE/ 3827266 mN  
**UTM Derivation:**  USGS Quad GPS  
**e. Other Locational Data:** (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-030, on the west side of 5th Street East and south of Avenue Q.
- \*P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is white with blue trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof has wide eaves with exposed rafters and is covered with composition shingles. The asymmetrical façade, facing east, features a front door sheltered by a roof extension and flanked by  
*(Continued on next page)*
- \*P3b. Resource Attributes:** (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:**  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.) \_\_\_\_\_

**P5a. Photograph or Drawing** (Photograph required for buildings, structures, and objects.)



- P5b. Description of Photo:** (view, date, accession #) Photo taken on October 25, 2006; view to the west
- \*P6. Date Constructed/Age of Sources:**  
 Historic  Prehistoric  Both  
Ca. 1956
- \*P7. Owner and Address:**  
Unknown
- \*P8. Recorded by:** (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded:** October 25, 2006
- \*P10. Survey Type:** Reconnaissance-level survey

**\*P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

**\*Attachments:**  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. **Description** (continued): aluminum-framed double-hung and sliding windows. A driveway leads to a garage located on the left side of the building. The front yard is bounded by a chain-link fence.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

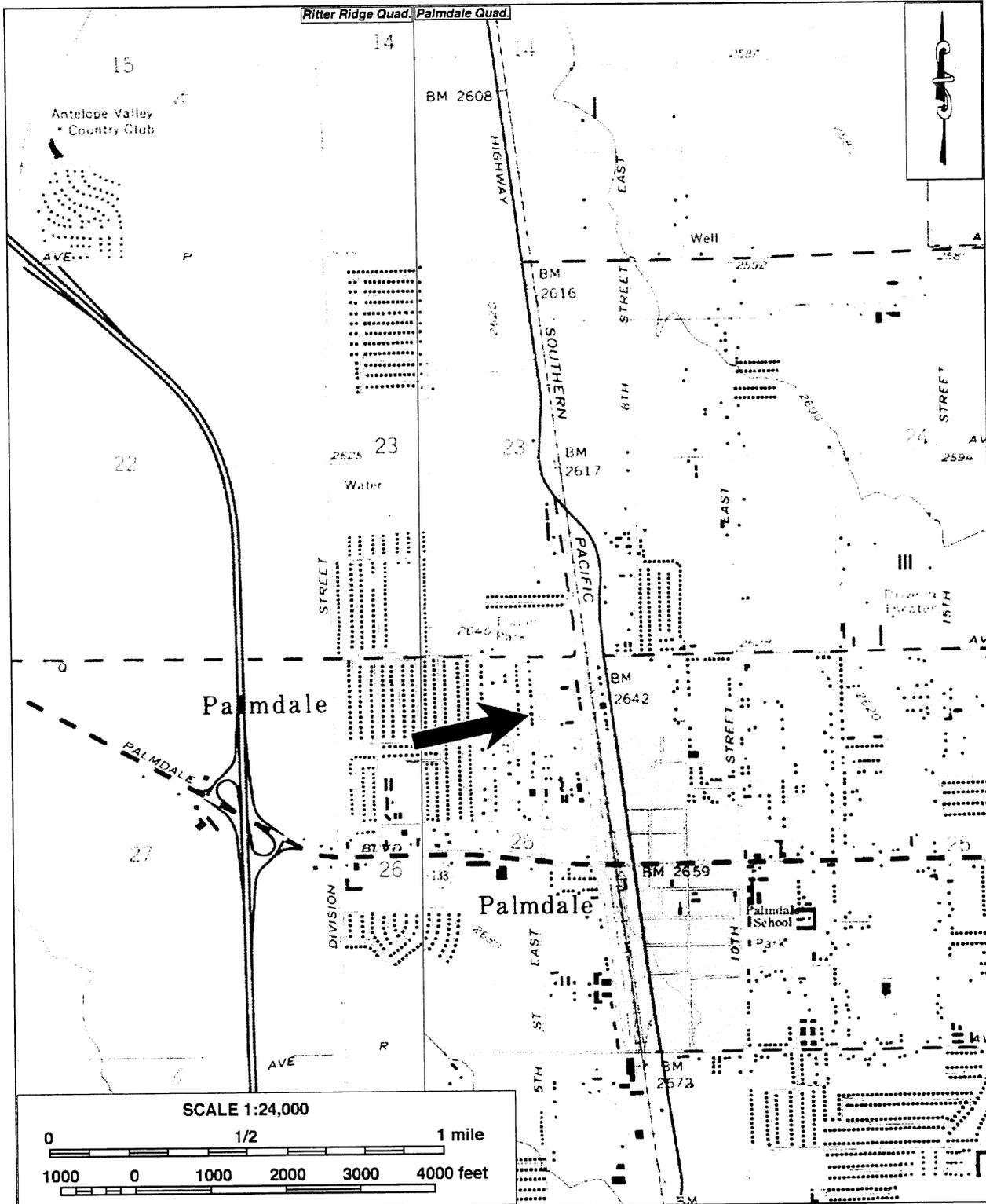
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-29

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

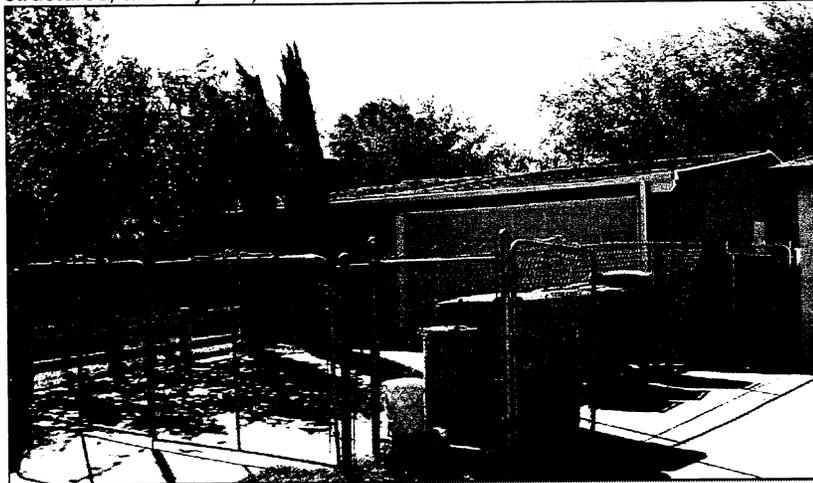
Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 2

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-30

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level  
c. Address 38623 5th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397280 mE/ 3827246 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-031, on the west side of 5th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is brown with white trim, rectangular in plan, and rests on a concrete slab foundation. The wood-framed Ranch-style residence is sheathed with stucco and surmounted by a low-pitched side-gable roof. The roof has wide eaves with exposed rafters and is covered with composition shingles. The asymmetrical façade, facing east, features a front door flanked by aluminum-framed sliding windows. A driveway leads to an attached garage on the right side of the building. The front yard is bounded by a chain-link fence.
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

