Attachment G:
Traffic Impact Analysis

LINSCOTT LAW & GREENSPAN
engineers

TRAFFIC IMPACT ANALYSIS

LAS TERRAZAS PROJECT

County of San Bernardino, California
October 15, 2015

Prepared for:

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TRAFFIC IMPACT ANALYSIS

LAS TERRAZAS PROJECT

County of San Bernardino, California
October 15, 2015

1.0 INTRODUCTION

This traffic impact analysis addresses the potential traffic impacts and circulation needs associated with the proposed Las Terrazas Project (hereinafter referred to as Project). The project applicant, AMCAL Multi-Housing proposes to construct a 112-unit apartment complex and a day care center for up to 50 students. The project site is located on the northwest quadrant of Cypress Avenue and Valley Boulevard in the County of San Bernardino, California.

This traffic report documents the findings and recommendations of a traffic impact analysis conducted by Linscott, Law & Greenspan Engineers (LLG) to determine the potential impacts associated with the proposed Project. The traffic analysis evaluates the operating conditions at four (4) key study intersections within the project vicinity, estimates the trip generation potential of the proposed project, and forecasts future operating conditions without and with the proposed project. Where necessary, intersection improvements/mitigation measures are identified.

This traffic report satisfies County of San Bernardino criteria and is consistent with the requirements and procedures outlined in the most current *Congestion Management Program for San Bernardino County.* The Scope of Work for this traffic study, which is included in ***Appendix A***, was developed in conjunction with County of San Bernardino staff.

The project site has been visited and an inventory of adjacent area roadways and intersections was performed. Existing peak hour traffic information has been collected at four (4) key study locations on a "typical" weekday for use in the preparation of intersection level of service calculations. A "typical" weekday constitutes a Tuesday, Wednesday or Thursday and refers to a non-holiday condition when local schools are in session. Information concerning cumulative projects (planned and/or approved) in the vicinity of the Project has been researched at the County of San Bernardino and the City of Colton. Based on our research, there are ten (10) cumulative projects in the vicinity of the Project that are located in the City of Colton. There are no cumulative projects located in the County of San Bernardino within the vicinity of the proposed Project. The ten (10) planned and/or approved cumulative projects were considered in the cumulative traffic analysis for this project.

This traffic report analyzes existing and future weekday AM and PM peak hour traffic conditions for a near-term (Year 2018) and long-term (Year 2035) traffic setting upon completion of the Project. Peak hour traffic forecasts for the Year 2018 horizon year have been projected by increasing existing traffic volumes by an annual growth rate of 2.0% and adding traffic volumes generated by ten (10 cumulative projects. As directed by County of San Bernardino staff, long-term (Year 2035) peak hour traffic forecasts were projected by increasing existing traffic volumes by a compounded annual growth rate of 1.0% and adding traffic volumes generated by ten (10) cumulative projects.

1.1 Study Area

The four (4) key study intersections selected for evaluation were determined primarily through application of San Bernardino County CMP criteria and in coordination with County of San Bernardino staff. The intersections listed below provide both local access to the study area and define the extent of the boundaries for this traffic impact investigation. The jurisdictions where the study intersections are located are identified as well.

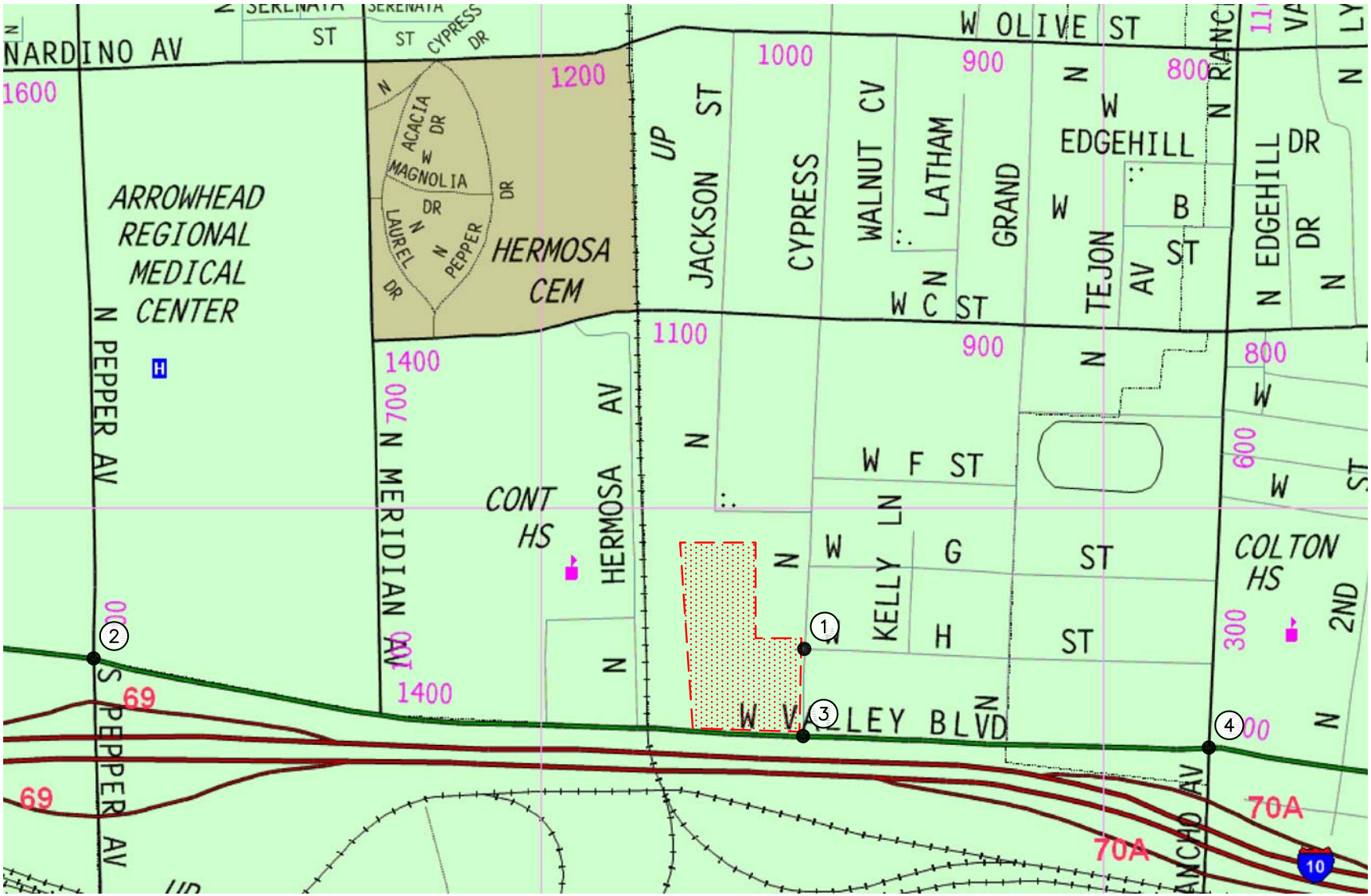
Key Study Intersections:

1. Cypress Avenue at H Street (County of San Bernardino)
2. Pepper Avenue at Valley Boulevard (City of Colton)
3. Cypress Avenue at Valley Boulevard (County of San Bernardino)
4. Rancho Avenue at Valley Boulevard (City of Colton)

Figure 1-1 presents a Vicinity Map, which illustrates the general location of the project and depicts the study locations and surrounding street system. The Level of Service (LOS) investigations at these key locations were used to evaluate the potential traffic-related impacts associated with area growth, cumulative projects and the proposed Project. When necessary, this report recommends intersection improvements that may be required to accommodate future traffic volumes and restore/maintain an acceptable Level of Service and/or mitigate the impact of the project.

Included in this Traffic Impact Analysis are:

- Existing traffic counts,
- Estimated project traffic generation/distribution/assignment,
- Estimated cumulative project traffic generation/distribution/assignment,
- AM and PM peak hour analyses for existing conditions,
- AM and PM peak hour analyses for existing plus project conditions,
- AM and PM peak hour analyses for Year 2018 conditions without and with project traffic,
- AM and PM peak hour analyses for Year 2035 conditions without and with project traffic,
- Site Access and Internal Circulation Evaluation, and
- Recommended Improvements.



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N NO SCALE

SOURCE: THOMAS BROS.

KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 1-1

VICINITY MAP

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO

2.0 PROJECT DESCRIPTION

The project site is located on the northwest quadrant of Cypress Avenue and Valley Boulevard in the County of San Bernardino, California. ***Figure 2-1*** presents the site plan for the proposed Project, prepared by Withee Malcolm Architects, LLP. Review of the site plan indicates that the proposed Project consists of a 112-unit apartment complex and a day care center for up to 50 students. The 112-unit apartment complex will consist of 30 one-bedroom units, 48 two-bedroom units and 34 three-bedroom units. The proposed Project is expected to open by the Year 2018.

2.1 Site Access

As shown in *Figure 2-1*, access to the proposed project site will be provided via one full access unsignalized driveway located along Valley Boulevard. The proposed access point along Valley Boulevard will be gated; however the proposed gate will be located beyond the parking spaces allocated for the day care center. An additional resident egress only driveway will be provided along Cypress Avenue, located directly opposite H Street. The resident egress only driveway will also be gated.

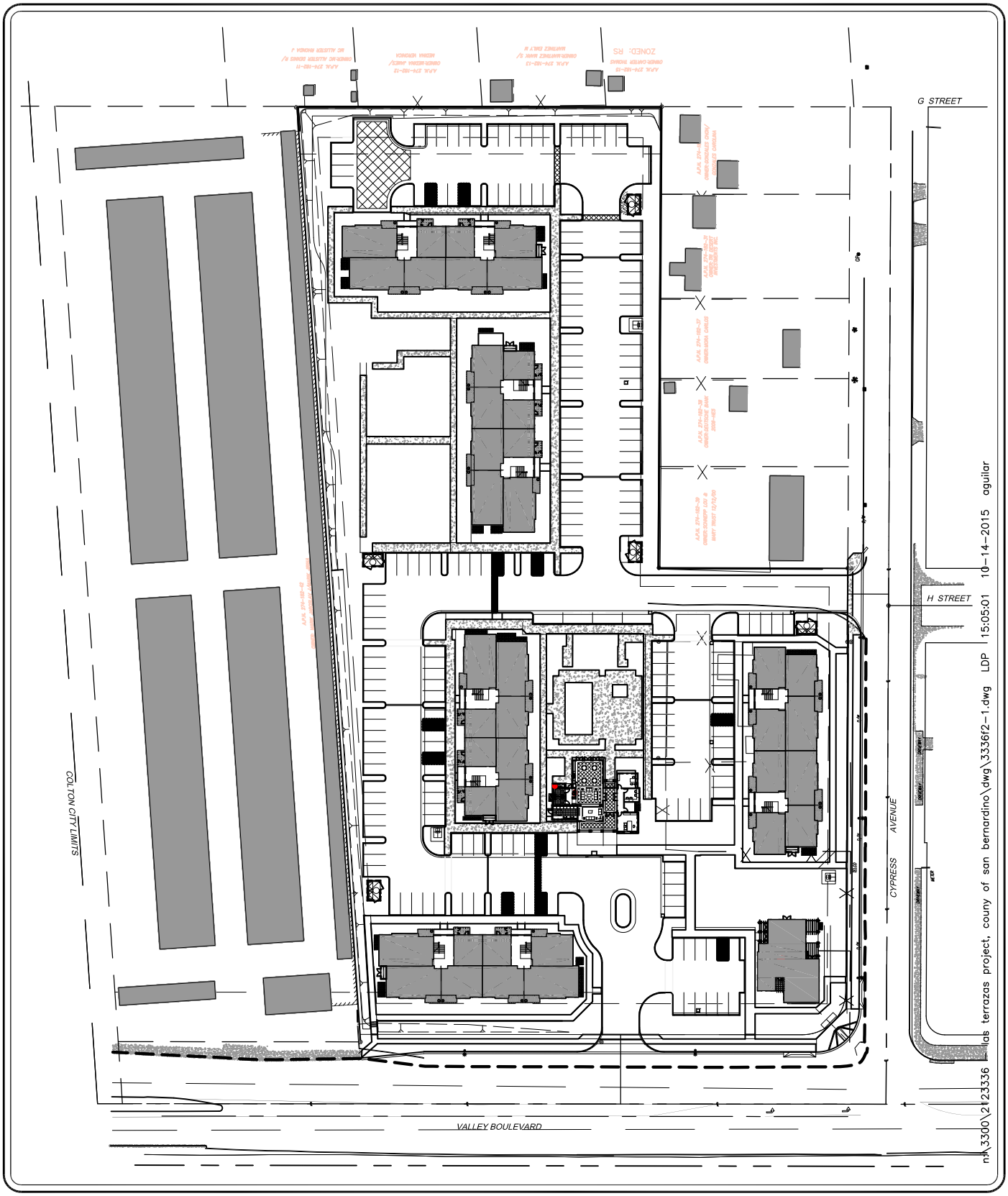

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FIGURE 2-1

PROPOSED SITE PLAN

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO

3.0 EXISTING CONDITIONS

3.1 Existing Street System

The principal local network of streets serving the project includes Cypress Avenue and Valley Boulevard. The following discussion provides a brief synopsis of these key area streets.

Cypress Avenue is a two-lane, undivided roadway oriented in the north-south direction, which borders a portion of the project site to the east. A resident egress only driveway (gated) will be provided along Cypress Avenue, located directly opposite H Street. On-street parking is generally permitted along Cypress Avenue within the vicinity of the project. The posted speed limit on Cypress Avenue is 25 miles per hour (mph).

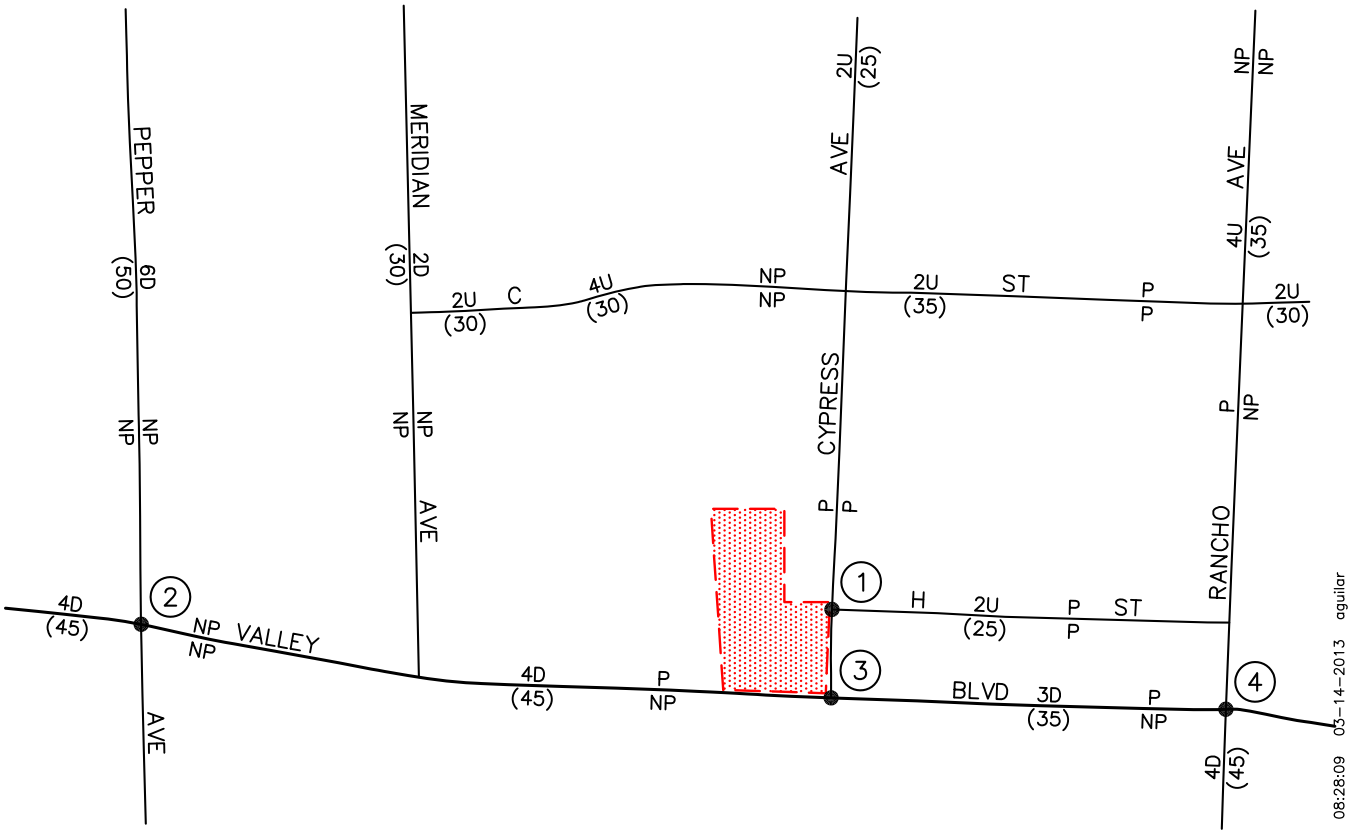
Valley Boulevard is generally a four-lane, divided roadway in the vicinity of the project, oriented in the east-west direction. Valley Boulevard borders the project site to the south and will provide access to the project site via one gated full access unsignalized driveway. On-street parking is generally permitted on the north side of Valley Boulevard and not permitted on the south side of Valley Boulevard within the vicinity of the project. The posted speed limit on Valley Boulevard in the vicinity of the proposed project is 45 mph.

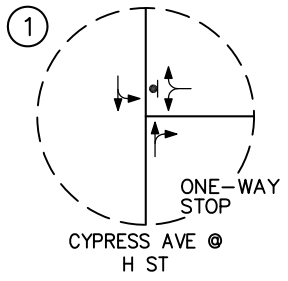
Figure 3-1 presents an inventory of the existing roadway conditions for the arterials and intersections evaluated in this report. This figure identifies the number of travel lanes for key arterials, as well as intersection configurations and controls for the key area study intersections.

3.2 Existing Traffic Volumes

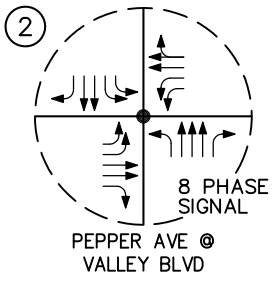
Four (4) key study intersections have been identified as the locations at which to evaluate existing and future traffic operating conditions. Some portion of potential project-related traffic will pass through each of these intersections, and their analysis will reveal the expected relative impacts of the project. These key study intersections were selected for evaluation based on discussions with County of San Bernardino staff.

Existing AM and PM peak hour traffic volumes for the key study intersections evaluated in this report were obtained from manual morning and evening peak hour turning movement counts conducted by Transportation Studies Inc. in May 2014. It should be noted that County of San Bernardino staff approved the use of the May 2014 traffic volume data. ***Figures 3-2*** and ***3-3*** illustrate the existing AM and PM peak hour traffic volumes at the key study intersections evaluated in this report, respectively. ***Appendix B*** contains the detailed peak hour count sheets for the key intersections evaluated in this report.

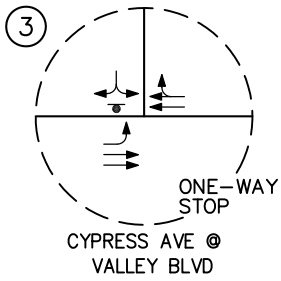




CYPRESS AVE @
H ST



PEPPER AVE @
VALLEY BLVD



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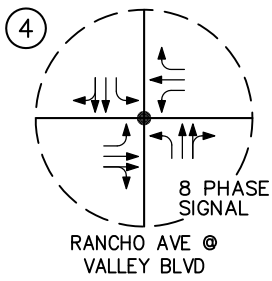
VALLEY BLVD



RANCHO AVE @
VALLEY BLVD

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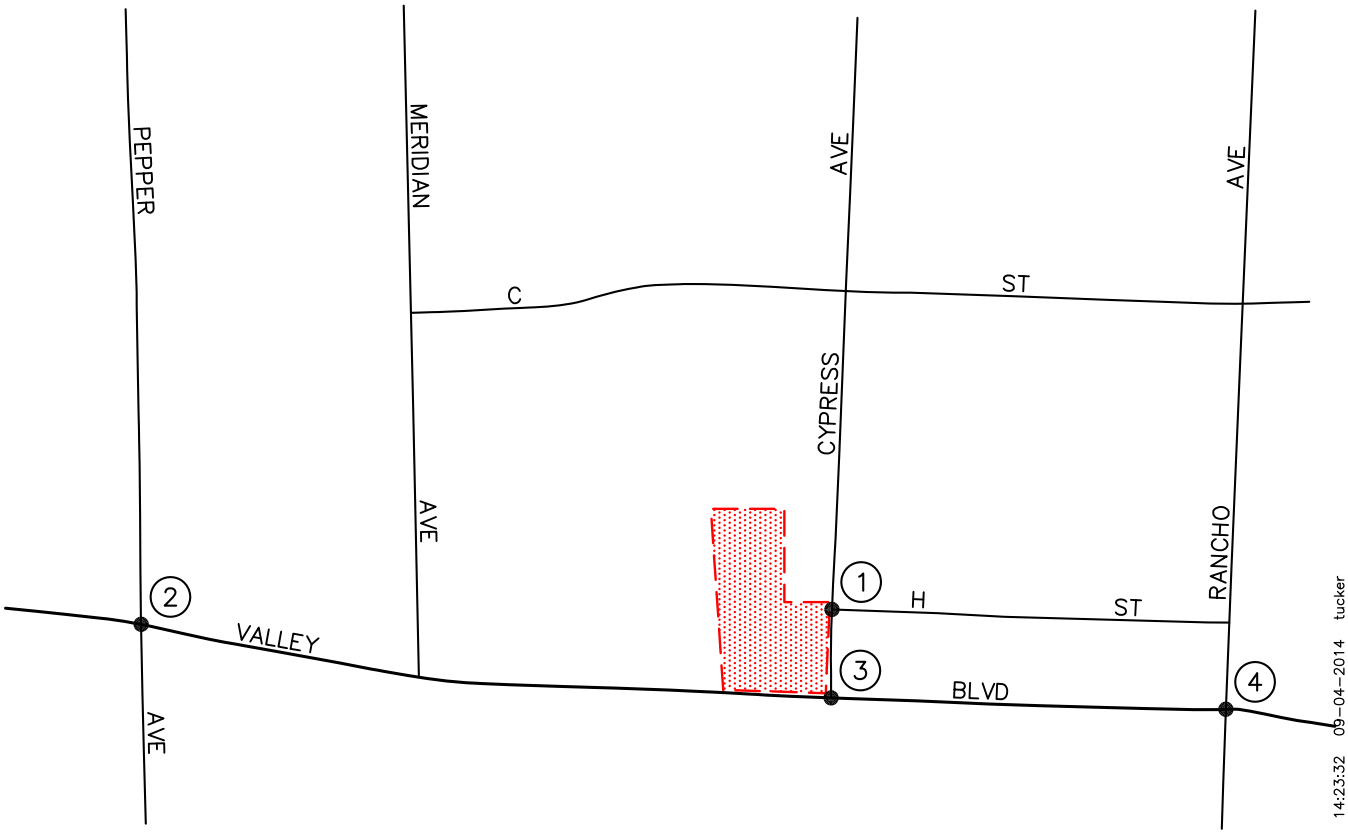
KEY

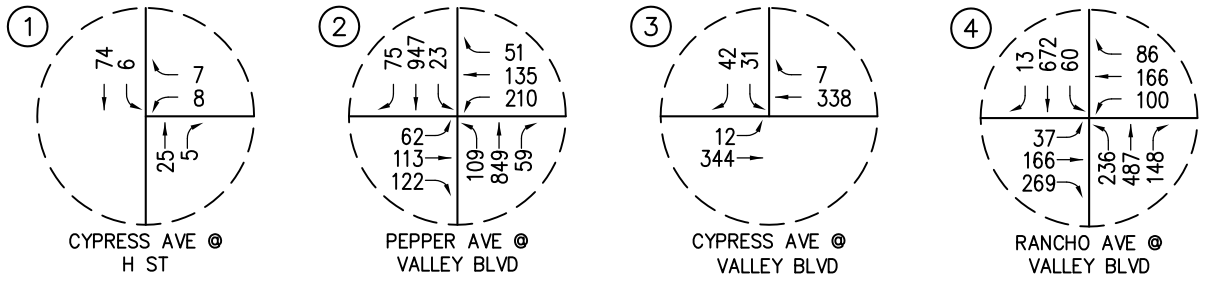
= APPROACH LANE ASSIGNMENT
= TRAFFIC SIGNAL, = STOP SIGN
P = PARKING, NP = NO PARKING
U = UNDIVIDED, D = DIVIDED
2 = NUMBER OF TRAVEL LANES
(XX)= POSTED SPEED LIMIT (MPH)
= PROJECT SITE

FIGURE 3-1

EXISTING ROADWAY CONDITIONS AND INTERSECTION CONTROLS

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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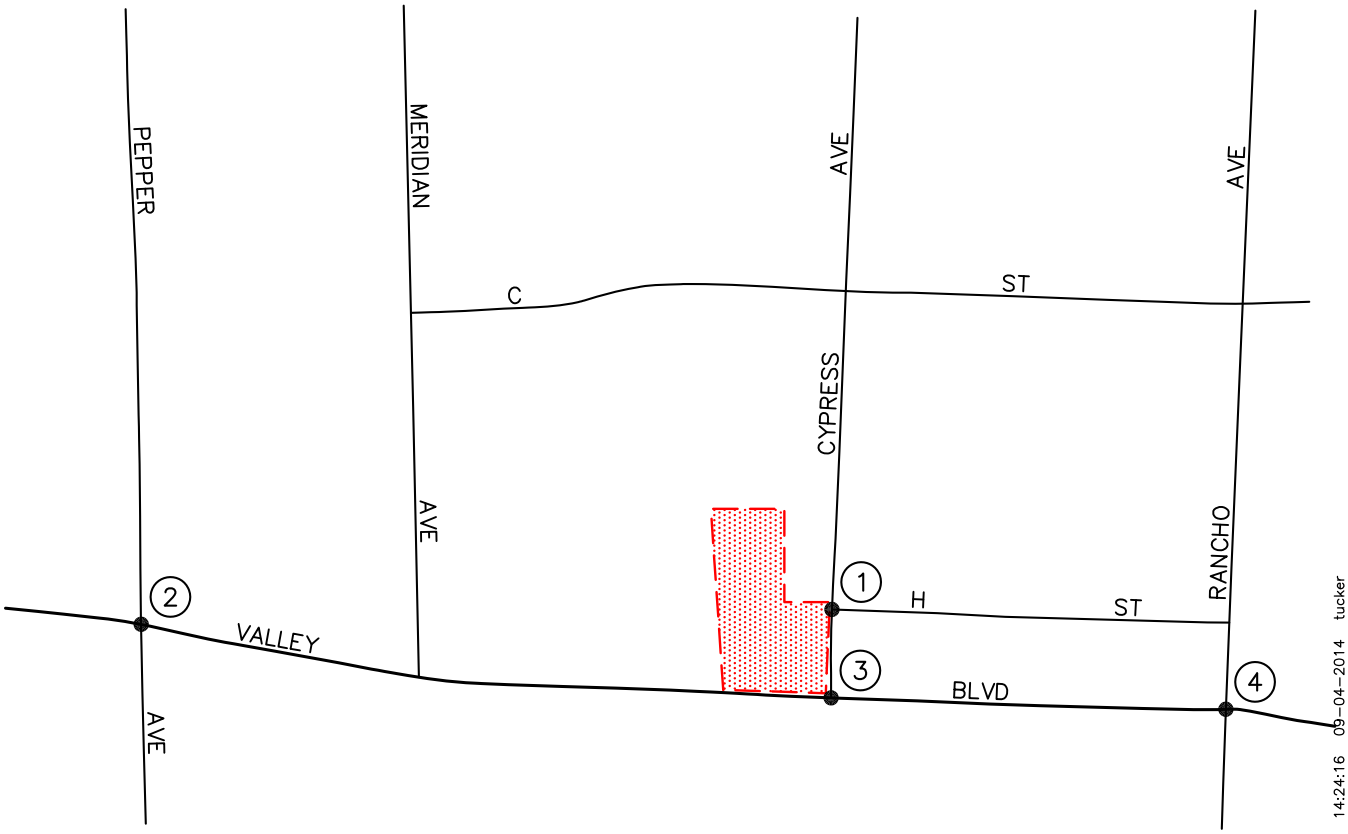
KEY

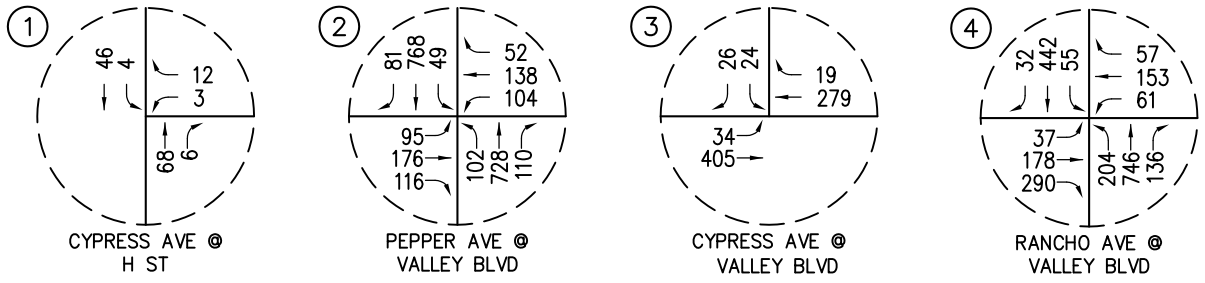
= PROJECT SITE

FIGURE 3-2

EXISTING AM PEAK HOUR TRAFFIC VOLUMES

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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LINSCOTT LAW & GREENSPAN engineers

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KEY

= PROJECT SITE

FIGURE 3-3

EXISTING PM PEAK HOUR TRAFFIC VOLUMES

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO

3.3 Existing Intersection Conditions

In conformance with County of San Bernardino and San Bernardino County CMP requirements, existing AM and PM peak hour operating conditions for the signalized and unsignalized key study intersections were evaluated using the *Highway Capacity Manual* methodology.

3.3.1 Highway Capacity Manual (HCM) Method of Analysis (Signalized Intersections)

Based on the HCM operations method of analysis, level of service for signalized intersections is defined in terms of control delay, which is a measure of driver discomfort, frustration, fuel consumption, and lost travel time. The delay experienced by a motorist is made up of a number of factors that relate to control, geometries, traffic, and incidents. Total delay is the difference between the travel time actually experienced and the reference travel time that would result during ideal conditions: in the absence of traffic control, in the absence of geometric delay, in the absence of any incidents, and when there are no other vehicles on the road.

In the HCM, only the portion of total delay attributed to the control facility is quantified. This delay is called *control delay*. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. In contrast, in previous versions of the HCM (1994 and earlier), delay included only stopped delay. Specifically, LOS criteria for traffic signals are stated in terms of the average control delay per vehicle. The six qualitative categories of Level of Service that have been defined along with the corresponding HCM control delay value range for signalized intersections are shown in ***Table 3-1***.

3.3.2 Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)

The HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in ***Table 3-2***.

3.4 Level of Service Criteria

According to the County of San Bernardino, LOS "D" is the minimum acceptable condition that should be maintained during the peak commute hours. For the study intersections in the City of Colton, LOS "D" is the minimum acceptable condition that should be maintained during the peak commute hours.

3.5 Existing Level of Service Results

Table 3-3 summarizes the existing peak hour service level calculations for the four (4) key study intersections based on existing traffic volumes and current street geometry. Review of *Table 3-3* indicates that the four (4) key study intersections currently operate at LOS C or better during the AM and PM peak hours.

Appendix C presents the HCM/LOS calculations for the four (4) key study intersections for the AM peak hour and PM peak hour.

TABLE 3-1

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS[1]

Level of Service (LOS)	Control Delay Per Vehicle (seconds/vehicle)	Level of Service Description
A	$\leq$ 10.0	This level of service occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	> 10.0 and $\leq$ 20.0	This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.
C	> 20.0 and $\leq$ 35.0	Average traffic delays. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.
D	> 35.0 and $\leq$ 55.0	Long traffic delays At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high *v/c* ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	> 55.0 and $\leq$ 80.0	Very long traffic delays This level is considered by many agencies (i.e. SANBAG) to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high *v/c* ratios. Individual cycle failures are frequent occurrences.
F	$\geq$ 80.0	Severe congestion This level, considered to be unacceptable to most drivers, often occurs with over saturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high *v/c* ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors to such delay levels.

[1] Source: *Highway Capacity Manual.*

TABLE 3-2

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS[2]

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

[2] Source: *Highway Capacity Manual*.

TABLE 3-3

EXISTING PEAK HOUR LEVELS OF SERVICE

Key Intersections		Time Period	Control Type	Delay	V/C Ratio	LOS
1.	Cypress Avenue at H Street	AM	One-Way	8.8 s/v	---	A
		PM	Stop	8.8 s/v	---	A
2.	Pepper Avenue at Valley Boulevard	AM	8∅ Traffic	25.6 s/v	0.590	C
		PM	Signal	23.7 s/v	0.474	C
3.	Cypress Avenue at Valley Boulevard	AM	One-Way	11.7 s/v	---	B
		PM	Stop	11.7 s/v	---	B
4.	Rancho Avenue at Valley Boulevard	AM	8∅ Traffic	30.6 s/v	0.688	C
		PM	Signal	27.7 s/v	0.607	C

Notes:
s/v = seconds per vehicle (delay)

4.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the proposed Project, a multi-step process has been utilized. The first step is trip generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the project development tabulation.

The second step of the forecasting process is trip distribution, which identifies the origins and destinations of inbound and outbound project traffic. These origins and destinations are typically based on demographics and existing/anticipated travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and project traffic assignments developed, the impact of the proposed project is isolated by comparing operational (LOS) conditions at selected key intersections using expected future traffic volumes with and without forecast project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated and the significance of the project's impacts identified.

5.0 PROJECT TRAFFIC CHARACTERISTICS

5.1 Project Traffic Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the 9th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2012].

Table 5-1 summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed Project and also presents the project's forecast peak hour and daily traffic volumes. As shown in the upper portion of *Table 5-1*, the trip generation potential of the proposed Project was estimated using ITE Land Use 220: Apartments trip rates and ITE Land Use 565: Day Care Center trip rates. Review of the lower portion of *Table 5-1* indicates that the proposed Project is forecast to generate approximately 964 daily trips, with 97 trips (32 inbound, 65 outbound) produced in the AM peak hour and 110 trips (64 inbound, 46 outbound) produced in the PM peak hour on a "typical" weekday.

5.2 Project Traffic Distribution and Assignment

Figure 5-1 illustrates the general, directional traffic distribution pattern for the proposed Project. Project traffic volumes both entering and exiting the project site have been distributed and assigned to the adjacent street system based on the following considerations:

- the site's proximity to major traffic carriers (i.e. Valley Boulevard, etc.),
- input from County of San Bernardino staff, and
- ingress/egress availability at the project site.

The anticipated AM and PM peak hour project volumes associated with the proposed Project are presented in ***Figures 5-2*** and ***5-3***, respectively. The traffic volume assignments presented in *Figures 5-2* and *5-3* reflect the traffic distribution characteristics shown in *Figure 5-1* and the traffic generation forecast presented in *Table 5-1*.

5.3 Existing Plus Project Traffic Conditions

The existing plus project traffic conditions have been generated based upon existing conditions and the estimated project traffic. These forecast traffic conditions have been prepared pursuant to the County's traffic study guidelines and are consistent with the California Environmental Quality Act (CEQA) guidelines, which require that the potential impacts of a Project be evaluated upon the circulation system as it currently exists. This traffic volume scenario and the related capacity analyses will identify the roadway improvements necessary to mitigate the direct traffic impacts of the Project, if any.

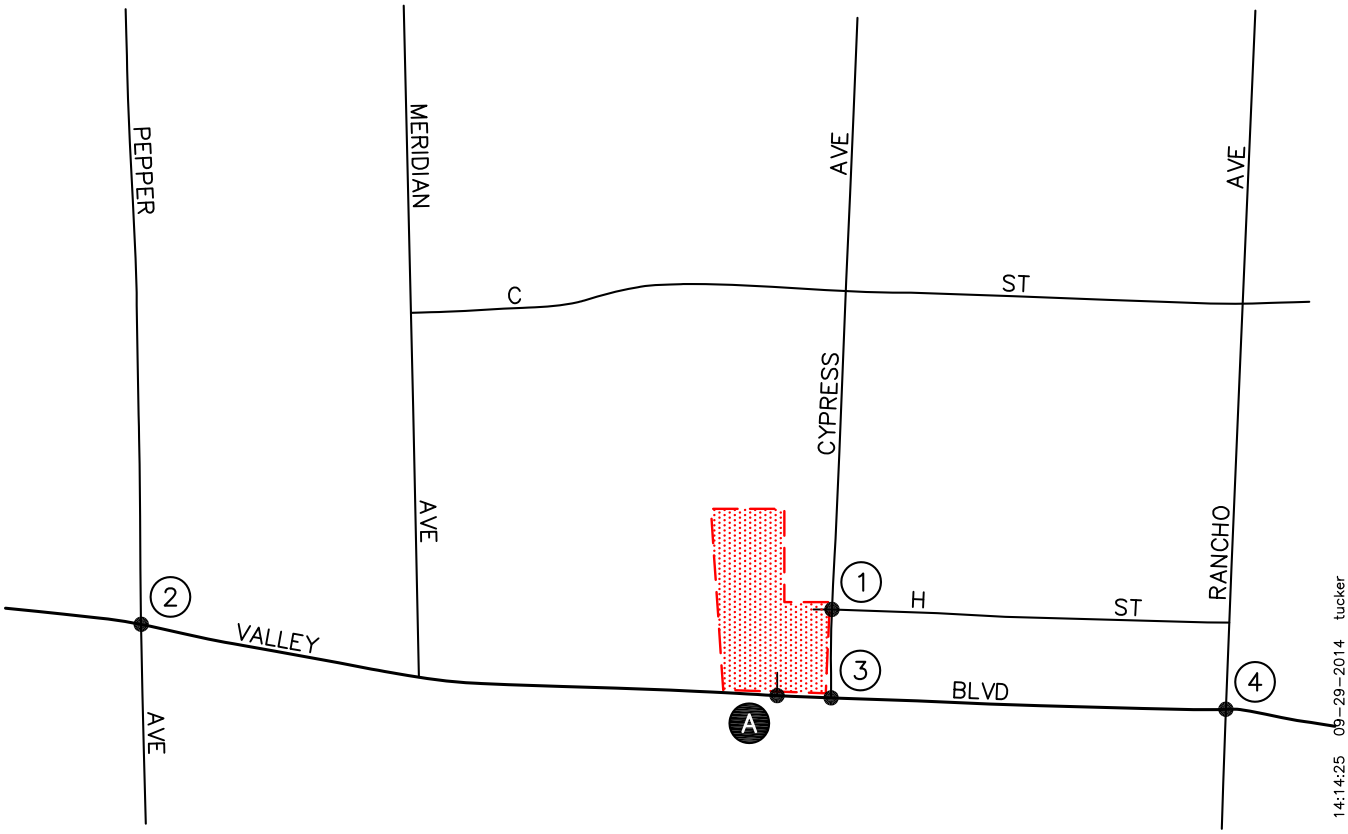
Figures 5-4 and ***5-5*** present projected weekday AM and PM peak hour traffic volumes at the four (4) key study intersections with the addition of the trips generated by the proposed Project to existing peak hour traffic volumes.

