800 N. Girard Street (APN 439-230-005)

TRAFFIC IMPACT ANALYSIS

CITY OF HEMET

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
CA MUTCD	California Manual on Uniform Traffic Control Devices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
DIF	Development Impact Fee
E+P	Existing Plus Project
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
N/A	Not Applicable
PHF	Peak Hour Factor
Project	800 N. Girard Street (APN 439-230-005)
RTA	Riverside Transit Authority
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
SHS	State Highway System
TIA	Traffic Impact Analysis
TUMF	Transportation Uniform Mitigation Fee
v/c	Volume to Capacity
WRCOG	Western Riverside Council of Governments

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1 INTRODUCTION

This report presents the results of the traffic impact analysis (TIA) for the proposed 800 N. Girard Street (APN 439-230-005) ("Project") located on the northwest corner of the Park Avenue / East Menlo Avenue intersection in the City of Hemet as shown on Exhibit 1-1.

The purpose of this TIA is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and recommend improvements to achieve acceptable circulation system operational conditions.

1.1 PROJECT OVERVIEW

The Project is proposed to include the development of 51 single family detached residential dwelling units. For the purposes of this analysis, potential impacts have been assessed for a single development phase. The Project is anticipated to be fully built and occupied by Year 2021.

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017. (1) The proposed Project is anticipated to generate a net total of approximately 481 trip-ends per day with 38 AM peak hour trips and 51 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.2 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential impacts to traffic and circulation have been evaluated for each of the following conditions:

- Existing (2019) Conditions
- Existing plus Project (E+P) Conditions
- Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP)
- Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC)

All study area intersections will be evaluated using the Highway Capacity Manual (HCM) 6th Edition analysis methodology.

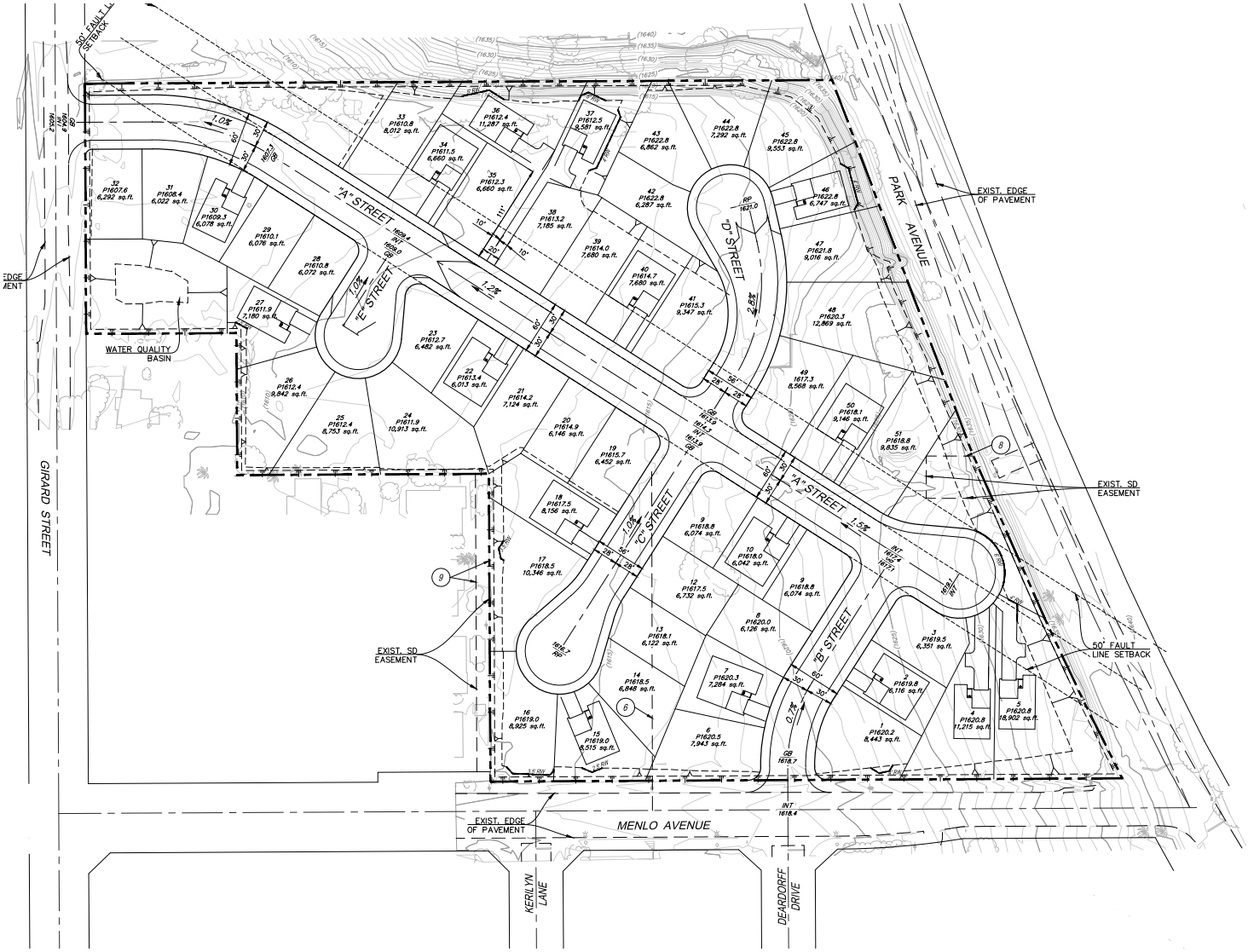
1.2.1 EXISTING CONDITIONS

Existing physical conditions have been disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

1.2.2 EXISTING PLUS PROJECT CONDITIONS

The E+P analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project being placed upon Existing conditions.

EXHIBIT 1-1: PRELIMINARY SITE PLAN



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1.2.3 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT (2021) CONDITIONS (EAP)

The Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP) analyses determine potential near-term cumulative circulation system deficiencies. To account for background traffic growth, an ambient growth factor from Existing conditions of 4.04% (2 percent per year over 2 years, compounded annually) for 2021 conditions is included for Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP).

1.2.4 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT PLUS CUMULATIVE (2021) CONDITIONS (EAPC)

The Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC) analyses determine potential near-term cumulative circulation system deficiencies with cumulative projects. In addition to EAP traffic volumes, traffic associated with other cumulative projects that were determined to be in process was also added in conjunction with Project traffic for each of the proposed development phases, in an effort to identify the traffic deficiencies associated with cumulative projects.

1.3 STUDY AREA

The Project study area was defined in coordination with the City of Hemet. Consistent with County of Riverside traffic study guidelines, the study area includes any intersection of "Collector" or higher classification street, with "Collector" or higher classification streets, at which the proposed project will add 50 or more peak hour trips. Exhibit 1-2 presents the study area and intersection analysis locations.