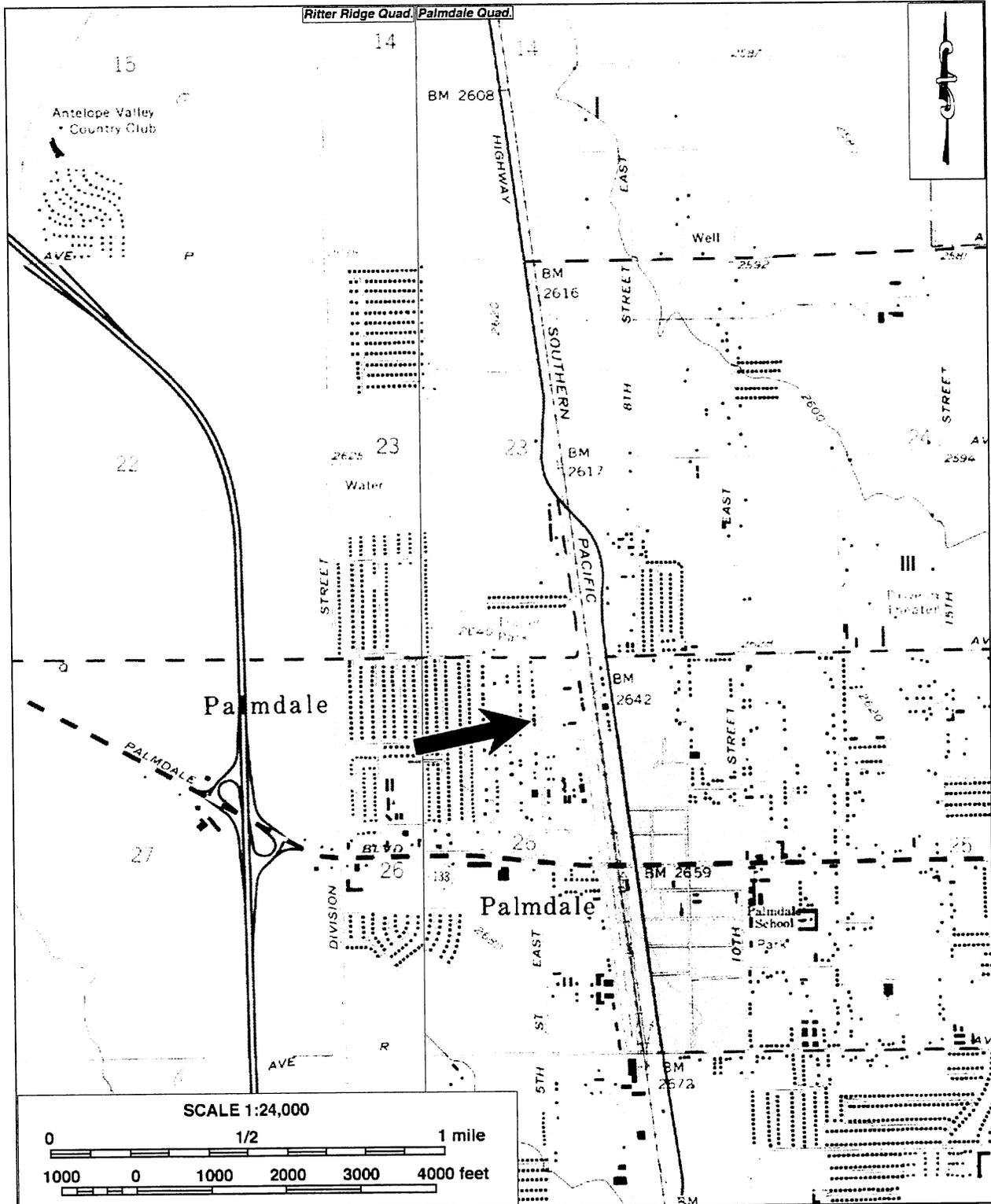


P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southwest

- \*P6. Date Constructed/Age of Sources:  Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1956
- \*P7. Owner and Address: Unknown
- \*P8. Recorded by: (Name, affiliation, and address) Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record \_\_\_\_\_  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record \_\_\_\_\_  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-31

- P1. Other Identifier: \_\_\_\_\_
- \*P2. Location: Not for Publication  Unrestricted  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*a. County Los Angeles  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NE 1/4 of NW 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,650 feet above mean sea level  
c. Address 38617 5th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397276 mE/ 3827224 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-009-032, on the west side of 5th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story single-family residence is light blue with blue trim, L-shaped in plan, and rests on a concrete slab foundation. It is a wood-framed Ranch-style residence sheathed with clapboard and stucco and surmounted by a low-pitched gable-on-hip roof. The roof ends in wide eaves with exposed rafters and is covered with composition shingles. The asymmetrical façade, facing east, features a front door sheltered by a small, (Continued on next page)
- \*P3b. Resource Attributes: (List attributes and codes) HP2: Single-family property
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



- P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southwest
- \*P6. Date Constructed/Age of Sources:  
 Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1957
- \*P7. Owner and Address:  
Unknown
- \*P8. Recorded by: (Name, affiliation, and address)  
Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501
- \*P9. Date Recorded: October 25, 2006
- \*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet Building, Structure, and Object Record  
Archaeological Record District Record Linear Resource Record Milling Station Record  
Rock Art Record Artifact Record Photograph Record Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. **Description** (continued): front-facing gable supported by square wood posts. The door is flanked by aluminum-frame double-hung and sliding windows. A driveway leads to a projecting garage on the left side of the building. The front yard is bounded by a wrought-iron fence, a vinyl fence, and a block wall.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

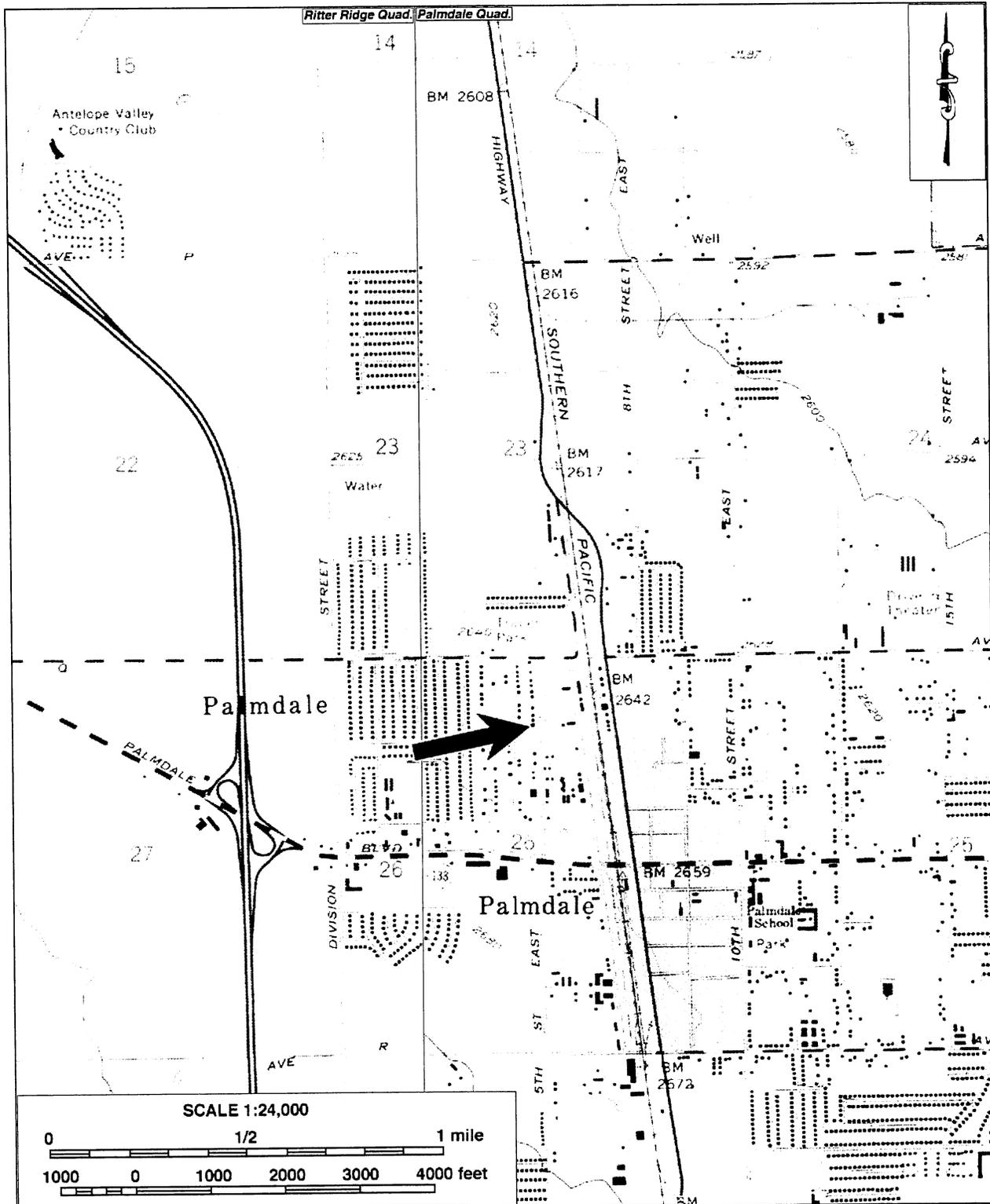
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-31

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
**\*Resource Name or # (Assigned by recorder)** CRM TECH 1788-32

Page 1 of 3

P1. Other Identifier: The Sun Apartments/Motel  
\*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NW 1/4 of NE 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38717 6th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397435 mE/ 3827467 mN  
UTM Derivation:  USGS Quad  GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-011-007, on the west side of 6th Street East and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) The Sun Apartments/Motel is a one-story, six-unit building that is tan with brown trim, L-shaped in plan, and rests on a concrete slab foundation. It is a wood-framed structure sheathed with stucco and surmounted by a flat roof with parapets topped by ceramic tiles. A boxed cornice projects from the wall below the parapets. The asymmetrical façade,  
*(Continued on next page)*

\*P3b. Resource Attributes: (List attributes and codes) HP3: Multiple-family property; HP5: Hotel/motel

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southeast

\*P6. Date Constructed/Age of Sources:  
 Historic  Prehistoric  Both  
Ca. 1951

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments:  None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List):

\*P3a. **Description** (continued): ...facing north, features a series of doors accompanied by aluminum-framed double-hung and sliding windows. A lawn and an asphalt parking lot lie in front of the building, and two storage sheds of modern appearance are located to the right.