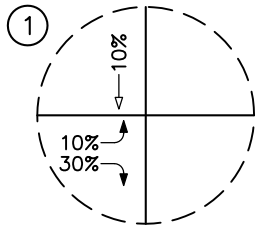
TABLE 5-1

PROJECT TRAFFIC GENERATION FORECAST[3]

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Factors:							
▪ 220: Apartments (TE/DU)	6.65	0.10	0.41	0.51	0.40	0.22	0.62
▪ 565: Day Care Center (TE/Student)	4.38	0.42	0.38	0.80	0.38	0.43	0.81
Generation Forecast:							
▪ Las Terrazas – Apartments (112 DU)	745	11	46	57	45	24	69
▪ Las Terrazas – Day Care Center (50 Students)	219	21	19	40	19	22	41
Traffic Generation Forecast	**964**	**32**	**65**	**97**	**64**	**46**	**110**

[3] Source: *Trip Generation*, 9th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012).





CYPRESS AVE @
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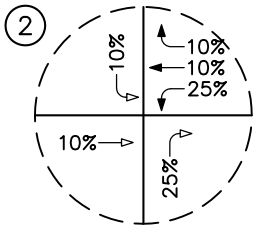
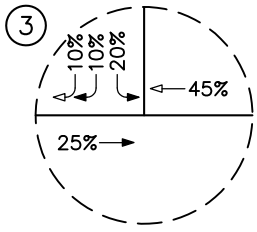


PEPPER AVE @
VALLEY BLVD



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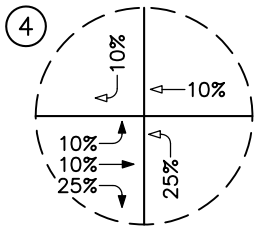
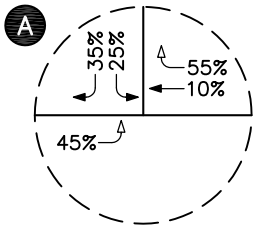
VALLEY BLVD



RANCHO AVE @
VALLEY BLVD

PROJECT DRIVEWAY



PROJECT DWY 1 @
VALLEY BLVD

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LINSCOTT LAW & GREENSPAN engineers

N

NO SCALE

KEY

= INBOUND PERCENTAGE

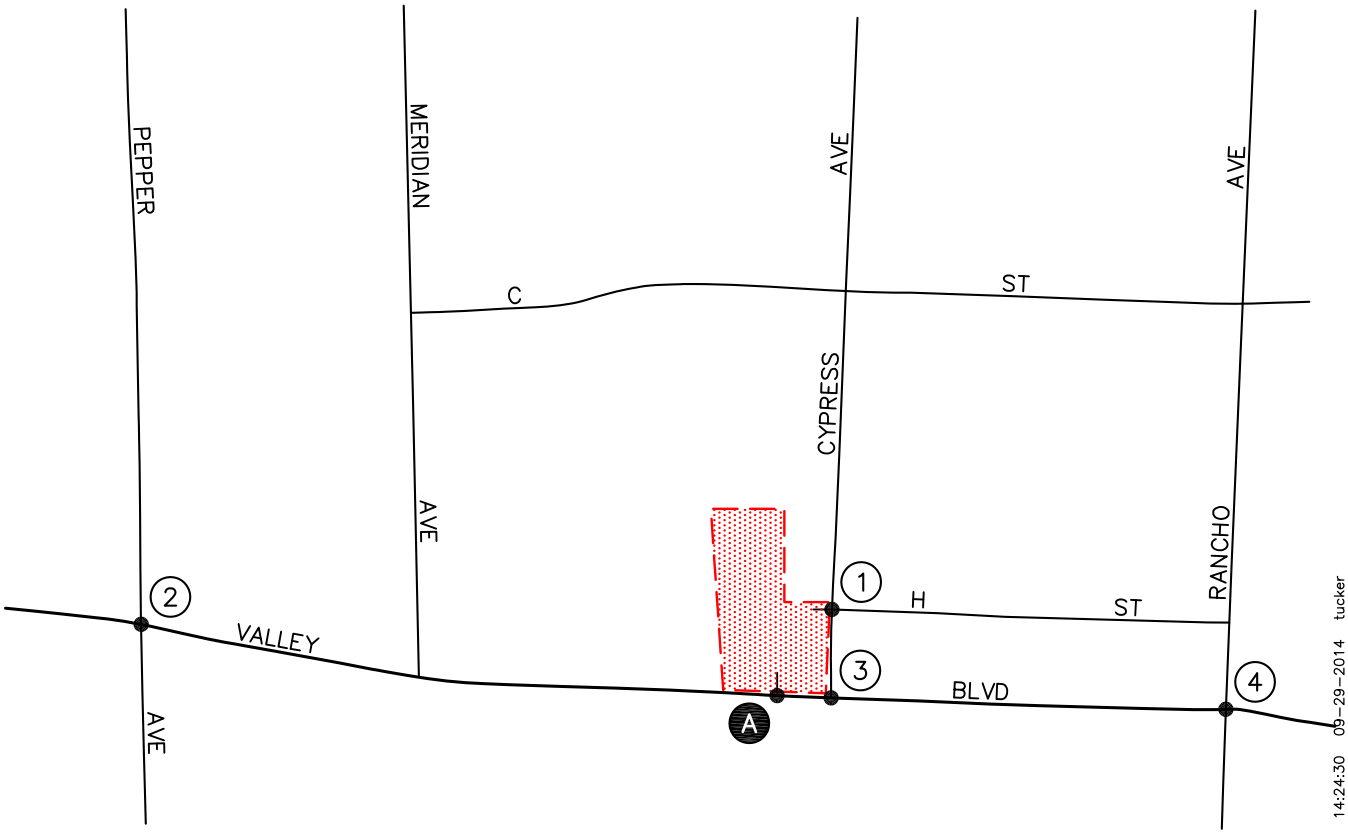
= OUTBOUND PERCENTAGE

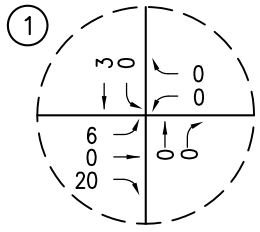
= PROJECT SITE

FIGURE 5-1

PROJECT TRAFFIC DISTRIBUTION PATTERN

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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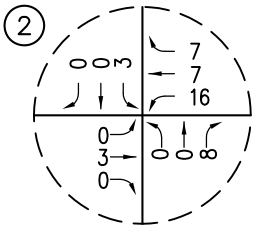

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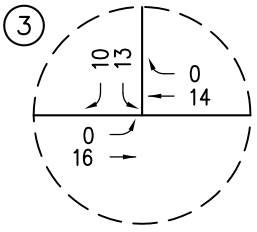

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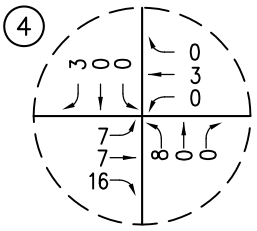

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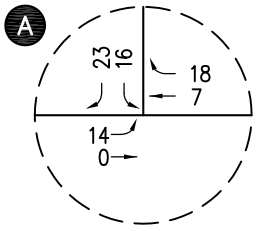
VALLEY BLVD

PROJECT DRIVEWAY



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LINSCOTT LAW & GREENSPAN engineers

N

NO SCALE

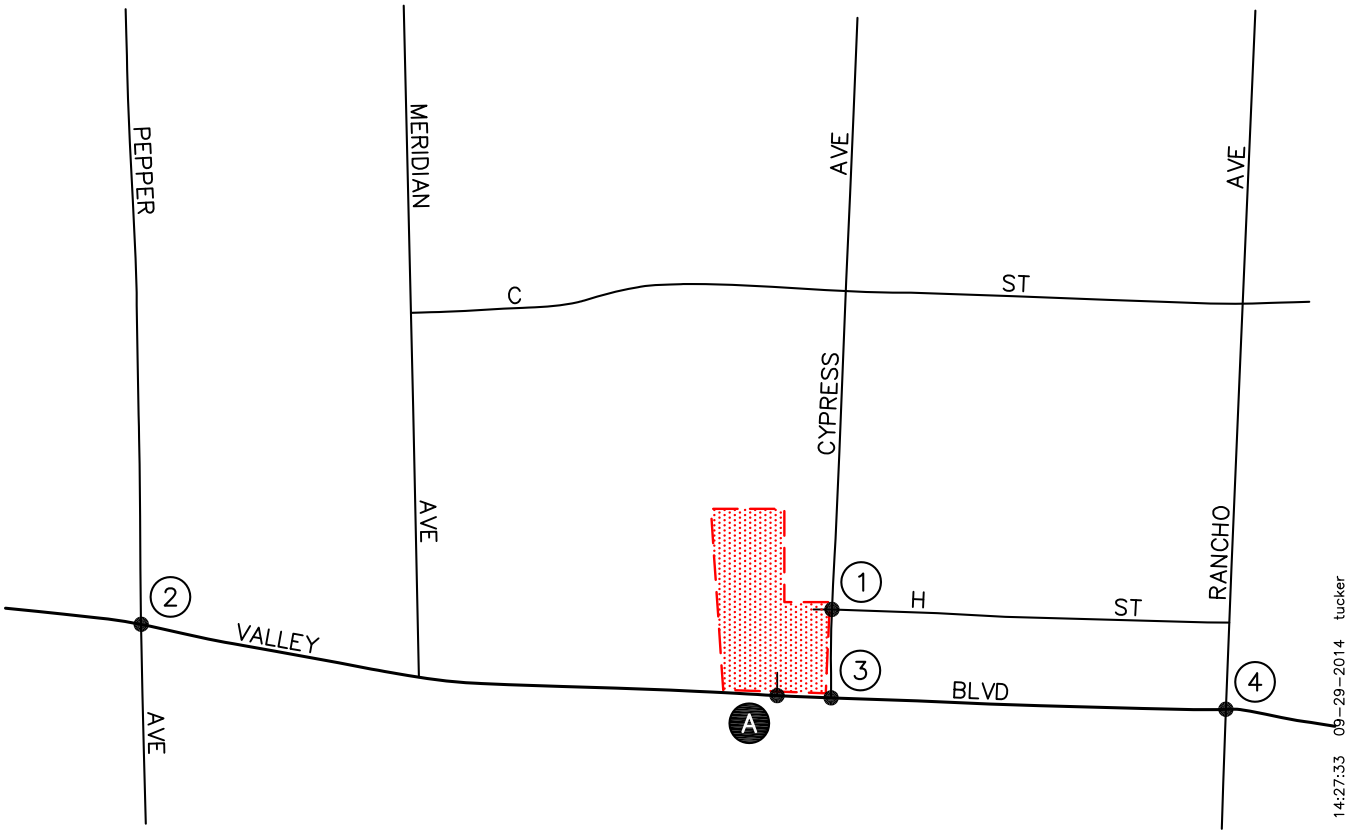
KEY

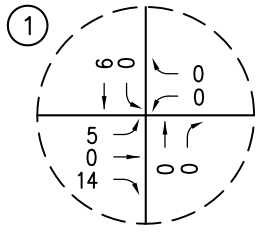
= PROJECT SITE

FIGURE 5-2

AM PEAK HOUR PROJECT TRAFFIC VOLUMES

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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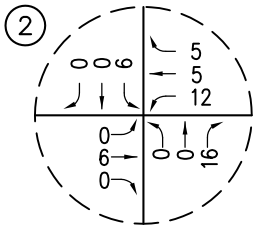

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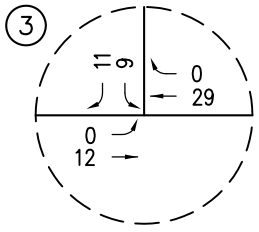

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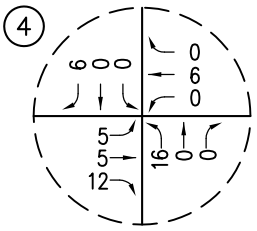

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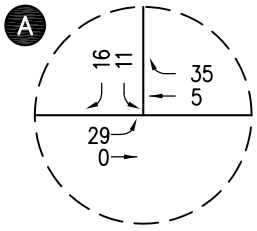
VALLEY BLVD

PROJECT DRIVEWAY



PROJECT DWY 1 @
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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

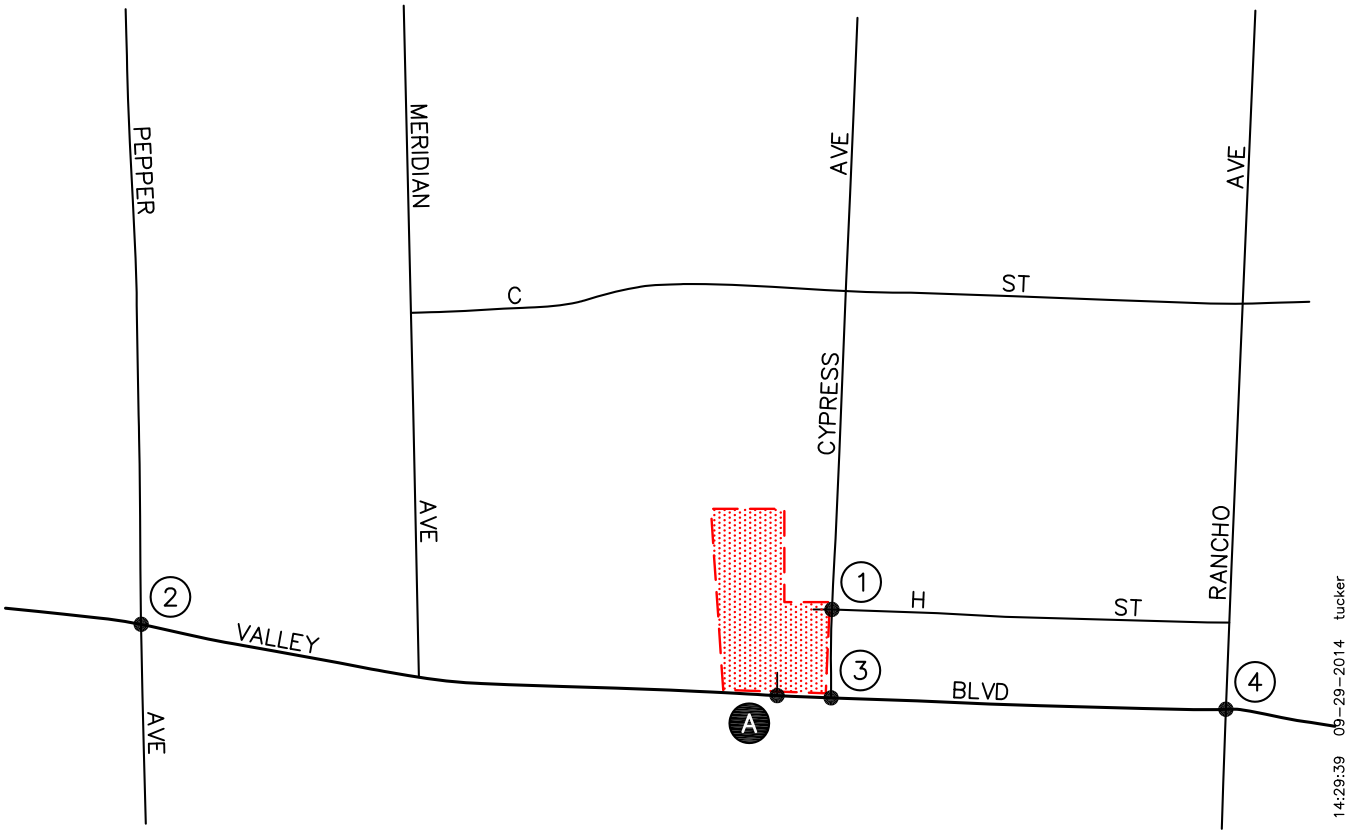
KEY

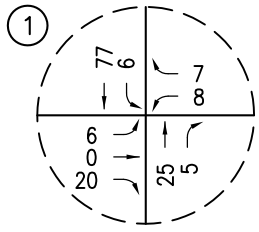
= PROJECT SITE

FIGURE 5-3

PM PEAK HOUR PROJECT TRAFFIC VOLUMES

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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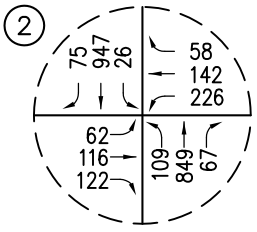

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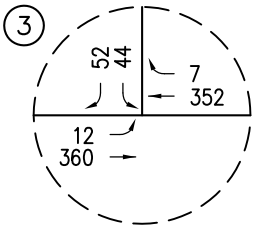

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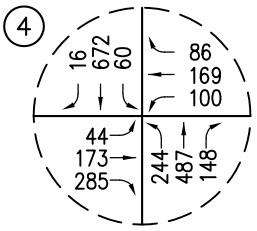

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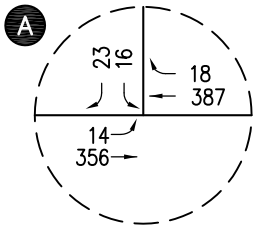
VALLEY BLVD

PROJECT DRIVEWAY



PROJECT DWY 1 @
VALLEY BLVD

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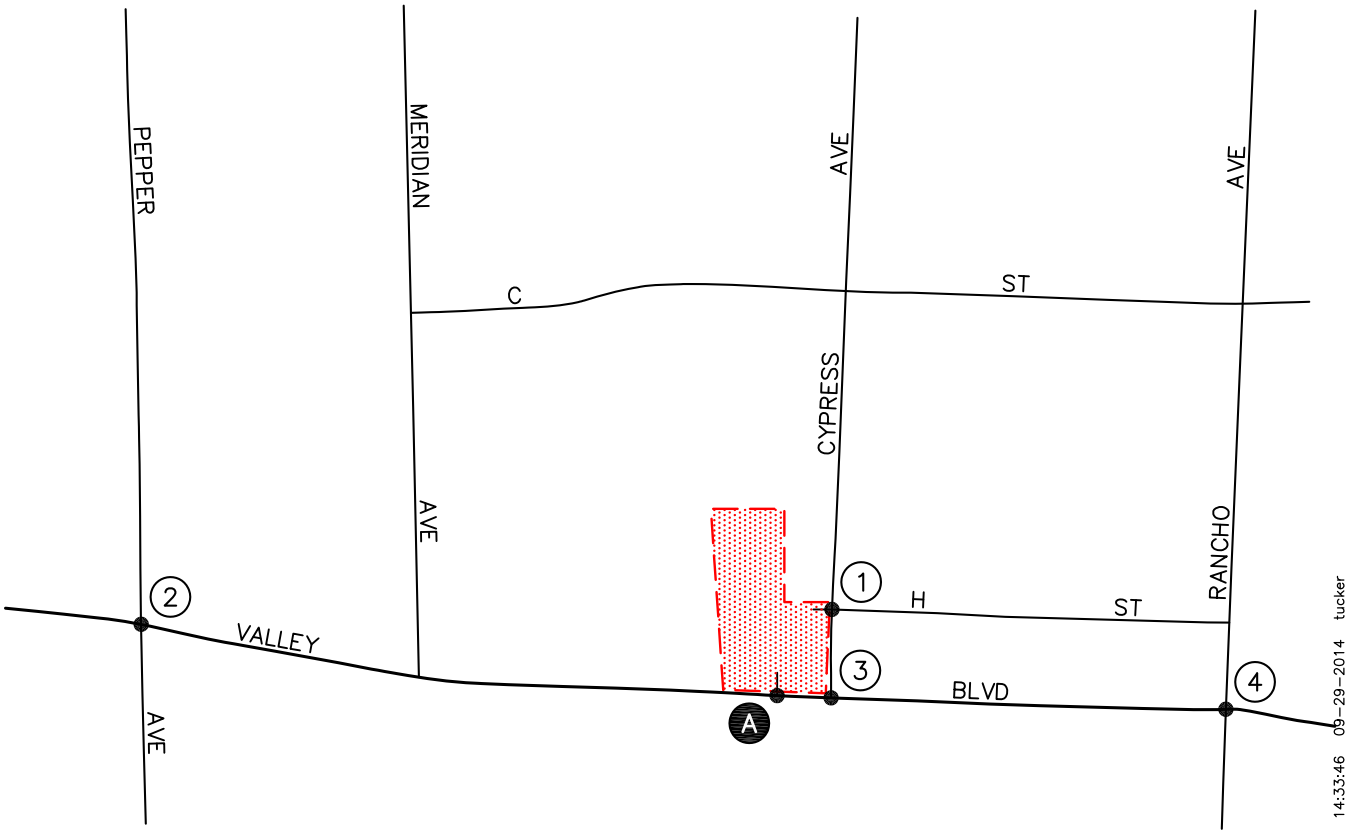
LINSCOTT LAW & GREENSPAN engineers

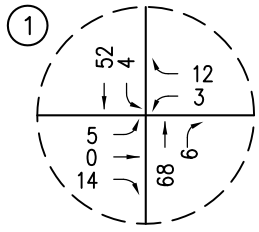
N NO SCALE

KEY
= PROJECT SITE

FIGURE 5-4

EXISTING PLUS PROJECT
AM PEAK HOUR TRAFFIC VOLUMES
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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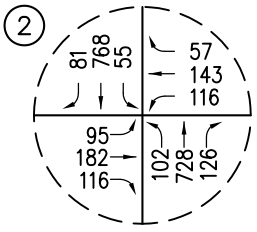
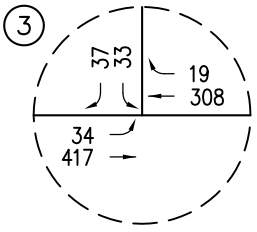


PEPPER AVE @
VALLEY BLVD



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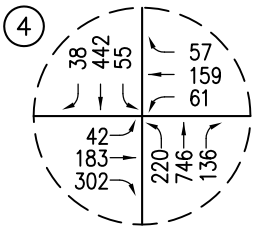
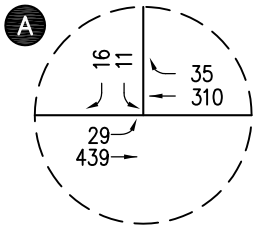
VALLEY BLVD



RANCHO AVE @
VALLEY BLVD

PROJECT DRIVEWAY



PROJECT DWY 1 @
VALLEY BLVD

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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY
= PROJECT SITE

FIGURE 5-5

EXISTING PLUS PROJECT
PM PEAK HOUR TRAFFIC VOLUMES
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO

6.0 FUTURE TRAFFIC CONDITIONS

6.1 Ambient Traffic Growth

Horizon year, background traffic growth estimates have been calculated using an ambient growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. The future growth in traffic volumes has been calculated at 2.0% per year. Applied to existing Year 2014 traffic volumes results in an 8.0% increase growth in existing volumes to horizon year 2018.

As directed by County of San Bernardino staff, long-term (Year 2035) peak hour traffic forecasts without the proposed project were projected by increasing existing traffic volumes by a compounded annual growth rate of 1.0%.

6.2 Cumulative Projects Traffic Characteristics

In order to make a realistic estimate of future on-street conditions prior to implementation of the Project, the status of other known development projects (cumulative projects) has been researched at the County of San Bernardino and the City of Colton. With this information, the potential impact of the proposed Project can be evaluated within the context of the cumulative impact of all ongoing development. Based on our research, there are ten (10) cumulative projects in the City of Colton that have either been built, but not yet fully occupied, or are being processed for approval. There are no cumulative projects located in the County of San Bernardino within the vicinity of the proposed Project. The ten (10) cumulative projects have been included as part of the cumulative background setting for the Year 2018 and Year 2035 analysis years.

Table 6-1 provides the location and a brief description for the ten (10) cumulative projects. ***Figure 6-1*** graphically illustrates the location of the ten (10) cumulative projects. These cumulative projects are expected to generate vehicular traffic, which may affect the operating conditions of the key study intersections.

Table 6-2 presents the development totals and resultant trip generation for the ten (10) cumulative projects. As shown in *Table 6-2*, the ten (10) cumulative projects are forecast to generate 25,666 daily trips, with 1,592 trips (1,070 inbound and 522 outbound) forecast during the AM peak hour and 1,568 trips (735 inbound and 833 outbound) forecast during the PM peak hour.

6.3 Year 2018 and Year 2035 Traffic Volumes

6.3.1 Year 2018 Traffic Volumes

Figures 6-2 and ***6-3*** present the AM and PM peak hour existing plus ambient growth to the Year 2018 traffic volumes at the four (4) key study intersections, respectively. ***Figures 6-4*** and ***6-5*** present the AM and PM peak hour existing plus ambient growth to the Year 2018 plus project traffic volumes at the four (4) key study intersections, respectively. ***Figures 6-6*** and ***6-7*** present Year 2018 cumulative plus project AM and PM peak hour traffic volumes at the four (4) key study intersections, respectively.

6.3.2 Year 2035 Traffic Volumes

Figures 6-8 and ***6-9*** present the AM and PM peak hour existing plus ambient growth to the Year 2035 traffic volumes at the four (4) key study intersections, respectively. ***Figures 6-10*** and ***6-11*** present the AM and PM peak hour existing plus ambient growth to the Year 2035 plus project traffic volumes at the four (4) key study intersections, respectively. ***Figures 6-12*** and ***6-13*** present Year 2035 cumulative plus project AM and PM peak hour traffic volumes at the four (4) key study intersections, respectively.

TABLE 6-1

LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[4]

No.	Cumulative Project	Location/Address	Description
1.	Moss Bros. Site[5]	1900 West Valley Boulevard	46,500 SF government office space 106,000 SF retail space
2.	CalMed Site – Phase I	Northeast corner of Pepper Avenue and Valley Boulevard	100,000 SF classroom building and surgery center
3.	Valley and Pepper Mixed-Use	Northwest corner of Pepper Avenue and Valley Boulevard	90 room hotel, 11,500 SF retail, 6,000 SF restaurant and a gas station with convenience market and car wash
4.	Valley and Pepper Gas Station Rebrand	Southwest corner of Pepper Avenue and Valley Boulevard	1,500 SF restaurant and 3,000 SF fast-food restaurant with drive-thru
5.	Smart and Final Extra	Colton Avenue and Mount Vernon Avenue	27,870 SF Smart and Final Extra and 4,400 SF retail/restaurant pad
6.	Starbucks	202 East Valley Boulevard	2,321 SF Starbucks with drive-thru
7.	Le Rendezvous Café	Northeast corner of Valley Boulevard and 9th Street	7,069 SF restaurant
8.	Single Family Homes	Northeast corner of H Street and Cottage Lane	24 single family homes
9.	Lineage Logistics	2063 West Miguel Bustamante Parkway	440,000 SF warehouse
10.	Agua Mansa Road Distribution Building	1350 – 1600 West Agua Mansa Road	808,000 SF high cube warehouse

4 Source: City of Colton Planning Department staff.

5 Source: *Traffic Impact Analysis for the 1900 West Valley Boulevard Project*, prepared by Kunzman Associates, Inc. (May 5, 2014).

TABLE 6-2

CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST[6]

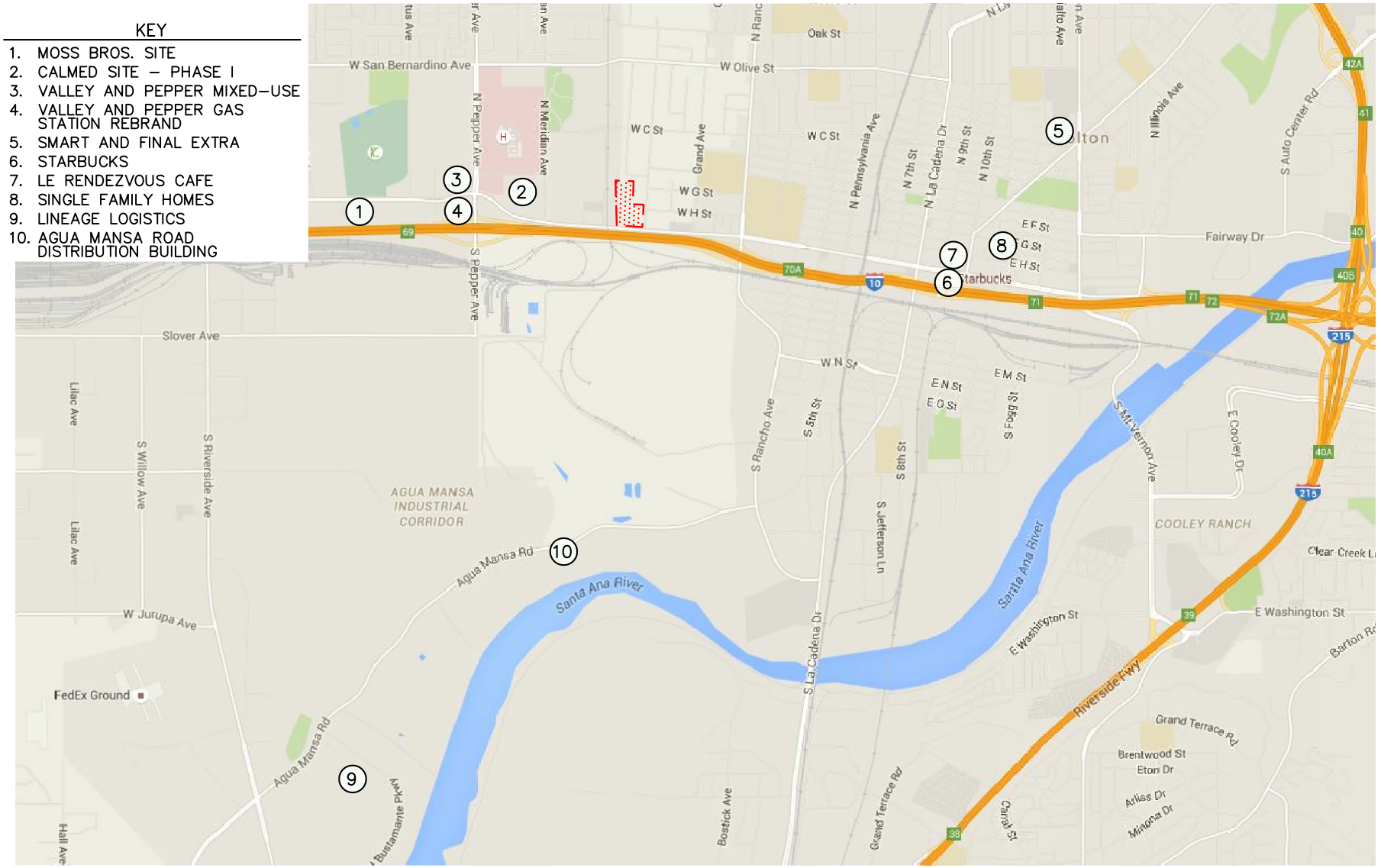
Cumulative Project Description		Daily 2-Way	AM Peak Hour			PM Peak Hour		
			Enter	Exit	Total	Enter	Exit	Total
1.	Moss Bros. Site[7]	9,554	330	105	435	204	240	444
2.	CalMed Site – Phase I	2,749	221	78	299	147	107	254
3.	Valley and Pepper Mixed-Use	3,239	93	77	170	99	90	189
4.	Valley and Pepper Gas Station Rebrand	1,288	43	40	83	30	28	58
5.	Smart and Final Extra	2,474	66	43	109	96	91	187
6.	Starbucks	1,425	59	57	116	37	37	74
7.	Le Rendezvous Café	809	38	30	68	24	16	40
8.	Single Family Homes	228	5	13	18	15	9	24
9.	Lineage Logistics	1,566	104	28	132	35	106	141
10.	Agua Mansa Road Distribution Building	2,334	111	51	162	48	109	157
Cumulative Projects Total Trip Generation Potential		**25,666**	**1,070**	**522**	**1,592**	**735**	**833**	**1,568**

6 Unless otherwise noted, Source: *Trip Generation*, 9th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012).

7 Source: *Traffic Impact Analysis for the 1900 West Valley Boulevard Project*, prepared by Kunzman Associates, Inc. (May 5, 2014).