Although the Project traffic contribution to all adjacent intersections is less than 50 trips in either the morning or evening peak hour, the majority of Project traffic is anticipated to utilize Menlo Avenue. The nearest traffic signal location along Menlo Avenue is at the San Jacinto Street / Menlo Avenue intersection.

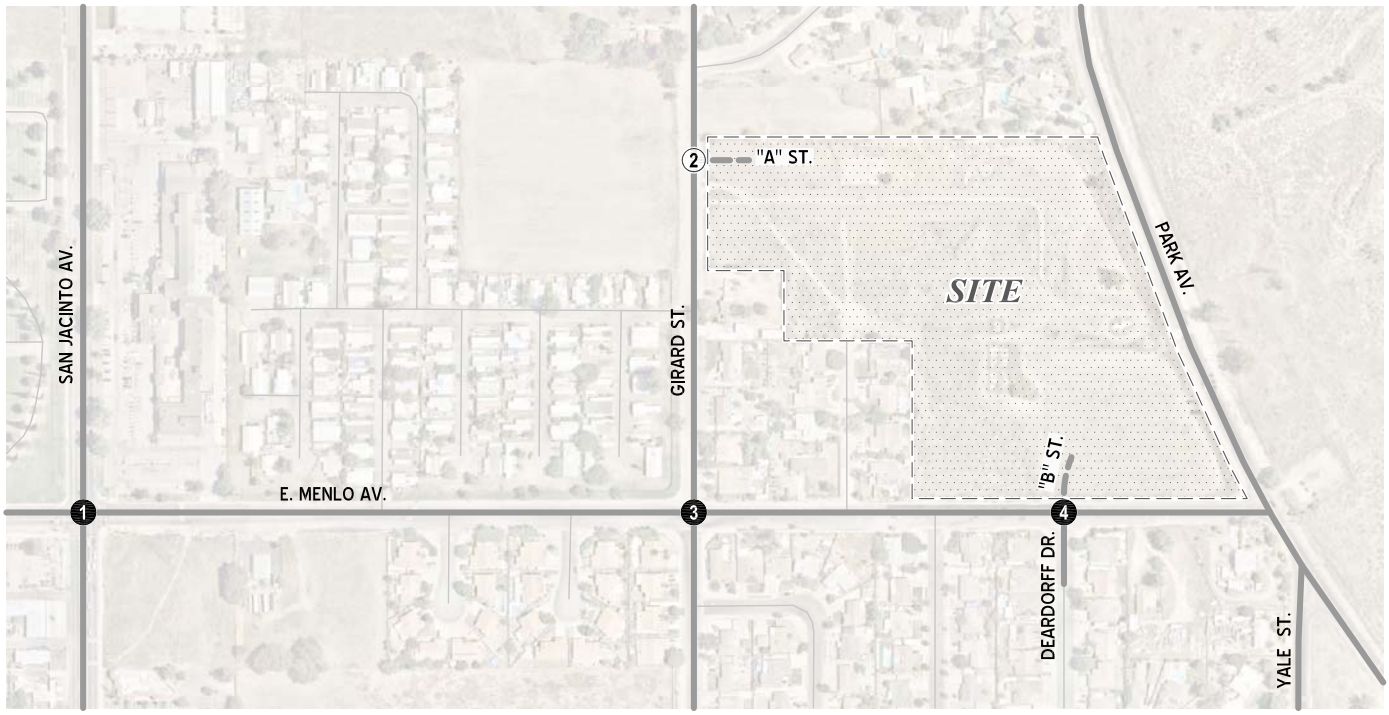
1.3.1 INTERSECTIONS

The following 4 study area intersections shown on Exhibit 1-2 and listed in Table 1-1 were selected for this TIA based on consultation with City of Hemet staff. Study area intersection analysis locations include San Jacinto Street at E. Menlo Avenue, Girard Street at "A" Street, Girard Street at E. Menlo Avenue, and "B" Street at E. Menlo Avenue.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location
1	San Jacinto Ave. & E. Menlo Ave.
2	Girard St. & "A" St. – Future analysis Location
3	Girard St. & E. Menlo Ave.
4	Deardorff Dr. - "B" St. & E. Menlo Ave.

EXHIBIT 1-2: LOCATION MAP



LEGEND:

- 3 = EXISTING ANALYSIS LOCATION
- 1 = FUTURE ANALYSIS LOCATION
- = FUTURE PROJECT DRIVEWAY

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1.4 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing (2019), E+P, Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP), and Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC).

Existing (2019) Conditions

For Existing (2019) traffic conditions, none of the study area intersections are currently operating at an unacceptable LOS (i.e., LOS E or worse) during either of the peak hours.

E+P Conditions

The intersection analysis results indicate that the addition of Project traffic is not anticipated to result in any LOS deficiencies.

Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP)

None of the study area intersections are anticipated to operate at an unacceptable LOS (LOS E or worse) during one or more peak hours under Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP).

Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC)

The intersection analysis results indicate that no LOS deficiencies are anticipated for Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC) conditions.

Vehicle Miles Traveled

Based upon the WRCOG VMT Screening Tool, the Project is located within a TAZ where the VMT / service population (population and employment) is approximately 32.15 VMT/SP, which is more than the City of Hemet average of approximately 28.88 VMT/SP. The total daily Project VMT therefore amounts to 4,437 daily.

1.5 IMPACTS AND RECOMMENDED IMPROVEMENTS

Section 2.0 *Methodologies* provides information on the methodologies used in the analysis and Section 5.0 *E+P Traffic Conditions,* and Section 6 *Near Term (2021) Traffic Analysis* includes the detailed Project impact analyses. There are no Project impacts identified at study area intersections.

The Project contribution to the City of Hemet Development Impact Fee (DIF) Program and the Riverside County Transportation Uniform Mitigation Program (TUMF) is anticipated to address the Project's share of regional and City improvements. These fees (both to the City of Hemet, TUMF, and as determined, to surrounding agencies as fair-share contributions) are collected as part of a funding mechanism aimed at ensuring that regional highways and arterial expansions keep pace with the projected vehicle trip increases.

1.5.1 CITY OF HEMET FEES

The Project will be subject to City of Hemet's Development Impact Fee (DIF) program which includes a component for Road Facilities Fees. The Road Facilities Fees finance highways, roads, bridges, and traffic signals, consistent with the various goals, policies, and implementation measures within General Plan 2030.

1.5.2 TRANSPORTATION UNIFORM MITIGATION FEE (TUMF) PROGRAM

The TUMF program is administered by the Western Riverside Council of Governments (WRCOG) based upon a regional Nexus Study. The Project Applicant will be subject to the TUMF fee program and will pay the requisite TUMF fees at the rates then in effect pursuant to the TUMF Ordinance. The Project is located in the Hemet/San Jacinto TUMF zone. The facilities planned through the TUMF program are constructed prior to the time at which the identified facility is expected to deteriorate to an inadequate level of service. WRCOG has a successful track record funding and overseeing the construction of improvements funded through the TUMF program. In total, the TUMF program is anticipated to generate nearly $5 billion in transportation projects for Western Riverside County.