State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**LOCATION MAP**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_

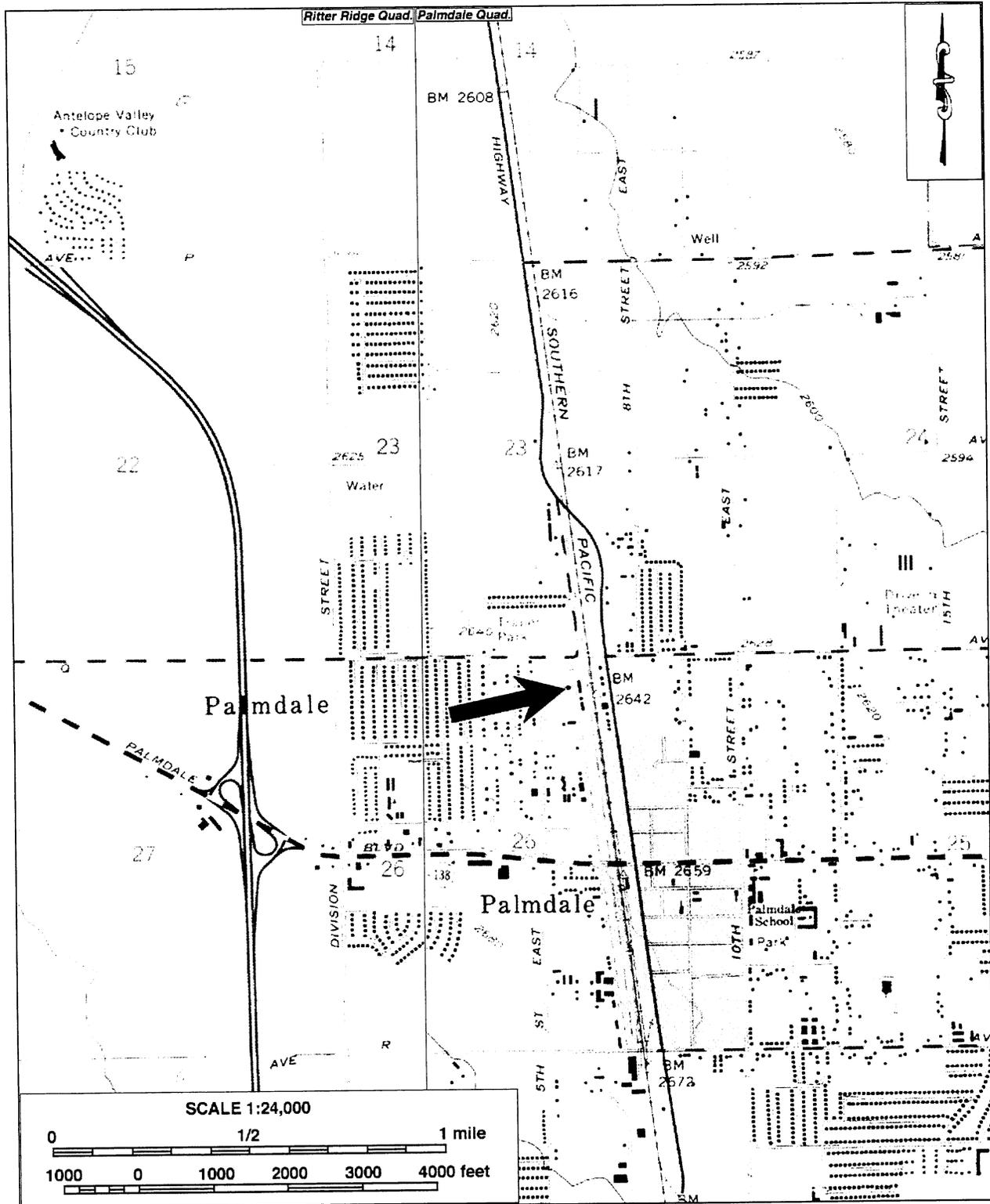
Page 3 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-32

\*Map Name: Palmdale and Ritter Ridge, Calif.

\*Scale: 1:24,000

\*Date of Map: 1974



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_

Page 1 of 3

\*Resource Name or # (Assigned by recorder) CRM TECH 1788-33

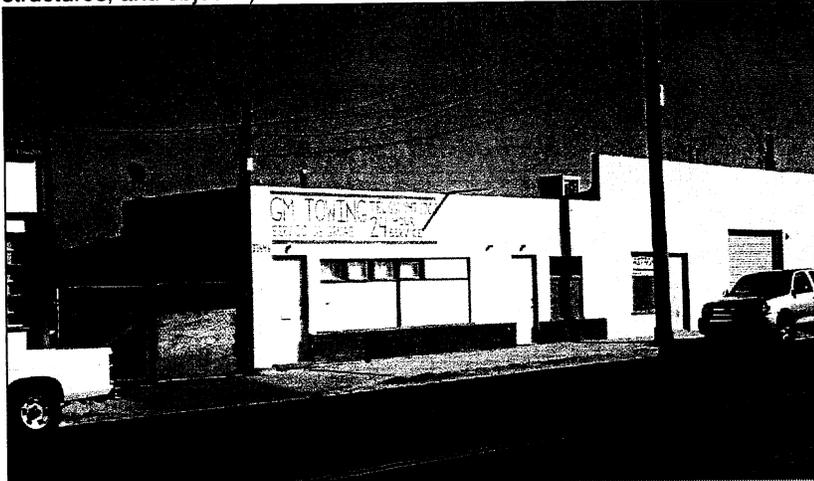
P1. Other Identifier: GM Towing and AAA Saw and Lawnmower Repair  
\*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NW 1/4 of NE 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level  
c. Address 38644/38646 6th Street East City Palmdale Zip 93550  
d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397486 mE/ 3827317 mN  
UTM Derivation:  USGS Quad GPS  
e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-011-028/-029, on the east side of 6th Street East and south of Avenue Q.

\*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story commercial building houses two businesses, GM Towing and AAA Saw and Lawnmower Repair. The building is gray with blue trim, rectangular in shape, and rests on a concrete slab foundation. It is a wood-framed structure sheathed with stucco and surmounted by a flat roof with parapets. The asymmetrical façade, facing west, features a series of doors accompanied by wood-framed fixed windows, and a service bay with a roll-up  
*(Continued on next page)*

\*P3b. Resource Attributes: (List attributes and codes) HP6: 1-3 story commercial building

\*P4. Resources Present:  Building  Structure  Object  Site  District  Element of District  
Other (isolates, etc.)

\*P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



\*P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southeast

\*P6. Date Constructed/Age of Sources:  
 Historic  Prehistoric  Both  
Ca. 1953-1954