KEY

1. MOSS BROS. SITE
2. CALMED SITE – PHASE I
3. VALLEY AND PEPPER MIXED–USE
4. VALLEY AND PEPPER GAS STATION REBRAND
5. SMART AND FINAL EXTRA
6. STARBUCKS
7. LE RENDEZVOUS CAFE
8. SINGLE FAMILY HOMES
9. LINEAGE LOGISTICS
10. AGUA MANSA ROAD DISTRIBUTION BUILDING



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

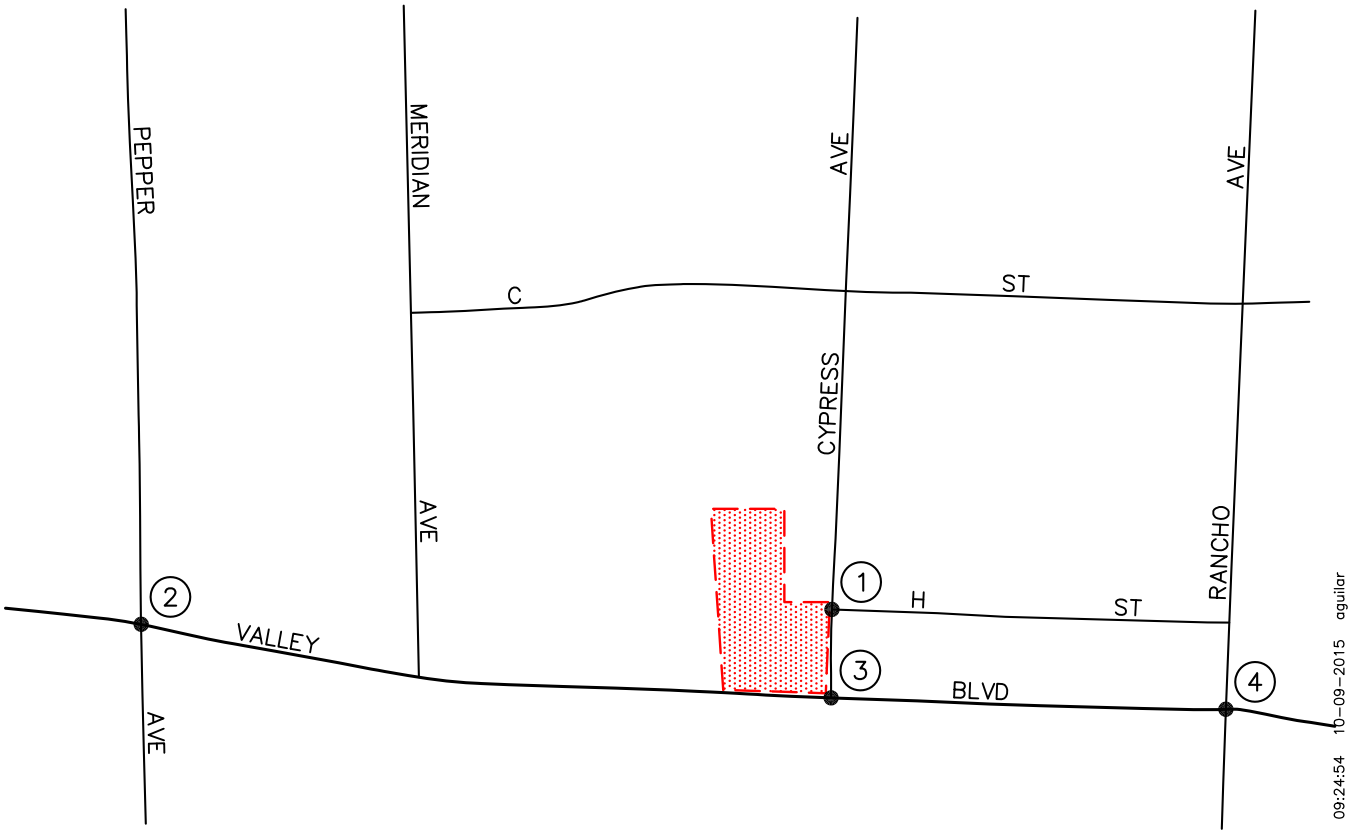
(#) = CUMULATIVE PROJECT LOCATION

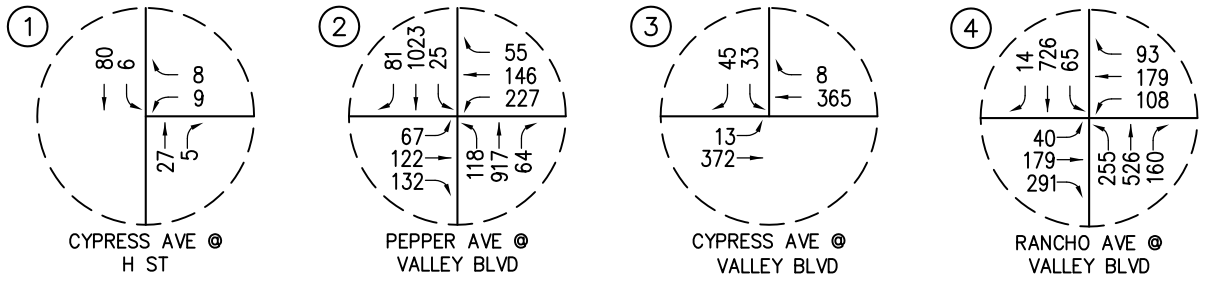
= PROJECT SITE

FIGURE 6–1

LOCATION OF CUMULATIVE PROJECTS

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

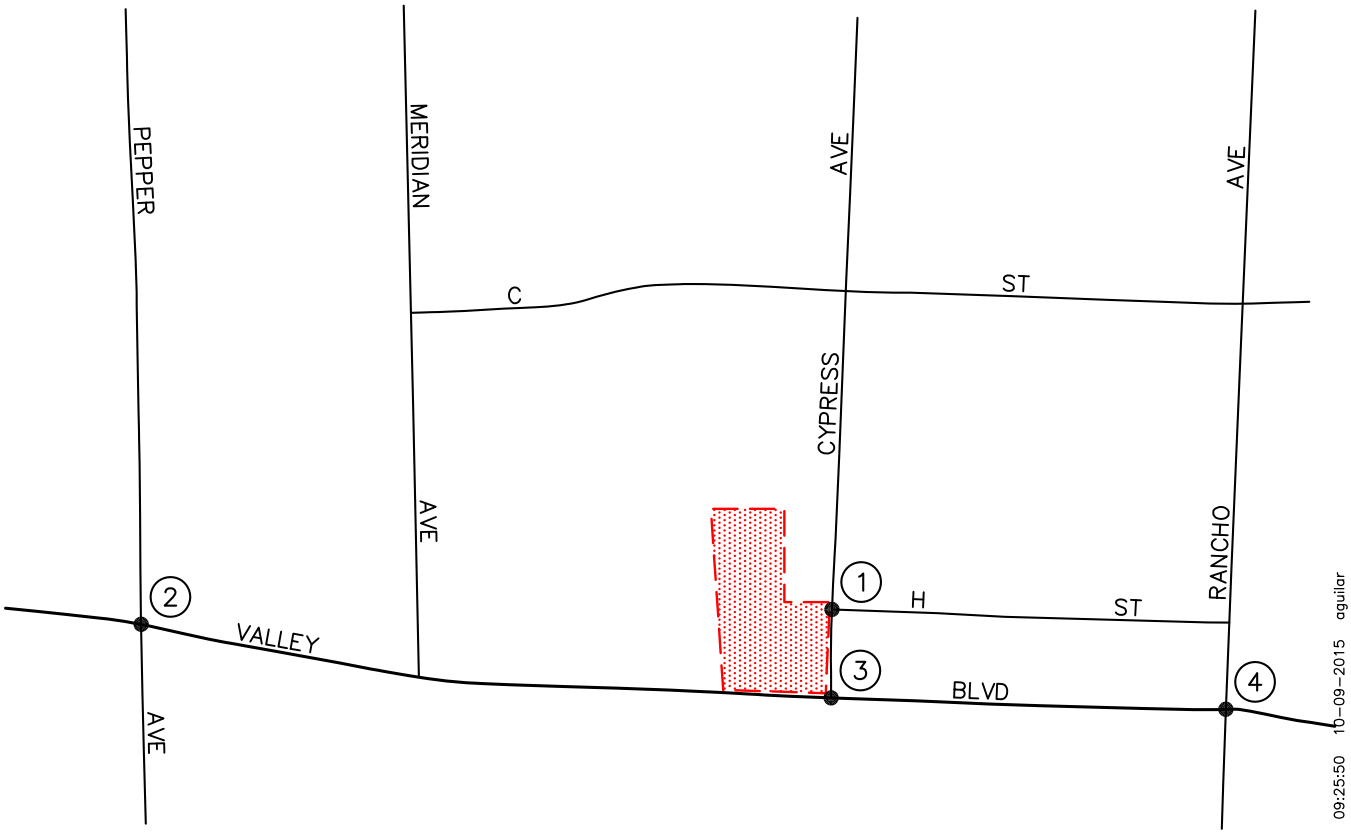
KEY

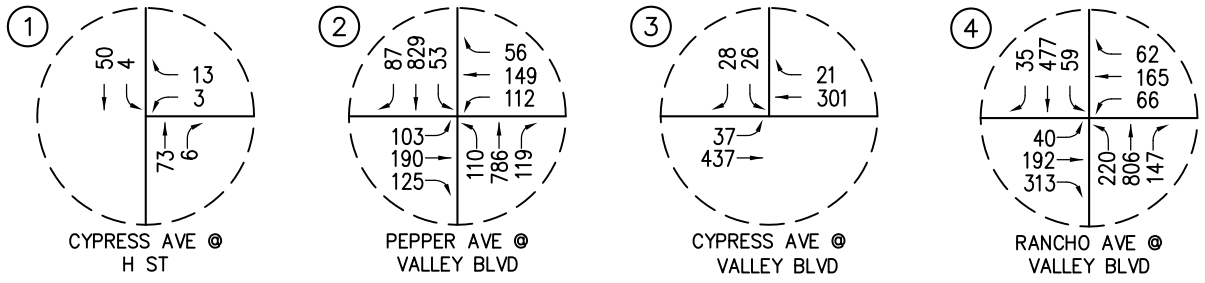
= PROJECT SITE

FIGURE 6-2

EXISTING PLUS AMBIENT (YEAR 2018) AM PEAK HOUR TRAFFIC VOLUMES

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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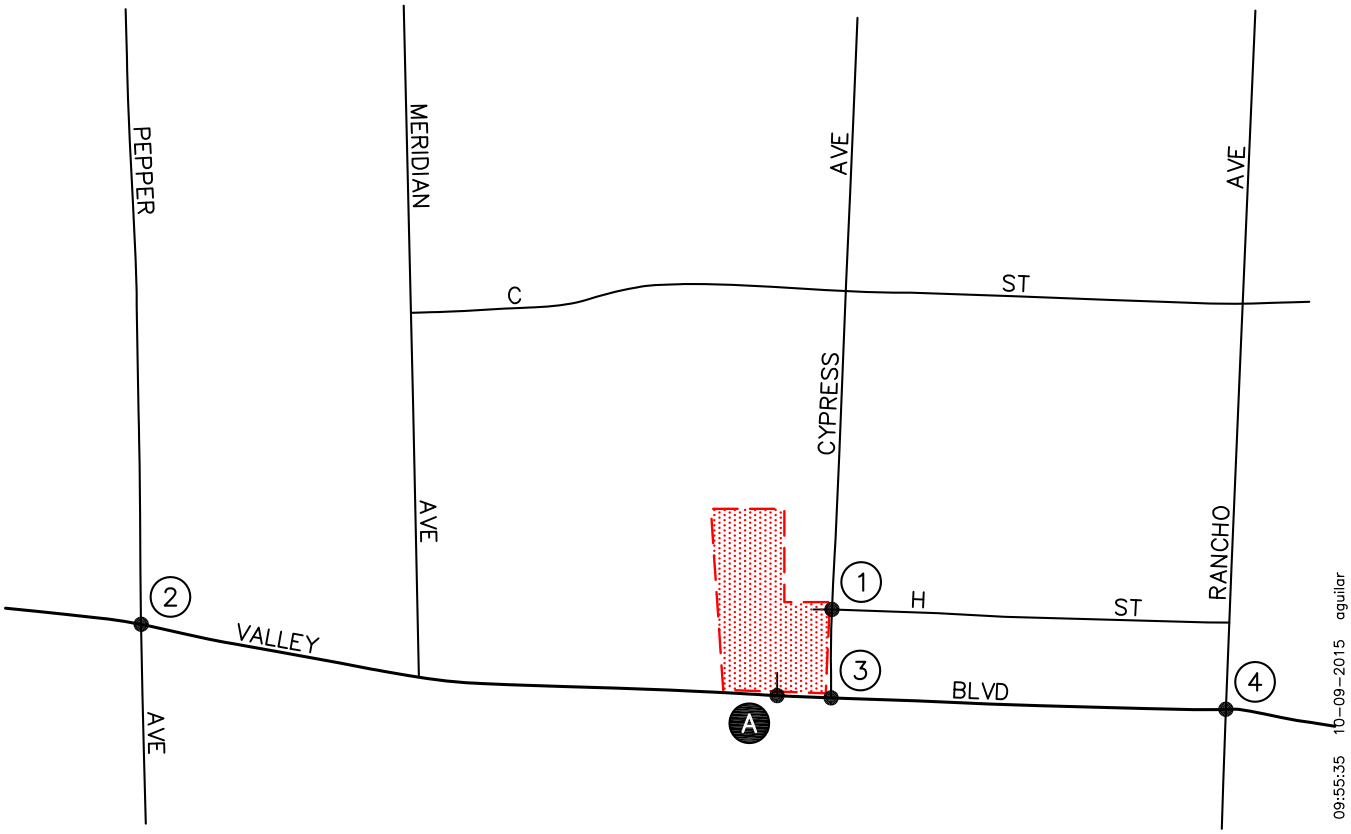
LINSCOTT LAW & GREENSPAN engineers

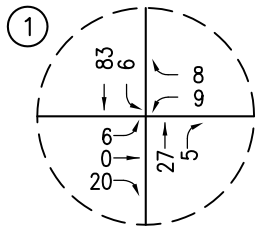
N NO SCALE

KEY
= PROJECT SITE

FIGURE 6-3

EXISTING PLUS AMBIENT (YEAR 2018)
PM PEAK HOUR TRAFFIC VOLUMES
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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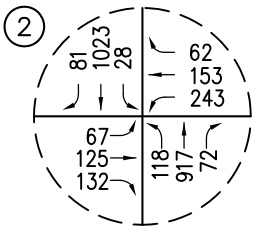

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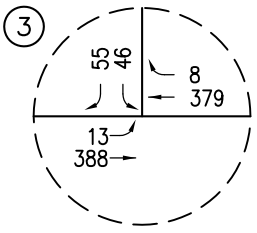
VALLEY BLVD



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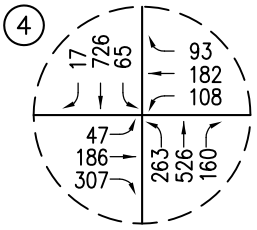
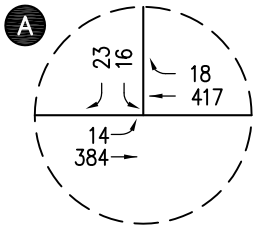


RANCHO AVE @
VALLEY BLVD

PROJECT DRIVEWAY



PROJECT DWY 1 @
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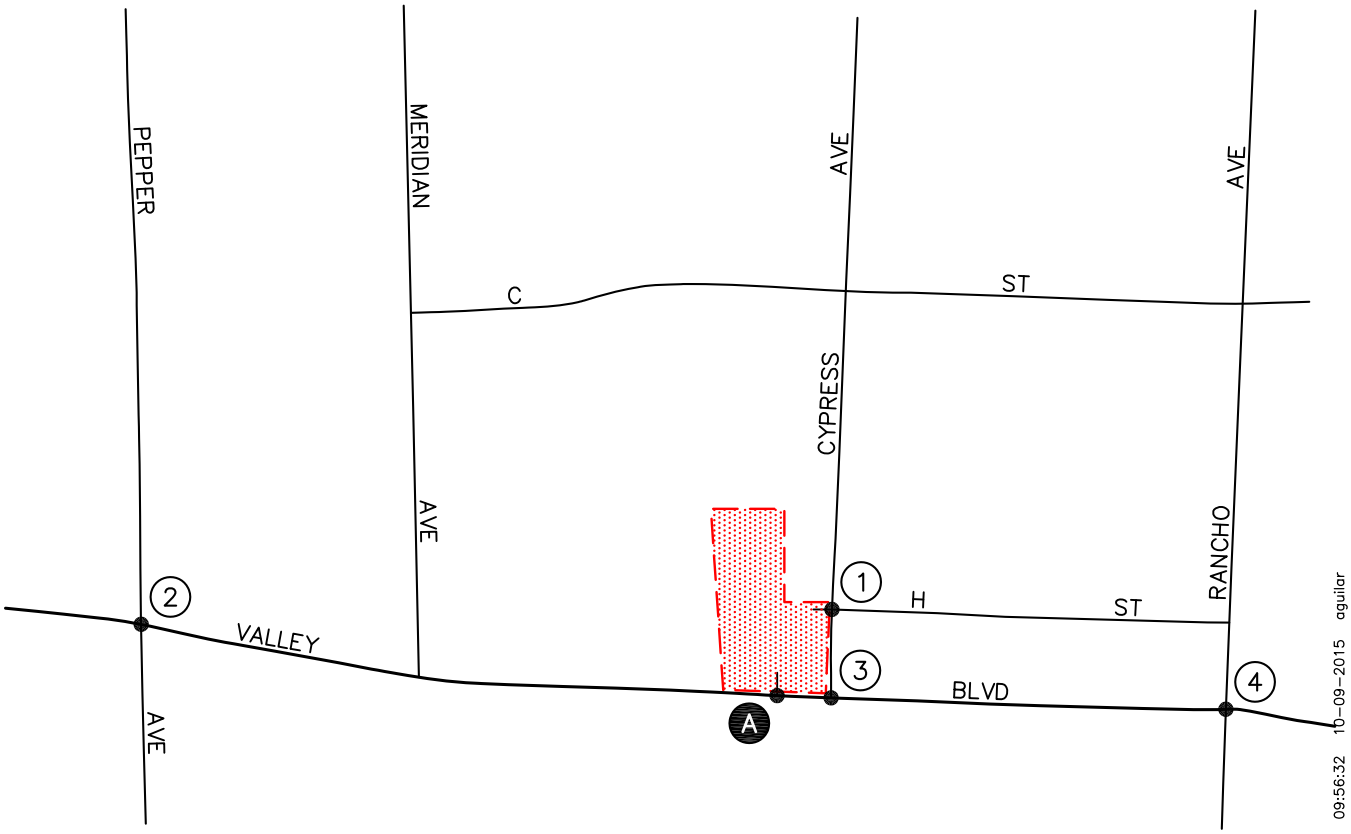
LINSCOTT LAW & GREENSPAN engineers

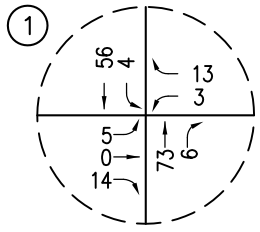
N NO SCALE

KEY
= PROJECT SITE

FIGURE 6-4

EXISTING PLUS AMBIENT
(YEAR 2018) PLUS PROJECT
AM PEAK HOUR TRAFFIC VOLUMES
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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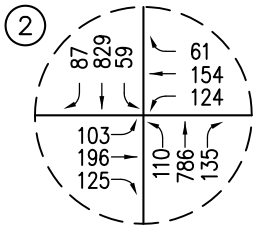

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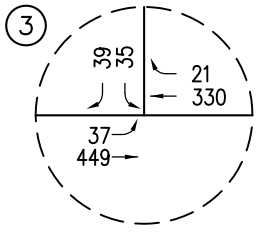
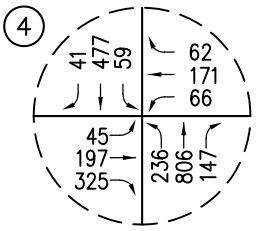
VALLEY BLVD

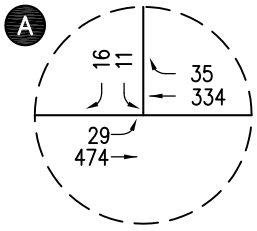


CYPRESS AVE @
VALLEY BLVD



RANCHO AVE @
VALLEY BLVD

PROJECT DRIVEWAY



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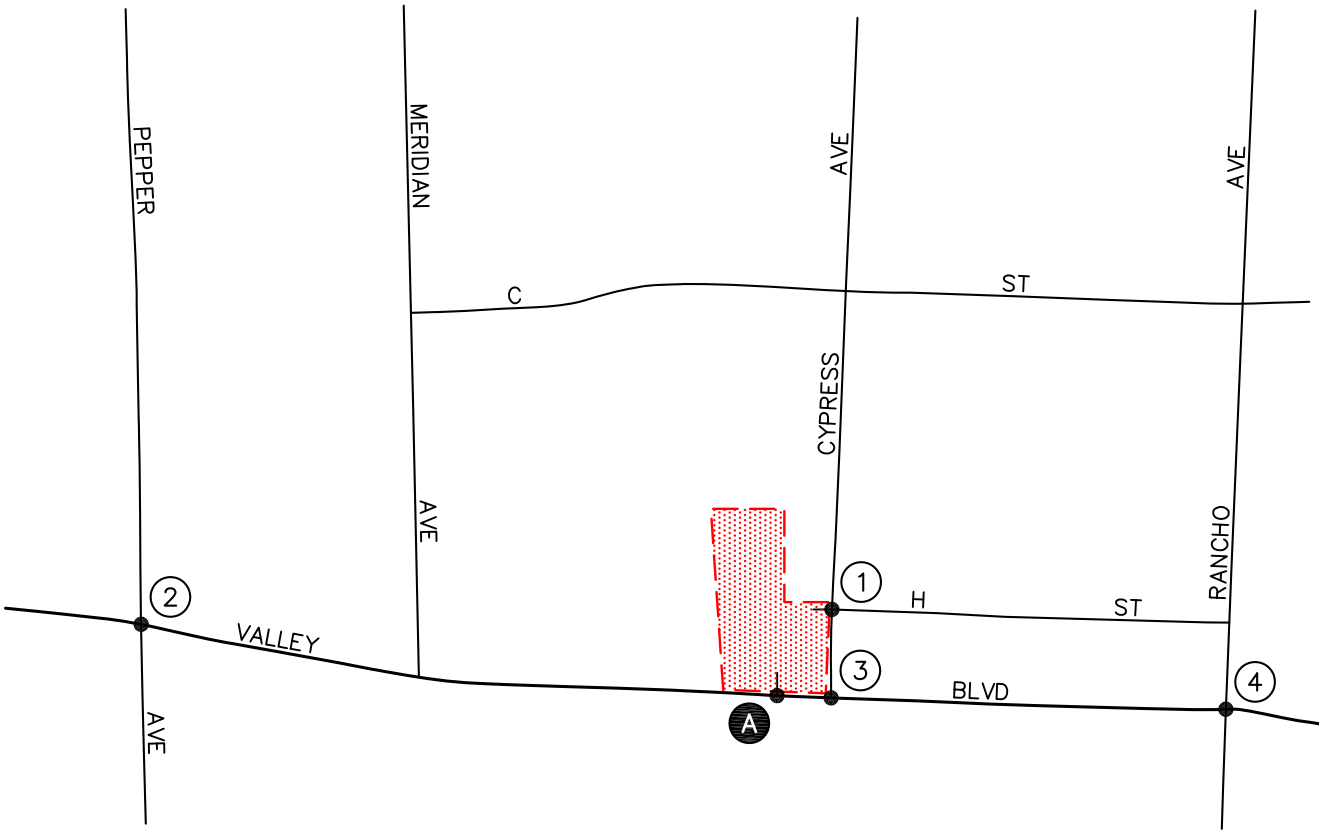
LINSCOTT LAW & GREENSPAN engineers

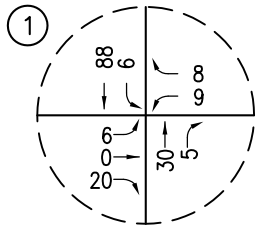
N NO SCALE

KEY
= PROJECT SITE

FIGURE 6-5

EXISTING PLUS AMBIENT
(YEAR 2018) PLUS PROJECT
PM PEAK HOUR TRAFFIC VOLUMES
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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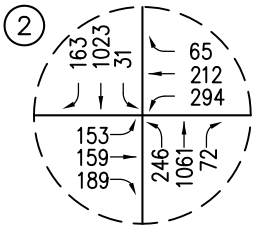

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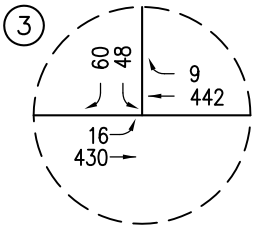

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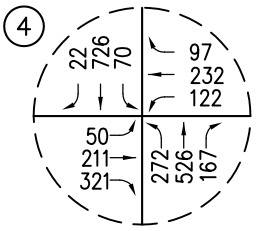
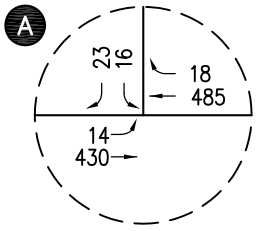


RANCHO AVE @
VALLEY BLVD

PROJECT DRIVEWAY



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LINSCOTT LAW & GREENSPAN engineers

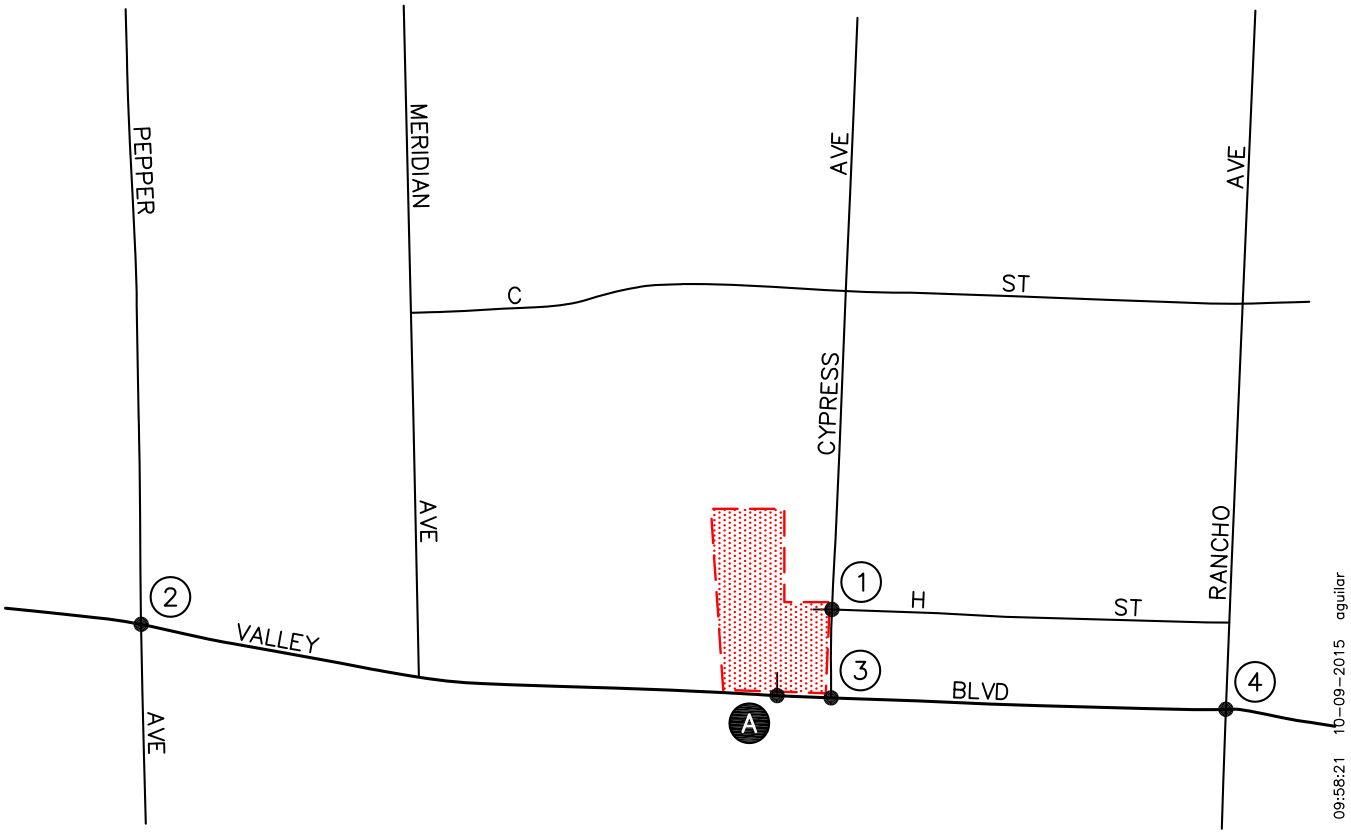
N NO SCALE

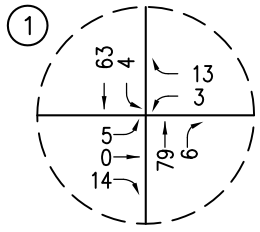
KEY
= PROJECT SITE

FIGURE 6-6

YEAR 2018 CUMULATIVE PLUS PROJECT AM PEAK HOUR TRAFFIC VOLUMES

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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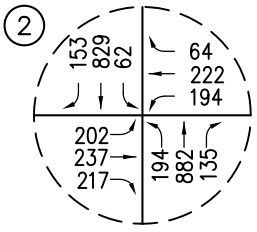

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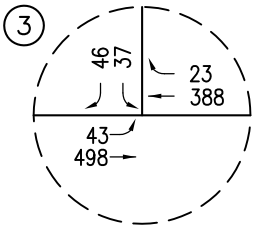

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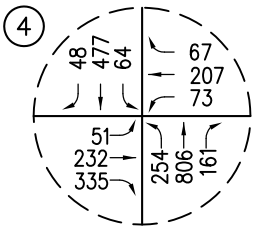
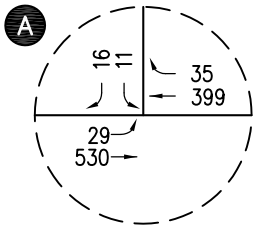


RANCHO AVE @
VALLEY BLVD

PROJECT DRIVEWAY



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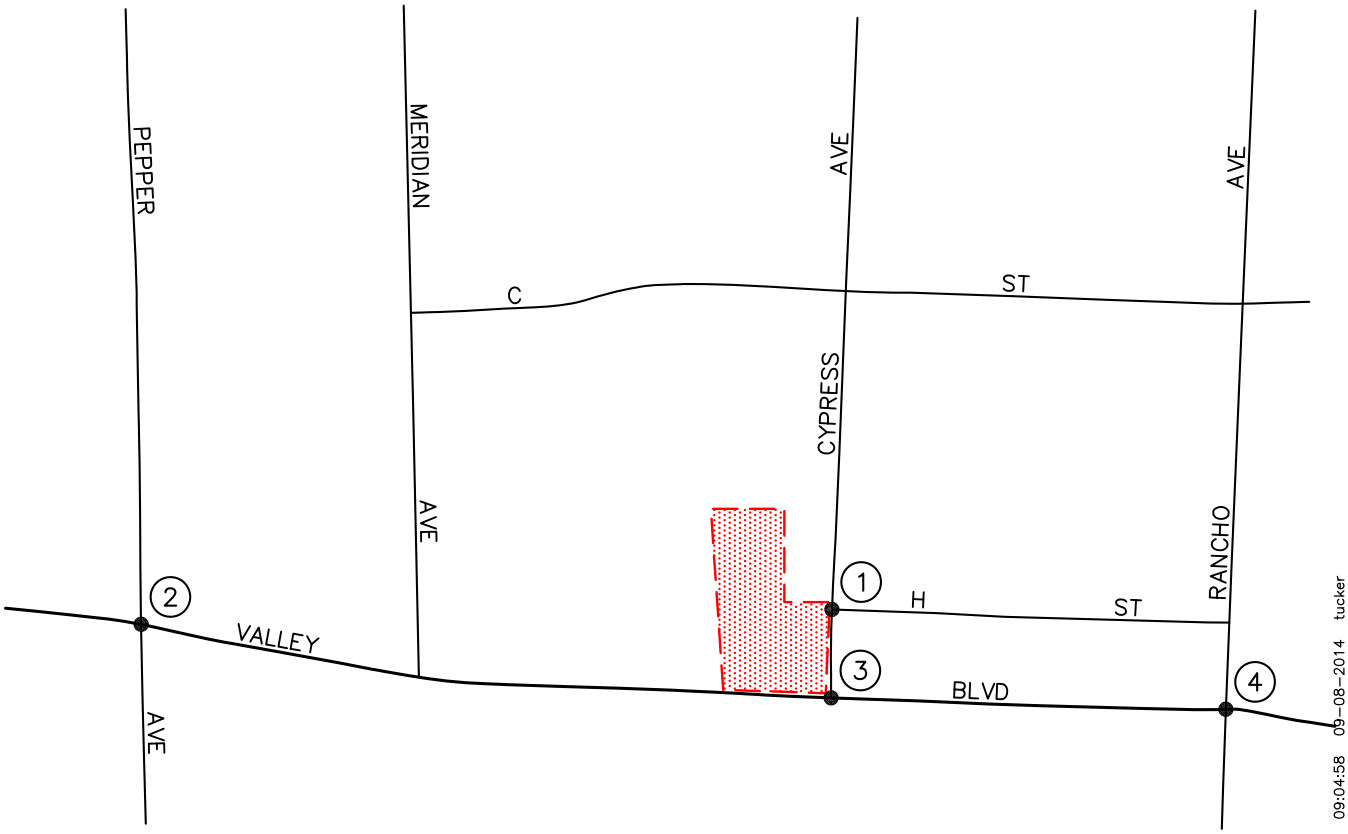
LINSCOTT LAW & GREENSPAN engineers

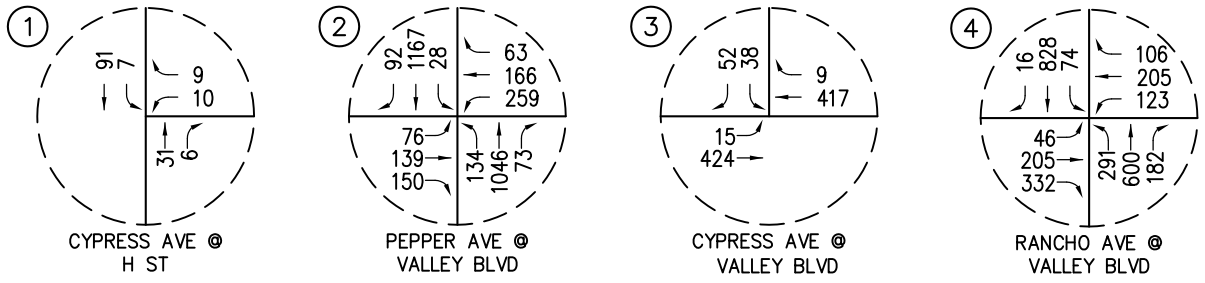
N NO SCALE

KEY
= PROJECT SITE

FIGURE 6-7

YEAR 2018 CUMULATIVE PLUS PROJECT
PM PEAK HOUR TRAFFIC VOLUMES
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

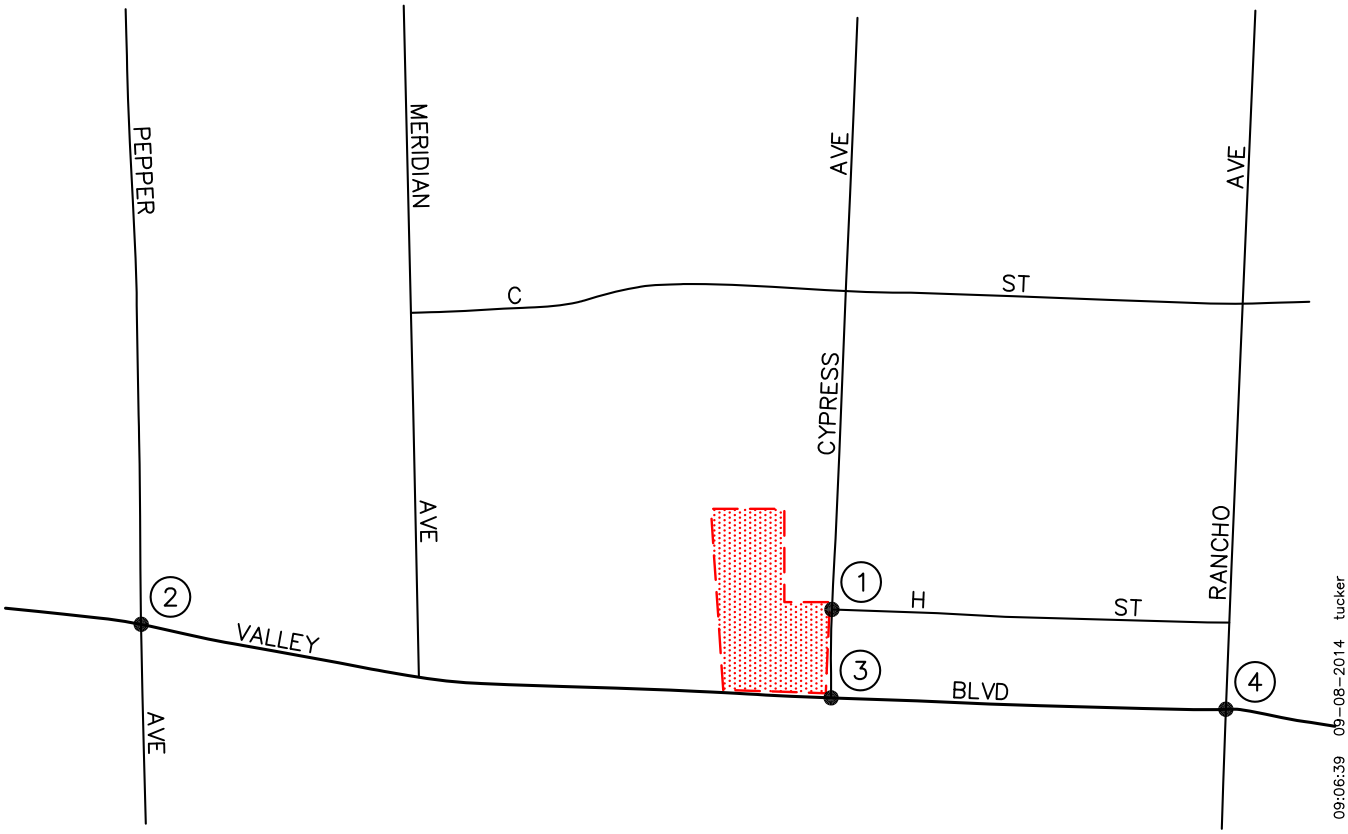
KEY

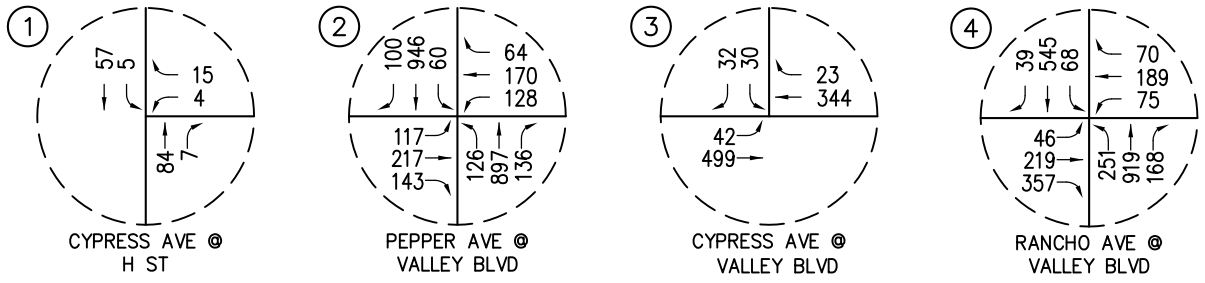
= PROJECT SITE

FIGURE 6-8

EXISTING PLUS AMBIENT (YEAR 2035 BUILDOUT) AM PEAK HOUR TRAFFIC VOLUMES

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

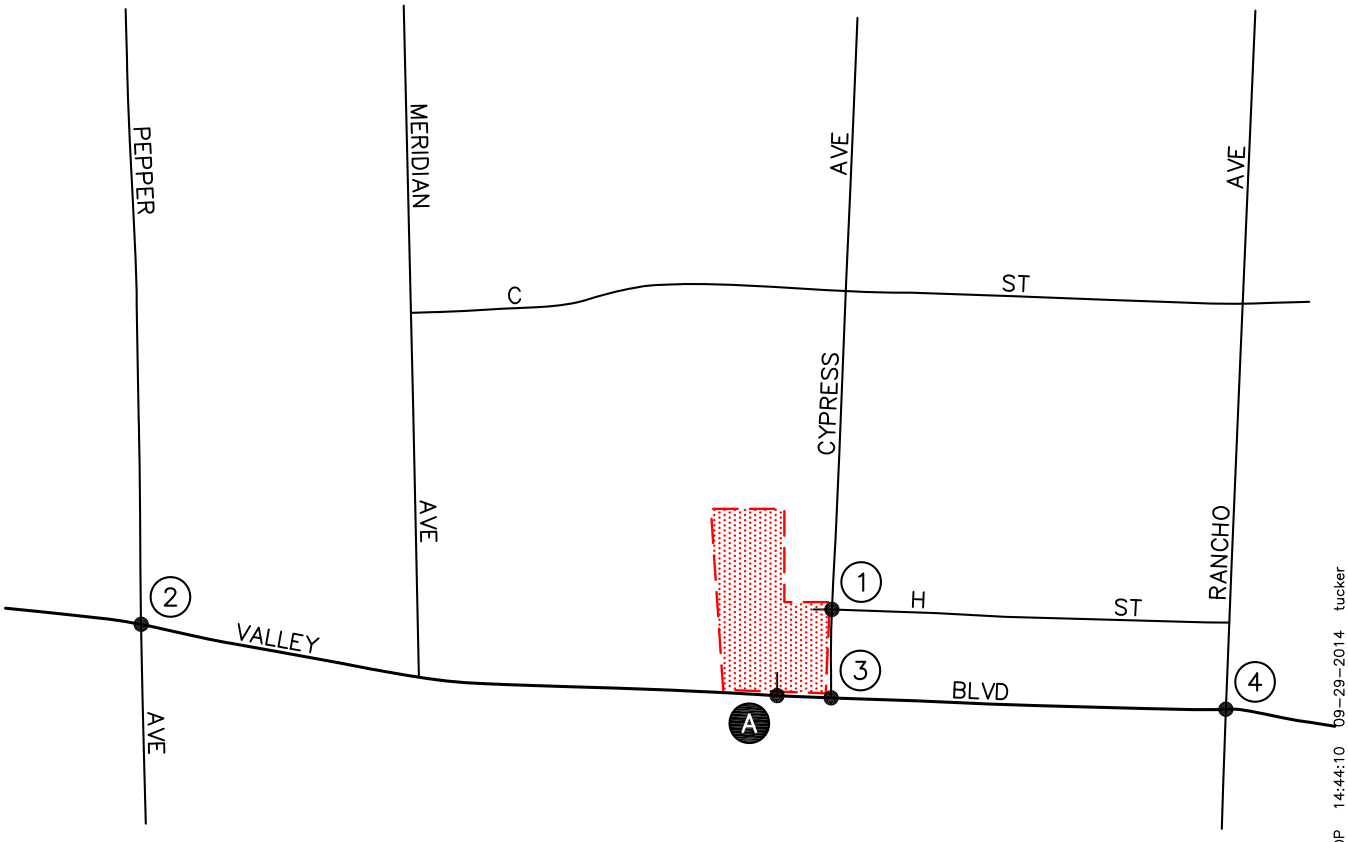
KEY

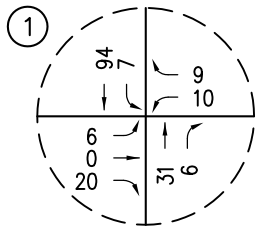
= PROJECT SITE

FIGURE 6-9

EXISTING PLUS AMBIENT (YEAR 2035 BUILDOUT) PM PEAK HOUR TRAFFIC VOLUMES

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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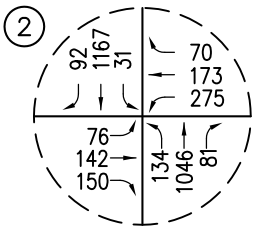