1.6 ON-SITE ROADWAY AND SITE ACCESS IMPROVEMENTS

The Project is proposed to have access via "A" Street to Girard Street and via "B" Street to East Menlo Avenue at the intersection of Deardorff Drive at East Menlo Avenue. Both driveways are proposed to allow for full access.

As part of the development, the Project will construct improvements on the site adjacent roadways of Girard Street, East Menlo Avenue, and Park Avenue. Roadway improvements necessary to provide site access and on-site circulation are assumed to be constructed in conjunction with site development and are described below. These improvements should be in place prior to occupancy.

1.6.1 SITE ADJACENT ROADWAY IMPROVEMENTS

The recommended site-adjacent roadway improvements for the Project are described below. These improvements need to be incorporated into the Project description prior to Project approval or imposed as conditions of approval as part of the Project approval. Exhibit 1-3 illustrates the site adjacent roadway improvement recommendations for the Project (Buildout). For each adjacent street, improvements along the Project's frontage would be those required by final conditions of approval for the proposed Project and applicable City of Hemet standards.

Girard Street – Complete Girard Street at its ultimate half-section width as a 2-lane (unclassified) road between the Project's north boundary and south boundary adjacent to Girard Street. Provide reconstructed pavement and curb and gutter and sidewalk improvements for the east side of Girard Street along the Project frontage.

East Menlo Avenue – East Menlo Avenue is an east-west oriented roadway along the Project south boundary. Construct East Menlo Avenue at its ultimate half-section width as a Secondary

(94-foot right-of-way) between the Project west boundary and Park Avenue adjacent to East Menlo Avenue. Update pavement, providing 2 westbound lanes, a bike lane, curb and gutter and sidewalk improvements for the north side of East Menlo Avenue along the Project frontage.

Park Avenue – Park Avenue is a north-south oriented roadway along the Project east boundary. Construct Park Avenue at its ultimate half-section width as a Secondary (94-foot right-of-way) between the Project north boundary and south boundary adjacent to Park Avenue. Update pavement, providing southeastbound lanes, a bike lane, curb and gutter and sidewalk improvements for the west side of Park Avenue along the Project frontage.

1.6.2 SITE ACCESS IMPROVEMENTS

The recommended site access driveway improvements for the Project are described below. Exhibit 1-3 also illustrates the on-site and site adjacent recommended intersection lane improvements. Construction of on-site and site adjacent improvements are recommended to occur in conjunction with adjacent Project development activity or as needed for Project access purposes.

The following intersection recommendations represent the minimum lanes that must be provided to achieve acceptable peak hour operations.

Girard St. & "A" St. – Provide minor street ("A" Street) stop control for the westbound approach and construct the intersection with the following geometrics:

Northbound Approach: Allow right turn access from existing single through lane.

Southbound Approach: Allow left turn access from existing single through lane.

Westbound Approach: One shared left/right turn lane.

Deardorff Dr. - "B" St. & E. Menlo Ave. – Construct north leg of existing "T" intersection with stop control and the following geometrics:

Northbound Approach: Allow through movement from existing shared left/right turn lane.

Southbound Approach: One shared left/through/right lane.

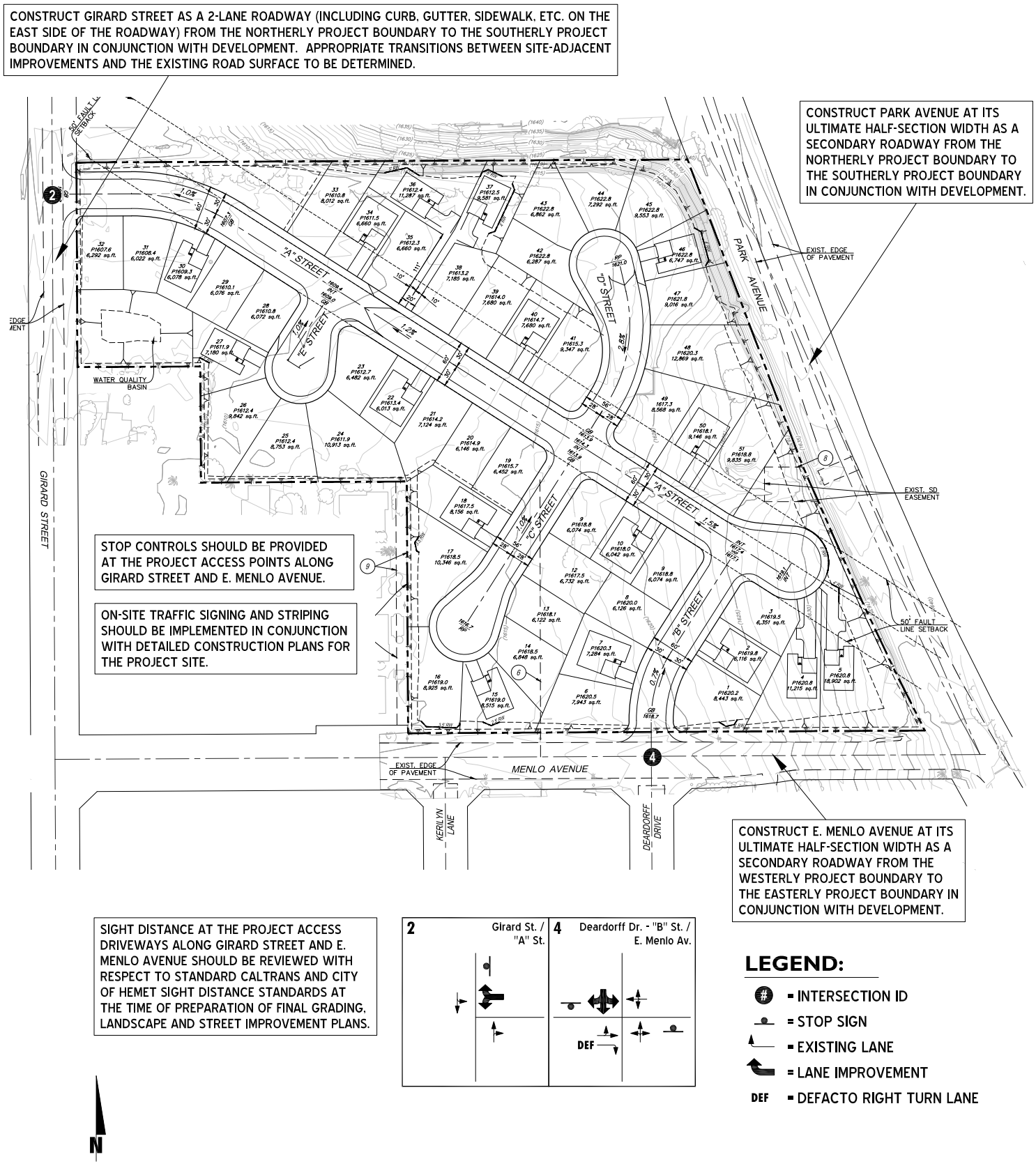
Eastbound Approach: Allow left turn access from existing single through/right lane.