\*P7. Owner and Address:  
Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

\*P9. Date Recorded: October 25, 2006

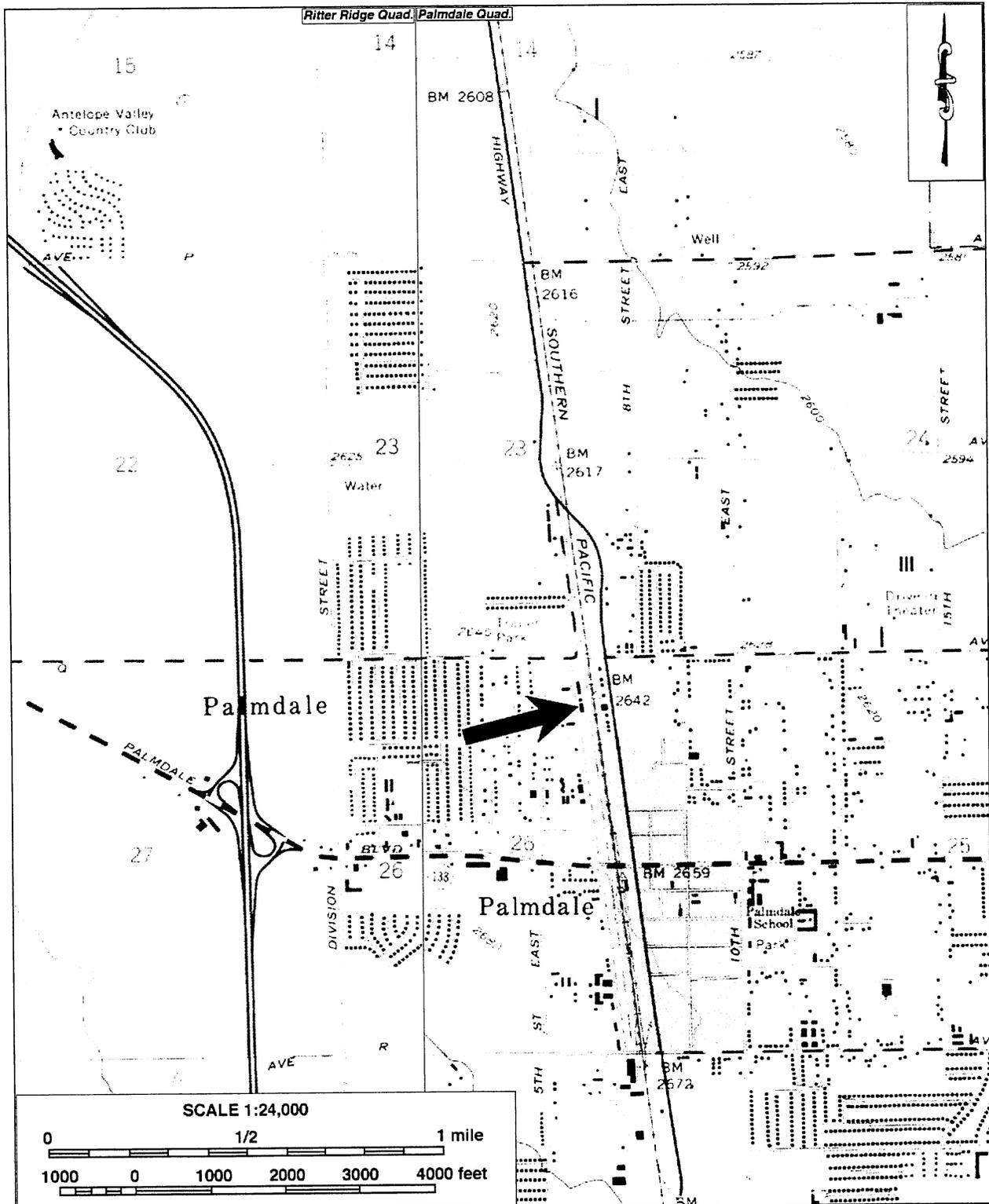
\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet  Building, Structure, and Object Record  
 Archaeological Record  District Record  Linear Resource Record  Milling Station Record  
 Rock Art Record  Artifact Record  Photograph Record  Other (List): \_\_\_\_\_

**CONTINUATION SHEET**

\*P3a. **Description** (continued): metal door. Windows in the northern portion of the façade are decorated with brick veneers along the base of the wall, and some of them have been sealed with boards. The building fronts the sidewalk along 6th Street with the addresses and business names painted on the façade, near the main entrance on the left side of the building.



State of California--The Resources Agency  
DEPARTMENT OF PARKS AND RECREATION  
**PRIMARY RECORD**

Primary # \_\_\_\_\_  
HRI # \_\_\_\_\_  
Trinomial \_\_\_\_\_  
NRHP Status Code 7R  
Other Listings \_\_\_\_\_

Review Code \_\_\_\_\_ Reviewer \_\_\_\_\_ Date \_\_\_\_\_  
\*Resource Name or # (Assigned by recorder) CRM TECH 1788-34

Page 1 of 3

- P1. Other Identifier: 6th Street Test Only Center
- \*P2. Location: Not for Publication  Unrestricted \*a. County Los Angeles  
and (P2b and P2c or P2d. Attach a Location Map as necessary.)  
\*b. USGS 7.5' Quad Palmdale, Calif. Date 1958, photorevised 1974  
T6N; R12W; NW 1/4 of NE 1/4 of Sec 26 ; S.B.B.M.  
Elevation: Approx. 2,640 feet above mean sea level
- c. Address 38702 6th Street East City Palmdale Zip 93550
- d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 397480 mE/ 3827447 mN  
UTM Derivation:  USGS Quad \_\_\_\_\_ GPS \_\_\_\_\_
- e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) The building is located within APN 3008-011-030, on the east side of 6th Street East and south of Avenue Q.
- \*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This one-story commercial building is white with blue trim, rectangular in shape, and rests on a concrete slab foundation. It is a wood-framed structure sheathed with stucco and surmounted by a flat roof with parapets. The nearly symmetrical façade, facing west, features two sets of windows at either end, with fixed, wood-framed sashes and aluminum-framed sliding sashes. A door was once located at the center, between the two  
*(Continued on next page)*
- \*P3b. Resource Attributes: (List attributes and codes) HP6: 1-3 story commercial building
- \*P4. Resources Present:  Building \_\_\_\_\_ Structure \_\_\_\_\_ Object \_\_\_\_\_ Site \_\_\_\_\_ District \_\_\_\_\_ Element of District \_\_\_\_\_  
Other (isolates, etc.) \_\_\_\_\_

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Photo taken on October 25, 2006; view to the southeast

\*P6. Date Constructed/Age of Sources:

Historic \_\_\_\_\_ Prehistoric \_\_\_\_\_ Both \_\_\_\_\_  
Ca. 1952

\*P7. Owner and Address:

Unknown

\*P8. Recorded by: (Name, affiliation, and address)

Josh Smallwood, CRM TECH  
4472 Orange Street  
Riverside, CA 92501

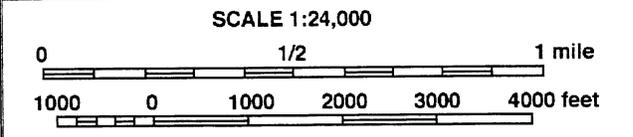
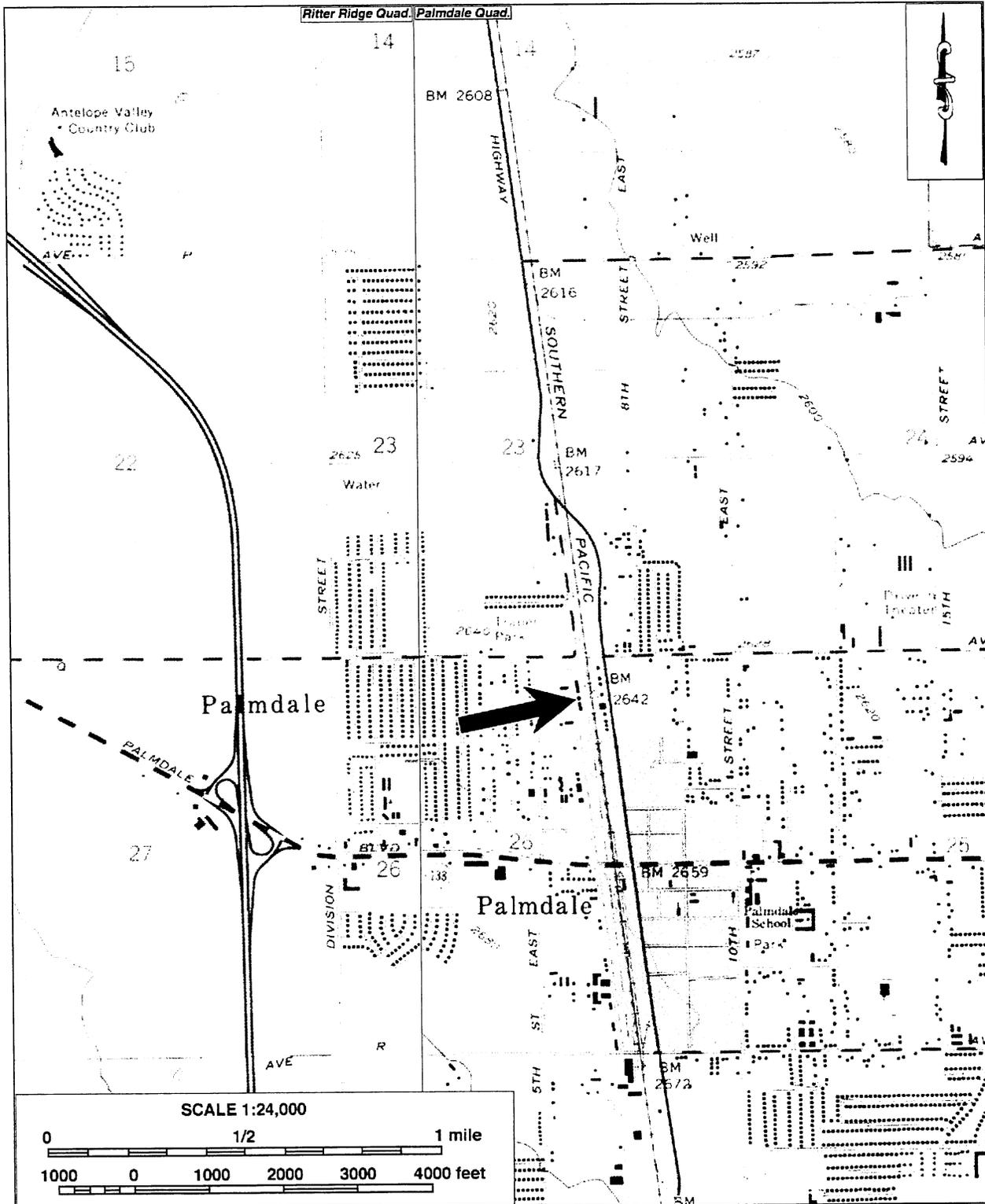
\*P9. Date Recorded: October 25, 2006