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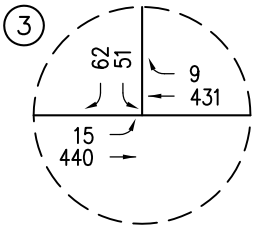

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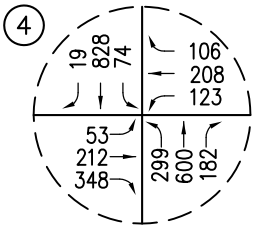
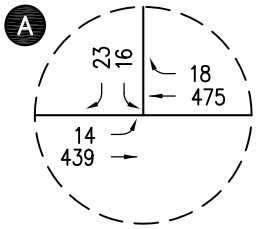
VALLEY BLVD



RANCHO AVE @
VALLEY BLVD

PROJECT DRIVEWAY



PROJECT DWY 1 @
VALLEY BLVD

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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

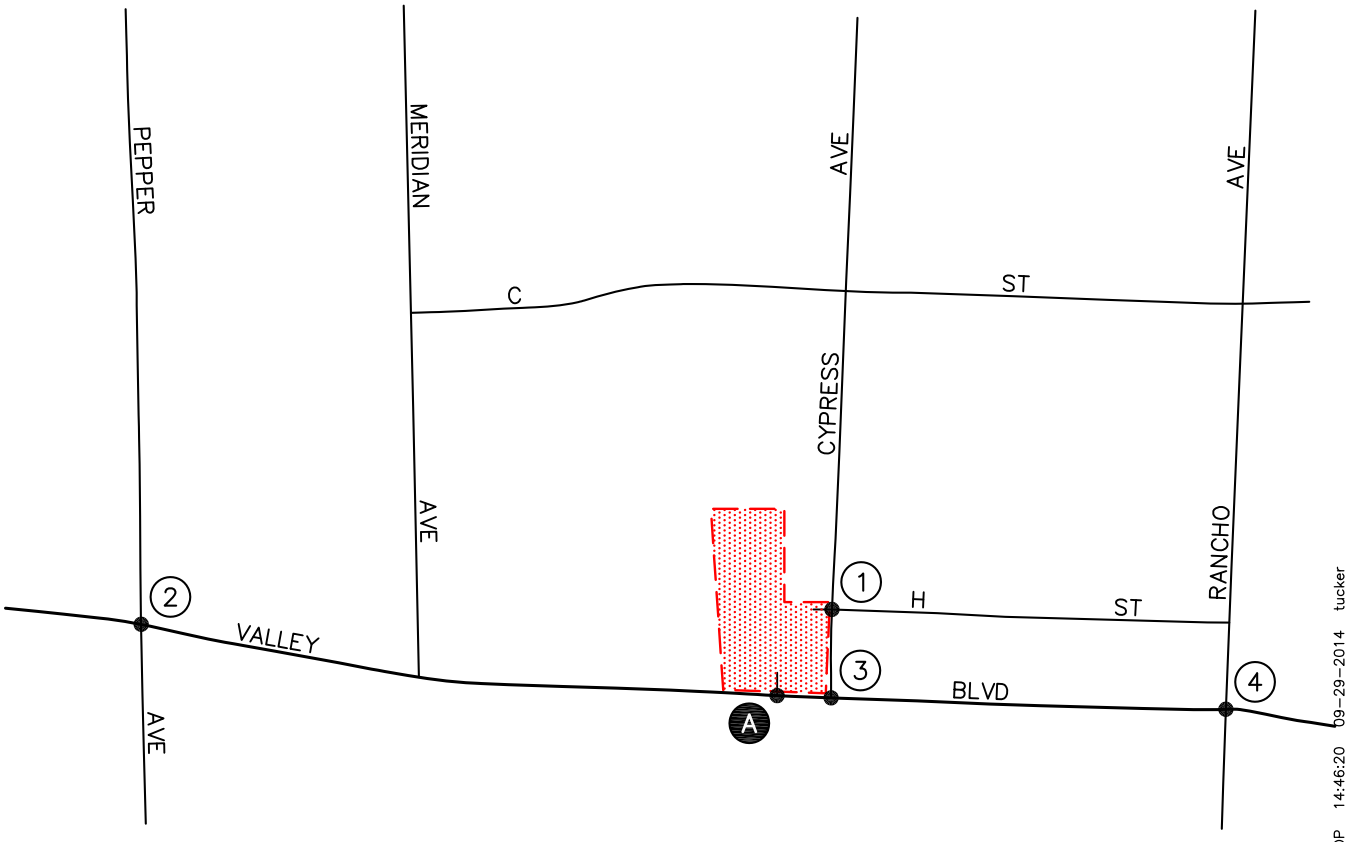
KEY

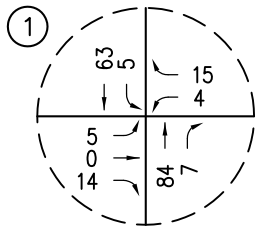
= PROJECT SITE

FIGURE 6-10

EXISTING PLUS AMBIENT
(YEAR 2035 BUILDOUT) PLUS PROJECT
AM PEAK HOUR TRAFFIC VOLUMES

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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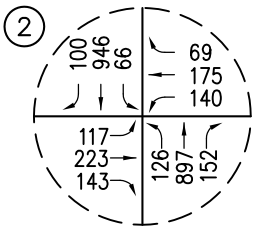
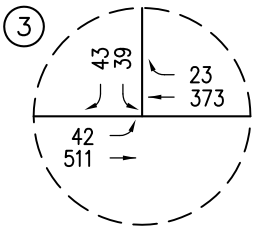


PEPPER AVE @
VALLEY BLVD



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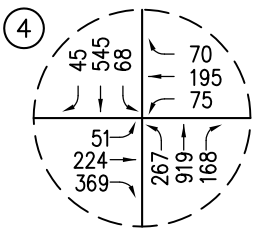
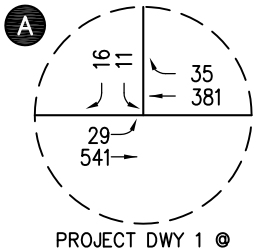
VALLEY BLVD



RANCHO AVE @
VALLEY BLVD

PROJECT DRIVEWAY



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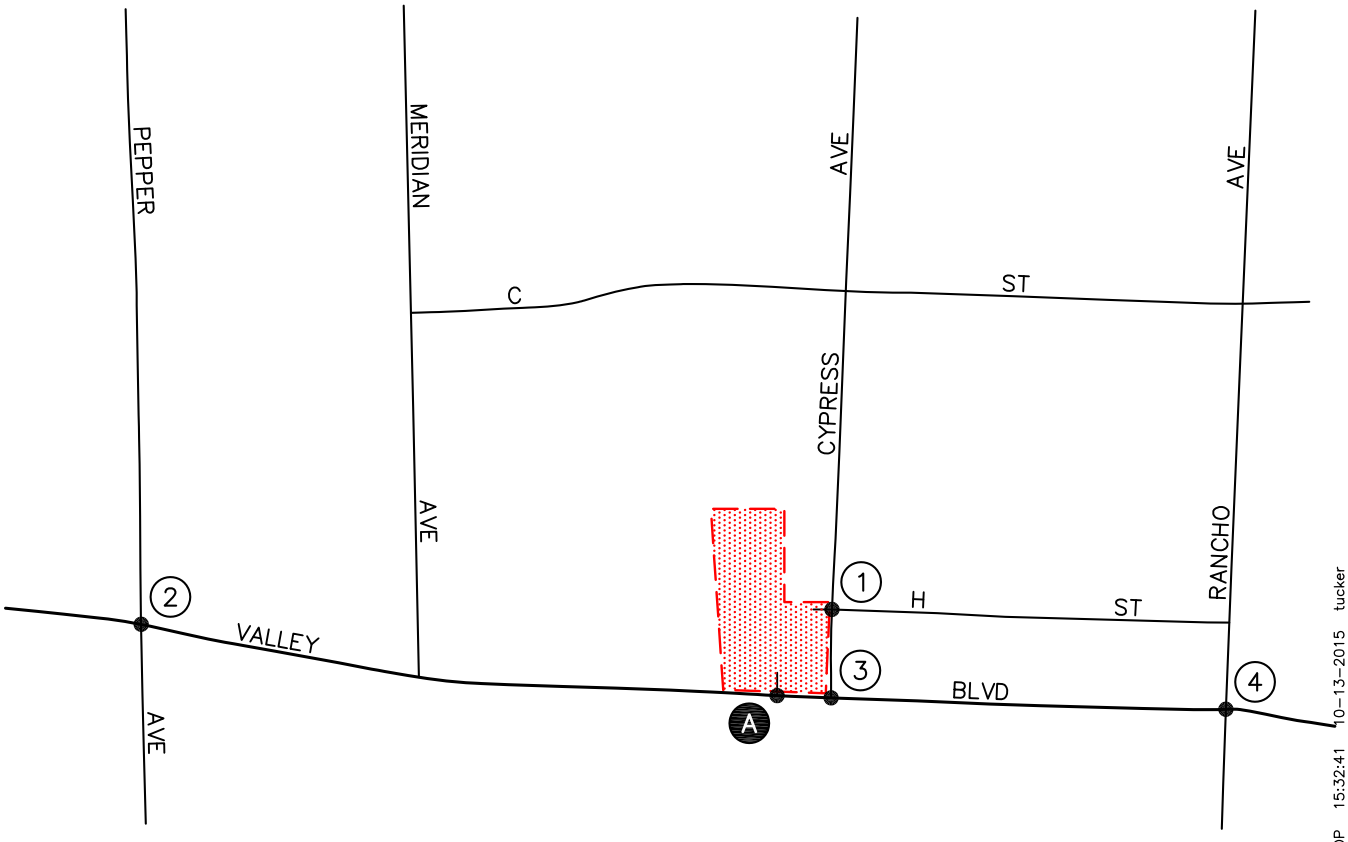
LINSCOTT LAW & GREENSPAN engineers

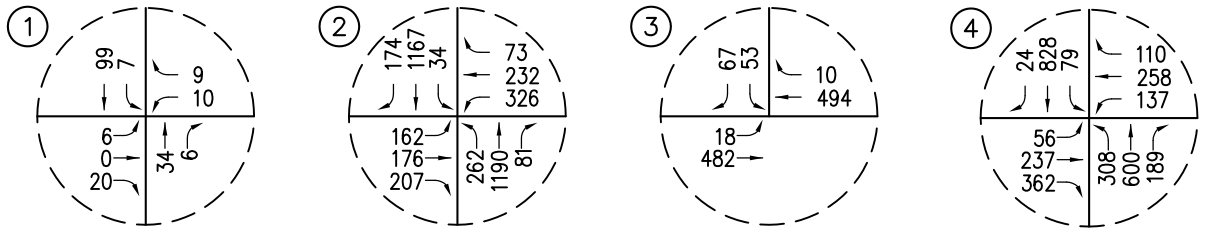
N NO SCALE

KEY
= PROJECT SITE

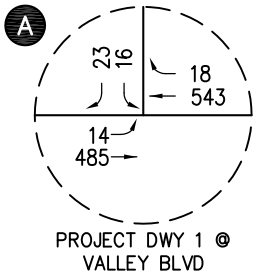
FIGURE 6-11

EXISTING PLUS AMBIENT
(YEAR 2035 BUILDOUT) PLUS PROJECT
PM PEAK HOUR TRAFFIC VOLUMES
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





PROJECT DRIVEWAY



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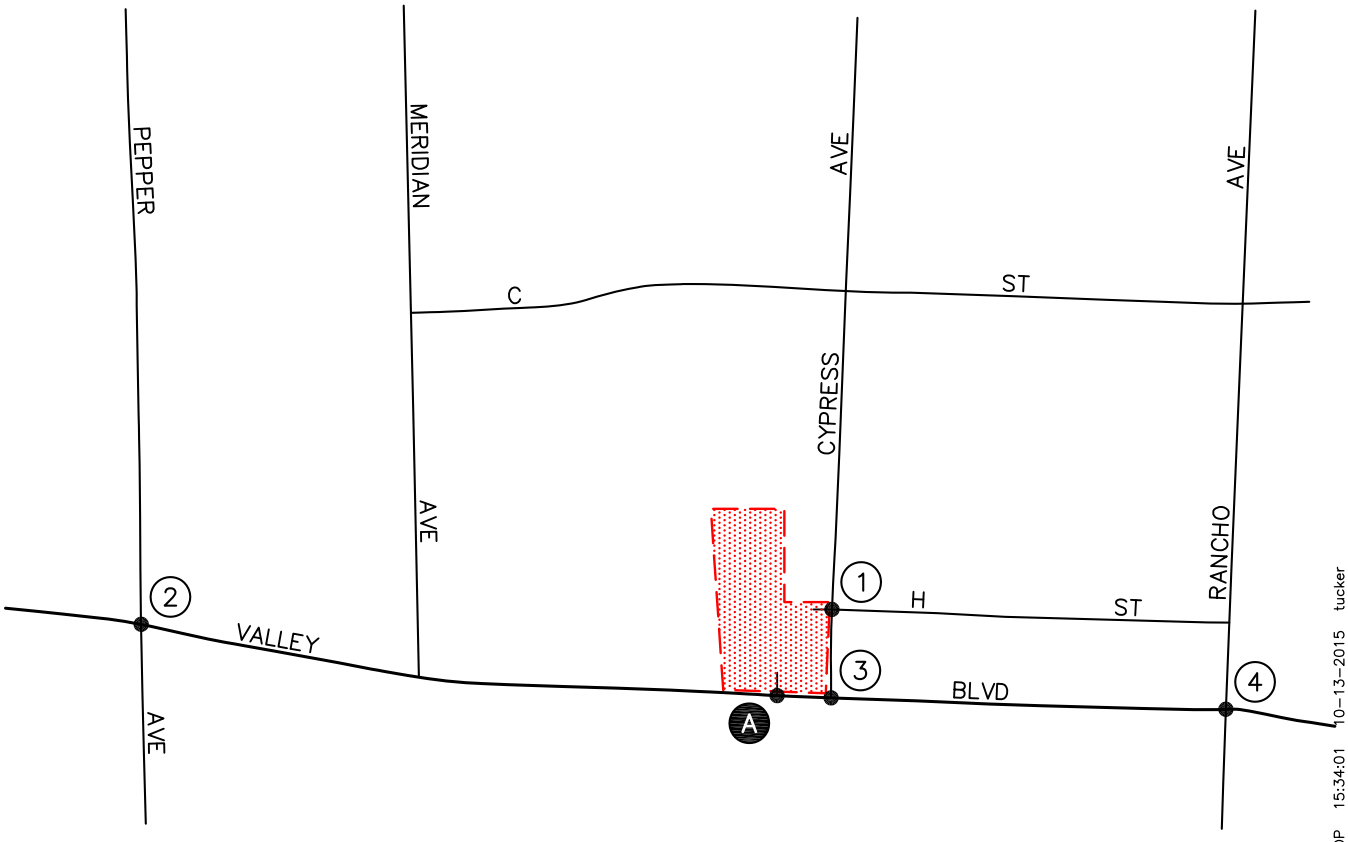
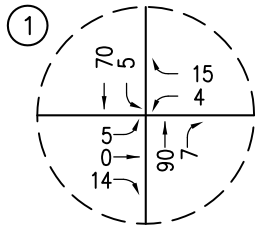
N NO SCALE

KEY
= PROJECT SITE

FIGURE 6-12

YEAR 2035 CUMULATIVE PLUS PROJECT
AM PEAK HOUR TRAFFIC VOLUMES
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO





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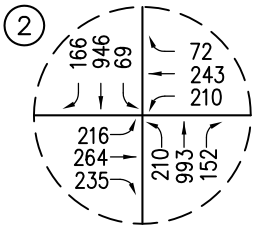
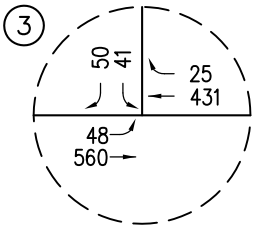


PEPPER AVE @
VALLEY BLVD



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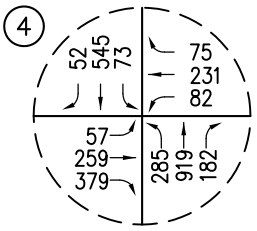
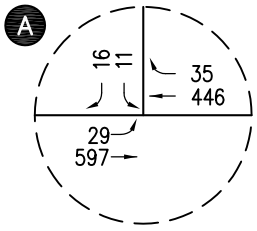
VALLEY BLVD



RANCHO AVE @
VALLEY BLVD

PROJECT DRIVEWAY



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY
= PROJECT SITE

FIGURE 6-13

YEAR 2035 CUMULATIVE PLUS PROJECT
PM PEAK HOUR TRAFFIC VOLUMES
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO

7.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

The relative impact of the added peak hour project traffic volumes generated by the Project have been evaluated based on the analysis of future operating conditions at four (4) key study intersections. Operating conditions at the key study intersections were evaluated during the AM and PM peak hours for existing traffic conditions and future (Year 2018 and Year 2035) traffic conditions without, then with the proposed Project.

The previously discussed capacity analysis procedures were utilized to investigate the future volume-to-capacity relationships and service level characteristics at each study intersection. The significance of the potential impacts of the project at each key intersection was then evaluated using the LOS standards and the impact criteria defined in this report.

7.1 Definition of Deficiency and Significance Criteria

The County of San Bernardino and the City of Colton consider LOS "D" to be the minimum acceptable condition that should be maintained during the peak commute hours. Therefore, any intersection operating at LOS "E" or LOS "F" is considered deficient/unsatisfactory. Further, per the CMP, an intersection must be designated as operating at LOS "F" when the volume-to-capacity (V/C) ratio of the critical movements is equal to or greater than 1.0. Any V/C ratio of 1.0 or greater is an indication of actual or potential breakdown, thereby requiring improvements in the overall intersection geometrics and signal operations.

In the event that an intersection is operating at or is forecast to operate at a deficient LOS, the CMP guidelines have defined a series of steps to be completed to determine the project's contribution to the deficiency of intersections. The steps are as follows:

1. Determine the mitigation measures necessary to achieve an acceptable service level.
2. Calculate the project's share in the future traffic volume projections for the peak hours.
3. Estimate the cost to implement recommended mitigation measures.
4. Calculate the project's fair-share contribution to offset the project's traffic impacts.

7.2 Traffic Impact Analysis Scenarios

The following scenarios are those for which volume/capacity calculations have been performed at the four (4) key intersections for Year 2018 traffic conditions and Year 2035 traffic conditions:

A. Existing Traffic Conditions;
B. Existing plus Project Traffic Conditions;
C. Scenario (B) with Improvements, if necessary;
D. Existing plus A.G. (Ambient Growth) to the Year 2018 Traffic Conditions;
E. Existing plus A.G. to the Year 2018 plus Project Traffic Conditions;
F. Scenario (E) with Improvements, if necessary;
G. Existing plus A.G. plus Project plus Cumulative Traffic Conditions;
H. Scenario (G) with Improvements, if necessary;
I. Existing plus A.G. (Ambient Growth) to the Year 2035 Traffic Conditions;

J. Existing plus A.G. to the Year 2035 plus Project Traffic Conditions;
K. Scenario (J) with Improvements, if necessary;
L. Existing plus A.G. plus Project plus Cumulative Traffic Conditions; and
M. Scenario (L) with Improvements, if necessary.

8.0 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

8.1 Existing Plus Project Traffic Conditions

Table 8-1 summarizes the peak hour level of service results at the four (4) key study intersections for Existing Plus Project traffic conditions. The first column (1) of HCM/LOS values in *Table 8-1* presents a summary of existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) lists existing plus project traffic conditions. The third column (3) indicates whether the traffic associated with the project will have a significant impact based on the LOS standards and the significant impact criteria defined in this report.

8.1.1 Existing Traffic Conditions

As previously presented in *Table 3-3*, the four (4) key study intersections currently operate at LOS C or better during the AM and PM peak hours.

8.1.2 Existing Plus Project Traffic Conditions

Review of columns 2 and 3 of *Table 8-1* indicates that traffic associated with the proposed Project ***will not*** significantly impact the four (4) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. The four (4) key study intersections currently operate and are forecast to continue to operate at an acceptable service level during the AM and PM peak hours with the addition of Project generated traffic to existing traffic.

Appendix C presents the existing plus project HCM/LOS calculations for the four (4) key study intersections.

8.2 Year 2018 Traffic Conditions

Table 8-2 summarizes the peak hour level of service results at the four (4) key study intersections for "Year 2018" traffic conditions. The first column (1) of HCM/LOS values in *Table 8-2* presents a summary of existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) presents Year 2018 plus ambient growth traffic conditions based on existing intersection geometry, but without any traffic generated from the proposed project. The third column (3) presents forecast Year 2018 plus ambient growth traffic conditions with the addition of project traffic. The fourth column (4) indicates whether the traffic associated with the project will have a significant impact based on the LOS standards and the significant impact criteria defined in this report. The fifth column (5) lists Year 2018 plus ambient growth plus project plus cumulative project traffic conditions (i.e. the cumulative scenario). The sixth column (6) indicates whether the traffic associated with the project will have a significant cumulative impact based on the LOS standards and the significant impact criteria defined in this report.

8.2.1 Existing Plus Ambient Growth to the Year 2018 Traffic Conditions

An analysis of future (Year 2018) traffic conditions indicates that the addition of ambient traffic growth will not adversely impact any of the four (4) key study intersections. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS in the Year 2018 with the addition of ambient traffic growth to existing traffic.

TABLE 8-1

EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Key Intersections		Time Period	(1) Existing Traffic Conditions			(2) Existing Plus Project Traffic Conditions			(3) Significant Impact
			Delay	V/C	LOS	Delay	V/C	LOS	Yes/No
1.	Cypress Avenue at	AM	8.8 s/v	---	A	9.0 s/v	---	A	No
	H Street	PM	8.8 s/v	---	A	8.9 s/v	---	A	No
2.	Pepper Avenue at	AM	25.6 s/v	0.590	C	26.0 s/v	0.596	C	No
	Valley Boulevard	PM	23.7 s/v	0.474	C	24.0 s/v	0.479	C	No
3.	Cypress Avenue at	AM	11.7 s/v	---	B	12.4 s/v	---	B	No
	Valley Boulevard	PM	11.7 s/v	---	B	12.3 s/v	---	B	No
4.	Rancho Avenue at	AM	30.6 s/v	0.688	C	31.1 s/v	0.706	C	No
	Valley Boulevard	PM	27.7 s/v	0.607	C	28.1 s/v	0.616	C	No

Notes:
s/v = seconds per vehicle (delay)

TABLE 8-2

YEAR 2018 PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection	Time Period	(1) Existing Traffic Conditions			(2) Existing Plus Ambient Growth (Year 2018) Traffic Conditions			(3) Existing Plus Ambient Growth (Year 2018) Plus Project Traffic Conditions			(4) Significant Impact	(5) Existing Plus A.G. (Year 2018) Plus Project Plus Cumulative Traffic Conditions			(6) Year 2018 Cumulative Impact
		Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Yes/No	Delay	V/C	LOS	Yes/No
1. Cypress Avenue at H Street	AM	8.8 s/v	---	A	8.9 s/v	---	A	9.0 s/v	---	A	No	9.1 s/v	---	A	No
	PM	8.8 s/v	---	A	8.8 s/v	---	A	8.9 s/v	---	A	No	8.9 s/v	---	A	No
2. Pepper Avenue at Valley Boulevard	AM	25.6 s/v	0.590	C	26.5 s/v	0.637	C	26.9 s/v	0.644	C	No	33.2 s/v	0.801	C	No
	PM	23.7 s/v	0.474	C	24.1 s/v	0.511	C	24.4 s/v	0.516	C	No	30.5 s/v	0.673	C	No
3. Cypress Avenue at Valley Boulevard	AM	11.7 s/v	---	B	12.1 s/v	---	B	12.9 s/v	---	B	No	14.1 s/v	---	B	No
	PM	11.7 s/v	---	B	12.2 s/v	---	B	12.9 s/v	---	B	No	14.0 s/v	---	B	No
4. Rancho Avenue at Valley Boulevard	AM	30.6 s/v	0.688	C	31.9 s/v	0.743	C	32.5 s/v	0.762	C	No	33.9 s/v	0.791	C	No
	PM	27.7 s/v	0.607	C	28.6 s/v	0.656	C	29.1 s/v	0.664	C	No	30.0 s/v	0.685	C	No

Notes:
s/v = seconds per vehicle (delay)

8.2.2 Existing Plus Ambient Growth to the Year 2018 Plus Project Traffic Conditions

Review of columns 3 and 4 of *Table 8-2* indicates that traffic associated with the proposed Project ***will not*** significantly impact any of the four (4) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS with the addition of ambient growth traffic and Project generated traffic in the Year 2018.

8.2.3 Year 2018 Cumulative Traffic Conditions

Review of columns 5 and 6 of *Table 8-2* indicates that the four (4) key study intersections ***will not*** be cumulatively impacted by the proposed Project. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS with the addition of ambient growth traffic, cumulative traffic and project traffic in the Year 2018.

Appendix C presents the Year 2018 HCM/LOS calculations for the four (4) key study intersections.

8.3 Year 2035 Traffic Conditions

Table 8-3 summarizes the peak hour level of service results at the four (4) key study intersections for the Year 2035. The structure of this table is similar to the near-term (Year 2018) capacity analysis summary presented in *Table 8-2.*

8.3.1 Existing Plus Ambient Growth to the Year 2035 Traffic Conditions

An analysis of future (Year 2035) traffic conditions indicates that the addition of ambient traffic growth will not adversely impact any of the four (4) key study intersections. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS in the Year 2035 with the addition of ambient traffic growth to existing traffic.

8.3.2 Existing Plus Ambient Growth to the Year 2035 Plus Project Traffic Conditions

Review of columns 3 and 4 of *Table 8-3* indicates that traffic associated with the proposed Project ***will not*** significantly impact any of the four (4) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS with the addition of ambient growth traffic and Project generated traffic in the Year 2035.

8.3.3 Year 2035 Cumulative Traffic Conditions

Review of columns 5 and 6 of *Table 8-3* indicates that the four (4) key study intersections ***will not*** be cumulatively impacted by the proposed Project. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS with the addition of ambient growth traffic, cumulative traffic and project traffic in the Year 2035.

Appendix C presents the Year 2035 HCM/LOS calculations for the four (4) key study intersections.

TABLE 8-3

YEAR 2035 PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection	Time Period	(1) Existing Traffic Conditions			(2) Existing Plus Ambient Growth (Year 2035 Buildout) Traffic Conditions			(3) Existing Plus Ambient Growth (Year 2035 Buildout) Plus Project Traffic Conditions			(4) Significant Impact	(5) Existing Plus A.G. (Year 2035 Buildout) Plus Project Plus Cumulative Traffic Conditions			(6) Year 2035 Buildout Cumulative Impact
		Delay	V/C	LOS	Delay	V/C	LOS	Delay	V/C	LOS	Yes/No	Delay	V/C	LOS	Yes/No
1. Cypress Avenue at H Street	AM	8.8 s/v	---	A	9.0 s/v	---	A	9.1 s/v	---	A	No	9.2 s/v	---	A	No
	PM	8.8 s/v	---	A	8.9 s/v	---	A	9.0 s/v	---	A	No	9.0 s/v	---	A	No
2. Pepper Avenue at Valley Boulevard	AM	25.6 s/v	0.590	C	27.3 s/v	0.687	C	27.7 s/v	0.693	C	No	35.0 s/v	0.842	D	No
	PM	23.7 s/v	0.474	C	24.6 s/v	0.553	C	24.8 s/v	0.557	C	No	30.7 s/v	0.705	C	No
3. Cypress Avenue at Valley Boulevard	AM	11.7 s/v	---	B	13.1 s/v	---	B	14.1 s/v	---	B	No	15.7 s/v	---	C	No
	PM	11.7 s/v	---	B	13.3 s/v	---	B	14.1 s/v	---	B	No	15.5 s/v	---	C	No
4. Rancho Avenue at Valley Boulevard	AM	30.6 s/v	0.688	C	33.5 s/v	0.803	C	34.3 s/v	0.820	C	No	36.0 s/v	0.847	D	No
	PM	27.7 s/v	0.607	C	29.6 s/v	0.708	C	30.2 s/v	0.717	C	No	31.2 s/v	0.737	C	No

Notes:
s/v = seconds per vehicle (delay)

9.0 SITE ACCESS AND INTERNAL CIRCULATION EVALUATION

9.1 Site Access Evaluation

As previously shown in *Figure 2-1*, access to the proposed project site will be provided via one full access unsignalized driveway located along Valley Boulevard. The proposed access point along Valley Boulevard will be gated; however the proposed gate will be located beyond the parking spaces allocated for the day care center. An additional resident egress only driveway will be provided along Cypress Avenue, located directly opposite H Street. The resident egress only driveway will also be gated.

Figure 9-1 presents a conceptual plan of the improvements recommended along Valley Boulevard to facilitate full access movements at the proposed project driveway and maintain adequate storage for the existing eastbound left-turn lane at the intersection of Cypress Avenue/Valley Boulevard. As shown, it is recommended that Valley Boulevard be restriped along the project frontage to provide a two-way-left-turn-lane. It is also recommended that the existing eastbound left-turn lane at the intersection of Cypress Avenue/Valley Boulevard be restriped to provide 60 feet of storage with a 90 foot transition.

Table 9-1 summarizes the intersection operations at the proposed project driveway located along Valley Boulevard under near-term (Year 2018) and long-term (Year 2035) traffic conditions at completion and full occupancy of the proposed Project. The operations analysis for the project driveway is based on the *Highway Capacity Manual* unsignalized methodology. Review of *Table 9-1* shows that the proposed project driveway is forecast to operate at acceptable LOS B during the AM and PM peak hours for Year 2018 and Year 2035 traffic conditions. As such, project access will be adequate. Motorists entering and exiting the Project site will be able to do so comfortably, safely, and without undue congestion. ***Appendix D*** presents the level of service calculation worksheets for the proposed project driveway located along Valley Boulevard.

TABLE 9-1

PROJECT DRIVEWAY PEAK HOUR LEVELS OF SERVICE SUMMARY

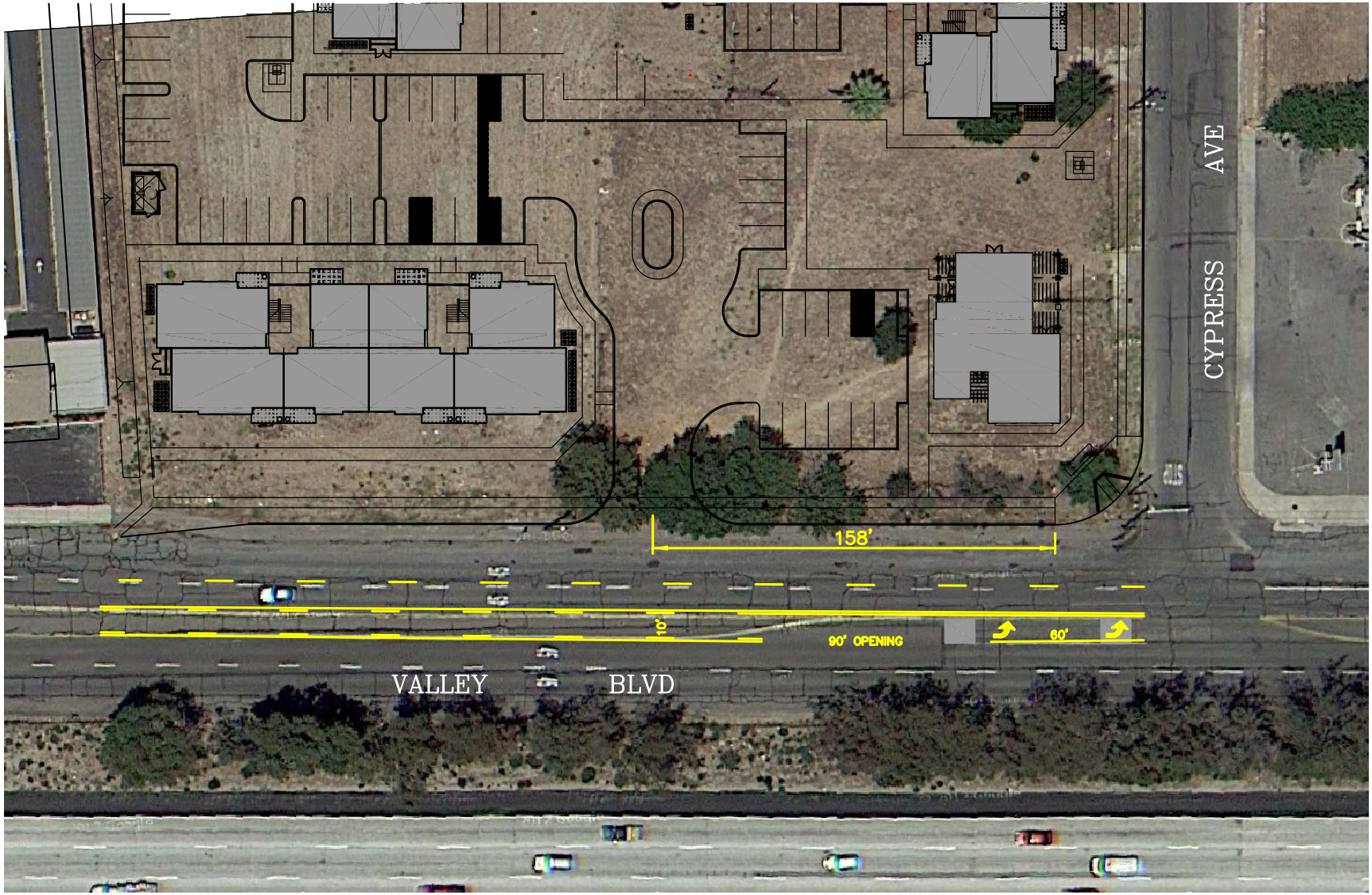
Project Driveway	Time Period	Intersection Control	Year 2018 Plus Project Traffic Conditions		Year 2035 Plus Project Traffic Conditions	
			HCM	LOS	HCM	LOS
▪ Project Driveway at Valley Boulevard	AM	One – Way	12.9 s/v	B	13.9 s/v	B
	PM	Stop	12.6 s/v	B	13.4 s/v	B

Notes:

s/v = seconds per vehicle (delay)

9.2 Queuing Analysis For Project Access Locations

In response to San Bernardino County staff concerns, stacking/storage requirements at the proposed project driveway located along Valley Boulevard was evaluated. The queuing evaluation was conducted based on Year 2035 plus Project peak hour driveway traffic volumes and the Highway Capacity Manual (HCM) unsignalized methodology.



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LINSCOTT LAW & GREENSPAN engineers

N

SCALE: 1"=60'

FIGURE 9-1

CONCEPTUAL IMPROVEMENT PLAN FOR PROJECT DRIVEWAY AT VALLEY BOULEVARD

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO

Project Driveway at Valley Boulevard: Based on the HCM service level calculation, which calculates a critical (95th percentile) queue value in number of vehicles, the AM peak hour and PM peak hour queue length is not more than one (1) vehicle for the eastbound left-turn movement on Valley Boulevard at the Project Driveway. The AM peak hour and PM peak hour queue is not more than one (1) vehicle for the southbound (outbound) movements at the Project Driveway. Review of *Figure 9-1* indicates that a two-way-left-turn-lane will be provided with stacking sufficient to accommodate more than one (1) vehicle. Further review of *Figure 9-1* indicates that one outbound lane is provided with stacking sufficient to accommodate more than one (1) vehicle.

9.3 Cypress Avenue at Valley Boulevard Queuing Analysis

To address County staff concerns regarding stacking/storage requirements for the eastbound left-turn lane at the intersection of Cypress Avenue/Valley Boulevard, a queuing evaluation was conducted based on projected Year 2035 plus project peak hour traffic volumes and the HCM unsignalized methodology. Given that the proposed Project Driveway along Valley Boulevard is located 158 feet west of the Cypress Avenue/Valley Boulevard intersection (refer to *Figure 9-1* for the measured distance), County staff wants to ensure that the intersection of Cypress Avenue/Valley Boulevard provides adequate storage for vehicles making an eastbound left-turn at the intersection and that vehicles do not queue past the proposed Project Driveway, thus blocking access to and from the site.

Cypress Avenue at Valley Boulevard: Based on the HCM service level calculation, which calculates a critical (95th percentile) queue value in number of vehicles, the AM peak hour and PM peak hour queue length is not more than one (1) vehicle for the eastbound left-turn movement on Valley Boulevard at Cypress Avenue. Review of *Figure 9-1* indicates that with the recommended restriping improvements along Valley Boulevard, one 60-foot eastbound left-turn lane is provided at the intersection of Cypress Avenue/Valley Boulevard, which is sufficient storage for more than one (1) vehicle. Therefore, eastbound left-turning vehicles at the intersection of Cypress Avenue/Valley Boulevard will not queue past the proposed project driveway and adequate access will be provided.

Appendix D also presents the Year 2035 plus project queuing calculation worksheets for the intersection of Cypress Avenue/Valley Boulevard.

9.4 Gate Stacking Evaluation

The following section summarizes the required storage reservoir for the project's gated entry located along Valley Boulevard using the Crommelin Methodology.

9.4.1 Crommelin Methodology

The Crommelin Methodology determines the minimum storage reservoir required to provide adequate access and control at gated entries. Experience has proven that poorly designed gated entries with inadequate storage capacities often times create an adverse effect on the operating characteristics of the street network. The Crommelin Methodology virtually eliminates this scenario as it ensures the design of an efficient, well-working access system with minimum impacts upon the surrounding street system.