Westbound Approach: Allow right turn access from existing single left/through lane.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site.

Sight distance at each project access point should be reviewed with respect to standard Caltrans and City of Hemet sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

EXHIBIT 1-3: SITE ADJACENT ROADWAY AND SITE ACCESS RECOMMENDATIONS



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2 METHODOLOGIES

This section documents the methodologies and assumptions used to perform this traffic assessment.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The *Highway Capacity Manual* (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (2) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Hemet and the California Department of Transportation (Caltrans) require signalized intersection operations analysis based on the methodology described in the HCM 6th Edition. (2) Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1.

TABLE 2-1: SIGNALIZED INTERSECTION LOS THRESHOLDS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Source: HCM 6th Edition

Study area intersections have been analyzed using the software package Synchro (Version 10). Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network. The LOS analysis for signalized intersections has been performed using optimized signal timing for existing traffic conditions. Signal timing optimization has considered pedestrian safety and signal coordination requirements. Appropriate time for pedestrian crossings has also been considered in the signalized intersection analysis. Signal timing for study area intersections have been requested and utilized. Where signal timing was unavailable, the local accepted standards were utilized in lieu of actual signal timing.

The peak hour traffic volumes have been adjusted using a PHF to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Per Chapter 4 of the HCM 6th Edition, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (2) However, in an effort to conduct a conservative analysis, Existing PHFs have been used for all analysis scenarios.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Hemet and Caltrans require the operations of unsignalized intersections be evaluated using the methodology described in the HCM 6th Edition. (2) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION DESCRIPTION OF LOS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM 6th Edition

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

2.3 TRAFFIC SIGNAL WARRANT ANALYSIS METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by California Department of Transportation (Caltrans) and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TIA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices *(CA MUTCD)* for all study area intersections. (3)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The Caltrans CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (3) Specifically, this TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 is appropriate to use for this TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

Traffic signal warrant analyses were performed for all of the unsignalized study area intersections, as the existing intersections are currently signalized. The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Existing Conditions* of this report. The traffic signal warrant analysis for future conditions is presented in Section 5 *Existing Plus Project Traffic Analysis*, and Section 6 *Near Term Traffic Analysis* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 MINIMUM LEVEL OF SERVICE (LOS)

The City of Hemet has established LOS D as the lowest acceptable LOS for peak-hour intersection movements and LOS C as the lowest acceptable LOS for roadway segment operations. (4)

2.5 DEFICIENCY CRITERIA

To determine whether the addition of project traffic at a study intersection would result in a deficiency, the following will be utilized:

- A deficiency occurs at a study area intersections if the pre-Project condition is at or better than LOS D (i.e., acceptable LOS), and the addition of project trips causes the peak hour LOS of the study area intersection to operate at unacceptable LOS (i.e., LOS E or F). Per the County of Riverside traffic study guidelines, for intersections currently operating at unacceptable LOS (LOS E or F), a deficiency would occur if the Project contributes 50 or more peak hour trips to pre-project traffic conditions.

2.6 PROJECT FAIR SHARE CALCULATION METHODOLOGY, IF NEEDED

In cases where this TIA identifies that the Project would contribute additional traffic volumes to cumulative traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified. The Project's fair share cost of improvements is determined based on the following equation, which is the ratio of Project traffic to new traffic, and new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (EAPC Total Traffic – Existing Traffic)

The Project fair share contribution calculations were not needed for this Project.

3 EXISTING CONDITIONS

This section provides a summary of the existing circulation network, the City of Hemet General Plan Circulation Network, and a review of existing peak hour intersection operations, roadway segment capacity, and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

The study area includes a total of 4 existing and future intersections as shown on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF HEMET GENERAL PLAN CIRCULATION ELEMENT

Exhibit 3-2 shows the adopted City of Hemet General Plan Circulation Element, and Exhibit 3-3 illustrates the adopted City of Hemet General Plan roadway cross-sections.

3.3 BICYCLE AND PEDESTRIAN FACILITIES

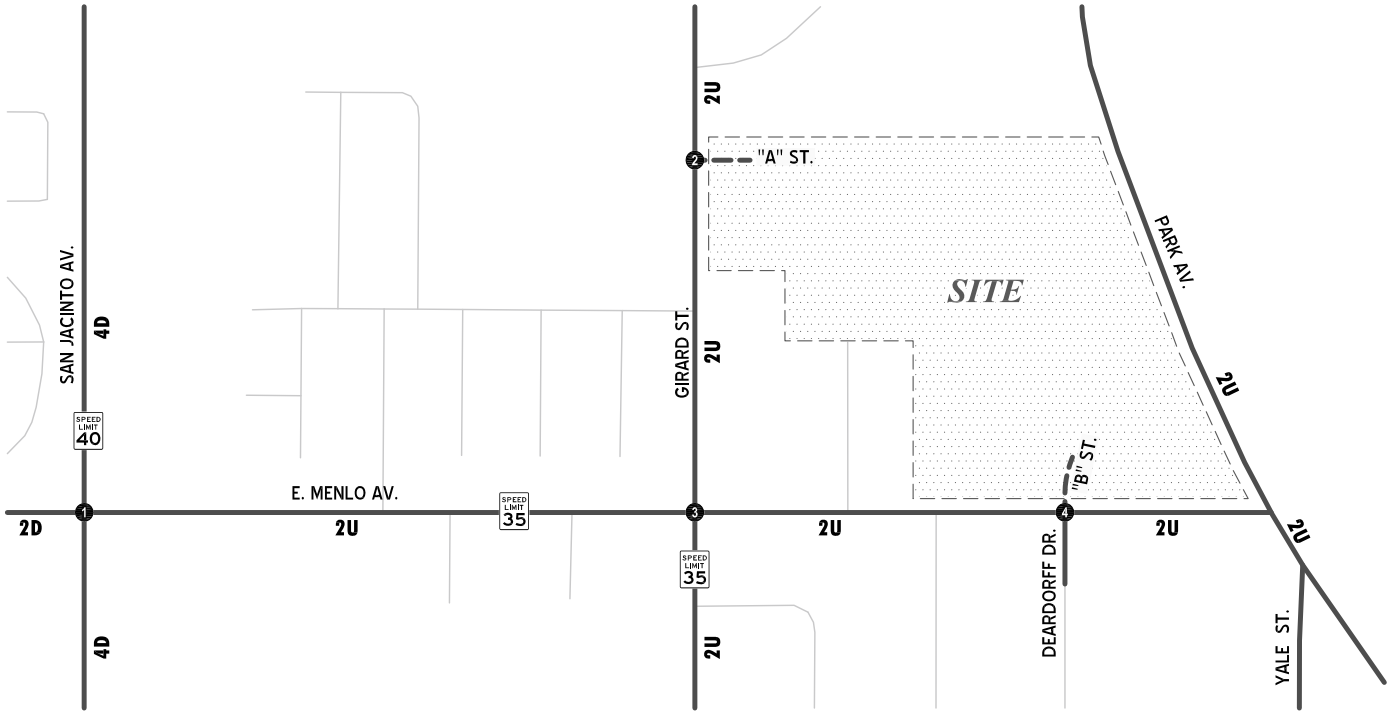
Exhibit 3-4 illustrates the City of Hemet General Plan Bikeways, and Exhibit 3-5 shows the City of Hemet General Plan Bikeway Cross Sections. As shown on Exhibit 3-4, East Menlo Avenue and Park Avenue are proposed to accommodate Class 2 (on-road) two-way striped bike lanes.