\*P10. Survey Type: Reconnaissance-level survey

\*P11. Report Citation: (Cite survey report and other sources, or enter "none.") Bai Tang and Josh Smallwood (2006): Historical/Archaeological Resources Reconnaissance Report: Palmdale Transit Village Specific Plan, City of Palmdale, Los Angeles County, California. On file, South Central Coastal Information Center, California State University, Fullerton.

\*Attachments: None  Location Map  Continuation Sheet \_\_\_\_\_ Building, Structure, and Object Record \_\_\_\_\_  
\_\_\_\_\_ Archaeological Record \_\_\_\_\_ District Record \_\_\_\_\_ Linear Resource Record \_\_\_\_\_ Milling Station Record \_\_\_\_\_  
\_\_\_\_\_ Rock Art Record \_\_\_\_\_ Artifact Record \_\_\_\_\_ Photograph Record \_\_\_\_\_ Other (List): \_\_\_\_\_

\*P3a. **Description** (continued): windows, but has been sealed. The main entrance to the building is now situated on the south side. The building fronts the sidewalk along 6th Street, with the business name painted on the exterior wall of the façade above the windows.



## **15.6 Biological Resources**

---



RECEIVED  
AUG 10 2006  
RBF CONSULTING



August 9, 2006

Mr. Glenn Lajoie  
RBF Consulting  
14725 Alton Parkway  
Irvine, CA 92618

**VIA FACSIMILE AND MAIL**  
**(949) 837-4122**



Subject: Results of Focused Presence/Absence Surveys for the Burrowing Owl on the Palmdale Transit Village Project Site, City of Palmdale and Unincorporated Los Angeles County, California

Dear Mr. Lajoie:

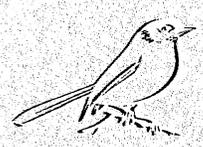
This letter report presents the results of focused surveys for the western burrowing owl (*Athene cunicularia hypugea*) conducted during the nesting season for the species on the 100-acre Palmdale Transit Village project site in the City of Palmdale and unincorporated Los Angeles County (hereafter referred to as the "project site"). The purpose of the survey was to determine the presence or absence of the western burrowing owl on the project site.

**SPECIES BACKGROUND**

The western burrowing owl is a grassland specialist that is distributed throughout western North America. It occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments that have well-drained, level-to-gently-sloping areas that are characterized by sparse vegetation and bare ground (Haug and Diduik 1993; Dechant et al. 1999). Burrowing owls in Florida excavate their own burrows, but western burrowing owls are dependant upon the presence of burrowing mammals (such as ground squirrels) whose burrows are used for roosting and nesting (Haug and Diduik 1993). The presence or absence of colonial mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing mammals may burrow beneath rocks, debris, or large, heavy objects such as abandoned cars, concrete blocks, or concrete pads. Large, hard objects at burrow entrances stabilize the entrance from collapse, and may inhibit excavation by predators.



151 Kalmus Drive  
Suite E-200  
Costa Mesa  
California 92626  
(714) 444-9199  
(714) 444-9599 fax  
www.bonterraconsulting.com



Burrowing owls often use "satellite", or non-nesting burrows, moving chicks into them from the nesting burrow, presumably to reduce the risk of predation (Desmond and Savidge 1998) and possibly to avoid nest parasites (Dechant et al. 1999). One pair may use up to ten satellite burrows (James and Seabloom 1968). Individual burrowing owls have a moderate-to-high site fidelity to previously used burrow complexes and often use the same burrows for nesting year after year.

The western burrowing owl was once abundant and widely distributed within coastal southern California, but it has declined precipitously in counties such as Los Angeles, Orange, San Diego, Riverside, and San Bernardino. A petition was filed to list the California population of the western burrowing owl as an Endangered or Threatened species (Center for Biological Diversity 2003); however, the California Department of Fish and Game (CDFG) declined to list the burrowing owl as either Threatened or Endangered. The CDFG currently lists the western burrowing owl as a California Species of Special Concern and the U.S. Fish and Wildlife Service (USFWS) lists it as a Bird of Conservation Concern (CDFG 2006).

### **Project Location and Description**

The project site is located in the City of Palmdale and unincorporated Los Angeles County (Exhibit 1). The project site is bound by Avenue Q-3 to the south, by 3<sup>rd</sup> Street East to the west, by Avenue P-12 to the north, and by 6<sup>th</sup> Street East to the east. This area appears on the U.S. Geological Survey (USGS) 7.5' Palmdale Quadrangle (1974) in Section 23 of Township 6 North, Range 12 West (San Bernardino Base and Meridian) (Exhibit 2). The elevation of the project site ranges between 2,620 feet above mean sea level (msl) in the northern extent and 2,640 feet above msl in the southern extent of the site.

The project site consists of vacant land, residential, industrial/commercial, and educational land uses. Additionally, the northern portion of the project site consists of the Transportation Center, constructed in 2004, that includes a train and bus station and associated parking. Directly south of the Transportation Center is the P-14 block with 40 residential units accessed via 6<sup>th</sup> Street East. To the southwest is the Telstar Trailer Court with 25 mobile homes. On the northwestern corner of Avenue Q and 6<sup>th</sup> Street East is a continuation high school with stacked classroom portables. Areas to the south of East Avenue Q consist primarily of single- and multiple-family residential units, with several vacant parcels distributed throughout. The majority of undeveloped vacant land on the project site is bound by 3<sup>rd</sup> Street East to the west, Avenue P-12 to the north, 6<sup>th</sup> Street East to the east, and East Avenue Q to the south.

Vegetation within the vacant areas is dominated by non-native annual grassland species including common fiddleneck (*Amsinckia intermedia*), wild oats (*Avena fatua*), ripgut grass (*Bromus* sp.), and red-stemmed filaree (*Erodium cicutarium*). Pockets of native saltbush scrub vegetation dominated by saltbush (*Atriplex* sp.) were also present, particularly in the northwestern portion of the project site.

### **Survey Methodology**

The Burrowing Owl Survey Protocol and Mitigation Guidelines is prepared by the California Burrowing Owl Consortium (CBOC 1993), which is generally accepted by the CDFG, and details a sequence of surveys based on the findings of each previous level of survey. The first phase of the survey effort involves a habitat assessment, during which the site and an area encompassed by a 500-foot buffer around the project perimeter are evaluated for appropriate habitat and are walked to determine if burrows that could be potentially occupied by the burrowing owl are present on the project site. The second phase of the survey effort is a burrow

survey that involves walking transects of the project site to obtain 100 percent visual coverage of the ground surface. Transects should be no more than 30 meters (approximately 100 feet) apart and should be adjusted to account for irregular terrain. All burrows should be inspected for signs of use by burrowing owls, including whitewash, pellets, and feathers. If no owls are observed during the habitat assessment and burrow survey, a minimum of four surveys for burrowing owls and/or active burrows should be conducted on four separate dates consistent with the requirements of the burrow survey. Surveys for the burrowing owl are conducted during the breeding season for the species, from February 1 to August 31. If possible, surveys should be conducted from one hour before to two hours after sunrise. The CBOC protocol recommends conducting focused surveys for the burrowing owl during the winter if no owls are observed during the breeding surveys. However, the only burrowing owl survey protocol approved by the CDFG and USFWS was one adopted by the Riverside County Environmental Programs Department (EPD) in 2005, which requires breeding surveys and excludes wintering surveys.

A habitat assessment was conducted concurrently with the first burrow survey, and three additional surveys were conducted during the 2006 breeding season. The habitat assessment and first burrow survey were conducted concurrently on July 7, and the burrow surveys were conducted on July 18, 19, and 25, 2006, by BonTerra Consulting Biologist Sam Stewart.