The methodology is based on a Poisson distribution, peak hour traffic volumes, gate control strategies, processing rates at a control point, and the number of travel lanes. These characteristics are used to calculate a traffic intensity factor value (IF), which is derived by dividing the peak hour traffic volumes by the design processing rate. The IF value is then plotted on the 99% confidence level curve (where storage capacity will not be exceeded 99 times of 100) per the Crommelin Reservoir Needs nomograph (See *Appendix D*). This process ultimately estimates the maximum number of queuing vehicles that will store behind the service position vehicle at the control point. This number is rounded up to the nearest vehicle and added to the single service position vehicle, resulting in the total number of vehicles stored behind the control point. The required storage capacity, in vehicles, is converted into a length (feet) by multiplying the number of expected vehicles by a vehicle length of 22 feet.

9.4.2 Vehicular Stacking Analysis

Table 9-2 presents a summary of the vehicular stacking analysis for inbound visitor/guest traffic at the proposed project's gated entry located along Valley Boulevard. Please note that this queuing analysis conservatively assumes that 25% of inbound "apartment" project traffic during the AM and PM peak hours will be visitors/guests. In addition, a conservative design service/processing rate of 60 vehicles per hour was assumed (which is equivalent to a processing rate of one vehicle every 60 seconds) for visitors/guests to the site.

As shown in column five (5) of *Table 9-2*, the proposed project's gated entry located along Valley Boulevard is expected to have a maximum queue of two (2) "visitor/guest" vehicles during the AM peak hour and PM peak hour. As shown in column six (6), this queue will require a storage reservoir length of approximately 44 feet between the call box and the back of sidewalk to satisfy the maximum vehicle queue. Review of the project site plan shows that the storage reservoir length is approximately 100 feet; therefore the project driveway will provide adequate storage.

9.5 Internal Circulation Evaluation

The on-site circulation layout of the proposed Project as illustrated in *Figure 2-1* on an overall basis is adequate. Curb return radii have been confirmed and are generally adequate for small service/delivery (FedEx, UPS) trucks and trash trucks.

TABLE 9-2

VEHICULAR QUEUING ANALYSIS SUMMARY

Project Driveway	Time Period	(1) Entering Traffic Volumes (veh/hr)[8]	(2) Service Rate (veh/hr)	(3) Traffic Intensity Factor (I)	(4) Required Reservoir Behind Service Position	(5) Add Vehicle Waiting at Call Box (4) + 1 vehicle	(6) Required Storage Capacity (5) * 22 feet
▪ Project Driveway at Valley Boulevard	AM	3	60	0.050	1 vehicle	2 vehicles	44 ft
	PM	12	60	0.200	1 vehicle	2 vehicles	44 ft

[8] Conservatively assumes that 25% of the inbound "apartment" AM and PM peak hour traffic volume at the proposed project driveway along Valley Boulevard is associated with visitors/guests.

10.0 RECOMMENDED IMPROVEMENTS

10.1 Existing Plus Project Traffic Conditions

The results of the intersection capacity analysis presented previously in *Table 8-1* shows that the proposed Project will not significantly impact the four (4) key study intersections under the "Existing Plus Project" traffic scenario. Given that there are no significant project impacts, no improvements are required under this traffic scenario.

10.2 Year 2018 Plus Project Traffic Conditions

The results of the intersection capacity analysis presented previously in *Table 8-2* shows that the proposed Project will not significantly impact the four (4) key study intersections under the "Year 2018 Plus Project" traffic scenarios. Given that there are no significant project impacts, no improvements are required under this traffic scenario.

10.3 Year 2035 Plus Project Traffic Conditions

The results of the intersection capacity analysis presented previously in *Table 8-3* shows that the proposed Project will not significantly impact the four (4) key study intersections under the "Year 2035 Plus Project" traffic scenarios. Given that there are no significant project impacts, no improvements are required under this traffic scenario.

10.4 Project Specific Improvements

The following improvements are recommended to ensure adequate access and egress to the project site is provided:

- Install a "STOP" sign and stop bar at the project driveway on Valley Boulevard.

- Install a "STOP" sign and stop bar at the project driveway on Cypress Avenue.

- It is recommended that Valley Boulevard be restriped along the project frontage to provide a two-way-left-turn-lane. It is also recommended that the existing eastbound left-turn lane at the intersection of Cypress Avenue/Valley Boulevard be restriped to provide 60 feet of storage with a 90 foot transition (refer to *Figure 9-1*).

11.0 SUMMARY OF FINDINGS AND CONCLUSIONS

- ***Project Description*** – The project site is located on the northwest quadrant of Cypress Avenue and Valley Boulevard in the County of San Bernardino, California. The proposed Project consists of a 112-unit apartment complex and a day care center for up to 50 students. The 112-unit apartment complex will consist of 30 one-bedroom units, 48 two-bedroom units and 34 three-bedroom units. The proposed Project is expected to open by the Year 2018.

  Vehicular access to the proposed project site will be provided via one full access unsignalized driveway located along Valley Boulevard. The proposed access point along Valley Boulevard will be gated; however the proposed gate will be located beyond the parking spaces allocated for the day care center. An additional resident egress only driveway will be provided along Cypress Avenue, located directly opposite H Street. The resident egress only driveway will also be gated.

- ***Study Scope*** – The following four (4) intersections were selected for analysis based on County of San Bernardino requirements and through application of San Bernardino County Congestion Management Program (CMP) criteria.

  Key Study Intersections:

  1. Cypress Avenue at H Street (County of San Bernardino)
  2. Pepper Avenue at Valley Boulevard (City of Colton)
  3. Cypress Avenue at Valley Boulevard (County of San Bernardino)
  4. Rancho Avenue at Valley Boulevard (City of Colton)

  Detailed peak hour level of service analyses were prepared for Existing Traffic Conditions, Existing plus Project Traffic Conditions, Existing plus Ambient Growth (Year 2018) Traffic Conditions, Existing plus Ambient Growth (Year 2018) plus Project Traffic Conditions, Year 2018 Cumulative Traffic Conditions, Existing plus Ambient Growth (Year 2035) Traffic Conditions, Existing plus Ambient Growth (Year 2035) plus Project Traffic Conditions and Year 2035 Cumulative Traffic Conditions at these locations.

- ***Existing Traffic Conditions*** – The four (4) key study intersections currently operate at LOS C or better during the AM and PM peak hours.

- ***Project Trip Generation*** – On a typical weekday, the proposed Project can be expected to generate approximately 964 daily trips, with 97 trips (32 inbound, 65 outbound) produced in the AM peak hour and 110 trips (64 inbound, 46 outbound) produced in the PM peak hour.

- ***Cumulative Projects Trip Generation*** – On a typical weekday, the ten (10) cumulative projects are forecast to generate 25,666 daily trips, with 1,592 trips (1,070 inbound and 522 outbound) forecast during the AM peak hour and 1,568 trips (735 inbound and 833 outbound) forecast during the PM peak hour.

- ***Existing Plus Project Traffic Conditions*** – The results of the "Existing Plus Project" analysis indicates that traffic associated with the proposed Project ***will not*** significantly impact the four (4) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. The four (4) key study intersections currently operate and are forecast to continue to operate at an acceptable service level during the AM and PM peak hours with the addition of Project generated traffic to existing traffic.

- ***Existing Plus Ambient Growth to the Year 2018 Plus Project Traffic Conditions*** – The proposed Project ***will not*** significantly impact any of the four (4) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS with the addition of ambient growth traffic and Project generated traffic in the Year 2018.

- ***Year 2018 Cumulative Traffic Conditions*** – The four (4) key study intersections ***will not*** be cumulatively impacted by the proposed Project. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS with the addition of ambient growth traffic, cumulative traffic and project traffic in the Year 2018.

- ***Existing Plus Ambient Growth to the Year 2035 Plus Project Traffic Conditions*** – The proposed Project ***will not*** significantly impact any of the four (4) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS with the addition of ambient growth traffic and Project generated traffic in the Year 2035.

- ***Year 2035 Cumulative Traffic Conditions*** – The four (4) key study intersections ***will not*** be cumulatively impacted by the proposed Project. The four (4) key study intersections are forecast to continue to operate at an acceptable LOS with the addition of ambient growth traffic, cumulative traffic and project traffic in the Year 2035.

- ***Site Access and Internal Circulation Evaluation –*** Site access and internal circulation for the Project site plan is adequate. Adequate storage is provided for the proposed project's gated entry along Valley Boulevard. Curb return radii have been confirmed and are adequate for small service/delivery (Fedex, UPS) trucks and trash trucks.

  Adequate storage is also provided for the eastbound left-turn movement on Valley Boulevard at Cypress Avenue in the Year 2035. As discussed in Section 9.3 of this report, the AM peak hour and PM peak hour queue length is not more than one (1) vehicle for the eastbound left-turn movement on Valley Boulevard at Cypress Avenue. With the recommended restriping improvements along Valley Boulevard shown in *Figure 9-1*, one 60-foot eastbound left-turn lane is provided at the intersection of Cypress Avenue/Valley Boulevard, which is sufficient storage for more than one (1) vehicle. Therefore, eastbound left-turning vehicles at the intersection of Cypress Avenue/Valley Boulevard will not queue past the proposed project driveway and adequate access will be provided.

- ***Project Specific Improvements –*** The following improvements are recommended to ensure adequate access and egress to the project site is provided:

  - Install a "STOP" sign and stop bar at the project driveway on Valley Boulevard.
  - Install a "STOP" sign and stop bar at the project driveway on Cypress Avenue.
  - It is recommended that Valley Boulevard be restriped along the project frontage to provide a two-way-left-turn-lane. It is also recommended that the existing eastbound left-turn lane at the intersection of Cypress Avenue/Valley Boulevard be restriped to provide 60 feet of storage with a 90 foot transition (refer to *Figure 9-1*).

APPENDIX A

SCOPE OF WORK

SCOPE FOR TRAFFIC STUDY

Project Name:	Las Terrazas Project

This Scope for Traffic Study acknowledges San Bernardino County Department of Public Works, Traffic Division requirements of traffic impact analysis for the project and is subject to change:

Project Address:	Northwest quadrant of Cypress Avenue and Valley Boulevard		
Project Description:	▪ 112-unit apartment complex and 50-student day care center ▪ Access to the site will be provided via one full access gated driveway along Valley Boulevard. Emergency only access will be provided along Cypress Avenue. ▪ (See attached Figure 2-1 Proposed Site Plan)		
City:	County of San Bernardino		
Project Buildout Year:	~~2017~~ 2018	**Ambient Growth Rate per Year:**	2.0%
Closest Intersection (Xtn) to the Project			
Xtn N/S Street Name:	Cypress Avenue		
Xtn E/W Street Name:	Valley Boulevard		
Thomas Guide Pg+Grid:	606, B6	**County Supervisorial District:**	---

	Engineer	Developer
Company:	LLG Engineers	AMCAL Multi-Housing
Name:	Daniel A. Kloos, P.E.	Jay Ross
Address:	2 Executive Circle, Suite 250	30141 Agoura Road, Suite 100
City, State, Zip Code:	Irvine, CA 92614	Agoura Hills, CA 91301
Phone #:	(949) 825-6175	(818) 706-0694
Fax #:	(949) 825-6173	---
Email:	kloos@llgengineers.com	jay@amcalhousing.com

By: Daniel A Kloos

Print Name: Daniel A. Kloos **8-25-14**

Consultant/Developer's Representative **Date**

Reviewed By:

Print Name:

Traffic Division Representative **Date**

SCOPE FOR TRAFFIC STUDY

Project Name:	Las Terrazas Project

1. Traffic Distribution: Please insert or attach Figure(s) illustrating project trip distribution in percentages and volumes at the study intersections analyzed.

See attached Figure 5-1 Project Traffic Distribution Pattern

2. Trip Credit: Exact amount of credit subject to approval by Traffic Division.

Transportation Demand Management (TDM)	Yes/no	
Existing Active Land Use	Yes/no	
Previous Land Use	Yes/no	
Internal Trip Reduction	Yes/no	
Pass-by Trip Reduction	Yes/no	

3. Related Projects: Consultant should check with Planning in the San Bernardino County Department of Land Use Services and planning departments of adjoining Cities. Documentation of the consultation from these agencies shall be included in the traffic study. Related projects list shall be submitted to Traffic Division for our review and approval before being incorporated in the study.

4. Freeway Analysis: The potential traffic impact on the following Freeway(s) must be considered.

N/A

The applicant shall consult with the State of California Department of Transportation (Caltrans) to determine the California Environmental Quality Act levels of significance with regard to traffic impacts on Caltrans' freeway facilities. This consultation shall also include a determination of Caltrans requirements for the study of traffic impacts to its facilities and the mitigation of any such impacts. This analysis must follow the most current Caltrans' Guide for the Preparation of Traffic Impact Studies (December 2002) and can be obtained from http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tiguide.pdf. If Caltrans finds that the project has a significant impact on the freeway, Caltrans shall be requested to include the basis for this finding in their response. If fees are proposed to mitigate the freeway impact, Caltrans shall be requested to identify the specific project to which the fees will apply. These written comments from Caltrans shall be included with the traffic study and submitted to Public Works for review and approval. If a documented good faith effort is made to consult with Caltrans and written comments cannot be obtained from within a reasonable amount of time, an analysis of the freeway impact shall be made using HCM procedures. Appendix A of the SANBAG CMP outlines allowable modifications to these procedures. The SANBAG CMP can be viewed online at: http://www.sanbag.ca.gov/planning/subr_congestion.html

SCOPE FOR TRAFFIC STUDY

Project Name:	Las Terrazas Project

5. Trip Generation – See attached Table 5-1 Project Traffic Generation Forecast

Trip Generation Rate(s) Source: ITE Trip Generation	I – Institute of Transportation Engineers; S – San Diego Traffic Generators; C – County; O – Other:	Edition:	9th

Land Use Code	Land Use	Rate Based on	Qty	*AVTE vs	ADT	Weekday a.m. peak		Weekday p.m. peak		Weekend peak hour	
						In	Out	In	Out	In	Out
220	Apartments	I	112 DU		745	11	46	45	24	---	---
565	Day Care Center	I	50 Students		219	21	19	19	22	---	---
				Total	**964**	**32**	**65**	**64**	**46**	**---**	**---**

A-3

* - Average Vehicle Trip Ends.
For ITE Land Uses provide number and name of Land Use. e.g. LU 814 - Variety Store

SCOPE FOR TRAFFIC STUDY

Project Name:	Las Terrazas Project

6. Study Intersections: At minimum, the study shall include the following intersections. The list is subject to change after related projects, trip generation and distribution are determined. Consultant should check with adjoining Cities regarding their requirements in addition to the following County/City intersections. Documentation of the consultation from these agencies shall be included in the traffic study.

Xtn #	% County	Thomas Guide Page+Grid	N-S/E-W Street Name	City	Signalized	CMP
1	100%	606, B6	Cypress Avenue at H Street	SB County	Yes/no	Yes/no
2	0%	606, A6	Pepper Avenue at Valley Boulevard	Colton	Yes/no	Yes/no
3	100%	606, B6	Cypress Avenue at Valley Boulevard	SB County	Yes/no	Yes/no
4	0%	606, C6	Rancho Avenue at Valley Boulevard	Colton	Yes/no	Yes/no
5	100%	606, B6	Project Driveway at Valley Boulevard	SB County	Yes/no	Yes/no
6					Yes/no	Yes/no
7					Yes/no	Yes/no
8					Yes/no	Yes/no
9					Yes/no	Yes/no
10					Yes/no	Yes/no

A-4

Cites to be consulted: **See attached Figure 1-1 Vicinity Map**

SCOPE FOR TRAFFIC STUDY

Project Name:	Las Terrazas Project

7. Other:

Traffic counts may be conducted immediately per the following:
• Must be taken on Tuesdays, Wednesdays or Thursdays.
• Must exclude holidays, and the first weekdays before and after the holiday.
• Must be taken on days when local schools or colleges are in session.
• Must be taken on days of good weather, and avoid atypical conditions (e.g., road construction, detours, or major traffic incidents).
• Traffic counts used for other traffic studies in the area shall **NOT** be reused again, unless 25% of the counts conducted for that particular traffic study are validated with new counts. The difference in volumes between the old and new counts at each corresponding movement should not be more than 10%.
• New traffic counts shall be checked to ensure the difference in volumes at corresponding approaches, if applicable, between two adjacent intersections is no more than 10% unless the difference can be justified.
• For all proposed mitigation measures, a conceptual plan for the improvements shall be submitted to our Traffic Studies section for review and approval prior to the approval of the Traffic Impact Analysis. All proposed improvements shall be within the right-of-way.
• For all cumulative mitigation measures, a cost estimate for the improvement shall be submitted.
• Based on discussions with County of San Bernardino staff, Year 2035 peak hour traffic forecasts without the proposed Project will be projected by increasing existing traffic volumes by a compounded annual growth rate of 1.0%.

This analysis must follow the most current Traffic Impact Study Guidelines for the County as stated in the County's Road Planning and Design Standards.

8. Fees

The County charges on an actual cost basis for review of traffic studies. An initial deposit of $3400 is required at the time that a land use application is filed with the Department of Land Use Services If the review costs exceed the initial deposit, the applicant will be expected to provide additional funds and the review will be suspended until the additional funds are deposited.

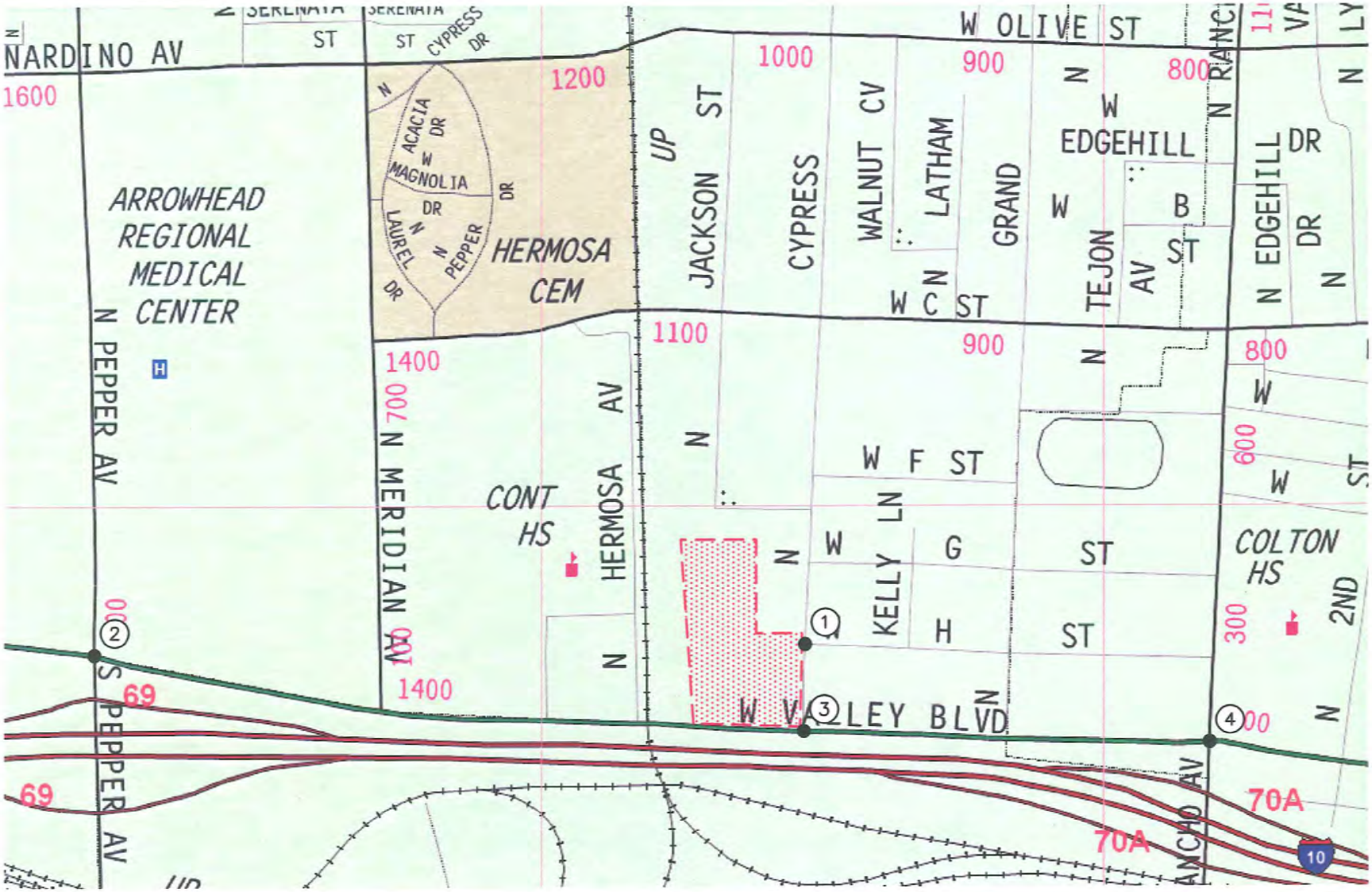
Project Name:	Las Terrazas Project

9. Contact Information:

Please submit a signed copy of this scope for approval by the Traffic Division. Draft scopes may be sent electronically. Final scope with signature should be submitted in person or by US Mail to:

County of San Bernardino
Dept. of Public Works, Traffic Division
825 E. 3rd Street, Rm 115
San Bernardino, CA 92415-0835

Phone: 909-387-8186
Fax: 909-387-7809
Email: epetre@dpw.sbcounty.gov (Ed Petre)



A-7

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: THOMAS BROS.

KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 1-1

VICINITY MAP

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO

n:\3300\21233336 - las terrazas project, county of san bernardino\dwg\333611-1.dwg LDP 08:24:02 03-14-2013 aguilar

n:\3300\2123336 - las terrazas project, county of san bernardino\dwg\3336f2-1.dwg LDP 15:54:00 08-25-2014 aguilar

A-8

LINSCOTT LAW & GREENSPAN engineers

N

NO SCALE

SOURCE: WITHEE MALCOLM ARCHITECTS

(refer to most current plan in the TIA)

FIGURE 2-1

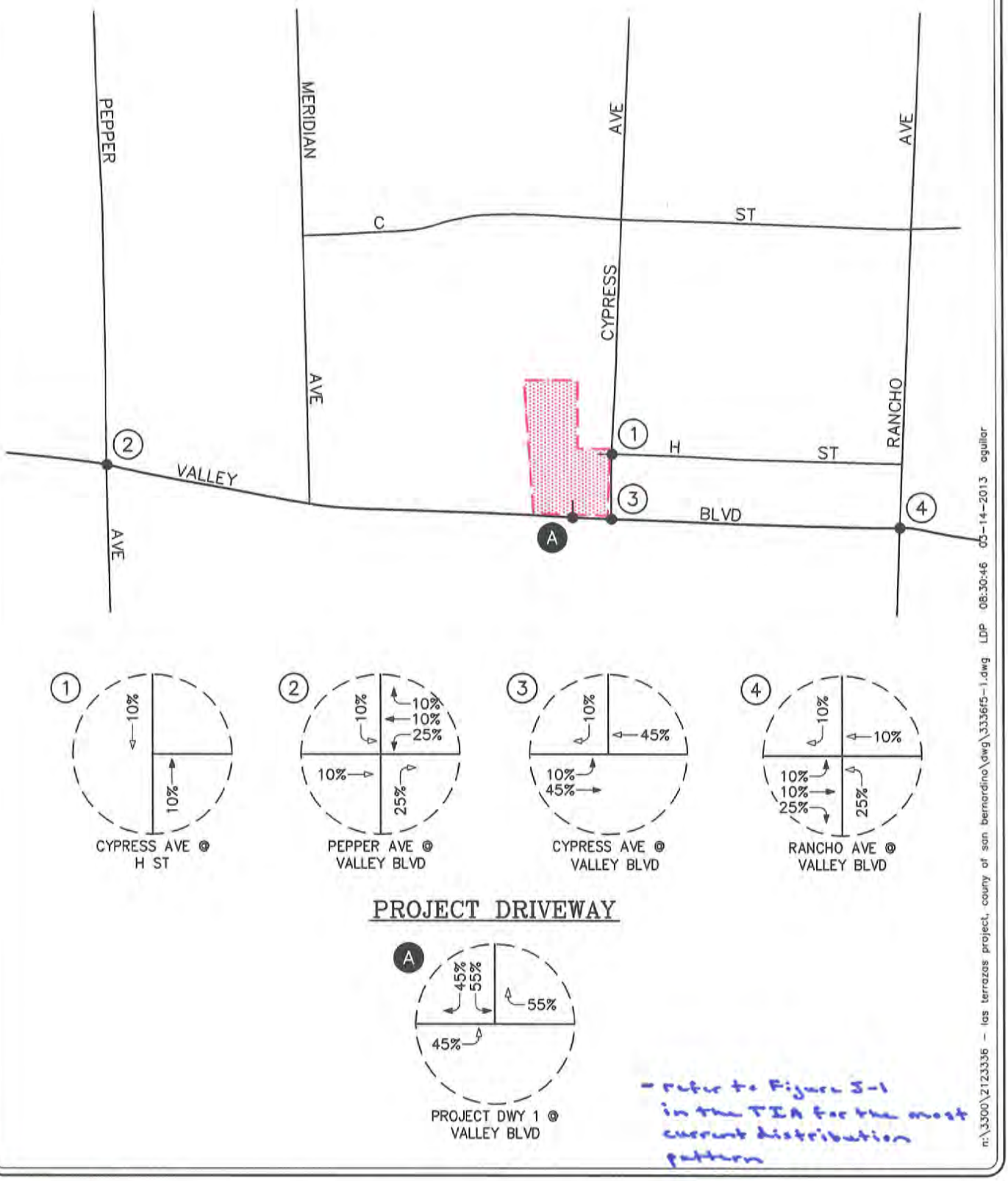
PROPOSED SITE PLAN

LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO

TABLE 5-1
PROJECT TRAFFIC GENERATION FORECAST[3]

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Factors:							
▪ 220: Apartments (TE/DU)	6.65	0.10	0.41	0.51	0.40	0.22	0.62
▪ 565: Day Care Center (TE/Student)	4.38	0.42	0.38	0.80	0.38	0.43	0.81
Generation Forecast:							
▪ Las Terrazas – Apartments (112 DU)	745	11	46	57	45	24	69
▪ Las Terrazas – Day Care Center (50 Students)	219	21	19	40	19	22	41
Traffic Generation Forecast	**964**	**32**	**65**	**97**	**64**	**46**	**110**

[3] Source: *Trip Generation*, 9th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2012).



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY
⇦ = INBOUND PERCENTAGE
⇦ = OUTBOUND PERCENTAGE
▭ = PROJECT SITE

FIGURE 5-1

PROJECT TRAFFIC DISTRIBUTION PATTERN
LAS TERRAZAS PROJECT, COUNTY OF SAN BERNARDINO

APPENDIX B

EXISTING TRAFFIC COUNT DATA

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: COLTON
N-S Direction: CYPRESS AVENUE
E-W Direction: H STREET

File Name : H1405047
Site Code : 00000000
Start Date : 5/13/2014
Page No : 1

Groups Printed- Vehicles

	CYPRESS AVENUE Southbound			H STREET Westbound			CYPRESS AVENUE Northbound			DEAD END Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	0	16	1	4	0	1	1	7	0	0	0	0	30
07:15 AM	0	22	2	2	0	5	3	7	0	0	0	0	41
07:30 AM	0	26	3	1	0	1	0	5	0	0	0	0	36
07:45 AM	0	10	0	1	0	0	1	6	0	0	0	0	18
Total	0	74	6	8	0	7	5	25	0	0	0	0	125
08:00 AM	0	14	2	2	0	0	1	4	0	0	0	0	23
08:15 AM	0	7	0	0	0	0	0	4	0	0	0	0	11
08:30 AM	0	6	0	1	0	0	0	3	0	0	0	0	10
08:45 AM	0	5	1	1	0	0	0	5	0	0	0	0	12
Total	0	32	3	4	0	0	1	16	0	0	0	0	56
*** BREAK ***													
04:00 PM	0	14	0	0	0	0	1	18	0	0	0	0	33
04:15 PM	0	17	1	0	0	2	2	13	0	0	0	0	35
04:30 PM	0	8	1	1	0	1	3	14	0	0	0	0	28
04:45 PM	0	11	3	2	0	0	3	17	0	0	0	0	36
Total	0	50	5	3	0	3	9	62	0	0	0	0	132
05:00 PM	0	16	0	5	0	1	1	14	0	0	0	0	37
05:15 PM	0	10	1	2	0	1	1	17	0	0	0	0	32
05:30 PM	0	9	0	3	0	1	1	20	0	0	0	0	34
05:45 PM	0	11	1	0	0	1	1	16	0	0	0	0	30
Total	0	46	2	10	0	4	4	67	0	0	0	0	133
Grand Total	0	202	16	25	0	14	19	170	0	0	0	0	446
Apprch %	0	92.7	7.3	64.1	0	35.9	10.1	89.9	0	0	0	0	
Total %	0	45.3	3.6	5.6	0	3.1	4.3	38.1	0	0	0	0	

Transportation Studies, Inc.
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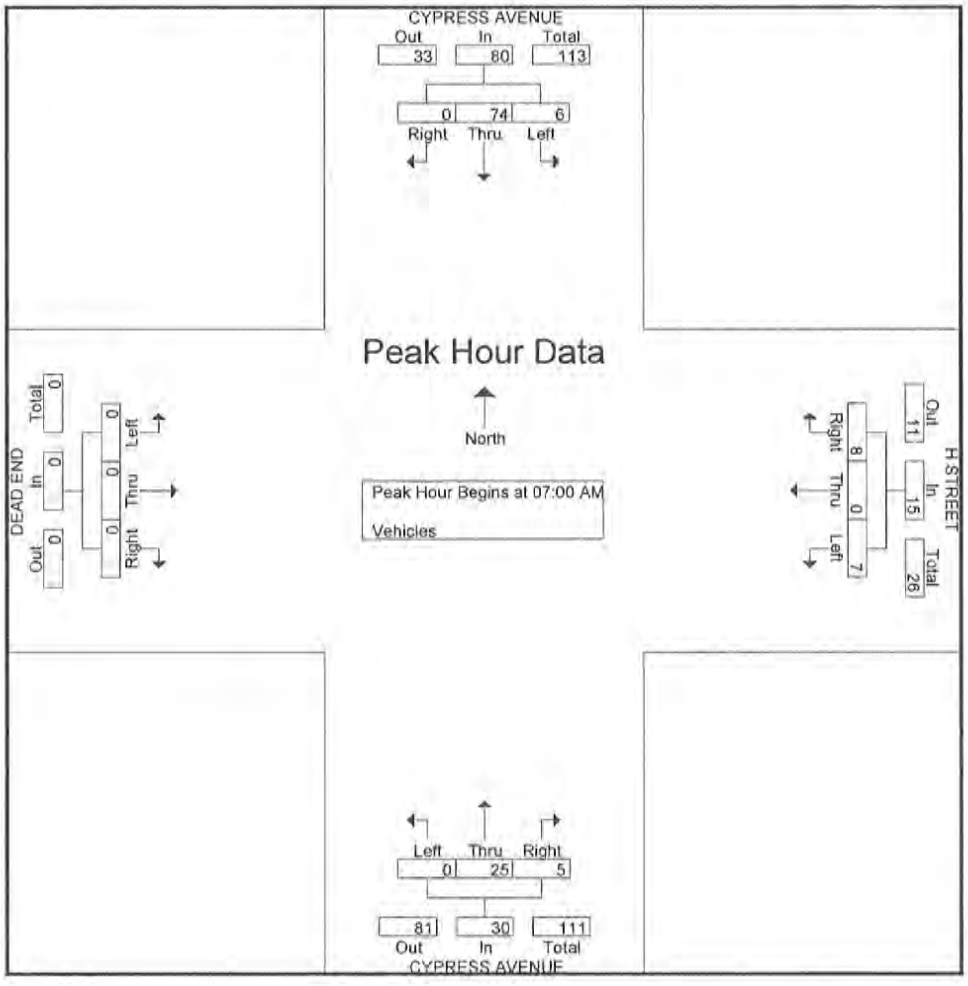
Tustin, CA. 92780

City: COLTON
N-S Direction: CYPRESS AVENUE
E-W Direction: H STREET

File Name : H1405047
Site Code : 00000000
Start Date : 5/13/2014
Page No : 2

	CYPRESS AVENUE Southbound				H STREET Westbound				CYPRESS AVENUE Northbound				DEAD END Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	16	1	17	4	0	1	5	1	7	0	8	0	0	0	0	30
07:15 AM	0	22	2	24	2	0	5	7	3	7	0	10	0	0	0	0	41
07:30 AM	0	26	3	29	1	0	1	2	0	5	0	5	0	0	0	0	36
07:45 AM	0	10	0	10	1	0	0	1	1	6	0	7	0	0	0	0	18
Total Volume	0	74	6	80	8	0	7	15	5	25	0	30	0	0	0	0	125
% App. Total	0	92.5	7.5		53.3	0	46.7		16.7	83.3	0		0	0	0		
PHF	.000	.712	.500	.690	.500	.000	.350	.536	.417	.893	.000	.750	.000	.000	.000	.000	.762



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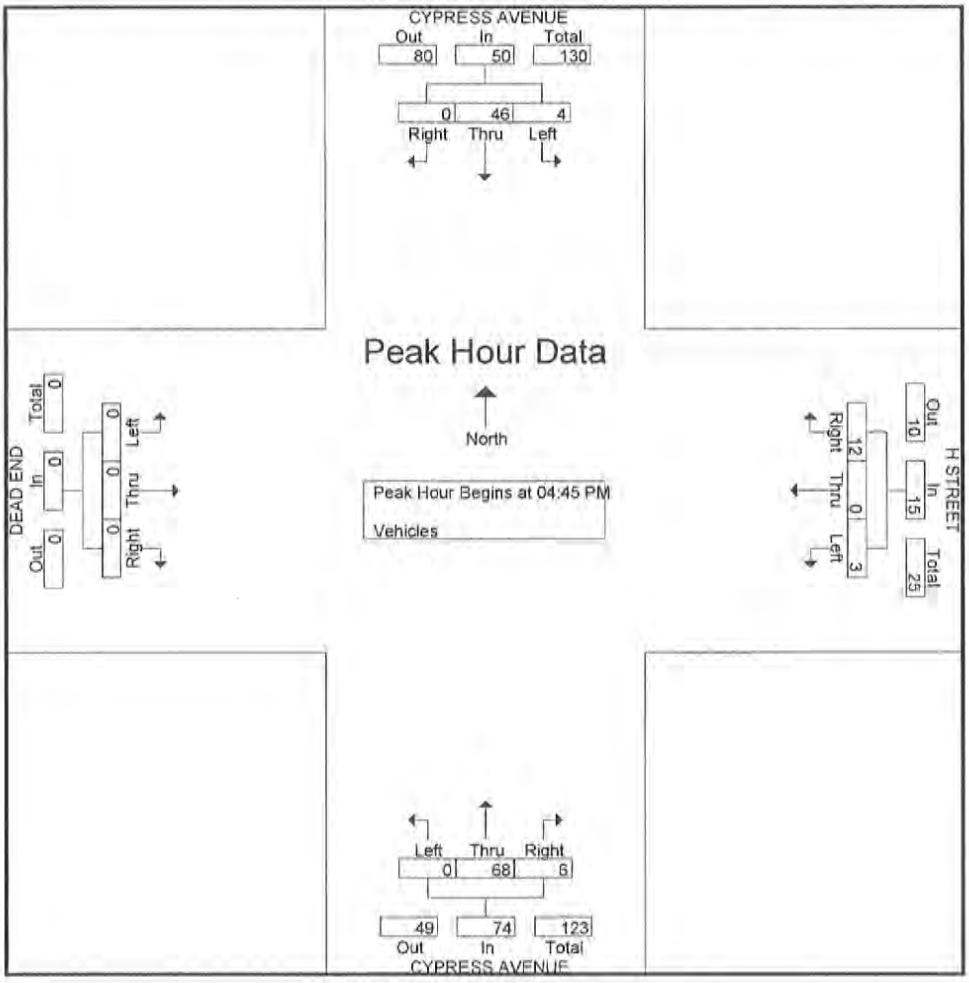
City: COLTON
N-S Direction: CYPRESS AVENUE
E-W Direction: H STREET

File Name : H1405047
Site Code : 00000000
Start Date : 5/13/2014
Page No : 3

	CYPRESS AVENUE Southbound				H STREET Westbound				CYPRESS AVENUE Northbound				DEAD END Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	11	3	14	2	0	0	2	3	17	0	20	0	0	0	0	36
05:00 PM	0	16	0	16	5	0	1	6	1	14	0	15	0	0	0	0	37
05:15 PM	0	10	1	11	2	0	1	3	1	17	0	18	0	0	0	0	32
05:30 PM	0	9	0	9	3	0	1	4	1	20	0	21	0	0	0	0	34
Total Volume	0	46	4	50	12	0	3	15	6	68	0	74	0	0	0	0	139
% App. Total	0	92	8		80	0	20		8.1	91.9	0		0	0	0		
PHF	.000	.719	.333	.781	.600	.000	.750	.625	.500	.850	.000	.881	.000	.000	.000	.000	.939



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: COLTON
N-S Direction: PEPPER AVENUE
E-W Direction: VALLEY BOULEVARD

File Name : H1405048
Site Code : 00000000
Start Date : 5/13/2014
Page No : 1

Groups Printed- Vehicles

	PEPPER AVENUE Southbound			VALLEY BOULEVARD Westbound			PEPPER AVENUE Northbound			VALLEY BOULEVARD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	9	208	8	12	20	50	16	206	29	22	27	11	618
07:15 AM	25	278	3	17	37	52	20	219	28	27	27	14	747
07:30 AM	16	243	6	6	46	68	13	193	32	40	29	15	707
07:45 AM	25	218	6	16	32	40	10	231	20	33	30	22	683
Total	75	947	23	51	135	210	59	849	109	122	113	62	2755
08:00 AM	11	176	6	8	31	34	12	159	10	26	13	17	503
08:15 AM	15	148	8	7	23	28	12	156	12	27	23	16	475
08:30 AM	9	166	5	6	19	26	8	133	21	21	25	17	456
08:45 AM	11	141	12	3	22	26	15	150	18	24	15	11	448
Total	46	631	31	24	95	114	47	598	61	98	76	61	1882
*** BREAK ***													
04:00 PM	18	190	12	10	37	24	30	179	25	23	47	20	615
04:15 PM	23	220	19	12	34	25	22	194	30	25	52	24	680
04:30 PM	16	196	5	16	33	30	28	165	25	38	44	22	618
04:45 PM	24	162	13	14	34	25	30	190	22	30	33	29	606
Total	81	768	49	52	138	104	110	728	102	116	176	95	2519
05:00 PM	15	166	10	12	28	29	34	171	24	32	53	24	598
05:15 PM	19	179	8	18	38	25	21	210	29	38	48	17	650
05:30 PM	17	156	8	11	29	27	25	184	29	30	25	21	562
05:45 PM	16	121	8	5	30	15	25	167	12	24	56	21	500
Total	67	622	34	46	125	96	105	732	94	124	182	83	2310
Grand Total	269	2968	137	173	493	524	321	2907	366	460	547	301	9466
Apprch %	8	88	4.1	14.5	41.4	44	8.9	80.9	10.2	35.2	41.8	23	
Total %	2.8	31.4	1.4	1.8	5.2	5.5	3.4	30.7	3.9	4.9	5.8	3.2	