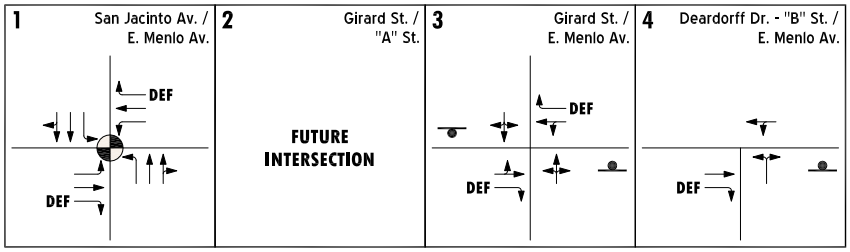
Pedestrian pedestrian facilities are currently provided along the south side of East Menlo Avenue from east of Deardorff Drive to the western study area boundary. The existing pedestrian facilities within the study area are shown on Exhibit 3-6.

3.4 TRANSIT SERVICE

The study area is currently served by the Riverside Transit Agency (RTA) with bus services along San Jacinto Street in the study area and East Menlo Avenue west of San Jacinto Street. RTA Routes 32, 42, 74, 79 appear to be existing transit routes that could potentially serve the Project the study area as shown on Exhibit 3-7. Transit service is reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS





LEGEND:

- 4 = INTERSECTION ID
- = FUTURE PROJECT ROADWAY
- = TRAFFIC SIGNAL
- = STOP SIGN
- 2 = NUMBER OF LANES
- U = UNDIVIDED
- DEF = DEFACTO RIGHT TURN LANE

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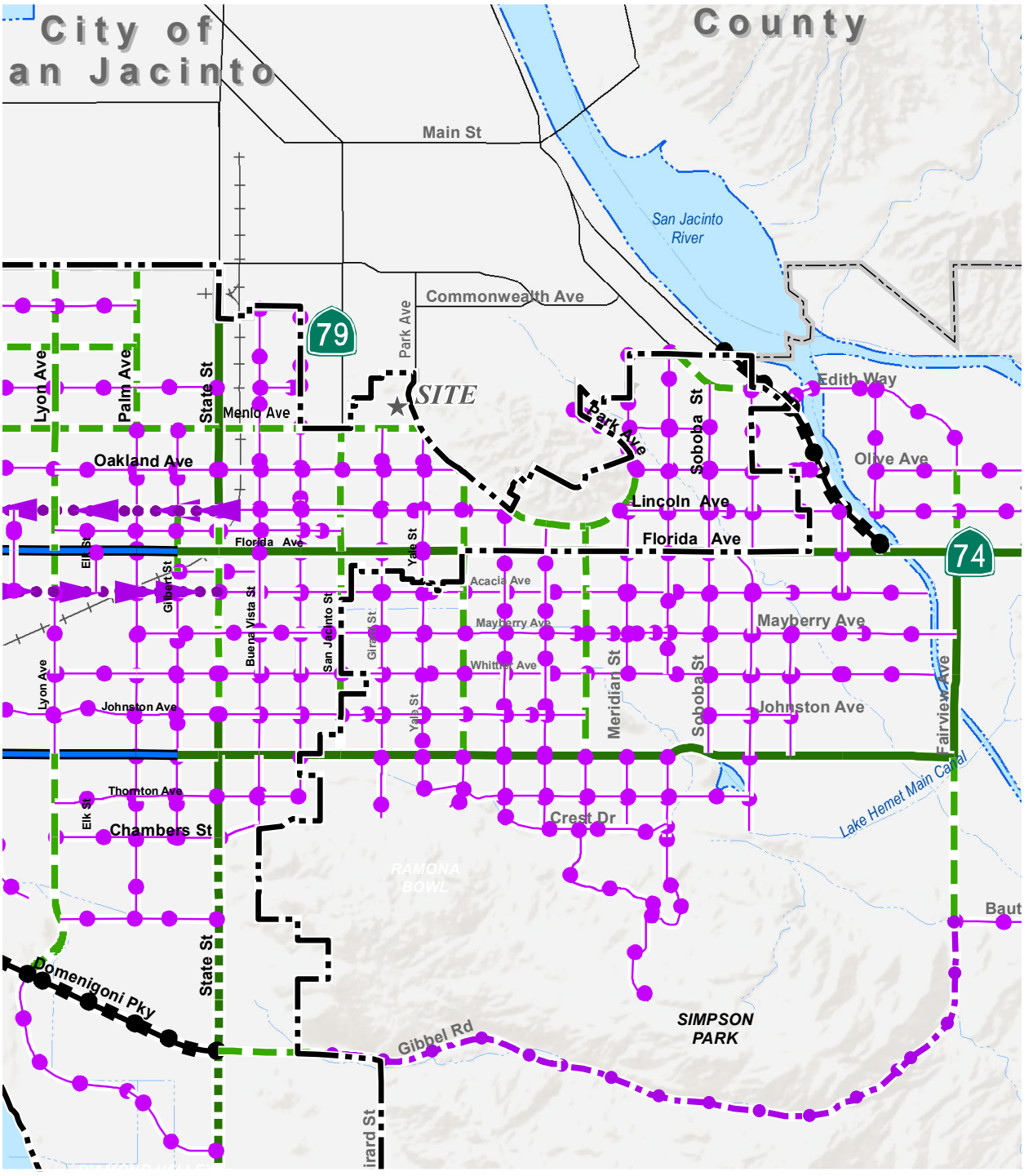
EXHIBIT 3-2: CITY OF HEMET GENERAL PLAN CIRCULATION ELEMENT



LEGEND:

Circulation System
- Arterial 6D
- Major 4D-6D
- Divided Secondary-A 4D
- Divided Secondary-B 4D
- Secondary 4U
- Express Collector 3U
- Collector 2U
- Rural-A 2U
- Rural-B 2U

SR-79 Realignment
- Expressway
- Ramps

- Hemet City Boundary
- Planning Area
- Street
- Railroad
- Creek/Canal
- River/Lake

Note: The ultimate design and alignment of the proposed Hwy 79 has not yet been adopted and will be determined upon approval of the project by Caltrans and the Riverside County Transportation Commission. The adopted design alternative may result in changes to the circulation network shown on this Figure, including existing and proposed roadway connections in the vicinity of the proposed Hwy 79, and may or may not include the Tres Cerritos Avenue offramp.