### **Survey Results**

Small mammal burrows were detected throughout vacant land on the project site, but was found primarily on vacant land adjacent to the north of East Avenue Q and in the southwestern corner of East Avenue P-12 and 3<sup>rd</sup> Street East. A single historic burrow was located on vacant land immediately north of East Avenue Q in the center of the project site as evidenced by an old owl pellet found within the burrow opening. No evidence of recent occupation was observed at or immediately surrounding the burrow entrance and no owls were observed in the vicinity of the burrow during any of the four surveys. A list of wildlife species encountered is provided in Appendix A.

### **Recommendations**

Where suitable habitat is present on the project site, pre-construction surveys should be conducted within 30 days prior to ground disturbance. Pre-construction surveys can be conducted at any time of year.

Sincerely,

BONTERRA CONSULTING

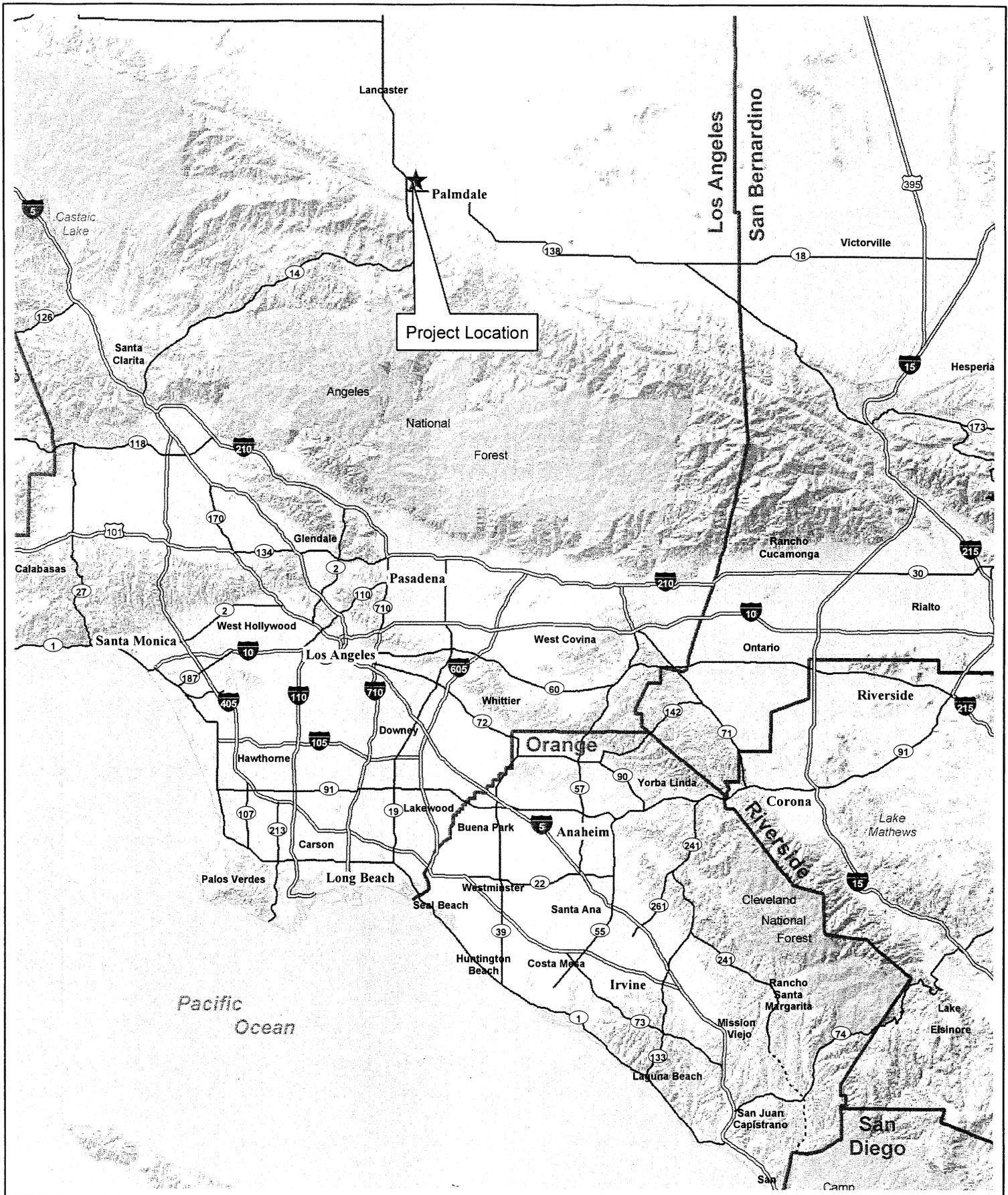
  
Ann M. Johnston  
Principal, Biological Services

  
Samuel C. Stewart, IV  
Project Manager

Attachments

## References

- California Burrowing Owl Consortium (CBOC). 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines*. Alviso, CA: Burrowing Owl Consortium.
- California Department of Fish and Game (CDFG). 2006 (February). Special Animals. California Natural Diversity Database. Sacramento: CDFG.
- Center for Biological Diversity et. al. 2003 (April 7). *Petition to the State of California Fish and Game Commission and Supporting Information for Listing the California Population of the Western Burrowing Owl (Athene cunicularia hypugaea) as an Endangered or Threatened Species Under the California Endangered Species Act*.  
<http://www.biologicaldiversity.org/swcbd/species/b-owl/petition.pdf>
- Dechant, J. A., M. L. Sondreal, D. H. Johnson, L. D. Igl, C. M. Goldade, P. A. Rabie, and B. R. Euliss. 1999. *Effects of Management Practices on Grassland Birds: Burrowing Owl*. Jamestown, ND: Northern Prairie Wildlife Research Center Online.  
<http://www.npwr.usgs.gov/resource/literatr/grasbird/buow/buow.htm>
- Desmond, M. J. and J. A. Savidge. 1998. Burrowing Owl Conservation in the Great Plains. (Page 9). Abstracts of the Second International Burrowing Owl Symposium. Ogden, Utah.
- Haug, E. A. and A. B. Didiuk. 1993. Use of Recorded Calls to Detect Burrowing Owls. *Journal of Field Ornithology*. 64:188–194. Lawrence, KS: Allen Press, Inc.
- James, T. R. and R. W. Seabloom. 1968. Notes on the Burrow Ecology and Food Habits of the Burrowing Owl in Southwestern North Dakota. *Blue Jay* 26:83-84.
- Riverside, County of. 2006 (as amended). *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*. Riverside: the County  
[http://www.tlma.co.riverside.ca.us/epd/documents/Burrowing\\_Owl\\_Survey\\_Instructions.pdf](http://www.tlma.co.riverside.ca.us/epd/documents/Burrowing_Owl_Survey_Instructions.pdf)