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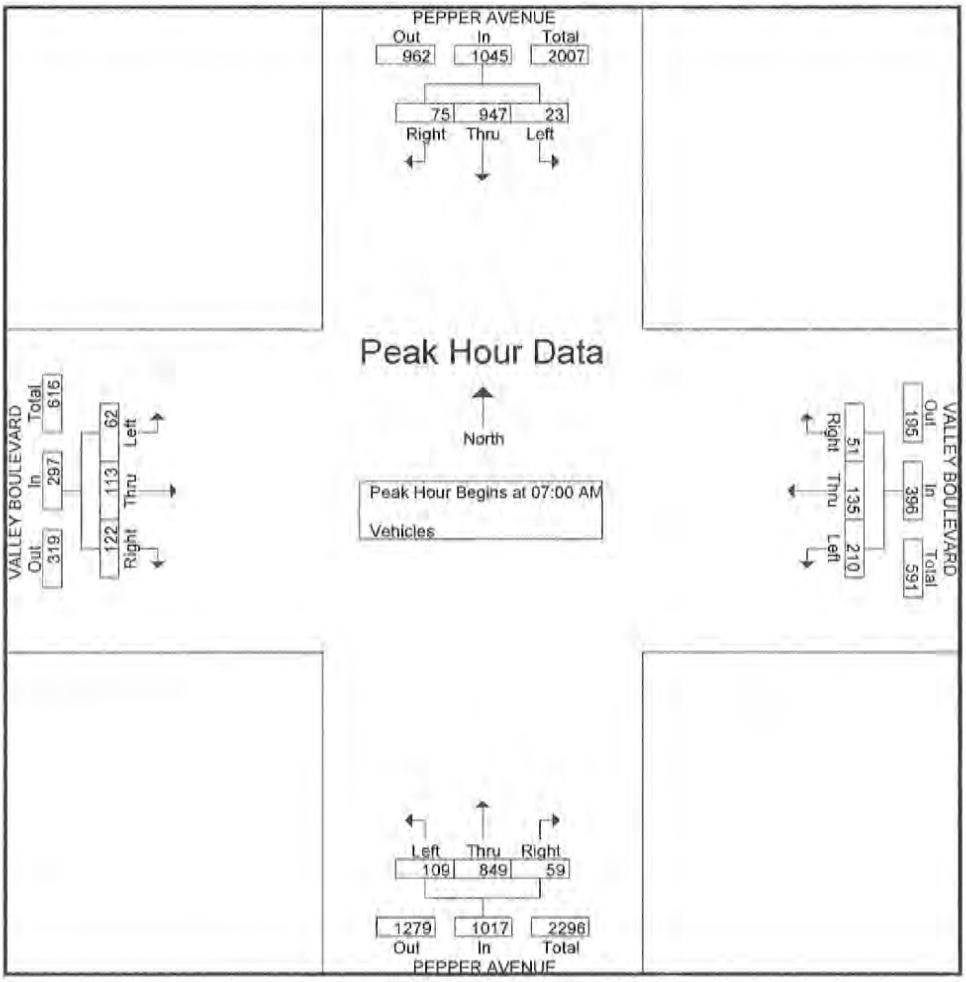
City: COLTON
N-S Direction: PEPPER AVENUE
E-W Direction: VALLEY BOULEVARD

File Name : H1405048
Site Code : 00000000
Start Date : 5/13/2014
Page No : 2

	PEPPER AVENUE Southbound				VALLEY BOULEVARD Westbound				PEPPER AVENUE Northbound				VALLEY BOULEVARD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	9	208	8	225	12	20	50	82	16	206	29	251	22	27	11	60	618
07:15 AM	**25**	**278**	3	**306**	**17**	37	52	106	**20**	219	28	**267**	27	27	14	68	**747**
07:30 AM	16	243	6	265	6	**46**	**68**	**120**	13	193	**32**	238	**40**	29	15	84	707
07:45 AM	25	218	6	249	16	32	40	88	10	**231**	20	261	33	**30**	**22**	**85**	683
Total Volume	75	947	23	1045	51	135	210	396	59	849	109	1017	122	113	62	297	2755
% App. Total	7.2	90.6	2.2		12.9	34.1	53		5.8	83.5	10.7		41.1	38	20.9		
PHF	.750	.852	.719	.854	.750	.734	.772	.825	.738	.919	.852	.952	.763	.942	.705	.874	.922



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2640 Walnut Avenue, Suite H
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City: COLTON
N-S Direction: PEPPER AVENUE
E-W Direction: VALLEY BOULEVARD

File Name : H1405048
Site Code : 00000000
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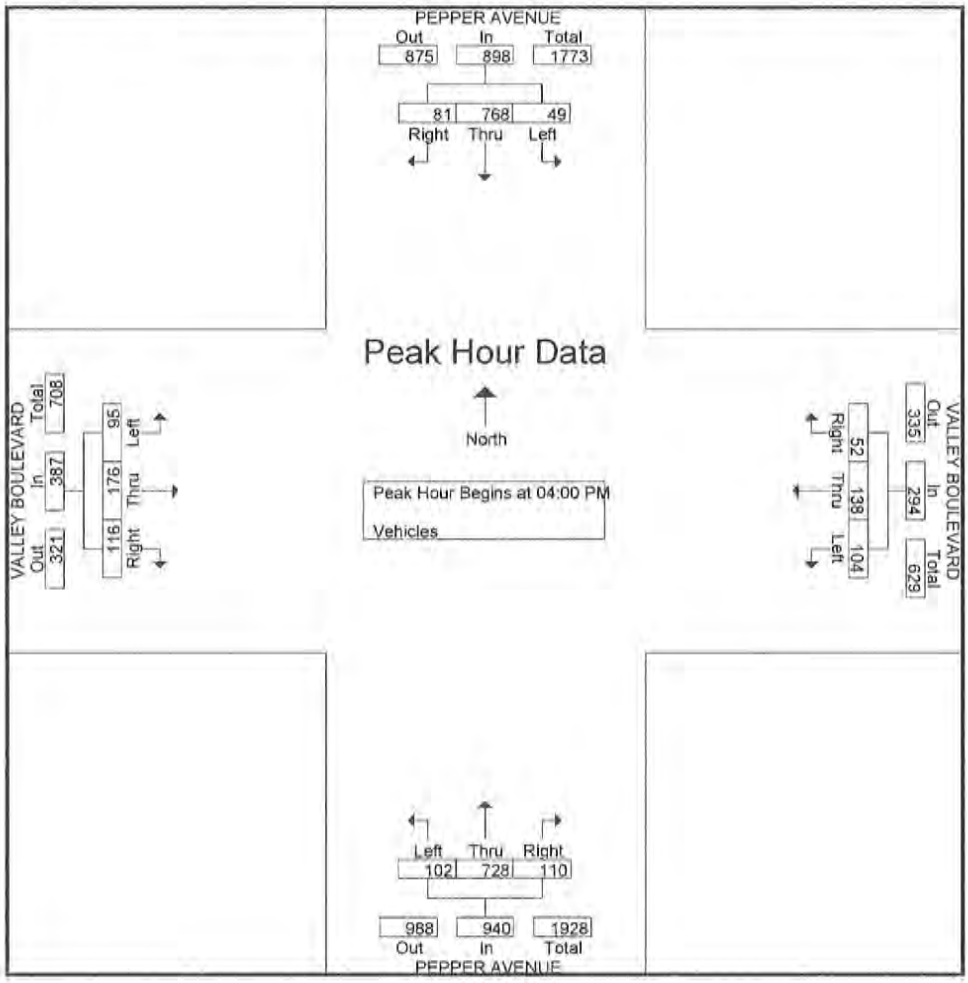
	PEPPER AVENUE Southbound				VALLEY BOULEVARD Westbound				PEPPER AVENUE Northbound				VALLEY BOULEVARD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	18	190	12	220	10	37	24	71	30	179	25	234	23	47	20	90	615
04:15 PM	23	220	19	262	12	34	25	71	22	194	30	246	25	52	24	101	680
04:30 PM	16	196	5	217	16	33	30	79	28	165	25	218	38	44	22	104	618
04:45 PM	24	162	13	199	14	34	25	73	30	190	22	242	30	33	29	92	606
Total Volume	81	768	49	898	52	138	104	294	110	728	102	940	116	176	95	387	2519
% App. Total	9	85.5	5.5		17.7	46.9	35.4		11.7	77.4	10.9		30	45.5	24.5		
PHF	.844	.873	.645	.857	.813	.932	.867	.930	.917	.938	.850	.955	.763	.846	.819	.930	.926



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: COLTON
N-S Direction: CYPRESS AVENUE
E-W Direction: VALLEY BOULEVARD

File Name : H1405049
Site Code : 00000000
Start Date : 5/13/2014
Page No : 1

Groups Printed- Vehicles

	CYPRESS AVENUE Southbound			VALLEY BOULEVARD Westbound			DEAD END Northbound			VALLEY BOULEVARD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	16	0	6	2	77	0	0	0	0	0	82	3	186
07:15 AM	10	0	9	3	106	0	0	0	0	0	81	4	213
07:30 AM	10	0	10	0	90	0	0	0	0	0	90	3	203
07:45 AM	6	0	6	2	65	0	0	0	0	0	91	2	172
Total	42	0	31	7	338	0	0	0	0	0	344	12	774
08:00 AM	6	0	2	0	47	0	0	0	0	0	52	3	110
08:15 AM	3	0	3	2	42	0	0	0	0	0	52	2	104
08:30 AM	3	0	2	2	42	0	0	0	0	0	55	1	105
08:45 AM	2	0	3	4	45	0	0	0	0	0	58	1	113
Total	14	0	10	8	176	0	0	0	0	0	217	7	432
*** BREAK ***													
04:00 PM	9	0	5	6	63	0	0	0	0	0	111	7	201
04:15 PM	3	0	9	4	65	0	0	0	0	0	101	5	187
04:30 PM	7	0	5	6	68	0	0	0	0	0	108	10	204
04:45 PM	6	0	6	6	74	0	0	0	0	0	82	11	185
Total	25	0	25	22	270	0	0	0	0	0	402	33	777
05:00 PM	10	0	4	3	72	0	0	0	0	0	114	8	211
05:15 PM	4	0	5	4	90	0	0	0	0	0	75	6	184
05:30 PM	8	0	4	15	73	0	0	0	0	0	72	4	176
05:45 PM	6	0	2	4	51	0	0	0	0	0	74	7	144
Total	28	0	15	26	286	0	0	0	0	0	335	25	715
Grand Total	109	0	81	63	1070	0	0	0	0	0	1298	77	2698
Apprch %	57.4	0	42.6	5.6	94.4	0	0	0	0	0	94.4	5.6	
Total %	4	0	3	2.3	39.7	0	0	0	0	0	48.1	2.9	

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City: COLTON
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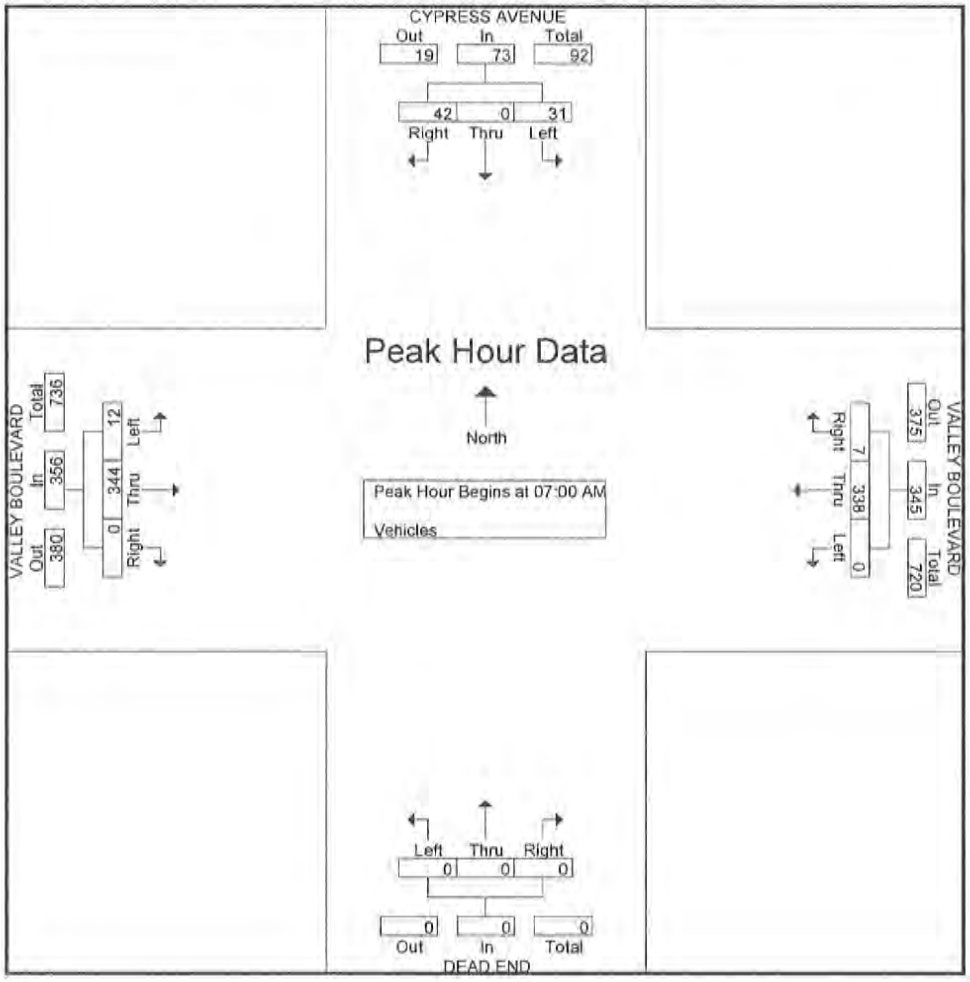
File Name : H1405049
Site Code : 00000000
Start Date : 5/13/2014
Page No : 2

	CYPRESS AVENUE Southbound				VALLEY BOULEVARD Westbound				DEAD END Northbound				VALLEY BOULEVARD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	**16**	0	6	**22**	2	77	0	79	0	0	0	0	0	82	3	85	186
07:15 AM	10	0	9	19	**3**	**106**	0	**109**	0	0	0	0	**0**	81	**4**	85	**213**
07:30 AM	10	0	**10**	20	0	90	0	90	0	0	0	0	0	90	3	**93**	203
07:45 AM	6	0	6	12	2	65	0	67	0	0	0	0	0	**91**	2	93	172
Total Volume	42	0	31	73	7	338	0	345	0	0	0	0	0	344	12	356	774
% App. Total	57.5	0	42.5		2	98	0		0	0	0		0	96.6	3.4		
PHF	.656	.000	.775	.830	.583	.797	.000	.791	.000	.000	.000	.000	.000	.945	.750	.957	.908

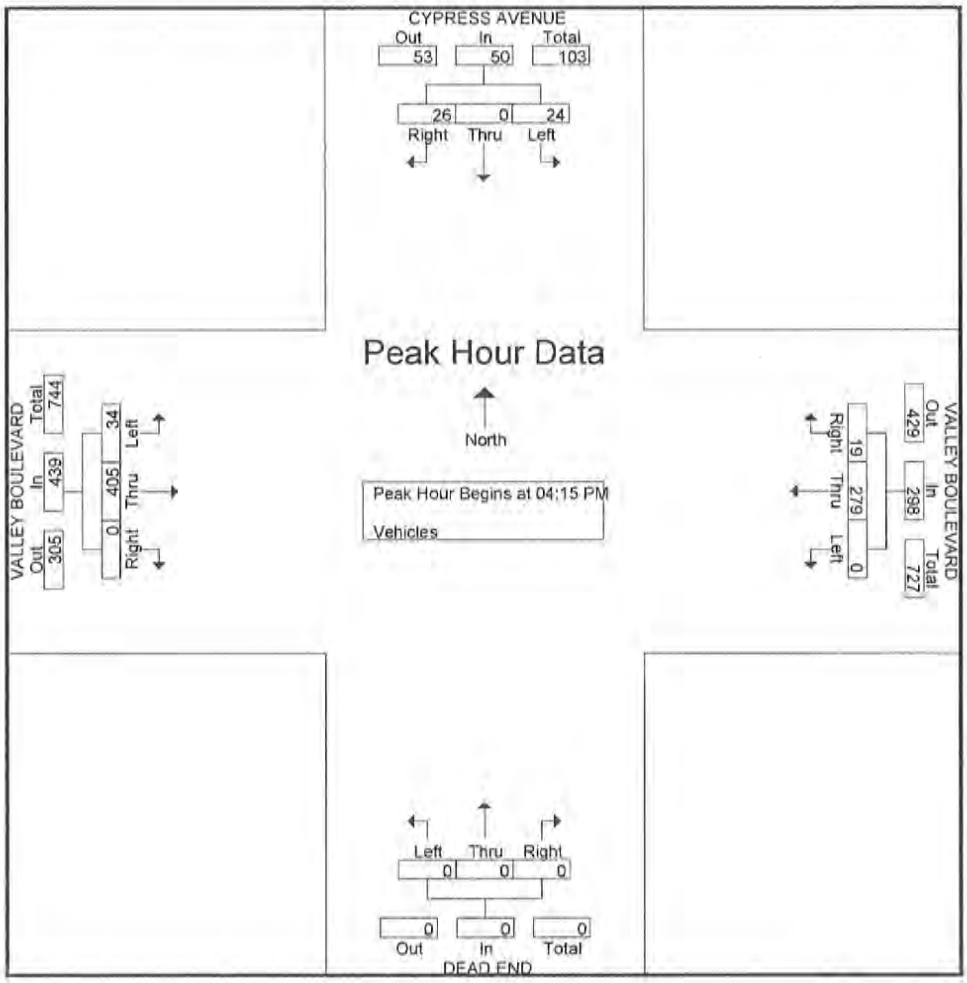


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA 92780

City: COLTON
N-S Direction: CYPRESS AVENUE
E-W Direction: VALLEY BOULEVARD

File Name : H1405049
Site Code : 00000000
Start Date : 5/13/2014
Page No : 3

	CYPRESS AVENUE Southbound				VALLEY BOULEVARD Westbound				DEAD END Northbound				VALLEY BOULEVARD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	3	0	9	12	4	65	0	69	0	0	0	0	0	101	5	106	187
04:30 PM	7	0	5	12	6	68	0	74	0	0	0	0	0	108	10	118	204
04:45 PM	6	0	6	12	6	74	0	80	0	0	0	0	0	82	11	93	185
05:00 PM	10	0	4	14	3	72	0	75	0	0	0	0	0	114	8	122	211
Total Volume	26	0	24	50	19	279	0	298	0	0	0	0	0	405	34	439	787
% App. Total	52	0	48		6.4	93.6	0		0	0	0		0	92.3	7.7		
PHF	.650	.000	.667	.893	.792	.943	.000	.931	.000	.000	.000	.000	.000	.888	.773	.900	.932



Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA 92780

City: COLTON
N-S Direction: RANCHO AVENUE
E-W Direction: VALLEY BOULEVARD

File Name : H1405050
Site Code : 00000000
Start Date : 5/13/2014
Page No : 1

Groups Printed- Vehicles

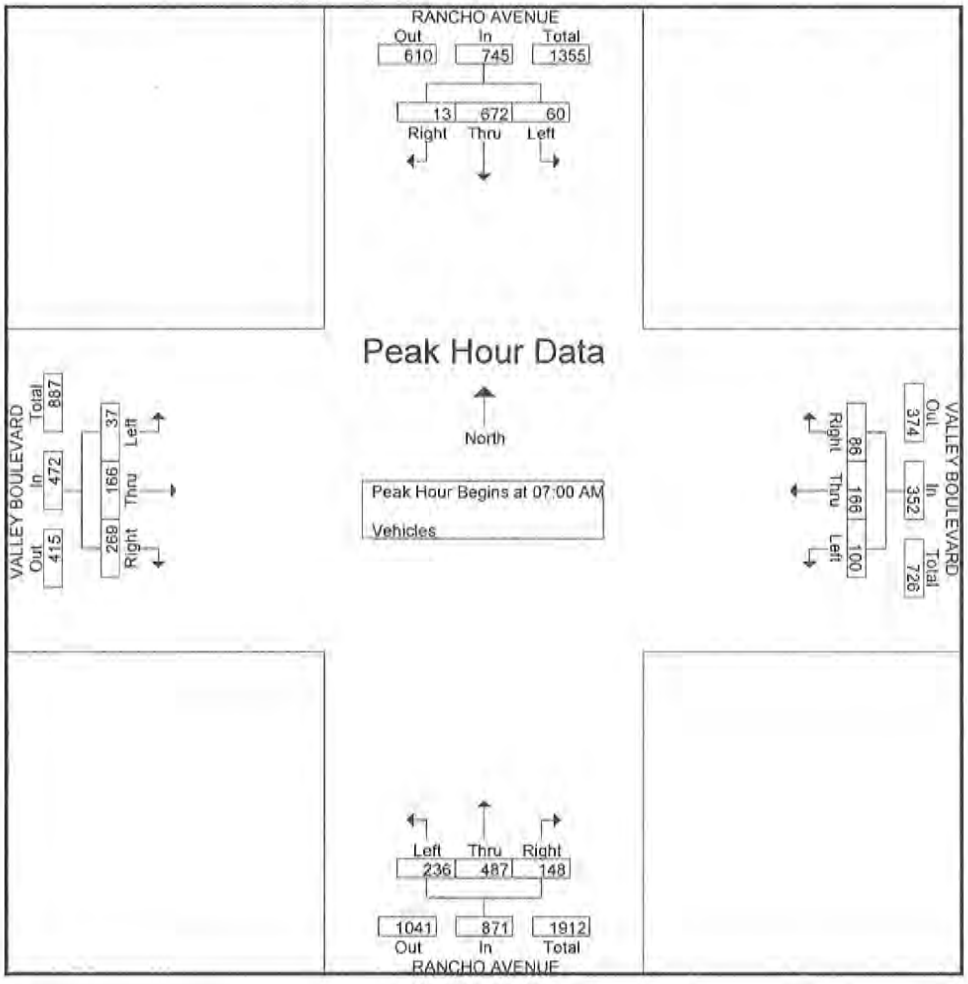
	RANCHO AVENUE Southbound			VALLEY BOULEVARD Westbound			RANCHO AVENUE Northbound			VALLEY BOULEVARD Eastbound			
Start Time	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Right	Thru	Left	Int. Total
07:00 AM	2	143	16	39	44	28	51	108	56	62	36	8	593
07:15 AM	5	174	23	28	66	30	45	140	67	67	43	15	703
07:30 AM	3	197	15	12	30	22	29	111	54	82	43	3	601
07:45 AM	3	158	6	7	26	20	23	128	59	58	44	11	543
Total	13	672	60	86	166	100	148	487	236	269	166	37	2440
08:00 AM	9	152	15	3	25	18	16	77	26	47	19	4	411
08:15 AM	1	111	6	23	28	19	28	72	25	40	24	1	378
08:30 AM	3	122	12	9	25	22	21	82	28	42	32	2	400
08:45 AM	4	85	7	7	30	17	24	83	28	35	24	2	346
Total	17	470	40	42	108	76	89	314	107	164	99	9	1535
*** BREAK ***													
04:00 PM	8	110	13	8	43	17	37	185	42	60	57	11	591
04:15 PM	13	102	14	12	33	15	38	187	51	69	49	7	590
04:30 PM	4	123	11	21	44	18	35	154	60	96	28	14	608
04:45 PM	7	107	17	16	33	11	26	220	51	65	44	5	602
Total	32	442	55	57	153	61	136	746	204	290	178	37	2391
05:00 PM	5	109	21	14	28	19	30	184	61	70	32	11	584
05:15 PM	6	113	8	24	38	19	34	156	63	52	33	9	555
05:30 PM	4	92	16	21	36	10	24	134	65	54	21	8	485
05:45 PM	6	101	13	7	15	17	29	120	46	55	24	10	443
Total	21	415	58	66	117	65	117	594	235	231	110	38	2067
Grand Total	83	1999	213	251	544	302	490	2141	782	954	553	121	8433
Apprch %	3.6	87.1	9.3	22.9	49.6	27.5	14.4	62.7	22.9	58.6	34	7.4	
Total %	1	23.7	2.5	3	6.5	3.6	5.8	25.4	9.3	11.3	6.6	1.4	

Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA 92780

City: COLTON
N-S Direction: RANCHO AVENUE
E-W Direction: VALLEY BOULEVARD

File Name : H1405050
Site Code : 00000000
Start Date : 5/13/2014
Page No : 2

	RANCHO AVENUE Southbound				VALLEY BOULEVARD Westbound				RANCHO AVENUE Northbound				VALLEY BOULEVARD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	143	16	161	39	44	28	111	51	108	56	215	62	36	8	106	593
07:15 AM	5	174	23	202	28	66	30	124	45	140	67	252	67	43	15	125	703
07:30 AM	3	197	15	215	12	30	22	64	29	111	54	194	82	43	3	128	601
07:45 AM	3	158	6	167	7	26	20	53	23	128	59	210	58	44	11	113	543
Total Volume	13	672	60	745	86	166	100	352	148	487	236	871	269	166	37	472	2440
% App. Total	1.7	90.2	8.1		24.4	47.2	28.4		17	55.9	27.1		57	35.2	7.8		
PHF	.650	.853	.652	.866	.551	.629	.833	.710	.725	.870	.881	.864	.820	.943	.617	.922	.868

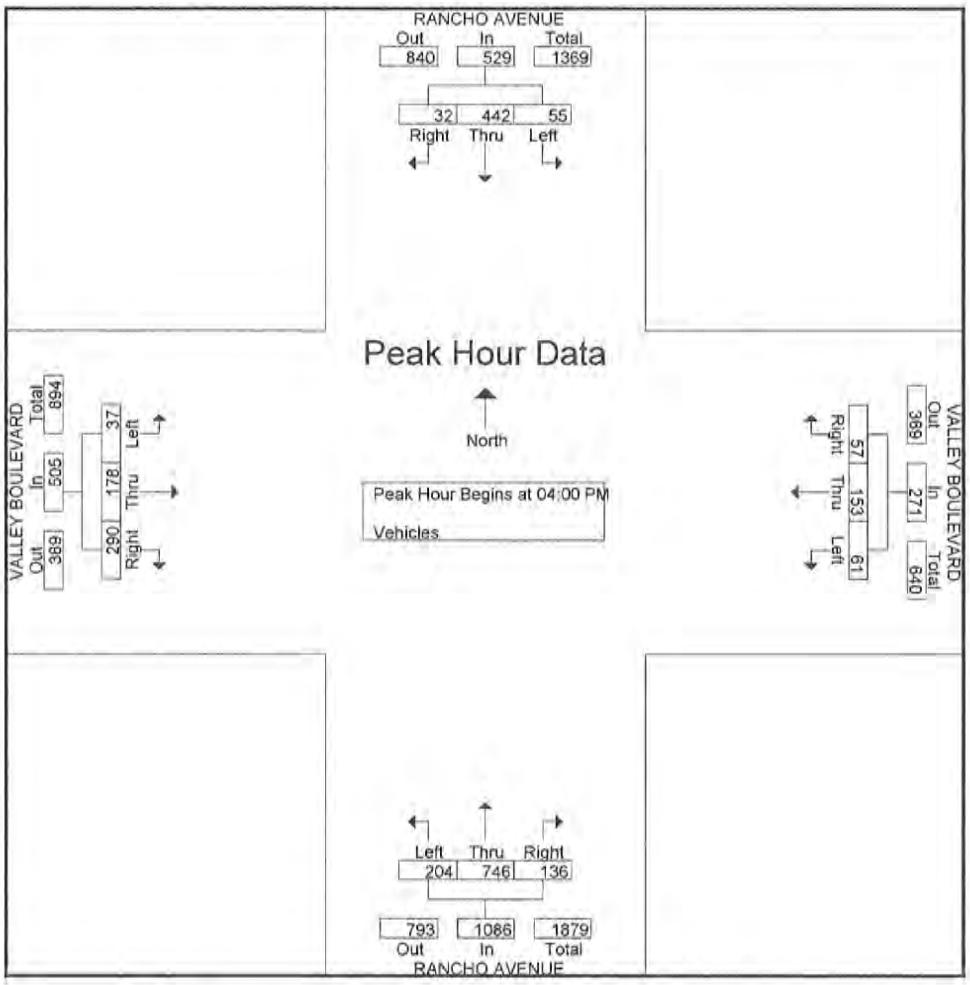


Transportation Studies, Inc.
2640 Walnut Avenue, Suite H
Tustin, CA. 92780

City: COLTON
N-S Direction: RANCHO AVENUE
E-W Direction: VALLEY BOULEVARD

File Name : H1405050
Site Code : 00000000
Start Date : 5/13/2014
Page No : 3

	RANCHO AVENUE Southbound				VALLEY BOULEVARD Westbound				RANCHO AVENUE Northbound				VALLEY BOULEVARD Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	8	110	13	131	8	43	17	68	37	185	42	264	60	57	11	128	591
04:15 PM	13	102	14	129	12	33	15	60	38	187	51	276	69	49	7	125	590
04:30 PM	4	123	11	138	21	44	18	83	35	154	60	249	96	28	14	138	608
04:45 PM	7	107	17	131	16	33	11	60	26	220	51	297	65	44	5	114	602
Total Volume	32	442	55	529	57	153	61	271	136	746	204	1086	290	178	37	505	2391
% App. Total	6	83.6	10.4		21	56.5	22.5		12.5	68.7	18.8		57.4	35.2	7.3		
PHF	.615	.898	.809	.958	.679	.869	.847	.816	.895	.848	.850	.914	.755	781	.661	.915	.983



APPENDIX C

INTERSECTION LEVEL OF SERVICE CALCULATION WORKSHEETS

APPENDIX C-I

EXISTING TRAFFIC CONDITIONS

AM Existing (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #1 Cypress Avenue at H Street

****

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: A[8.8]

****

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	25	5	6	74	0	0	0	0	8	0	7
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:	0	25	5	6	74	0	0	0	0	8	0	7
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:	0	25	5	6	74	0	0	0	0	8	0	7
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	26	5	6	78	0	0	0	0	8	0	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	26	5	6	78	0	0	0	0	8	0	7
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	32	xxxx	xxxxx	xxxx	xxxx	xxxxx	119	119	29
Potent Cap.:	xxxx	xxxx	xxxxx	1594	xxxx	xxxxx	xxxx	xxxx	xxxxx	881	775	1052
Move Cap.:	xxxx	xxxx	xxxxx	1594	xxxx	xxxxx	xxxx	xxxx	xxxxx	878	771	1052
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	952	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.8	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.8		
ApproachLOS:	*			*			*			A		

****

Note: Queue reported is the number of cars per lane.

****

AM Existing (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Pepper Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.590
Loss Time (sec):	16	Average Delay (sec/veh):	25.6
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 3	0 1	2	0 2	0 1	2	0 2	0 1	2	0 1	1 0
Volume Module:												
Base Vol:	109	849	59	23	947	75	62	113	122	210	135	51
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:	109	849	59	23	947	75	62	113	122	210	135	51
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:	109	849	59	23	947	75	62	113	122	210	135	51
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	115	894	62	24	997	79	65	119	128	221	142	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	894	62	24	997	79	65	119	128	221	142	54
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
FinalVolume:	115	894	62	24	997	79	65	119	128	221	142	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.45	0.55
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2613	987
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.03	0.01	0.28	0.04	0.02	0.03	0.07	0.07	0.05	0.05
Crit Moves:	****				****				****	****		
Green/Cycle:	0.10	0.38	0.38	0.14	0.42	0.42	0.08	0.19	0.19	0.11	0.22	0.22
Volume/Cap:	0.65	0.43	0.09	0.05	0.65	0.10	0.27	0.17	0.38	0.65	0.25	0.25
Delay/Veh:	47.3	20.6	17.8	33.3	21.7	15.7	39.7	30.7	32.6	43.2	29.3	29.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	47.3	20.6	17.8	33.3	21.7	15.7	39.7	30.7	32.6	43.2	29.3	29.3
LOS by Move:	D	C	B	C	C	B	D	C	C	D	C	C
HCM2k95thQ:	9	13	2	1	22	3	3	3	7	9	5	5

Note: Queue reported is the number of cars per lane.

AM Existing (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Cypress Avenue at Valley Boulevard

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: B[11.7]

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	31	0	42	12	344	0	0	338	7
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:	0	0	0	31	0	42	12	344	0	0	338	7
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:	0	0	0	31	0	42	12	344	0	0	338	7
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	33	0	44	13	362	0	0	356	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	33	0	44	13	362	0	0	356	7
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	566	747	182	363	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	459	344	836	1207	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	456	340	836	1207	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.07	0.00	0.05	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	617	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	11.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			11.7			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

AM Existing (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.688
Loss Time (sec):	16	Average Delay (sec/veh):	30.6
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	236	487	148	60	672	13	37	166	269	100	166	86
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:	236	487	148	60	672	13	37	166	269	100	166	86
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:	236	487	148	60	672	13	37	166	269	100	166	86
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	248	513	156	63	707	14	39	175	283	105	175	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	248	513	156	63	707	14	39	175	283	105	175	91
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
FinalVolume:	248	513	156	63	707	14	39	175	283	105	175	91
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.53	0.47	1.00	1.96	0.04	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2761	839	1700	3532	68	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.15	0.19	0.19	0.04	0.20	0.20	0.02	0.10	0.16	0.06	0.10	0.05
Crit Moves:	****				****				****	****		
Green/Cycle:	0.21	0.37	0.37	0.13	0.29	0.29	0.11	0.23	0.23	0.09	0.21	0.21
Volume/Cap:	0.69	0.50	0.50	0.28	0.69	0.69	0.22	0.42	0.69	0.69	0.46	0.24
Delay/Veh:	38.2	22.2	22.2	35.8	30.2	30.2	37.4	29.9	34.8	52.1	31.8	29.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.2	22.2	22.2	35.8	30.2	30.2	37.4	29.9	34.8	52.1	31.8	29.7
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2k95thQ:	16	15	15	4	19	19	3	9	16	9	9	5

Note: Queue reported is the number of cars per lane.

PM Existing (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Cypress Avenue at H Street

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: A[8.8]

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	68	6	4	46	0	0	0	0	3	0	12
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:	0	68	6	4	46	0	0	0	0	3	0	12
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:	0	68	6	4	46	0	0	0	0	3	0	12
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	72	6	4	48	0	0	0	0	3	0	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	72	6	4	48	0	0	0	0	3	0	13
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	78	xxxx	xxxxx	xxxx	xxxx	xxxxx	132	132	75
Potent Cap.:	xxxx	xxxx	xxxxx	1533	xxxx	xxxxx	xxxx	xxxx	xxxxx	867	763	992
Move Cap.:	xxxx	xxxx	xxxxx	1533	xxxx	xxxxx	xxxx	xxxx	xxxxx	865	761	992
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	964	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.0	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.8	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.8		
ApproachLOS:	*			*			*			A		

Note: Queue reported is the number of cars per lane.

PM Existing (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #2 Pepper Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.474
Loss Time (sec):	16	Average Delay (sec/veh):	23.7
Optimal Cycle:	61	Level Of Service:	C

****

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	102	728	110	49	768	81	95	176	116	104	138	52
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:	102	728	110	49	768	81	95	176	116	104	138	52
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:	102	728	110	49	768	81	95	176	116	104	138	52
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	107	766	116	52	808	85	100	185	122	109	145	55
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	766	116	52	808	85	100	185	122	109	145	55
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
FinalVolume:	107	766	116	52	808	85	100	185	122	109	145	55
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.45	0.55
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2615	985
Capacity Analysis Module:												
Vol/Sat:	0.06	0.14	0.06	0.02	0.22	0.05	0.03	0.05	0.07	0.03	0.06	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.41	0.41	0.15	0.44	0.44	0.07	0.19	0.19	0.07	0.19	0.19
Volume/Cap:	0.51	0.34	0.16	0.10	0.51	0.11	0.47	0.27	0.36	0.51	0.29	0.29
Delay/Veh:	38.9	18.2	16.7	32.8	18.4	14.8	42.1	31.4	32.4	42.5	31.6	31.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.9	18.2	16.7	32.8	18.4	14.8	42.1	31.4	32.4	42.5	31.6	31.6
LOS by Move:	D	B	B	C	B	B	D	C	C	D	C	C
HCM2k95thQ:	7	10	4	2	16	3	5	5	7	5	5	5

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Note: Queue reported is the number of cars per lane.

PM Existing (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[11.7]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	24	0	26	34	405	0	0	279	19
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:	0	0	0	24	0	26	34	405	0	0	279	19
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:	0	0	0	24	0	26	34	405	0	0	279	19
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	25	0	27	36	426	0	0	294	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	25	0	27	36	426	0	0	294	20
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	588	802	157	314	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	444	320	867	1258	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	435	311	867	1258	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.03	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	587	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	11.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			11.7			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

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Note: Queue reported is the number of cars per lane.