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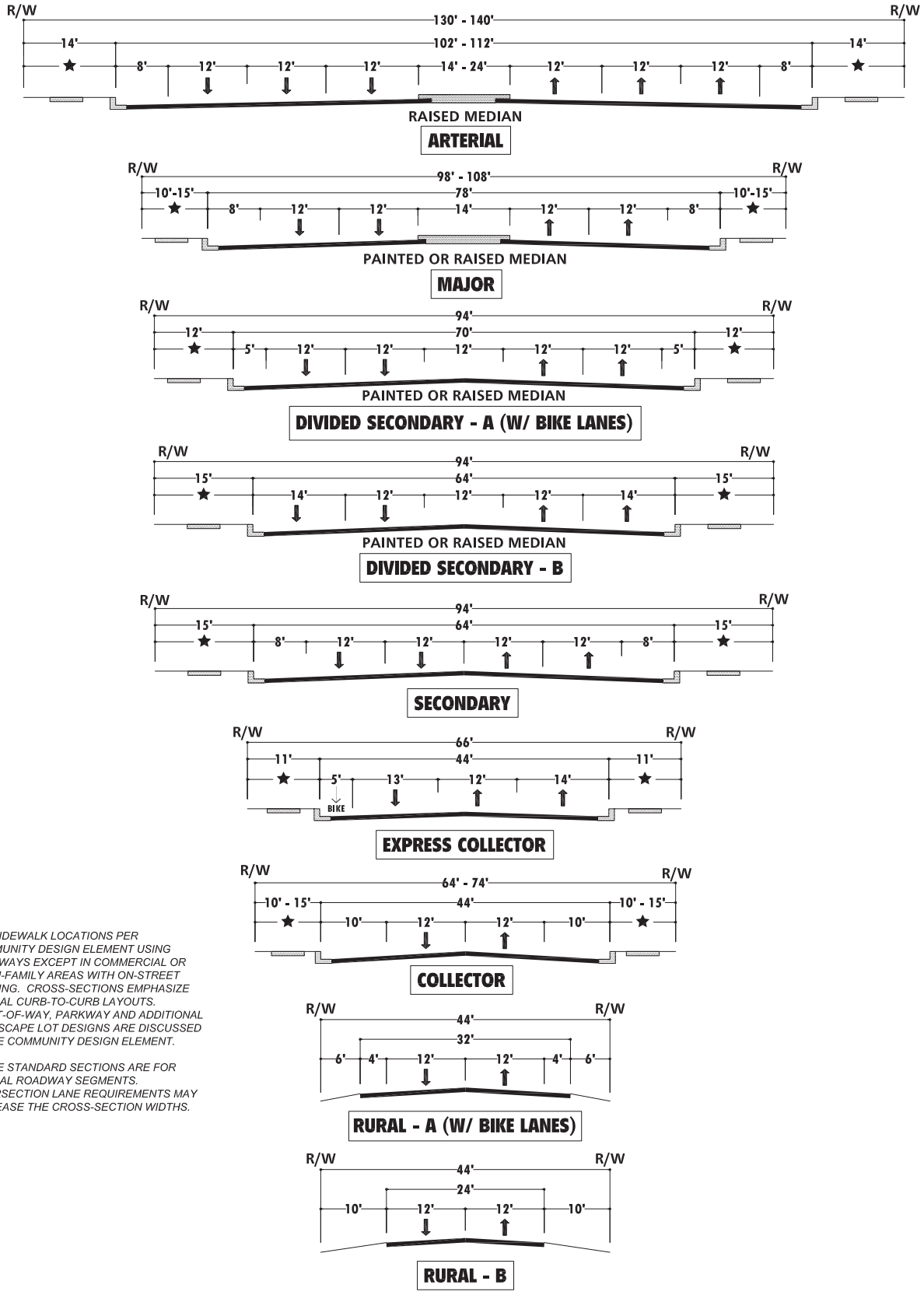
EXHIBIT 3-3: CITY OF HEMET GENERAL PLAN CROSS-SECTIONS



★ *ALL SIDEWALK LOCATIONS PER COMMUNITY DESIGN ELEMENT USING PARKWAYS EXCEPT IN COMMERCIAL OR MULTI-FAMILY AREAS WITH ON-STREET PARKING. CROSS-SECTIONS EMPHASIZE TYPICAL CURB-TO-CURB LAYOUTS. RIGHT-OF-WAY, PARKWAY AND ADDITIONAL LANDSCAPE LOT DESIGNS ARE DISCUSSED IN THE COMMUNITY DESIGN ELEMENT.*

THESE STANDARD SECTIONS ARE FOR TYPICAL ROADWAY SEGMENTS. INTERSECTION LANE REQUIREMENTS MAY INCREASE THE CROSS-SECTION WIDTHS.