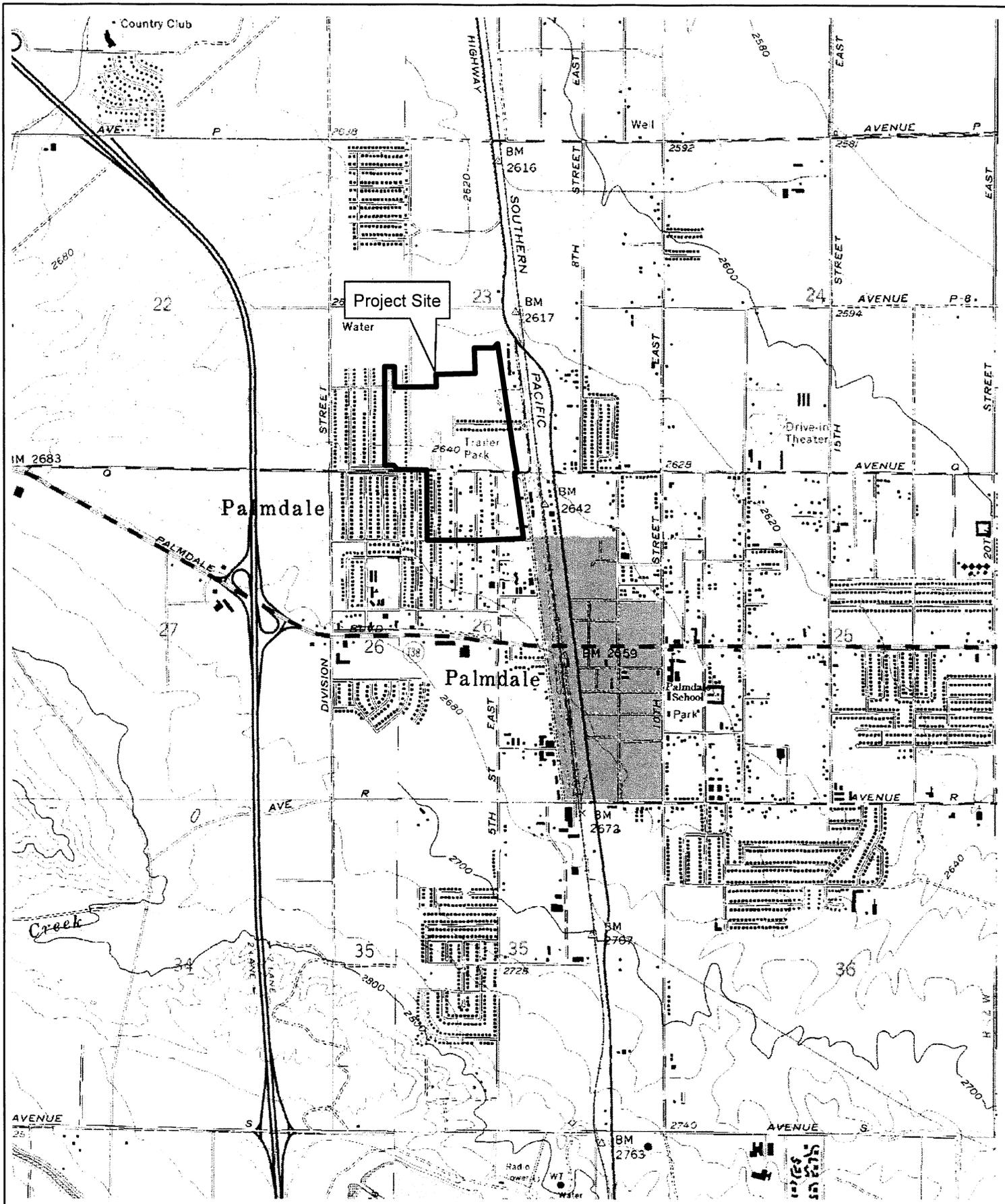
# Regional Location

Palmdale Transit Village



# Exhibit 1

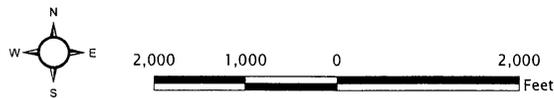




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### Local Vicinity

Palmdale Transit Village



### Exhibit 2

**Bonterra**  
CONSULTING

R:\Projects\RBF\J340\ex2\_LV\_053106.pdf

**APPENDIX A**  
**WILDLIFE COMPENDIUM**  
**PALMDALE TRANSIT VILLAGE PROJECT SITE**

August 9, 2006

<b>REPTILES</b>
<b>PHRYNOSOMATIDAE – ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS</b>
<i>Uta stansburiana</i> common side-blotched lizard
<b>BIRDS</b>
<b>FALCONIDAE – FALCONS</b>
<i>Falco sparverius</i> American kestrel
<b>COLUMBIDAE – PIGEONS AND DOVES</b>
<i>Zenaida macroura</i> mourning dove
<i>Columba livea*</i> rock dove
<b>CUCULIDAE – CUCKOOS AND ROADRUNNERS</b>
<i>Geococcyx californianus</i> greater roadrunner
<b>TYRANNIDAE – TYRANT FLYCATCHERS</b>
<i>Sayornis saya</i> Say's phoebe
<i>Tyrannus verticalis</i> western kingbird
<b>CORVIDAE – JAYS AND CROWS</b>
<i>Corvus corax</i> common raven
<b>MIMIDAE – THRASHERS</b>
<i>Mimus polyglottos</i> northern mockingbird
<b>STURNIDAE – STARLINGS</b>
<i>Sturnus vulgaris</i> European starling*
<b>FRINGILLIDAE – FINCHES</b>
<i>Carpodacus mexicanus</i> house finch
<b>PASSERIDAE – OLD WORLD SPARROWS</b>
<i>Passer domesticus</i> house sparrow*
<b>MAMMALS</b>
<b>LEPORIDAE – HARES AND RABBITS</b>
<i>Sylvilagus audubonii</i> desert cottontail
<i>Lepus californicus</i> black-tailed jackrabbit
<b>SCIURIDAE – GROUND SQUIRRELS</b>
<i>Spermophilus beecheyi</i> California ground squirrel
* Non-native species



## **15.7 WATER Supply ASSESSMENT**

---





# PALMDALE WATER DISTRICT

2029 East Avenue Q • Palmdale, California 93550 • Telephone (661) 947-4111  
Fax (661) 947-8604  
[www.palmdalewater.org](http://www.palmdalewater.org)

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Division 5

LAGERLOF, SENECAI, BRADLEY, GOSNEY & KRUSE LLP  
Attorneys



December 20, 2006

RECEIVED  
DEC 27 2006  
PLANNING DEPT

City of Palmdale  
Planning Department  
Attn: Mr. Richard Kite  
38250 Sierra Hwy  
Palmdale, CA 93550

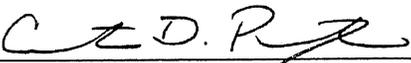
**RE: WATER SUPPLY ASSESSMENT – PALMDALE TRANSIT VILLAGE  
SPECIFIC PLAN**

Dear Mr. Kite:

Enclosed please find a copy of the Water Supply Assessment for the Palmdale Transit Village Specific Plan project. The Water Supply Assessment was approved by the Board of Directors of the Palmdale Water District at the regular Board Meeting on December 13, 2006.

Please contact me at (661) 947-4111 x146 if you have any questions or need any additional information.

Very truly yours,

  
CURTIS D. PAXTON,  
Assistant General Manager

CDP/dd

Enclosures

**PALMDALE WATER DISTRICT  
REQUIRED WATER SUPPLY ASSESSMENT (WSA)  
Water Code § 10910 et seq./SB 610**

Lead Agency:  
City of Palmdale Planning Dept  
38250 Sierra Hwy  
Palmdale, CA 93550

Applicant's Name and Address:  
N/A

**Project Information** (Check all applicable uses)

Project Title: Palmdale Transit Village Specific Plan  
Tract/Parcel Map No.: N/A City Planning Case No.: N/A

- Residential: No. of dwelling units: 1027
- Shopping Center or business: No. of employees: Unknown Sq. ft. of floor space: 49,000
- Commercial Office: No. of employees: Unknown Sq. ft. of floor space: 446,000
- Hotel or motel: No. of rooms \_\_\_\_\_
- Industrial/manufacturing, or processing: No. of employees \_\_\_\_\_ No. of acres \_\_\_\_\_  
Sq. ft. of floor space \_\_\_\_\_
- Mixed Use: (check and complete all above that apply)
- Other: Public Open Space: 175,000 sq. ft.
- Number of existing service connections: 0
- Is this a project as defined by Water Code § 10912 X Yes \_\_\_\_\_ No \_\_\_\_\_

**Water Supply Assessment (WSA)**

Date when request for water supply assessment was received: 2/23/06

The request received was for a verification of water supply related to SB 221 & Government Code Section 66473.7. A water supply verification is not applicable at this time, however, a water supply assessment (SB 610) is applicable.

1. The projected water demand for the project  was  was not included in Palmdale Water District's most recently adopted Urban Water Management Plan dated December, 2005.
2. A sufficient water supply is available for the project.  
The total water supplies available to Palmdale Water District during normal, single-dry, and multiple-dry years with a 20-year projection will meet the projected water demand of the project in addition to the demand of existing and other planned future uses, including, but not limited to, agricultural and manufacturing uses.
  - a.  A portion of the required water supply will be provided by projected water supplies. See attached Urban Water Management Plan.
3.  A sufficient water supply is not available for the project.

The foregoing determination is based on the water supply information in the documents identified in Appendix A attached hereto, and other supporting information in the records of Palmdale Water District. This WSA is also conditioned upon the Project developer entering into an agreement with Palmdale Water District relating to, among other things, the design and construction of water system improvements necessary to provide water service to the Project, the payment of all required fees and charges of the District and other governmental entities with jurisdiction over the Project, obtaining all required permits and approvals for the Project and the developer's compliance with all applicable laws applicable to the Project, including the rules and regulations of Palmdale Water District. This WSA shall expire and be of no further force and effect on December 13, 2009.