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PM Existing (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #4 Rancho Avenue at Valley Boulevard

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Cycle (sec):	90	Critical Vol./Cap.(X):	0.607
Loss Time (sec):	16	Average Delay (sec/veh):	27.7
Optimal Cycle:	57	Level Of Service:	C

****

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	204	746	136	55	442	32	37	178	290	61	153	57
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:	204	746	136	55	442	32	37	178	290	61	153	57
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:	204	746	136	55	442	32	37	178	290	61	153	57
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	215	785	143	58	465	34	39	187	305	64	161	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	215	785	143	58	465	34	39	187	305	64	161	60
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
FinalVolume:	215	785	143	58	465	34	39	187	305	64	161	60
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.69	0.31	1.00	1.86	0.14	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3045	555	1700	3357	243	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.13	0.26	0.26	0.03	0.14	0.14	0.02	0.10	0.17	0.04	0.09	0.03
Crit Moves:		****		****					****	****		
Green/Cycle:	0.23	0.42	0.42	0.07	0.25	0.25	0.11	0.27	0.27	0.07	0.23	0.23
Volume/Cap:	0.55	0.62	0.62	0.51	0.55	0.55	0.20	0.38	0.62	0.57	0.39	0.15
Delay/Veh:	32.2	21.5	21.5	44.5	29.9	29.9	36.7	26.7	30.1	47.3	30.2	28.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.2	21.5	21.5	44.5	29.9	29.9	36.7	26.7	30.1	47.3	30.2	28.0
LOS by Move:	C	C	C	D	C	C	D	C	C	D	C	C
HCM2k95thQ:	12	20	20	5	13	13	3	9	16	6	8	3

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Note: Queue reported is the number of cars per lane.

APPENDIX C-II

EXISTING PLUS PROJECT TRAFFIC CONDITIONS

AM Existing Plus Project (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Cypress Avenue at H Street

Average Delay (sec/veh): 2.7 Worst Case Level Of Service: A[9.0]

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	25	5	6	77	0	6	0	20	8	0	7
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:	0	25	5	6	77	0	6	0	20	8	0	7
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:	0	25	5	6	77	0	6	0	20	8	0	7
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	26	5	6	81	0	6	0	21	8	0	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	26	5	6	81	0	6	0	21	8	0	7
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	32	xxxx	xxxxx	126	125	81	133	123	29
Potent Cap.:	xxxx	xxxx	xxxxx	1594	xxxx	xxxxx	852	769	984	843	771	1052
Move Cap.:	xxxx	xxxx	xxxxx	1594	xxxx	xxxxx	843	766	984	823	768	1052
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.02	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	948	xxxxx	xxxx	916	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	8.9	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			8.9			9.0		
ApproachLOS:	*			*			A			A		

Note: Queue reported is the number of cars per lane.

AM Existing Plus Project (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Pepper Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.596
Loss Time (sec):	16	Average Delay (sec/veh):	26.0
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	109	849	67	26	947	75	62	116	122	226	142	58
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:	109	849	67	26	947	75	62	116	122	226	142	58
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:	109	849	67	26	947	75	62	116	122	226	142	58
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	115	894	71	27	997	79	65	122	128	238	149	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	115	894	71	27	997	79	65	122	128	238	149	61
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
FinalVolume:	115	894	71	27	997	79	65	122	128	238	149	61
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.42	0.58
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2556	1044
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.04	0.01	0.28	0.04	0.02	0.03	0.07	0.07	0.06	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.10	0.38	0.38	0.14	0.42	0.42	0.08	0.19	0.19	0.11	0.22	0.22
Volume/Cap:	0.66	0.44	0.10	0.06	0.66	0.10	0.26	0.18	0.38	0.66	0.26	0.26
Delay/Veh:	48.0	21.0	18.1	33.5	22.1	16.0	39.5	30.8	32.6	42.8	29.1	29.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	48.0	21.0	18.1	33.5	22.1	16.0	39.5	30.8	32.6	42.8	29.1	29.1
LOS by Move:	D	C	B	C	C	B	D	C	C	D	C	C
HCM2k95thQ:	9	13	3	1	22	3	3	3	7	10	5	5

Note: Queue reported is the number of cars per lane.

AM Existing Plus Project (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[12.4]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 1!	0 0		1 0 2	0 0		0 0 1	1 0	
Volume Module:												
Base Vol:	0	0	0	44	0	52	12	360	0	0	352	7
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:	0	0	0	44	0	52	12	360	0	0	352	7
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:	0	0	0	44	0	52	12	360	0	0	352	7
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	46	0	55	13	379	0	0	371	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	46	0	55	13	379	0	0	371	7
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	589	778	189	378	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	444	330	827	1192	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	441	326	827	1192	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.11	0.00	0.07	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	590	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			12.4			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

****

Note: Queue reported is the number of cars per lane.

****

AM Existing Plus Project (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.706
Loss Time (sec):	16	Average Delay (sec/veh):	31.1
Optimal Cycle:	68	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	244	487	148	60	672	16	44	173	285	100	169	86
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:	244	487	148	60	672	16	44	173	285	100	169	86
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:	244	487	148	60	672	16	44	173	285	100	169	86
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	257	513	156	63	707	17	46	182	300	105	178	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	257	513	156	63	707	17	46	182	300	105	178	91
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
FinalVolume:	257	513	156	63	707	17	46	182	300	105	178	91
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.53	0.47	1.00	1.95	0.05	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2761	839	1700	3516	84	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.15	0.19	0.19	0.04	0.20	0.20	0.03	0.10	0.17	0.06	0.10	0.05
Crit Moves:	****				****				****	****		
Green/Cycle:	0.21	0.37	0.37	0.13	0.28	0.28	0.11	0.24	0.24	0.09	0.22	0.22
Volume/Cap:	0.71	0.51	0.51	0.28	0.71	0.71	0.25	0.43	0.71	0.71	0.46	0.23
Delay/Veh:	39.0	22.5	22.5	35.9	31.1	31.1	37.5	29.5	34.9	54.3	31.6	29.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.0	22.5	22.5	35.9	31.1	31.1	37.5	29.5	34.9	54.3	31.6	29.5
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2k95thQ:	16	15	15	4	20	20	3	9	17	9	10	5

Note: Queue reported is the number of cars per lane.

PM Existing Plus Project (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Cypress Avenue at H Street

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: A[8.9]

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L - T - R			L - T - R			L - T - R			L - T - R		
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	68	6	4	52	0	5	0	14	3	0	12
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:	0	68	6	4	52	0	5	0	14	3	0	12
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:	0	68	6	4	52	0	5	0	14	3	0	12
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	72	6	4	55	0	5	0	15	3	0	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	72	6	4	55	0	5	0	15	3	0	13
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	78	xxxx	xxxxx	144	141	55	145	138	75
Potent Cap.:	xxxx	xxxx	xxxxx	1533	xxxx	xxxxx	829	754	1018	828	757	992
Move Cap.:	xxxx	xxxx	xxxxx	1533	xxxx	xxxxx	817	752	1018	814	755	992
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.01	0.00	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	956	xxxxx	xxxx	951	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	8.8	xxxxx	xxxxx	8.9	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			8.8			8.9		
ApproachLOS:	*			*			A			A		

Note: Queue reported is the number of cars per lane.

PM Existing Plus Project (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #2 Pepper Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.479
Loss Time (sec):	16	Average Delay (sec/veh):	24.0
Optimal Cycle:	61	Level Of Service:	C

****

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	102	728	126	55	768	81	95	182	116	116	143	57
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:	102	728	126	55	768	81	95	182	116	116	143	57
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:	102	728	126	55	768	81	95	182	116	116	143	57
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	107	766	133	58	808	85	100	192	122	122	151	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	766	133	58	808	85	100	192	122	122	151	60
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
FinalVolume:	107	766	133	58	808	85	100	192	122	122	151	60
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.43	0.57
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2574	1026
Capacity Analysis Module:												
Vol/Sat:	0.06	0.14	0.07	0.02	0.22	0.05	0.03	0.05	0.07	0.04	0.06	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.41	0.41	0.15	0.44	0.44	0.07	0.19	0.19	0.07	0.19	0.19
Volume/Cap:	0.51	0.35	0.18	0.12	0.51	0.11	0.46	0.28	0.36	0.51	0.30	0.30
Delay/Veh:	39.2	18.6	17.2	33.0	18.7	15.1	41.8	31.5	32.4	42.0	31.3	31.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	39.2	18.6	17.2	33.0	18.7	15.1	41.8	31.5	32.4	42.0	31.3	31.3
LOS by Move:	D	B	B	C	B	B	D	C	C	D	C	C
HCM2k95thQ:	8	10	5	2	16	3	4	5	7	5	6	6

****

Note: Queue reported is the number of cars per lane.

PM Existing Plus Project (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Cypress Avenue at Valley Boulevard

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[12.3]

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	33	0	37	34	417	0	0	308	19
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:	0	0	0	33	0	37	34	417	0	0	308	19
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:	0	0	0	33	0	37	34	417	0	0	308	19
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	35	0	39	36	439	0	0	324	20
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	35	0	39	36	439	0	0	324	20
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	625	845	172	344	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	421	302	848	1226	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	412	293	848	1226	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.08	0.00	0.05	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	566	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			12.3			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

PM Existing Plus Project (Year 2014)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.616
Loss Time (sec):	16	Average Delay (sec/veh):	28.1
Optimal Cycle:	58	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	220	746	136	55	442	38	42	183	302	61	159	57
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:	220	746	136	55	442	38	42	183	302	61	159	57
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:	220	746	136	55	442	38	42	183	302	61	159	57
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	232	785	143	58	465	40	44	193	318	64	167	60
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	232	785	143	58	465	40	44	193	318	64	167	60
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
FinalVolume:	232	785	143	58	465	40	44	193	318	64	167	60
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.69	0.31	1.00	1.84	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3045	555	1700	3315	285	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.14	0.26	0.26	0.03	0.14	0.14	0.03	0.11	0.18	0.04	0.09	0.03
Crit Moves:		****		****					****	****		
Green/Cycle:	0.23	0.41	0.41	0.07	0.24	0.24	0.12	0.28	0.28	0.07	0.23	0.23
Volume/Cap:	0.58	0.63	0.63	0.51	0.58	0.58	0.23	0.38	0.63	0.57	0.40	0.14
Delay/Veh:	32.7	22.1	22.1	44.5	31.1	31.1	36.7	26.3	29.9	47.3	30.0	27.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	32.7	22.1	22.1	44.5	31.1	31.1	36.7	26.3	29.9	47.3	30.0	27.7
LOS by Move:	C	C	C	D	C	C	D	C	C	D	C	C
HCM2k95thQ:	13	21	21	5	14	14	3	9	17	6	9	3

Note: Queue reported is the number of cars per lane.

APPENDIX C-III

YEAR 2018 TRAFFIC CONDITIONS

AM Existing + Ambient (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #1 Cypress Avenue at H Street

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Average Delay (sec/veh): 1.4 Worst Case Level Of Service: A[8.9]

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Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	27	5	6	80	0	0	0	0	9	0	8
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:	0	27	5	6	80	0	0	0	0	9	0	8
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:	0	27	5	6	80	0	0	0	0	9	0	8
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	28	5	6	84	0	0	0	0	9	0	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	28	5	6	84	0	0	0	0	9	0	8
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	34	xxxx	xxxxx	xxxx	xxxx	xxxxx	128	128	31
Potent Cap.:	xxxx	xxxx	xxxxx	1591	xxxx	xxxxx	xxxx	xxxx	xxxxx	871	766	1049
Move Cap.:	xxxx	xxxx	xxxxx	1591	xxxx	xxxxx	xxxx	xxxx	xxxxx	869	763	1049
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	945	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.9	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.9		
ApproachLOS:	*			*			*			A		

****

Note: Queue reported is the number of cars per lane.

****

AM Existing + Amb + Project (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #1 Cypress Avenue at H Street

****

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: A[9.0]

****

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	27	5	6	83	0	6	0	20	9	0	8
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:	0	27	5	6	83	0	6	0	20	9	0	8
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:	0	27	5	6	83	0	6	0	20	9	0	8
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	28	5	6	87	0	6	0	21	9	0	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	28	5	6	87	0	6	0	21	9	0	8
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	34	xxxx	xxxxx	135	134	87	142	131	31
Potent Cap.:	xxxx	xxxx	xxxxx	1591	xxxx	xxxxx	841	761	977	833	763	1049
Move Cap.:	xxxx	xxxx	xxxxx	1591	xxxx	xxxxx	831	758	977	812	760	1049
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.02	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	939	xxxxx	xxxx	909	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	8.9	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx				8.9			9.0	
ApproachLOS:	*			*				A			A	

****

Note: Queue reported is the number of cars per lane.

****

AM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #1 Cypress Avenue at H Street

****

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: A[9.1]

****

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	30	5	6	88	0	6	0	20	9	0	8
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:	0	30	5	6	88	0	6	0	20	9	0	8
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:	0	30	5	6	88	0	6	0	20	9	0	8
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	32	5	6	93	0	6	0	21	9	0	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	32	5	6	93	0	6	0	21	9	0	8
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	37	xxxx	xxxxx	144	142	93	150	139	34
Potent Cap.:	xxxx	xxxx	xxxxx	1587	xxxx	xxxxx	830	753	970	822	755	1045
Move Cap.:	xxxx	xxxx	xxxxx	1587	xxxx	xxxxx	821	750	970	802	752	1045
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.02	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	931	xxxxx	xxxx	900	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	9.0	xxxxx	xxxxx	9.1	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx				9.0			9.1	
ApproachLOS:	*			*				A			A	

****

Note: Queue reported is the number of cars per lane.

****

PM Existing + Ambient (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #1 Cypress Avenue at H Street

****

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: A[8.8]

****

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	73	6	4	50	0	0	0	0	3	0	13
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:	0	73	6	4	50	0	0	0	0	3	0	13
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:	0	73	6	4	50	0	0	0	0	3	0	13
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	77	6	4	53	0	0	0	0	3	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	77	6	4	53	0	0	0	0	3	0	14
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	83	xxxx	xxxxx	xxxx	xxxx	xxxxx	141	141	80
Potent Cap.:	xxxx	xxxx	xxxxx	1527	xxxx	xxxxx	xxxx	xxxx	xxxxx	857	754	986
Move Cap.:	xxxx	xxxx	xxxxx	1527	xxxx	xxxxx	xxxx	xxxx	xxxxx	855	752	986
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	958	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.8	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.8		
ApproachLOS:	*			*			*			A		

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Note: Queue reported is the number of cars per lane.

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PM Existing + Amb + Project (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Cypress Avenue at H Street

Average Delay (sec/veh): 2.0 Worst Case Level Of Service: A[8.9]

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	73	6	4	56	0	5	0	14	3	0	13
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:	0	73	6	4	56	0	5	0	14	3	0	13
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:	0	73	6	4	56	0	5	0	14	3	0	13
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	77	6	4	59	0	5	0	15	3	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	77	6	4	59	0	5	0	15	3	0	14
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	83	xxxx	xxxxx	154	151	59	155	147	80
Potent Cap.:	xxxx	xxxx	xxxxx	1527	xxxx	xxxxx	817	745	1012	817	748	986
Move Cap.:	xxxx	xxxx	xxxxx	1527	xxxx	xxxxx	804	743	1012	803	746	986
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.01	0.00	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	948	xxxxx	xxxx	945	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	8.9	xxxxx	xxxxx	8.9	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx				8.9			8.9	
ApproachLOS:	*			*				A			A	

Note: Queue reported is the number of cars per lane.

PM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Cypress Avenue at H Street

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: A[8.9]

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	79	6	4	63	0	5	0	14	3	0	13
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:	0	79	6	4	63	0	5	0	14	3	0	13
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:	0	79	6	4	63	0	5	0	14	3	0	13
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	83	6	4	66	0	5	0	15	3	0	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	83	6	4	66	0	5	0	15	3	0	14
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	89	xxxx	xxxxx	168	164	66	168	161	86
Potent Cap.:	xxxx	xxxx	xxxxx	1519	xxxx	xxxxx	801	732	1003	800	735	978
Move Cap.:	xxxx	xxxx	xxxxx	1519	xxxx	xxxxx	788	730	1003	787	733	978
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.01	0.00	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	936	xxxxx	xxxx	935	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	8.9	xxxxx	xxxxx	8.9	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx				8.9			8.9	
ApproachLOS:	*			*				A			A	

Note: Queue reported is the number of cars per lane.

AM Existing + Ambient (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Pepper Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.637
Loss Time (sec):	16	Average Delay (sec/veh):	26.5
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	118	917	64	25	1023	81	67	122	132	227	146	55
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:	118	917	64	25	1023	81	67	122	132	227	146	55
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:	118	917	64	25	1023	81	67	122	132	227	146	55
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	124	965	67	26	1077	85	71	128	139	239	154	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	965	67	26	1077	85	71	128	139	239	154	58
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
FinalVolume:	124	965	67	26	1077	85	71	128	139	239	154	58
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.45	0.55
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2615	985
Capacity Analysis Module:												
Vol/Sat:	0.07	0.18	0.04	0.01	0.30	0.05	0.02	0.04	0.08	0.07	0.06	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.10	0.38	0.38	0.14	0.42	0.42	0.08	0.19	0.19	0.11	0.22	0.22
Volume/Cap:	0.71	0.47	0.10	0.06	0.71	0.11	0.29	0.19	0.41	0.71	0.27	0.27
Delay/Veh:	51.3	20.9	17.8	33.4	22.8	15.7	39.9	30.8	32.9	45.5	29.4	29.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.3	20.9	17.8	33.4	22.8	15.7	39.9	30.8	32.9	45.5	29.4	29.4
LOS by Move:	D	C	B	C	C	B	D	C	C	D	C	C
HCM2k95thQ:	10	14	3	1	25	3	3	3	8	10	5	5

Note: Queue reported is the number of cars per lane.

AM Existing + Amb + Project (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Pepper Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.644
Loss Time (sec):	16	Average Delay (sec/veh):	26.9
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	118	917	72	28	1023	81	67	125	132	243	153	62
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:	118	917	72	28	1023	81	67	125	132	243	153	62
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:	118	917	72	28	1023	81	67	125	132	243	153	62
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	124	965	76	29	1077	85	71	132	139	256	161	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	124	965	76	29	1077	85	71	132	139	256	161	65
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
FinalVolume:	124	965	76	29	1077	85	71	132	139	256	161	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.42	0.58
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2562	1038
Capacity Analysis Module:												
Vol/Sat:	0.07	0.18	0.04	0.01	0.30	0.05	0.02	0.04	0.08	0.08	0.06	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.10	0.38	0.38	0.14	0.42	0.42	0.08	0.19	0.19	0.11	0.22	0.22
Volume/Cap:	0.71	0.47	0.11	0.07	0.71	0.11	0.28	0.19	0.41	0.71	0.28	0.28
Delay/Veh:	52.2	21.3	18.1	33.5	23.3	16.0	39.7	30.9	32.9	45.2	29.2	29.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	52.2	21.3	18.1	33.5	23.3	16.0	39.7	30.9	32.9	45.2	29.2	29.2
LOS by Move:	D	C	B	C	C	B	D	C	C	D	C	C
HCM2k95thQ:	10	14	3	1	25	3	3	3	8	11	6	6

Note: Queue reported is the number of cars per lane.

AM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Pepper Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.801
Loss Time (sec):	16	Average Delay (sec/veh):	33.2
Optimal Cycle:	83	Level Of Service:	C

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	246	1061	72	31	1023	163	153	159	189	294	212	65
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:	246	1061	72	31	1023	163	153	159	189	294	212	65
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:	246	1061	72	31	1023	163	153	159	189	294	212	65
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	259	1117	76	33	1077	172	161	167	199	309	223	68
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	259	1117	76	33	1077	172	161	167	199	309	223	68
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
FinalVolume:	259	1117	76	33	1077	172	161	167	199	309	223	68
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.53	0.47
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2755	845
Capacity Analysis Module:												
Vol/Sat:	0.15	0.21	0.04	0.01	0.30	0.10	0.05	0.05	0.11	0.10	0.08	0.08
Crit Moves:	****				****				****	****		
Green/Cycle:	0.18	0.39	0.39	0.13	0.35	0.35	0.08	0.19	0.19	0.11	0.22	0.22
Volume/Cap:	0.87	0.52	0.11	0.08	0.87	0.28	0.64	0.25	0.59	0.87	0.36	0.36
Delay/Veh:	58.3	21.0	17.3	34.7	34.1	21.5	45.8	31.2	35.9	58.6	29.9	29.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	58.3	21.0	17.3	34.7	34.1	21.5	45.8	31.2	35.9	58.6	29.9	29.9
LOS by Move:	E	C	B	C	C	C	D	C	D	E	C	C
HCM2k95thQ:	20	16	3	1	31	7	8	4	12	15	8	8

Note: Queue reported is the number of cars per lane.

PM Existing + Ambient (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #2 Pepper Avenue at Valley Boulevard

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Cycle (sec):	90	Critical Vol./Cap.(X):	0.511
Loss Time (sec):	16	Average Delay (sec/veh):	24.1
Optimal Cycle:	61	Level Of Service:	C

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Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	110	786	119	53	829	87	103	190	125	112	149	56
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:	110	786	119	53	829	87	103	190	125	112	149	56
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:	110	786	119	53	829	87	103	190	125	112	149	56
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	116	827	125	56	873	92	108	200	132	118	157	59
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	827	125	56	873	92	108	200	132	118	157	59
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
FinalVolume:	116	827	125	56	873	92	108	200	132	118	157	59
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.45	0.55
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2617	983
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.07	0.02	0.24	0.05	0.03	0.06	0.07	0.04	0.06	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.41	0.41	0.15	0.44	0.44	0.07	0.19	0.19	0.07	0.19	0.19
Volume/Cap:	0.55	0.37	0.17	0.11	0.55	0.12	0.51	0.29	0.39	0.55	0.32	0.32
Delay/Veh:	40.1	18.5	16.8	32.8	18.9	14.8	42.6	31.6	32.7	43.6	31.7	31.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.1	18.5	16.8	32.8	18.9	14.8	42.6	31.6	32.7	43.6	31.7	31.7
LOS by Move:	D	B	B	C	B	B	D	C	C	D	C	C
HCM2k95thQ:	8	11	5	2	18	3	5	5	7	6	6	6

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Note: Queue reported is the number of cars per lane.

PM Existing + Amb + Project (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Pepper Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.516
Loss Time (sec):	16	Average Delay (sec/veh):	24.4
Optimal Cycle:	61	Level Of Service:	C

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	110	786	135	59	829	87	103	196	125	124	154	61
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:	110	786	135	59	829	87	103	196	125	124	154	61
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:	110	786	135	59	829	87	103	196	125	124	154	61
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	116	827	142	62	873	92	108	206	132	131	162	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	116	827	142	62	873	92	108	206	132	131	162	64
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
FinalVolume:	116	827	142	62	873	92	108	206	132	131	162	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.43	0.57
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2579	1021
Capacity Analysis Module:												
Vol/Sat:	0.07	0.15	0.08	0.02	0.24	0.05	0.03	0.06	0.07	0.04	0.06	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.41	0.41	0.15	0.44	0.44	0.07	0.19	0.19	0.07	0.19	0.19
Volume/Cap:	0.55	0.38	0.19	0.13	0.55	0.12	0.49	0.30	0.39	0.55	0.32	0.32
Delay/Veh:	40.4	18.8	17.3	33.1	19.3	15.1	42.2	31.7	32.7	43.2	31.5	31.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.4	18.8	17.3	33.1	19.3	15.1	42.2	31.7	32.7	43.2	31.5	31.5
LOS by Move:	D	B	B	C	B	B	D	C	C	D	C	C
HCM2k95thQ:	8	11	5	2	18	3	5	6	7	6	6	6

Note: Queue reported is the number of cars per lane.

PM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #2 Pepper Avenue at Valley Boulevard

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Cycle (sec):	90	Critical Vol./Cap.(X):	0.673
Loss Time (sec):	16	Average Delay (sec/veh):	30.5
Optimal Cycle:	64	Level Of Service:	C

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Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	194	882	135	62	829	153	202	237	217	194	222	64
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:	194	882	135	62	829	153	202	237	217	194	222	64
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:	194	882	135	62	829	153	202	237	217	194	222	64
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	204	928	142	65	873	161	213	249	228	204	234	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	204	928	142	65	873	161	213	249	228	204	234	67
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
FinalVolume:	204	928	142	65	873	161	213	249	228	204	234	67
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95	0.84	0.95	0.95
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.55	0.45
Final Sat.:	1700	5400	1800	3200	3600	1800	3200	3600	1800	3200	2794	806
Capacity Analysis Module:												
Vol/Sat:	0.12	0.17	0.08	0.02	0.24	0.09	0.07	0.07	0.13	0.06	0.08	0.08
Crit Moves:	****				****				****	****		
Green/Cycle:	0.18	0.39	0.39	0.15	0.36	0.36	0.07	0.19	0.19	0.09	0.21	0.21
Volume/Cap:	0.67	0.44	0.20	0.14	0.67	0.25	0.90	0.37	0.67	0.67	0.40	0.40
Delay/Veh:	40.4	20.3	18.2	33.6	25.7	20.4	74.0	32.1	39.1	45.2	31.0	31.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.4	20.3	18.2	33.6	25.7	20.4	74.0	32.1	39.1	45.2	31.0	31.0
LOS by Move:	D	C	B	C	C	C	E	C	D	D	C	C
HCM2k95thQ:	14	13	5	2	21	7	12	7	14	9	8	8

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Note: Queue reported is the number of cars per lane.

AM Existing + Ambient (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: B[12.1]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	33	0	45	13	372	0	0	365	8
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:	0	0	0	33	0	45	13	372	0	0	365	8
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:	0	0	0	33	0	45	13	372	0	0	365	8
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	35	0	47	14	392	0	0	384	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	35	0	47	14	392	0	0	384	8
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	612	807	196	393	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	430	317	818	1177	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	426	314	818	1177	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.08	0.00	0.06	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	589	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			12.1			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

****

Note: Queue reported is the number of cars per lane.

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AM Existing + Amb + Project (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Cypress Avenue at Valley Boulevard

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[12.9]

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	46	0	55	13	388	0	0	379	8
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:	0	0	0	46	0	55	13	388	0	0	379	8
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:	0	0	0	46	0	55	13	388	0	0	379	8
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	48	0	58	14	408	0	0	399	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	48	0	58	14	408	0	0	399	8
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	635	839	204	407	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	416	304	809	1162	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	412	301	809	1162	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.12	0.00	0.07	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	562	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			12.9			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

AM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B[14.1]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	48	0	60	16	430	0	0	442	9
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:	0	0	0	48	0	60	16	430	0	0	442	9
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:	0	0	0	48	0	60	16	430	0	0	442	9
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	51	0	63	17	453	0	0	465	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	51	0	63	17	453	0	0	465	9
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	730	956	237	475	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	362	260	770	1098	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	358	256	770	1098	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.14	0.00	0.08	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	509	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.1			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

****

Note: Queue reported is the number of cars per lane.

****

PM Existing + Ambient (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: B[12.2]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	26	0	28	37	437	0	0	301	21
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:	0	0	0	26	0	28	37	437	0	0	301	21
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:	0	0	0	26	0	28	37	437	0	0	301	21
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	27	0	29	39	460	0	0	317	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	27	0	29	39	460	0	0	317	22
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	636	866	169	339	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	415	294	851	1232	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	405	284	851	1232	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.07	0.00	0.03	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	556	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			12.2			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

****

Note: Queue reported is the number of cars per lane.

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PM Existing + Amb + Project (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[12.9]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	35	0	39	37	449	0	0	330	21
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:	0	0	0	35	0	39	37	449	0	0	330	21
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:	0	0	0	35	0	39	37	449	0	0	330	21
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	37	0	41	39	473	0	0	347	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	37	0	41	39	473	0	0	347	22
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	673	909	185	369	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	393	277	832	1200	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	384	268	832	1200	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.10	0.00	0.05	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	536	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			12.9			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

****

Note: Queue reported is the number of cars per lane.

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PM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B[14.0]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	37	0	46	43	498	0	0	388	23
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:	0	0	0	37	0	46	43	498	0	0	388	23
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:	0	0	0	37	0	46	43	498	0	0	388	23
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	39	0	48	45	524	0	0	408	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	39	0	48	45	524	0	0	408	24
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	773	1035	216	433	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	340	234	794	1138	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	329	224	794	1138	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.12	0.00	0.06	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	488	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.0	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.0			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

****

Note: Queue reported is the number of cars per lane.

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AM Existing + Ambient (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #4 Rancho Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.743
Loss Time (sec):	16	Average Delay (sec/veh):	31.9
Optimal Cycle:	73	Level Of Service:	C

****

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	255	526	160	65	726	14	40	179	291	108	179	93
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:	255	526	160	65	726	14	40	179	291	108	179	93
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:	255	526	160	65	726	14	40	179	291	108	179	93
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	268	554	168	68	764	15	42	188	306	114	188	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	268	554	168	68	764	15	42	188	306	114	188	98
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
FinalVolume:	268	554	168	68	764	15	42	188	306	114	188	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.53	0.47	1.00	1.96	0.04	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2760	840	1700	3532	68	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.04	0.22	0.22	0.02	0.10	0.17	0.07	0.10	0.05
Crit Moves:	****				****				****	****		
Green/Cycle:	0.21	0.38	0.38	0.13	0.29	0.29	0.11	0.23	0.23	0.09	0.21	0.21
Volume/Cap:	0.74	0.53	0.53	0.32	0.74	0.74	0.23	0.46	0.74	0.74	0.49	0.26
Delay/Veh:	41.3	22.2	22.2	36.7	31.8	31.8	37.5	30.2	36.8	57.7	32.2	29.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.3	22.2	22.2	36.7	31.8	31.8	37.5	30.2	36.8	57.7	32.2	29.9
LOS by Move:	D	C	C	D	C	C	D	C	D	E	C	C
HCM2k95thQ:	18	16	16	4	21	21	3	10	18	10	10	5

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Note: Queue reported is the number of cars per lane.

AM Existing + Amb + Project (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.762
Loss Time (sec):	16	Average Delay (sec/veh):	32.5
Optimal Cycle:	76	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	263	526	160	65	726	17	47	186	307	108	182	93
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:	263	526	160	65	726	17	47	186	307	108	182	93
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:	263	526	160	65	726	17	47	186	307	108	182	93
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	277	554	168	68	764	18	49	196	323	114	192	98
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	277	554	168	68	764	18	49	196	323	114	192	98
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
FinalVolume:	277	554	168	68	764	18	49	196	323	114	192	98
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.53	0.47	1.00	1.95	0.05	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2760	840	1700	3518	82	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.16	0.20	0.20	0.04	0.22	0.22	0.03	0.11	0.18	0.07	0.11	0.05
Crit Moves:	****				****				****	****		
Green/Cycle:	0.21	0.37	0.37	0.12	0.29	0.29	0.11	0.24	0.24	0.09	0.22	0.22
Volume/Cap:	0.76	0.54	0.54	0.32	0.76	0.76	0.27	0.46	0.76	0.76	0.49	0.25
Delay/Veh:	42.4	22.5	22.5	36.8	32.8	32.8	37.7	29.8	37.1	60.5	32.0	29.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.4	22.5	22.5	36.8	32.8	32.8	37.7	29.8	37.1	60.5	32.0	29.6
LOS by Move:	D	C	C	D	C	C	D	C	D	E	C	C
HCM2k95thQ:	18	16	16	4	22	22	3	10	19	10	10	5

Note: Queue reported is the number of cars per lane.

AM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.791
Loss Time (sec):	16	Average Delay (sec/veh):	33.9
Optimal Cycle:	81	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 1	1 0	1	0 1	0 1
Volume Module:												
Base Vol:	272	526	167	70	726	22	50	211	321	122	232	97
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:	272	526	167	70	726	22	50	211	321	122	232	97
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:	272	526	167	70	726	22	50	211	321	122	232	97
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	286	554	176	74	764	23	53	222	338	128	244	102
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	554	176	74	764	23	53	222	338	128	244	102
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
FinalVolume:	286	554	176	74	764	23	53	222	338	128	244	102
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.52	0.48	1.00	1.94	0.06	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	2732	868	1700	3494	106	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.17	0.20	0.20	0.04	0.22	0.22	0.03	0.12	0.19	0.08	0.14	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.21	0.37	0.37	0.12	0.28	0.28	0.11	0.24	0.24	0.10	0.22	0.22
Volume/Cap:	0.79	0.55	0.55	0.36	0.79	0.79	0.28	0.52	0.79	0.79	0.61	0.25
Delay/Veh:	44.7	23.0	23.0	37.4	34.5	34.5	37.6	30.3	38.3	62.4	34.1	29.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	44.7	23.0	23.0	37.4	34.5	34.5	37.6	30.3	38.3	62.4	34.1	29.1
LOS by Move:	D	C	C	D	C	C	D	C	D	E	C	C
HCM2k95thQ:	19	16	16	5	23	23	4	12	21	12	14	5

Note: Queue reported is the number of cars per lane.

PM Existing + Ambient (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.656
Loss Time (sec):	16	Average Delay (sec/veh):	28.6
Optimal Cycle:	62	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	220	806	147	59	477	35	40	192	313	66	165	62
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:	220	806	147	59	477	35	40	192	313	66	165	62
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:	220	806	147	59	477	35	40	192	313	66	165	62
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	232	848	155	62	502	37	42	202	329	69	174	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	232	848	155	62	502	37	42	202	329	69	174	65
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
FinalVolume:	232	848	155	62	502	37	42	202	329	69	174	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.69	0.31	1.00	1.86	0.14	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3045	555	1700	3354	246	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.14	0.28	0.28	0.04	0.15	0.15	0.02	0.11	0.18	0.04	0.10	0.04
Crit Moves:		****		****					****	****		
Green/Cycle:	0.23	0.42	0.42	0.07	0.25	0.25	0.11	0.27	0.27	0.07	0.23	0.23
Volume/Cap:	0.59	0.67	0.67	0.55	0.59	0.59	0.22	0.41	0.67	0.61	0.43	0.16
Delay/Veh:	33.3	22.5	22.5	46.2	30.6	30.6	36.9	27.0	31.3	50.4	30.5	28.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.3	22.5	22.5	46.2	30.6	30.6	36.9	27.0	31.3	50.4	30.5	28.1
LOS by Move:	C	C	C	D	C	C	D	C	C	D	C	C
HCM2k95thQ:	14	23	23	6	14	14	3	10	18	6	9	3

Note: Queue reported is the number of cars per lane.

PM Existing + Amb + Project (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.664
Loss Time (sec):	16	Average Delay (sec/veh):	29.1
Optimal Cycle:	63	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1 0	1
Volume Module:												
Base Vol:	236	806	147	59	477	41	45	197	325	66	171	62
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:	236	806	147	59	477	41	45	197	325	66	171	62
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:	236	806	147	59	477	41	45	197	325	66	171	62
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	248	848	155	62	502	43	47	207	342	69	180	65
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	248	848	155	62	502	43	47	207	342	69	180	65
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
FinalVolume:	248	848	155	62	502	43	47	207	342	69	180	65
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.69	0.31	1.00	1.84	0.16	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3045	555	1700	3315	285	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.15	0.28	0.28	0.04	0.15	0.15	0.03	0.12	0.19	0.04	0.10	0.04
Crit Moves:		****		****					****	****		
Green/Cycle:	0.23	0.41	0.41	0.07	0.24	0.24	0.12	0.28	0.28	0.07	0.23	0.23
Volume/Cap:	0.62	0.68	0.68	0.55	0.62	0.62	0.24	0.41	0.68	0.61	0.43	0.16
Delay/Veh:	34.0	23.1	23.1	46.2	31.9	31.9	36.9	26.6	31.2	50.4	30.3	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.0	23.1	23.1	46.2	31.9	31.9	36.9	26.6	31.2	50.4	30.3	27.8
LOS by Move:	C	C	C	D	C	C	D	C	C	D	C	C
HCM2k95thQ:	15	23	23	6	15	15	3	10	18	6	9	3

Note: Queue reported is the number of cars per lane.

PM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.685
Loss Time (sec):	16	Average Delay (sec/veh):	30.0
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	254	806	161	64	477	48	51	232	335	73	207	67
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:	254	806	161	64	477	48	51	232	335	73	207	67
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:	254	806	161	64	477	48	51	232	335	73	207	67
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	267	848	169	67	502	51	54	244	353	77	218	71
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	267	848	169	67	502	51	54	244	353	77	218	71
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
FinalVolume:	267	848	169	67	502	51	54	244	353	77	218	71
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95	0.89	0.95	0.95
Lanes:	1.00	1.67	0.33	1.00	1.82	0.18	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1700	3001	599	1700	3271	329	1700	1800	1800	1700	1800	1800
Capacity Analysis Module:												
Vol/Sat:	0.16	0.28	0.28	0.04	0.15	0.15	0.03	0.14	0.20	0.05	0.12	0.04
Crit Moves:		****		****					****	****		
Green/Cycle:	0.24	0.41	0.41	0.07	0.23	0.23	0.12	0.28	0.28	0.07	0.23	0.23
Volume/Cap:	0.66	0.69	0.69	0.59	0.66	0.66	0.27	0.48	0.69	0.68	0.52	0.17
Delay/Veh:	34.7	23.5	23.5	49.1	33.1	33.1	37.0	27.1	31.3	56.3	31.3	27.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.7	23.5	23.5	49.1	33.1	33.1	37.0	27.1	31.3	56.3	31.3	27.8
LOS by Move:	C	C	C	D	C	C	D	C	C	E	C	C
HCM2k95thQ:	16	24	24	6	16	16	4	12	19	7	12	3

Note: Queue reported is the number of cars per lane.

APPENDIX C-IV

YEAR 2035 TRAFFIC CONDITIONS

AM Buildout (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 Cypress Avenue at H Street

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: A[9.0]

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	31	6	7	91	0	0	0	0	10	0	9
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:	0	31	6	7	91	0	0	0	0	10	0	9
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:	0	31	6	7	91	0	0	0	0	10	0	9
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	33	6	7	96	0	0	0	0	11	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	33	6	7	96	0	0	0	0	11	0	9
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	39	xxxx	xxxxx	xxxx	xxxx	xxxxx	146	146	36
Potent Cap.:	xxxx	xxxx	xxxxx	1584	xxxx	xxxxx	xxxx	xxxx	xxxxx	851	749	1043
Move Cap.:	xxxx	xxxx	xxxxx	1584	xxxx	xxxxx	xxxx	xxxx	xxxxx	848	745	1043
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	930	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			9.0		
ApproachLOS:	*			*			*			A		

Note: Queue reported is the number of cars per lane.

AM Buildout + Project (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #1 Cypress Avenue at H Street

****

Average Delay (sec/veh): 2.5 Worst Case Level Of Service: A[9.1]

****

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	31	6	7	94	0	6	0	20	10	0	9
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:	0	31	6	7	94	0	6	0	20	10	0	9
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:	0	31	6	7	94	0	6	0	20	10	0	9
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	33	6	7	99	0	6	0	21	11	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	33	6	7	99	0	6	0	21	11	0	9
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	39	xxxx	xxxxx	154	153	99	160	149	36
Potent Cap.:	xxxx	xxxx	xxxxx	1584	xxxx	xxxxx	817	743	962	810	746	1043
Move Cap.:	xxxx	xxxx	xxxxx	1584	xxxx	xxxxx	807	739	962	790	742	1043
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.02	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	921	xxxxx	xxxx	892	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	9.0	xxxxx	xxxxx	9.1	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx				9.0			9.1	
ApproachLOS:	*			*				A			A	

****

Note: Queue reported is the number of cars per lane.