EXHIBIT 3-4: CITY OF HEMET GENERAL PLAN BIKEWAYS

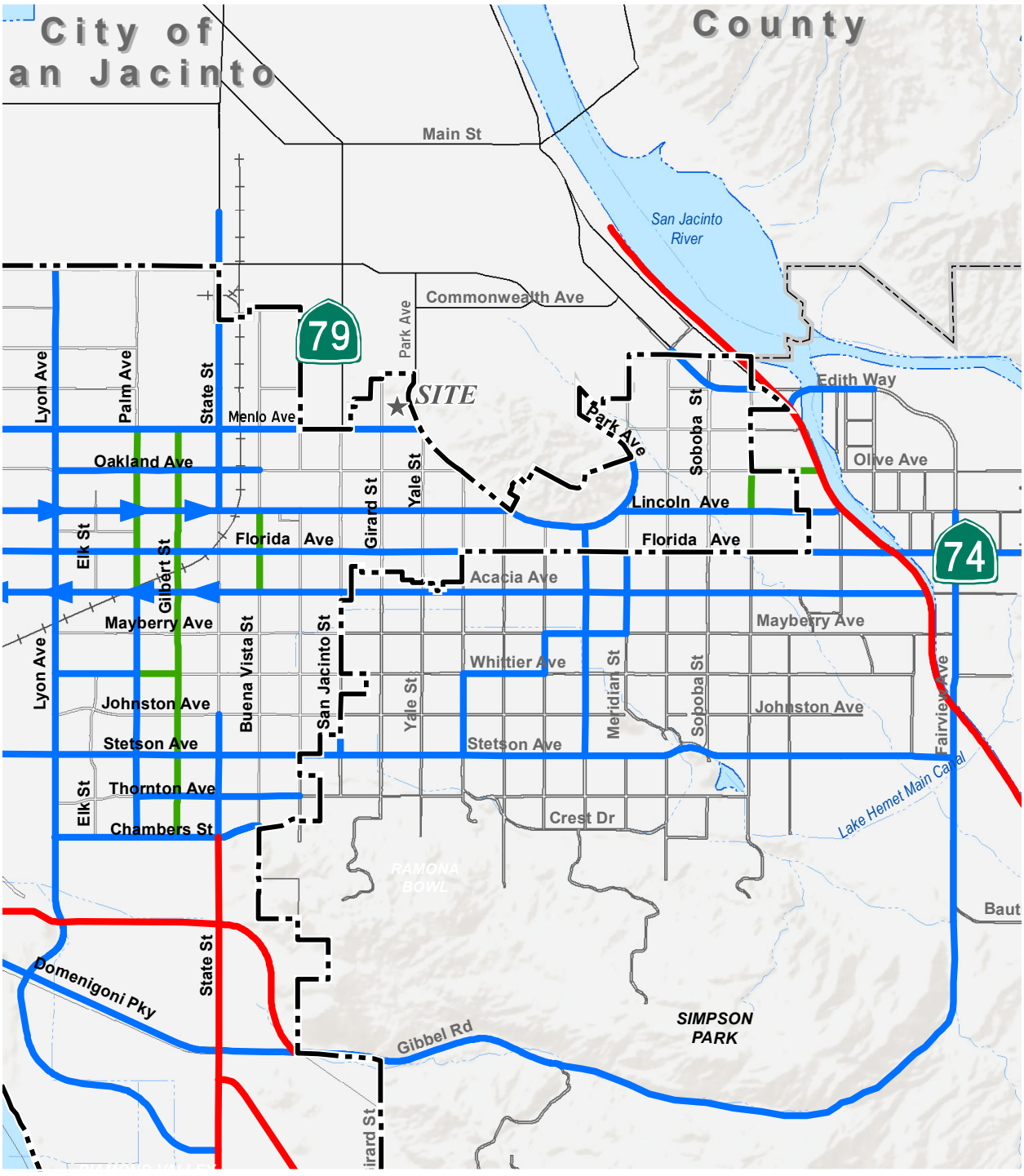


EXHIBIT 3-5: CITY OF HEMET GENERAL PLAN BIKEWAY CROSS-SECTIONS

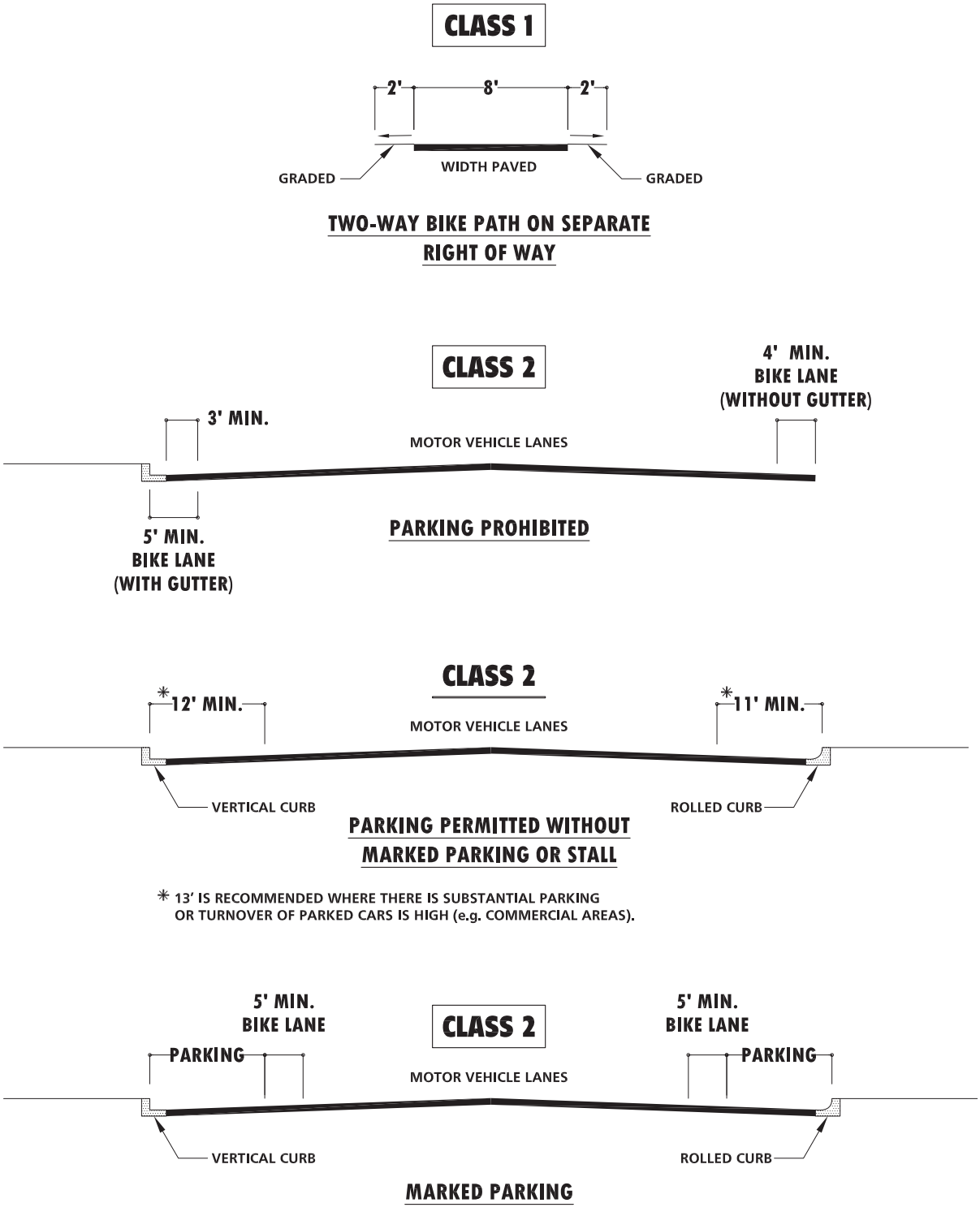


EXHIBIT 3-6: EXISTING PEDESTRIAN AND BIKE FACILITIES

LEGEND:

- # = INTERSECTION ID
- = SIDEWALK/PATH
- = CROSSWALK

N

EXHIBIT 3-7: EXISTING TRANSIT ROUTES

LEGEND:

- # = INTERSECTION ID
- = RTA ROUTE 32
- = RTA ROUTE 32 (COMMUTER ROUTING)
- = RTA ROUTE 42
- = RTA ROUTE 73
- = RTA ROUTE 79

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3.5 EXISTING TRAFFIC COUNTS

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in October 2019.

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic.

Manual weekday AM and PM peak hour turning movement counts were conducted in October 2019. The weekday AM and PM peak hour count data is representative of typical peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity that would prevent or limit roadway access and detour routes. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1. These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic. Existing weekday AM and PM peak hour intersection volumes are shown on Exhibit 3-8.