Quinn D. LaMuniz 12/20/06 GENERAL MANAGER  
Signature Date Title

## APPENDIX A

### REFERENCES

Palmdale Water District - Urban Water Management Plan (Carollo Engineers,  
December 2005)

Palmdale Water District Final Water System Master Plan Update (Montgomery  
Watson, March 2001)



## **15.8 CORRESPONDENCE**

---





**ANTELOPE VALLEY JOINT UNION HIGH  
SCHOOL DISTRICT  
CONSTRUCTION OFFICE**

**FAX TRANSMITTAL**

<b>TO:</b> Starla Hack	<b>FROM:</b> Cyndie Thompson for Jeffery E. Foster
<b>COMPANY:</b> RBF Consulting	<b>DATE:</b> 9/21/2006
<b>FAX NUMBER:</b> 949-837-4122	<b>TOTAL NO. OF PAGES INCLUDING COVER:</b> 4
<b>PHONE NUMBER:</b>	<b>SENDER'S REFERENCE NUMBER:</b>
<b>RE:</b> School Facilities Questionnaire	<b>YOUR REFERENCE NUMBER:</b>

URGENT      FOR REVIEW      PLEASE COMMENT      PLEASE REPLY

NOTES/COMMENTS:

**ANTELOPE VALLEY JOINT UNION HIGH SCHOOL DISTRICT**

44811 N. SIERRA HIGHWAY, LANCASTER, CALIFORNIA 93534-3226  
(661) 948-7655

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DONITA WINN

**ADMINISTRATION**DR. DAVID J. VICERRA  
DISTRICT SUPERINTENDENTJEFFERY C. FOSTER  
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ASSISTANT SUPERINTENDENT  
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PERSONNEL SERVICESBARBARA WILLIORDAN  
ASSISTANT SUPERINTENDENT  
STUDENT SERVICES

September 21, 2006

### SCHOOL FACILITIES QUESTIONNAIRE

- 1. Please indicate the name and location of schools which are available to serve the project area.**

This proposed project development area would be served by Palmdale High School located at 20<sup>th</sup> Street East and Avenue R.

It should also be noted that your proposed project development area encompasses our recently developed \$6.6 million R. Rex Parris Continuation High School. This area is highlighted on the attached map. This school serves the community of Palmdale and houses 600 students in two sessions. It is located at Avenue Q & 6<sup>th</sup> Street East.

- 2. What is the current enrollment and capacity of each school in the vicinity of the project, and what is the distance of the school from the project area?**

Palmdale High School currently serves 3,349 students. It is well beyond the school's original design capacity of approximately 1,708 students. Many classrooms are modular and have been added over time as the school has grown. Palmdale High School is located at Avenue R & 20<sup>th</sup> Street East, a distance of 3+ miles from the proposed project area.

- 3. What are the current generation rates used to determine the number of students generated by development of residential uses within the school district?**

The District commissions a study each year to determine the student yield for homes built in our community. The current generation rate is .339 (about 1/3 of a high school student for every home built).

- 4. In consideration of A.B. 2926, are there any assessment fees or other required or recommended mitigation measures for the project?**

Residential developers pay the District's level II developer fee rate of \$1.52 per square foot of development. The commercial fee rate is \$0.36 per square foot.

**5. Is there any other relevant information regarding significant project impacts?**

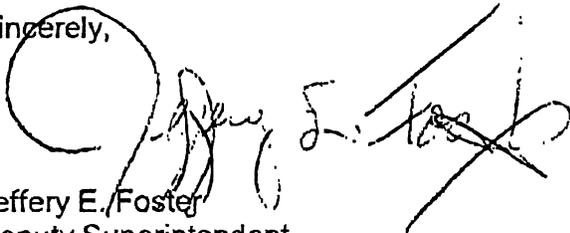
It is unfortunate that RBF Consulting was not made aware of the existence of the new R. Rex Parris High School site. This project has just recently been completed to serve the needs of the community of Palmdale. The project was funded entirely by the State of California under the hardship provision of the School Facilities Program.

City officials from Palmdale have been aware of this school's planned existence for years. They negotiated a property trade with the district to re-align Avenue Q at the project site. The city also worked with the school district on the school's sewer hook-up in the adjacent roadway.

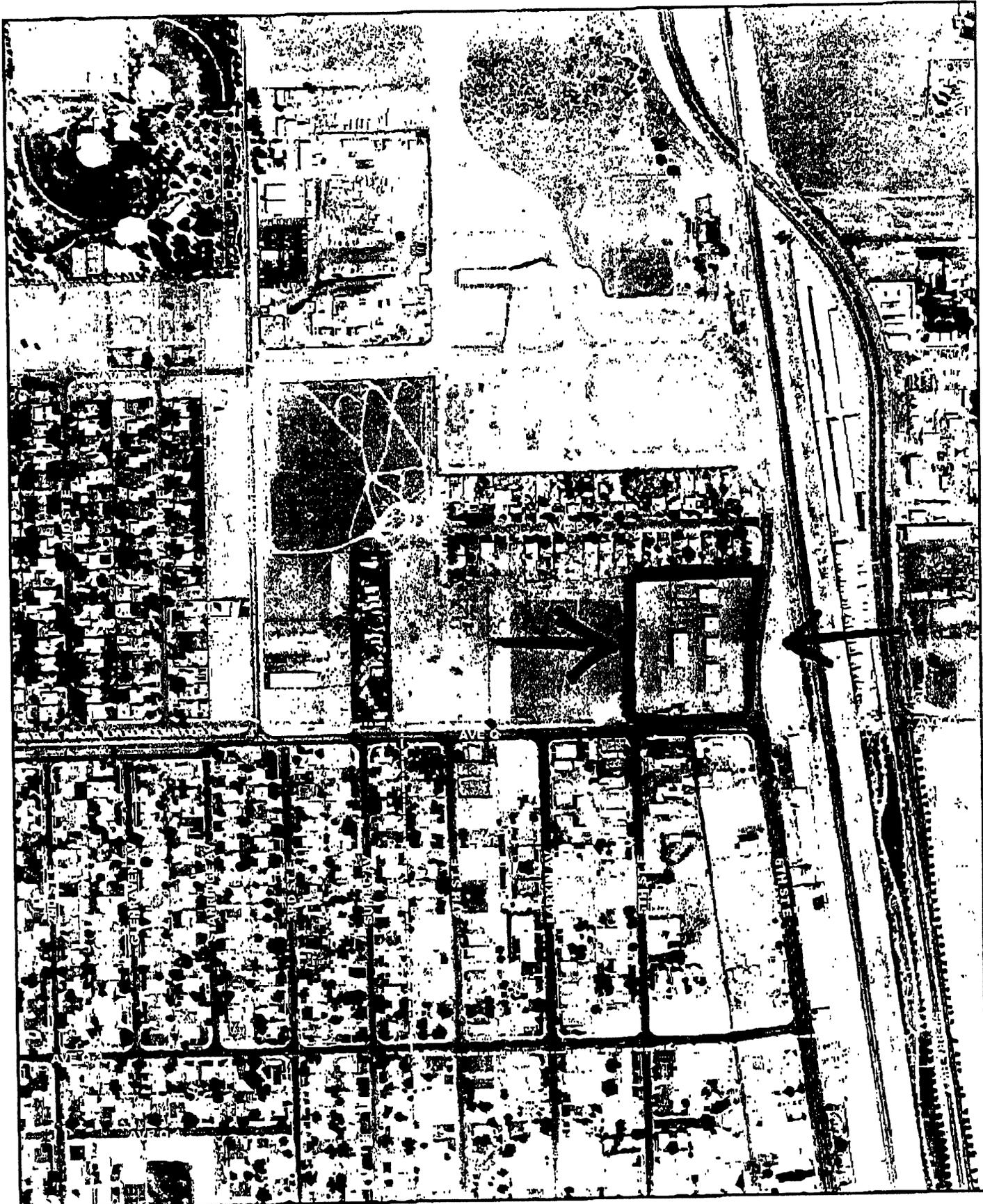
At no time has the Antelope Valley Joint Union High School District been informed about the development of the proposed Palmdale Transit Village and its potential impact on our existing facility.

At this time the Antelope Valley Joint Union High School District would formally request that the Palmdale Transit Village proposed master plan be modified to exclude the R. Rox Parris Continuation High School site from its boundaries, and further that a letter be sent from the City of Palmdale through the appropriate office to confirm the exclusion requested to Superintendent Dr. David J. Vierra of the Antelope Valley Joint Union High School District.

Sincerely,



Jeffery E. Foster  
Deputy Superintendent



Specific Plan Boundary

PALMDALE TRANSIT VILLAGE  
AERIAL MAP  
EXHIBIT XX