****

AM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #1 Cypress Avenue at H Street

****

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: A[9.2]

****

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	34	6	7	99	0	6	0	20	10	0	9
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:	0	34	6	7	99	0	6	0	20	10	0	9
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:	0	34	6	7	99	0	6	0	20	10	0	9
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	36	6	7	104	0	6	0	21	11	0	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	36	6	7	104	0	6	0	21	11	0	9
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	42	xxxx	xxxxx	163	161	104	168	158	39
Potent Cap.:	xxxx	xxxx	xxxxx	1580	xxxx	xxxxx	807	735	956	800	738	1038
Move Cap.:	xxxx	xxxx	xxxxx	1580	xxxx	xxxxx	797	731	956	780	734	1038
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.02	0.01	0.00	0.01
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	914	xxxxx	xxxx	884	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.3	xxxx	xxxxx	xxxxx	9.1	xxxxx	xxxxx	9.2	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			9.1			9.2		
ApproachLOS:	*			*			A			A		

****

Note: Queue reported is the number of cars per lane.

****

PM Buildout (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #1 Cypress Avenue at H Street

****

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: A[8.9]

****

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 0 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	84	7	5	57	0	0	0	0	4	0	15
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:	0	84	7	5	57	0	0	0	0	4	0	15
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:	0	84	7	5	57	0	0	0	0	4	0	15
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	88	7	5	60	0	0	0	0	4	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	88	7	5	60	0	0	0	0	4	0	16
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	96	xxxx	xxxxx	xxxx	xxxx	xxxxx	163	163	92
Potent Cap.:	xxxx	xxxx	xxxxx	1511	xxxx	xxxxx	xxxx	xxxx	xxxxx	833	733	971
Move Cap.:	xxxx	xxxx	xxxxx	1511	xxxx	xxxxx	xxxx	xxxx	xxxxx	831	731	971
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.02
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	937	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	8.9	xxxxx
Shared LOS:	*	*	*	A	*	*	*	*	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			8.9		
ApproachLOS:	*			*			*			A		

****

Note: Queue reported is the number of cars per lane.

****

PM Buildout + Project (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #1 Cypress Avenue at H Street

****

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: A[9.0]

****

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	84	7	5	63	0	5	0	14	4	0	15
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:	0	84	7	5	63	0	5	0	14	4	0	15
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:	0	84	7	5	63	0	5	0	14	4	0	15
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	88	7	5	66	0	5	0	15	4	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	88	7	5	66	0	5	0	15	4	0	16
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	96	xxxx	xxxxx	177	173	66	176	169	92
Potent Cap.:	xxxx	xxxx	xxxxx	1511	xxxx	xxxxx	790	724	1003	791	728	971
Move Cap.:	xxxx	xxxx	xxxxx	1511	xxxx	xxxxx	775	722	1003	777	725	971
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.01	0.01	0.00	0.02
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	931	xxxxx	xxxx	922	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	9.0	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx				9.0			9.0	
ApproachLOS:	*			*				A			A	

****

Note: Queue reported is the number of cars per lane.

****

PM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #1 Cypress Avenue at H Street

****

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: A[9.0]

****

Street Name:	Cypress Avenue						H Street					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 1 0			0 1 0 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	0	90	7	5	70	0	5	0	14	4	0	15
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:	0	90	7	5	70	0	5	0	14	4	0	15
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:	0	90	7	5	70	0	5	0	14	4	0	15
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	95	7	5	74	0	5	0	15	4	0	16
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	95	7	5	74	0	5	0	15	4	0	16
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	102	xxxx	xxxxx	191	186	74	190	183	98
Potent Cap.:	xxxx	xxxx	xxxxx	1503	xxxx	xxxxx	774	712	994	774	715	963
Move Cap.:	xxxx	xxxx	xxxxx	1503	xxxx	xxxxx	759	709	994	761	713	963
Volume/Cap:	xxxx	xxxx	xxxx	0.00	xxxx	xxxx	0.01	0.00	0.01	0.01	0.00	0.02
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	919	xxxxx	xxxx	912	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	xxxxx	9.0	xxxxx	xxxxx	9.0	xxxxx
Shared LOS:	*	*	*	A	*	*	*	A	*	*	A	*
ApproachDel:	xxxxxx			xxxxxx				9.0			9.0	
ApproachLOS:	*			*				A			A	

****

Note: Queue reported is the number of cars per lane.

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AM Buildout (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #2 Pepper Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.687	
Loss Time (sec):	16	Average Delay (sec/veh):	27.3	
Optimal Cycle:	65	Level Of Service:	C	

****

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	134	1046	73	28	1167	92	76	139	150	259	166	63
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:	134	1046	73	28	1167	92	76	139	150	259	166	63
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:	134	1046	73	28	1167	92	76	139	150	259	166	63
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	141	1101	77	29	1228	97	80	146	158	273	175	66
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	1101	77	29	1228	97	80	146	158	273	175	66
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
FinalVolume:	141	1101	77	29	1228	97	80	146	158	273	175	66
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.45	0.55
Final Sat.:	1800	5700	1900	3400	3800	1900	3400	3800	1900	3400	2755	1045
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.04	0.01	0.32	0.05	0.02	0.04	0.08	0.08	0.06	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.10	0.39	0.39	0.14	0.42	0.42	0.08	0.19	0.19	0.11	0.22	0.22
Volume/Cap:	0.76	0.49	0.10	0.06	0.76	0.12	0.31	0.20	0.44	0.76	0.29	0.29
Delay/Veh:	56.0	20.8	17.4	34.0	24.2	15.7	39.9	30.9	33.2	48.4	29.6	29.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	56.0	20.8	17.4	34.0	24.2	15.7	39.9	30.9	33.2	48.4	29.6	29.6
LOS by Move:	E	C	B	C	C	B	D	C	C	D	C	C
HCM2k95thQ:	11	15	3	1	28	3	3	4	8	12	6	6

****

Note: Queue reported is the number of cars per lane.

AM Buildout + Project (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #2 Pepper Avenue at Valley Boulevard

****

Cycle (sec): 90 Critical Vol./Cap.(X): 0.693
Loss Time (sec): 16 Average Delay (sec/veh): 27.7
Optimal Cycle: 66 Level Of Service: C

****

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	134	1046	81	31	1167	92	76	142	150	275	173	70
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:	134	1046	81	31	1167	92	76	142	150	275	173	70
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:	134	1046	81	31	1167	92	76	142	150	275	173	70
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	141	1101	85	33	1228	97	80	149	158	289	182	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	1101	85	33	1228	97	80	149	158	289	182	74
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
FinalVolume:	141	1101	85	33	1228	97	80	149	158	289	182	74
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.42	0.58
Final Sat.:	1800	5700	1900	3400	3800	1900	3400	3800	1900	3400	2705	1095
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.04	0.01	0.32	0.05	0.02	0.04	0.08	0.09	0.07	0.07
Crit Moves:	****				****				****	****		
Green/Cycle:	0.10	0.39	0.39	0.13	0.42	0.42	0.08	0.19	0.19	0.11	0.22	0.22
Volume/Cap:	0.77	0.50	0.12	0.07	0.77	0.12	0.30	0.21	0.44	0.77	0.30	0.30
Delay/Veh:	57.1	21.0	17.7	34.1	24.6	16.0	39.8	31.0	33.2	48.2	29.4	29.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.1	21.0	17.7	34.1	24.6	16.0	39.8	31.0	33.2	48.2	29.4	29.4
LOS by Move:	E	C	B	C	C	B	D	C	C	D	C	C
HCM2k95thQ:	12	15	3	1	28	3	3	4	8	12	6	6

****

Note: Queue reported is the number of cars per lane.

AM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

****

Intersection #2 Pepper Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.842
Loss Time (sec):	16	Average Delay (sec/veh):	35.0
Optimal Cycle:	92	Level Of Service:	D

****

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	262	1190	81	34	1167	174	162	176	207	326	232	73
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:	262	1190	81	34	1167	174	162	176	207	326	232	73
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:	262	1190	81	34	1167	174	162	176	207	326	232	73
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	276	1253	85	36	1228	183	171	185	218	343	244	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	276	1253	85	36	1228	183	171	185	218	343	244	77
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
FinalVolume:	276	1253	85	36	1228	183	171	185	218	343	244	77
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.52	0.48
Final Sat.:	1800	5700	1900	3400	3800	1900	3400	3800	1900	3400	2890	910
Capacity Analysis Module:												
Vol/Sat:	0.15	0.22	0.04	0.01	0.32	0.10	0.05	0.05	0.11	0.10	0.08	0.08
Crit Moves:	****				****				****	****		
Green/Cycle:	0.17	0.40	0.40	0.12	0.35	0.35	0.08	0.19	0.19	0.11	0.22	0.22
Volume/Cap:	0.91	0.55	0.11	0.09	0.91	0.27	0.64	0.26	0.61	0.91	0.38	0.38
Delay/Veh:	66.8	21.0	17.0	35.2	37.3	21.0	45.5	31.3	36.4	65.3	30.1	30.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	66.8	21.0	17.0	35.2	37.3	21.0	45.5	31.3	36.4	65.3	30.1	30.1
LOS by Move:	E	C	B	D	D	C	D	C	D	E	C	C
HCM2k95thQ:	21	17	3	1	35	7	8	5	12	16	8	8

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Note: Queue reported is the number of cars per lane.

PM Buildout (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #2 Pepper Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.553	
Loss Time (sec):	16	Average Delay (sec/veh):	24.6	
Optimal Cycle:	61	Level Of Service:	C	

****

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	126	897	136	60	946	100	117	217	143	128	170	64
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:	126	897	136	60	946	100	117	217	143	128	170	64
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:	126	897	136	60	946	100	117	217	143	128	170	64
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	133	944	143	63	996	105	123	228	151	135	179	67
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	944	143	63	996	105	123	228	151	135	179	67
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
FinalVolume:	133	944	143	63	996	105	123	228	151	135	179	67
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.45	0.55
Final Sat.:	1800	5700	1900	3400	3800	1900	3400	3800	1900	3400	2761	1039
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.08	0.02	0.26	0.06	0.04	0.06	0.08	0.04	0.06	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.41	0.41	0.15	0.44	0.44	0.07	0.19	0.19	0.07	0.19	0.19
Volume/Cap:	0.59	0.40	0.18	0.12	0.59	0.13	0.54	0.32	0.42	0.59	0.34	0.34
Delay/Veh:	41.5	18.8	16.9	32.9	19.5	14.9	43.4	31.8	32.9	44.9	31.9	31.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.5	18.8	16.9	32.9	19.5	14.9	43.4	31.8	32.9	44.9	31.9	31.9
LOS by Move:	D	B	B	C	B	B	D	C	C	D	C	C
HCM2k95thQ:	9	12	5	2	20	3	5	6	8	6	6	6

****

Note: Queue reported is the number of cars per lane.

PM Buildout + Project (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #2 Pepper Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.557
Loss Time (sec):	16	Average Delay (sec/veh):	24.8
Optimal Cycle:	61	Level Of Service:	C

****

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	126	897	152	66	946	100	117	223	143	140	175	69
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:	126	897	152	66	946	100	117	223	143	140	175	69
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:	126	897	152	66	946	100	117	223	143	140	175	69
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	133	944	160	69	996	105	123	235	151	147	184	73
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	133	944	160	69	996	105	123	235	151	147	184	73
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
FinalVolume:	133	944	160	69	996	105	123	235	151	147	184	73
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.43	0.57
Final Sat.:	1800	5700	1900	3400	3800	1900	3400	3800	1900	3400	2725	1075
Capacity Analysis Module:												
Vol/Sat:	0.07	0.17	0.08	0.02	0.26	0.06	0.04	0.06	0.08	0.04	0.07	0.07
Crit Moves:	****				****				****	****		
Green/Cycle:	0.12	0.41	0.41	0.15	0.44	0.44	0.07	0.19	0.19	0.07	0.19	0.19
Volume/Cap:	0.60	0.41	0.21	0.13	0.60	0.13	0.53	0.33	0.42	0.60	0.35	0.35
Delay/Veh:	41.8	19.0	17.4	33.1	19.9	15.1	42.9	31.8	32.9	44.5	31.7	31.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.8	19.0	17.4	33.1	19.9	15.1	42.9	31.8	32.9	44.5	31.7	31.7
LOS by Move:	D	B	B	C	B	B	D	C	C	D	C	C
HCM2k95thQ:	9	12	6	2	20	3	5	6	8	7	7	7

****

Note: Queue reported is the number of cars per lane.

PM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #2 Pepper Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.705	
Loss Time (sec):	16	Average Delay (sec/veh):	30.7	
Optimal Cycle:	68	Level Of Service:	C	

****

Street Name:	Pepper Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	16	16	6	16	16	6	17	17	6	17	17
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	3 0	1	2 0	2 0	1	2 0	2 0	1	2 0	1 1	0
Volume Module:												
Base Vol:	210	993	152	69	946	166	216	264	235	210	243	72
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:	210	993	152	69	946	166	216	264	235	210	243	72
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:	210	993	152	69	946	166	216	264	235	210	243	72
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	221	1045	160	73	996	175	227	278	247	221	256	76
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	221	1045	160	73	996	175	227	278	247	221	256	76
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
FinalVolume:	221	1045	160	73	996	175	227	278	247	221	256	76
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00	0.89	1.00	1.00
Lanes:	1.00	3.00	1.00	2.00	2.00	1.00	2.00	2.00	1.00	2.00	1.54	0.46
Final Sat.:	1800	5700	1900	3400	3800	1900	3400	3800	1900	3400	2931	869
Capacity Analysis Module:												
Vol/Sat:	0.12	0.18	0.08	0.02	0.26	0.09	0.07	0.07	0.13	0.07	0.09	0.09
Crit Moves:	****				****				****	****		
Green/Cycle:	0.17	0.40	0.40	0.14	0.37	0.37	0.07	0.19	0.19	0.09	0.21	0.21
Volume/Cap:	0.71	0.46	0.21	0.15	0.71	0.25	0.91	0.39	0.69	0.71	0.42	0.42
Delay/Veh:	42.5	20.2	18.0	33.8	26.0	19.9	75.8	32.3	39.6	47.2	31.4	31.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.5	20.2	18.0	33.8	26.0	19.9	75.8	32.3	39.6	47.2	31.4	31.4
LOS by Move:	D	C	B	C	C	B	E	C	D	D	C	C
HCM2k95thQ:	14	14	6	2	23	7	12	7	15	10	9	9

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Note: Queue reported is the number of cars per lane.

AM Buildout (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Cypress Avenue at Valley Boulevard

Average Delay (sec/veh): 1.4 Worst Case Level Of Service: B[13.1]

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0		0 0 1!	0 0		1 0 2	0 0		0 0 1	1 0	
Volume Module:												
Base Vol:	0	0	0	38	0	52	15	424	0	0	417	9
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:	0	0	0	38	0	52	15	424	0	0	417	9
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:	0	0	0	38	0	52	15	424	0	0	417	9
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	40	0	55	16	446	0	0	439	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	40	0	55	16	446	0	0	439	9
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	698	922	224	448	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	379	272	785	1123	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	375	269	785	1123	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.11	0.00	0.07	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	537	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			13.1			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

AM Buildout + Project (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: B[14.1]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	51	0	62	15	440	0	0	431	9
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:	0	0	0	51	0	62	15	440	0	0	431	9
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:	0	0	0	51	0	62	15	440	0	0	431	9
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	54	0	65	16	463	0	0	454	9
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	54	0	65	16	463	0	0	454	9
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	722	953	232	463	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	366	261	777	1109	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	362	257	777	1109	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.15	0.00	0.08	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	512	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.1			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

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Note: Queue reported is the number of cars per lane.

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AM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #3 Cypress Avenue at Valley Boulevard

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[15.7]

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	53	0	67	18	482	0	0	494	10
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:	0	0	0	53	0	67	18	482	0	0	494	10
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:	0	0	0	53	0	67	18	482	0	0	494	10
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	56	0	71	19	507	0	0	520	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	56	0	71	19	507	0	0	520	11
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	817	1071	265	531	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	319	223	739	1047	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	314	219	739	1047	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.18	0.00	0.10	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	463	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	15.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.7			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

Note: Queue reported is the number of cars per lane.

PM Buildout (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.2 Worst Case Level Of Service: B[13.3]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	30	0	32	42	499	0	0	344	23
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:	0	0	0	30	0	32	42	499	0	0	344	23
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:	0	0	0	30	0	32	42	499	0	0	344	23
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	32	0	34	44	525	0	0	362	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	32	0	34	44	525	0	0	362	24
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	725	988	193	386	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	364	249	822	1183	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	354	240	822	1183	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.09	0.00	0.04	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	501	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			13.3			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

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Note: Queue reported is the number of cars per lane.

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PM Buildout + Project (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.5 Worst Case Level Of Service: B[14.1]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	39	0	43	42	511	0	0	373	23
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:	0	0	0	39	0	43	42	511	0	0	373	23
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:	0	0	0	39	0	43	42	511	0	0	373	23
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	41	0	45	44	538	0	0	393	24
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	41	0	45	44	538	0	0	393	24
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	762	1031	208	417	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	345	235	804	1153	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	335	226	804	1153	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.12	0.00	0.06	0.04	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	483	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	14.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			14.1			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

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Note: Queue reported is the number of cars per lane.

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PM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

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Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[15.5]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	41	0	50	48	560	0	0	431	25
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:	0	0	0	41	0	50	48	560	0	0	431	25
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:	0	0	0	41	0	50	48	560	0	0	431	25
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	43	0	53	51	589	0	0	454	26
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	43	0	53	51	589	0	0	454	26
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	863	1157	240	480	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	298	198	767	1093	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	287	189	767	1093	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.15	0.00	0.07	0.05	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	438	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	15.5	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.5			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

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Note: Queue reported is the number of cars per lane.

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AM Buildout (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.803
Loss Time (sec):	16	Average Delay (sec/veh):	33.5
Optimal Cycle:	83	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	291	600	182	74	828	16	46	205	332	123	205	106
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:	291	600	182	74	828	16	46	205	332	123	205	106
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:	291	600	182	74	828	16	46	205	332	123	205	106
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	306	632	192	78	872	17	48	216	349	129	216	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	306	632	192	78	872	17	48	216	349	129	216	112
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
FinalVolume:	306	632	192	78	872	17	48	216	349	129	216	112
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.53	0.47	1.00	1.96	0.04	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	2916	884	1800	3728	72	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.17	0.22	0.22	0.04	0.23	0.23	0.03	0.11	0.18	0.07	0.11	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.21	0.38	0.38	0.12	0.29	0.29	0.11	0.23	0.23	0.09	0.21	0.21
Volume/Cap:	0.80	0.56	0.56	0.37	0.80	0.80	0.25	0.50	0.80	0.80	0.53	0.28
Delay/Veh:	45.3	22.2	22.2	37.6	33.8	33.8	37.6	30.5	39.4	64.5	32.9	30.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	45.3	22.2	22.2	37.6	33.8	33.8	37.6	30.5	39.4	64.5	32.9	30.0
LOS by Move:	D	C	C	D	C	C	D	C	D	E	C	C
HCM2k95thQ:	20	17	17	5	24	24	3	11	21	11	11	5

Note: Queue reported is the number of cars per lane.

AM Buildout + Project (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.820
Loss Time (sec):	16	Average Delay (sec/veh):	34.3
Optimal Cycle:	87	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	299	600	182	74	828	19	53	212	348	123	208	106
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:	299	600	182	74	828	19	53	212	348	123	208	106
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:	299	600	182	74	828	19	53	212	348	123	208	106
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	315	632	192	78	872	20	56	223	366	129	219	112
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	315	632	192	78	872	20	56	223	366	129	219	112
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
FinalVolume:	315	632	192	78	872	20	56	223	366	129	219	112
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.53	0.47	1.00	1.96	0.04	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	2916	884	1800	3715	85	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.17	0.22	0.22	0.04	0.23	0.23	0.03	0.12	0.19	0.07	0.12	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.21	0.38	0.38	0.12	0.29	0.29	0.11	0.24	0.24	0.09	0.22	0.22
Volume/Cap:	0.82	0.57	0.57	0.37	0.82	0.82	0.29	0.50	0.82	0.82	0.54	0.27
Delay/Veh:	46.8	22.5	22.5	37.7	35.0	35.0	37.8	30.2	40.1	67.9	32.7	29.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	46.8	22.5	22.5	37.7	35.0	35.0	37.8	30.2	40.1	67.9	32.7	29.8
LOS by Move:	D	C	C	D	D	D	D	C	D	E	C	C
HCM2k95thQ:	20	17	17	5	25	25	4	11	22	12	12	5

Note: Queue reported is the number of cars per lane.

AM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #4 Rancho Avenue at Valley Boulevard

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Cycle (sec):	90	Critical Vol./Cap.(X):	0.847	
Loss Time (sec):	16	Average Delay (sec/veh):	36.0	
Optimal Cycle:	94	Level Of Service:	D	

****

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	308	600	189	79	828	24	56	237	362	137	258	110
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:	308	600	189	79	828	24	56	237	362	137	258	110
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:	308	600	189	79	828	24	56	237	362	137	258	110
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	324	632	199	83	872	25	59	249	381	144	272	116
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	324	632	199	83	872	25	59	249	381	144	272	116
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
FinalVolume:	324	632	199	83	872	25	59	249	381	144	272	116
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.52	0.48	1.00	1.94	0.06	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	2890	910	1800	3693	107	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.18	0.22	0.22	0.05	0.24	0.24	0.03	0.13	0.20	0.08	0.14	0.06
Crit Moves:	****				****				****	****		
Green/Cycle:	0.21	0.38	0.38	0.11	0.28	0.28	0.11	0.24	0.24	0.09	0.23	0.23
Volume/Cap:	0.85	0.58	0.58	0.40	0.85	0.85	0.31	0.55	0.85	0.85	0.63	0.27
Delay/Veh:	50.1	23.0	23.0	38.3	37.2	37.2	38.2	30.8	41.8	70.8	34.5	29.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	50.1	23.0	23.0	38.3	37.2	37.2	38.2	30.8	41.8	70.8	34.5	29.1
LOS by Move:	D	C	C	D	D	D	D	C	D	E	C	C
HCM2k95thQ:	22	18	18	5	26	26	4	13	23	13	15	6

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Note: Queue reported is the number of cars per lane.

PM Buildout (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #4 Rancho Avenue at Valley Boulevard

Cycle (sec):	90	Critical Vol./Cap.(X):	0.708
Loss Time (sec):	16	Average Delay (sec/veh):	29.6
Optimal Cycle:	68	Level Of Service:	C

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1 0	1
Volume Module:												
Base Vol:	251	919	168	68	545	39	46	219	357	75	189	70
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:	251	919	168	68	545	39	46	219	357	75	189	70
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:	251	919	168	68	545	39	46	219	357	75	189	70
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	264	967	177	72	574	41	48	231	376	79	199	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	264	967	177	72	574	41	48	231	376	79	199	74
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
FinalVolume:	264	967	177	72	574	41	48	231	376	79	199	74
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.87	0.13	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3213	587	1800	3546	254	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.15	0.30	0.30	0.04	0.16	0.16	0.03	0.12	0.20	0.04	0.10	0.04
Crit Moves:		****		****					****	****		
Green/Cycle:	0.23	0.42	0.42	0.07	0.25	0.25	0.11	0.27	0.27	0.07	0.23	0.23
Volume/Cap:	0.64	0.72	0.72	0.60	0.64	0.64	0.24	0.44	0.72	0.66	0.46	0.17
Delay/Veh:	34.7	23.7	23.7	48.8	31.4	31.4	37.0	27.3	32.8	53.6	30.9	28.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	34.7	23.7	23.7	48.8	31.4	31.4	37.0	27.3	32.8	53.6	30.9	28.2
LOS by Move:	C	C	C	D	C	C	D	C	C	D	C	C
HCM2k95thQ:	15	25	25	6	16	16	3	11	20	7	10	3

Note: Queue reported is the number of cars per lane.

PM Buildout + Project (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #4 Rancho Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.717
Loss Time (sec):	16	Average Delay (sec/veh):	30.2
Optimal Cycle:	69	Level Of Service:	C

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Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	1 0	1	1 0	1 0	1	0 1
Volume Module:												
Base Vol:	267	919	168	68	545	45	51	224	369	75	195	70
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:	267	919	168	68	545	45	51	224	369	75	195	70
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:	267	919	168	68	545	45	51	224	369	75	195	70
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	281	967	177	72	574	47	54	236	388	79	205	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	281	967	177	72	574	47	54	236	388	79	205	74
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
FinalVolume:	281	967	177	72	574	47	54	236	388	79	205	74
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.69	0.31	1.00	1.85	0.15	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3213	587	1800	3510	290	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.16	0.30	0.30	0.04	0.16	0.16	0.03	0.12	0.20	0.04	0.11	0.04
Crit Moves:		****		****					****	****		
Green/Cycle:	0.23	0.41	0.41	0.07	0.24	0.24	0.12	0.28	0.28	0.07	0.23	0.23
Volume/Cap:	0.67	0.73	0.73	0.60	0.67	0.67	0.26	0.45	0.73	0.66	0.47	0.17
Delay/Veh:	35.5	24.2	24.2	48.8	32.7	32.7	37.0	27.0	32.8	53.6	30.7	27.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.5	24.2	24.2	48.8	32.7	32.7	37.0	27.0	32.8	53.6	30.7	27.9
LOS by Move:	D	C	C	D	C	C	D	C	C	D	C	C
HCM2k95thQ:	16	26	26	6	17	17	3	11	20	7	10	3

****

Note: Queue reported is the number of cars per lane.

PM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

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Intersection #4 Rancho Avenue at Valley Boulevard

****

Cycle (sec):	90	Critical Vol./Cap.(X):	0.737	
Loss Time (sec):	16	Average Delay (sec/veh):	31.2	
Optimal Cycle:	72	Level Of Service:	C	

****

Street Name:	Rancho Avenue						Valley Boulevard					
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		
Rights:	Include			Include			Include			Include		
Min. Green:	6	12	12	6	12	12	6	12	12	6	12	12
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0 1	1 0	1	0 1	1 0	1	0 1	1 0	1	0 1	0 1
Volume Module:												
Base Vol:	285	919	182	73	545	52	57	259	379	82	231	75
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:	285	919	182	73	545	52	57	259	379	82	231	75
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:	285	919	182	73	545	52	57	259	379	82	231	75
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	300	967	192	77	574	55	60	273	399	86	243	79
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	300	967	192	77	574	55	60	273	399	86	243	79
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
FinalVolume:	300	967	192	77	574	55	60	273	399	86	243	79
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Lanes:	1.00	1.67	0.33	1.00	1.83	0.17	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1800	3172	628	1800	3469	331	1800	1900	1900	1800	1900	1900
Capacity Analysis Module:												
Vol/Sat:	0.17	0.30	0.30	0.04	0.17	0.17	0.03	0.14	0.21	0.05	0.13	0.04
Crit Moves:		****		****					****	****		
Green/Cycle:	0.24	0.41	0.41	0.07	0.24	0.24	0.12	0.28	0.28	0.07	0.23	0.23
Volume/Cap:	0.70	0.75	0.75	0.64	0.70	0.70	0.29	0.51	0.75	0.72	0.55	0.18
Delay/Veh:	36.4	24.7	24.7	52.1	33.9	33.9	37.2	27.5	32.9	60.1	32.0	27.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	36.4	24.7	24.7	52.1	33.9	33.9	37.2	27.5	32.9	60.1	32.0	27.9
LOS by Move:	D	C	C	D	C	C	D	C	C	E	C	C
HCM2k95thQ:	17	26	26	7	17	17	4	13	21	8	13	4

****

Note: Queue reported is the number of cars per lane.

APPENDIX D

DRIVEWAY HCM/LOS CALCULATION WORKSHEETS

APPENDIX D-I

YEAR 2018 TRAFFIC CONDITIONS

AM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #5 Project Driveway 1 at Valley Boulevard

****

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[12.9]

****

Street Name:	Project Driveway 1						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	16	0	23	14	430	0	0	485	18
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:	0	0	0	16	0	23	14	430	0	0	485	18
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:	0	0	0	16	0	23	14	430	0	0	485	18
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	17	0	24	15	453	0	0	511	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	17	0	24	15	453	0	0	511	19
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	776	1002	265	529	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	338	244	740	1048	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	335	241	740	1048	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.05	0.00	0.03	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	494	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			12.9			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

****

Note: Queue reported is the number of cars per lane.

****

PM Existing + Amb + Project + Cum (Year 2018)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Project Driveway 1 at Valley Boulevard

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[12.6]

Street Name:	Project Driveway 1						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0	0	0 0	1! 0	0	1 0	2	0 0	0 0	1	1 0
Volume Module:												
Base Vol:	0	0	0	11	0	16	29	530	0	0	399	35
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:	0	0	0	11	0	16	29	530	0	0	399	35
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:	0	0	0	11	0	16	29	530	0	0	399	35
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	12	0	17	31	558	0	0	420	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	12	0	17	31	558	0	0	420	37
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	778	1057	228	457	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	337	227	780	1115	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	330	221	780	1115	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.04	0.00	0.02	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	502	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	12.6	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			12.6			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

APPENDIX D-II

YEAR 2035 TRAFFIC CONDITIONS

AM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Project Driveway 1 at Valley Boulevard

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[13.9]

Street Name:	Project Driveway 1						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	16	0	23	14	485	0	0	543	18
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:	0	0	0	16	0	23	14	485	0	0	543	18
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:	0	0	0	16	0	23	14	485	0	0	543	18
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	17	0	24	15	511	0	0	572	19
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	17	0	24	15	511	0	0	572	19
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	866	1121	295	591	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	297	208	707	995	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	293	205	707	995	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.06	0.00	0.03	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	448	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.9	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			13.9			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

PM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Project Driveway 1 at Valley Boulevard

Average Delay (sec/veh): 0.5 Worst Case Level Of Service: B[13.4]

Street Name:	Project Driveway 1						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0 0 0			0 0 1! 0 0			1 0 2 0 0			0 0 1 1 0		
Volume Module:												
Base Vol:	0	0	0	11	0	16	29	597	0	0	446	35
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:	0	0	0	11	0	16	29	597	0	0	446	35
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:	0	0	0	11	0	16	29	597	0	0	446	35
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	12	0	17	31	628	0	0	469	37
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	12	0	17	31	628	0	0	469	37
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	863	1177	253	506	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	298	193	752	1069	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	291	187	752	1069	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.04	0.00	0.02	0.03	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	457	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	13.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			13.4			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

APPENDIX D-III

CYPRESS AVENUE AT VALLEY BOULEVARD QUEUING CALCULATIONS

AM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[15.7]

****

Street Name:	Cypress Avenue						Valley Boulevard					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0 0	0	0 0	1! 0	0	1 0	2 0	0	0 0	1 1	0
Volume Module:												
Base Vol:	0	0	0	53	0	67	18	482	0	0	494	10
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:	0	0	0	53	0	67	18	482	0	0	494	10
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:	0	0	0	53	0	67	18	482	0	0	494	10
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:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	56	0	71	19	507	0	0	520	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	56	0	71	19	507	0	0	520	11
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.8	6.5	6.9	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	817	1071	265	531	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	319	223	739	1047	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	314	219	739	1047	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.18	0.00	0.10	0.02	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.5	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	463	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	15.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	*	*	*	*	*	*
ApproachDel:	xxxxxx			15.7			xxxxxx			xxxxxx		
ApproachLOS:	*			C			*			*		

****

Note: Queue reported is the number of cars per lane.

****

PM Buildout + Project + Cum (Year 2035)
Las Terrazas, County of San Bernardino

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

****

Intersection #3 Cypress Avenue at Valley Boulevard

****

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: C[15.5]

****

Street Name:	Cypress Avenue									Valley Boulevard								
Approach:	North Bound					South Bound				East Bound					West Bound			
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign					Stop Sign					Uncontrolled					Uncontrolled				
Rights:	Include					Include					Include					Include				
Lanes:	0	0	0	0	0	0	0	1!	0	0	1	0	2	0	0	0	0	1	1	0
Volume Module:																				
Base Vol:	0	0	0			41	0	50			48	560	0			0	431	25		
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:	0	0	0			41	0	50			48	560	0			0	431	25		
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:	0	0	0			41	0	50			48	560	0			0	431	25		
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:	0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95			0.95	0.95	0.95		
PHF Volume:	0	0	0			43	0	53			51	589	0			0	454	26		
Reduct Vol:	0	0	0			0	0	0			0	0	0			0	0	0		
FinalVolume:	0	0	0			43	0	53			51	589	0			0	454	26		
Critical Gap Module:																				
Critical Gp:	xxxxx	xxxx	xxxxx			6.8	6.5	6.9			4.1	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
FollowUpTim:	xxxxx	xxxx	xxxxx			3.5	4.0	3.3			2.2	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Capacity Module:																				
Cnflict Vol:	xxxx	xxxx	xxxxx			863	1157	240			480	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Potent Cap.:	xxxx	xxxx	xxxxx			298	198	767			1093	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Move Cap.:	xxxx	xxxx	xxxxx			287	189	767			1093	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Volume/Cap:	xxxx	xxxx	xxxx			0.15	0.00	0.07			0.05	xxxx	xxxx			xxxx	xxxx	xxxx		
Level Of Service Module:																				
2Way95thQ:	xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx			0.1	xxxx	xxxxx			xxxx	xxxx	xxxxx		
Control Del:	xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx			8.5	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
LOS by Move:	*	*	*			*	*	*			A	*	*			*	*	*		
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	xxxx	xxxxx			xxxx	438	xxxxx			xxxx	xxxx	xxxxx			xxxx	xxxx	xxxxx		
SharedQueue:	xxxxx	xxxx	xxxxx			xxxxx	0.8	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shrd ConDel:	xxxxx	xxxx	xxxxx			xxxxx	15.5	xxxxx			xxxxx	xxxx	xxxxx			xxxxx	xxxx	xxxxx		
Shared LOS:	*	*	*			*	C	*			*	*	*			*	*	*		
ApproachDel:	xxxxxx					15.5					xxxxxx					xxxxxx				
ApproachLOS:	*					C					*					*				

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Note: Queue reported is the number of cars per lane.

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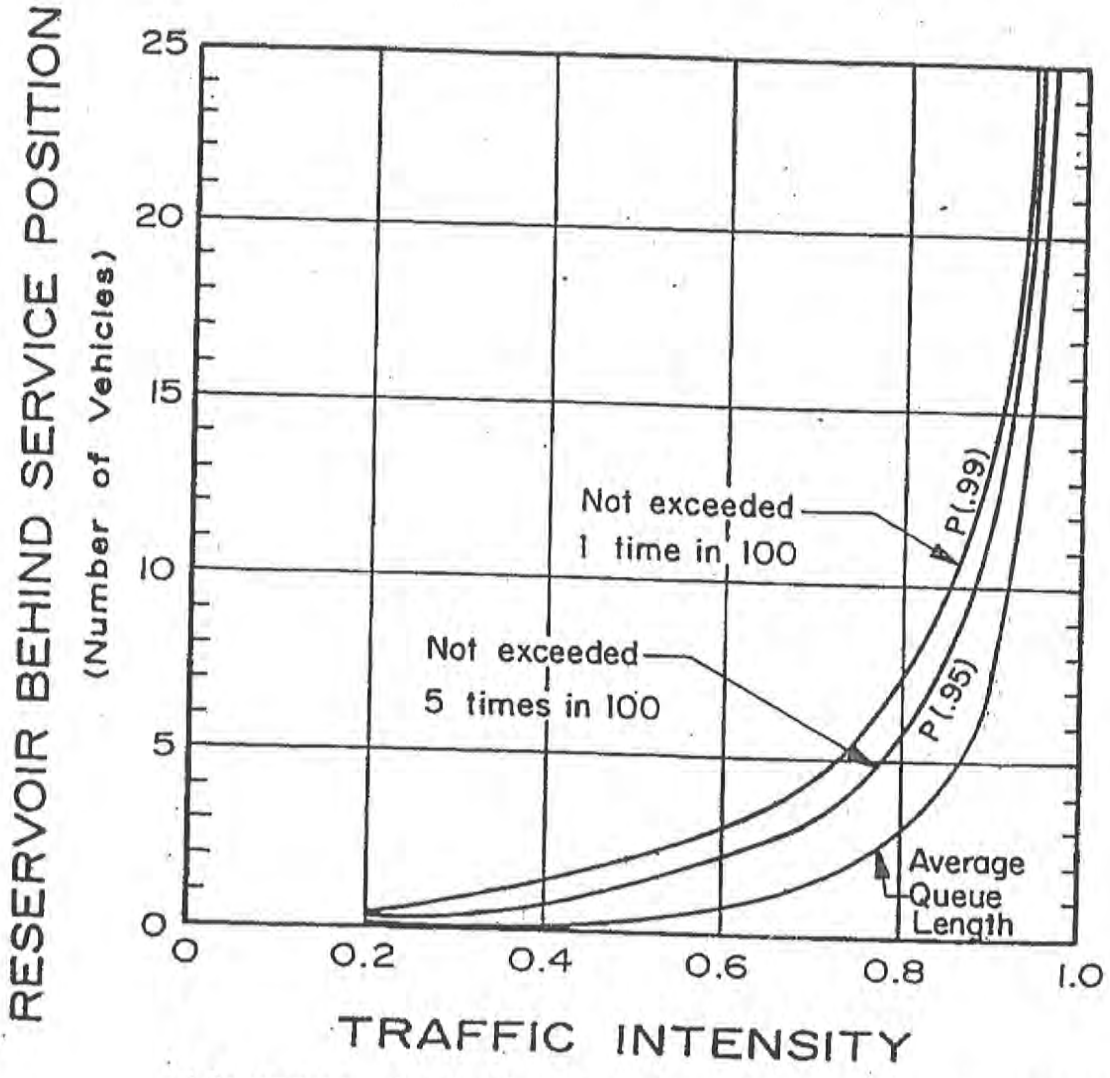
APPENDIX D-IV

GATE STACKING ANALYSIS

RESERVOIR NEEDS VS TRAFFIC INTENSITY



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Assumptions:

1. Arrivals follow a Poisson Distribution
2. Service rate can be represented by an exponential probability function.
3. Flow is equally divided between each lane if more than one is available.

Note: To obtain reservoir length, use 22 feet per vehicle.