Existing weekday average daily traffic (ADT) volumes on arterial highways throughout the study area are also presented on Exhibit 3-8. Existing ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg where count data is unavalable:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

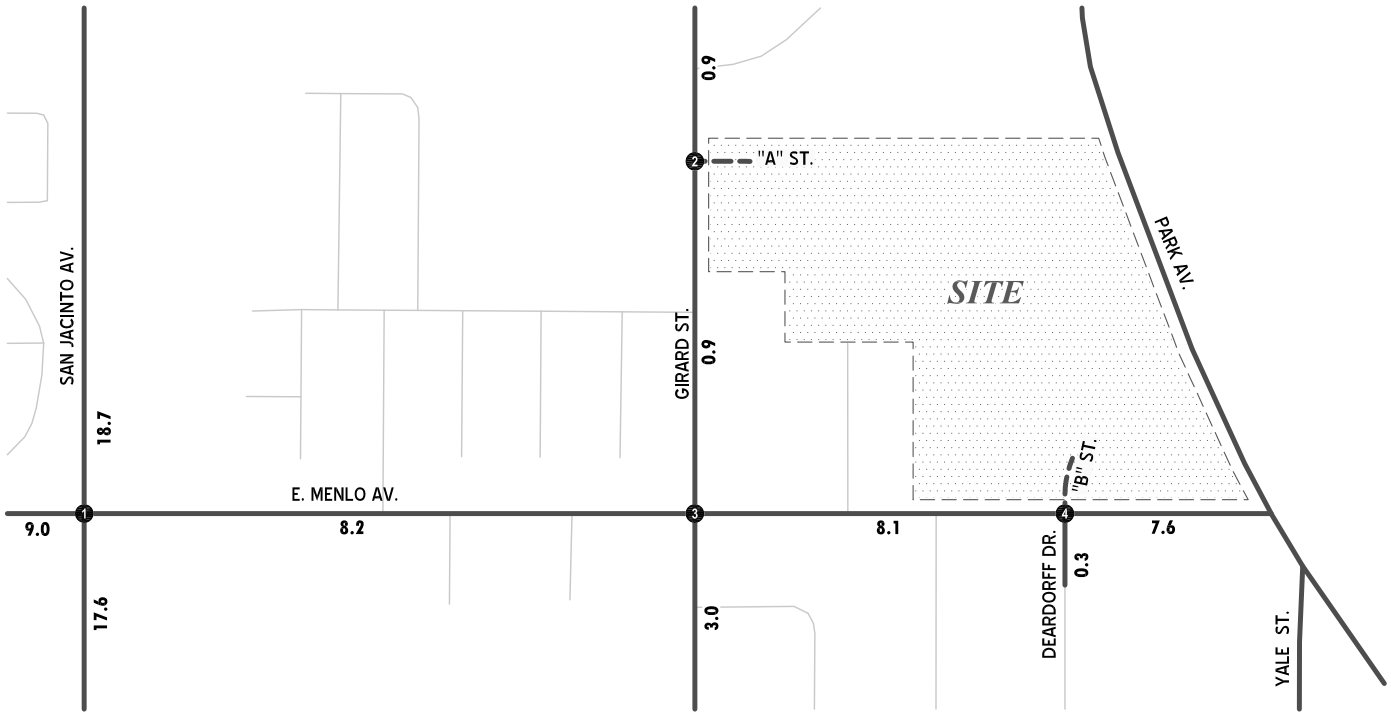
3.6 EXISTING CONDITIONS INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that none of the existing study area intersections are currently operating at an unacceptable LOS during the peak hours. The intersection operations analysis worksheets are included in Appendix 3.2 of this TIA.

3.7 EXISTING CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. For Existing traffic conditions, a traffic signal does not appear to currently be warranted at the unsignalized study area intersections (see Appendix 3.3).

EXHIBIT 3-8: EXISTING (2019) TRAFFIC VOLUMES



AM PEAK HOUR INTERSECTION VOLUMES

1 San Jacinto Av. / E. Menlo Av.	2 Girard St. / "A" St.	3 Girard St. / E. Menlo Av.	4 Deardorff Dr. - "B" St. / E. Menlo Av.
61, 425, 31 / 76, 220, 51 / 70, 204, 55 / 45, 434, 24	FUTURE INTERSECTION	9, 11, 5 / 6, 286, 55 / 5, 192, 72 / 69, 23, 44	323, 3 / 245, 4 / 7, 3

PM PEAK HOUR INTERSECTION VOLUMES

1 San Jacinto Av. / E. Menlo Av.	2 Girard St. / "A" St.	3 Girard St. / E. Menlo Av.	4 Deardorff Dr. - "B" St. / E. Menlo Av.
91, 565, 68 / 74, 182, 43 / 93, 267, 58 / 61, 670, 66	FUTURE INTERSECTION	12, 3, 8 / 5, 223, 43 / 6, 328, 46 / 58, 24, 68	254, 2 / 376, 12 / 10, 4

LEGEND:

- 4 = INTERSECTION ID
- = FUTURE PROJECT ROADWAY
- 10.0 = VEHICLES PER DAY (1000'S)
- 10 = PEAK HOUR VOLUME

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URBAN CROSSROADS

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2019) CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	San Jacinto Av. / E. Menlo Av.	TS	1	2	0	1	2	0	1	1	d	1	1	d	15.4	16.2	B	B
2	Girard St. / "A" St.		Intersection Does Not Exist															
3	Girard St. / E. Menlo Av.	CSS	0	1!	0	0	1!	0	0.5	0.5	d	0.5	0.5	d	17.5	19.6	C	C
4	Deardorff Dr. - "B" St. / E. Menlo Av.	CSS	0	1!	0	0	0	0	0	1	d	0.5	0.5	0	12.6	13.3	B	B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1! = Shared Left-Through-Right Lane; 0.5 = Shared Lane; d = Defacto Right Turn Lane

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 10.1 analysis software.

[3] TS = Traffic Signal; CSS = Cross-street Stop

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4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. The Project is proposed to include the development of 51 single family detached residential dwelling units. For the purposes of this analysis, potential impacts have been assessed for a single development phase. The Project is anticipated to be fully built and occupied in the year 2021.

The Project is proposed to have access via "A" Street to Girard Street and via "B" Street to East Menlo Avenue at the intersection of Deardorff Drive at East Menlo Avenue. Both driveways are proposed to allow for full access.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. The trip generation rates are based upon data collected by the Institute of Transportation Engineers (ITE) for Single Family Residential (ITE Land Use Code 210) in their published Trip Generation Manual, 10th Edition, 2017. (1)

The Single Family Residential land use (ITE Land Use Code 210) has been utilized for the purposes of this TIA. Trip generation rates and the daily and peak hour trip generation for proposed Project are shown in Table 4-1. The Project is estimated to generate a net total of 481 trip-ends per day on a typical weekday with approximately 38 AM peak hour trips and 51 PM peak hour trips.

4.2 PROJECT TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land uses and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute.

The Project trip distribution was developed based on anticipated travel patterns to and from the Project site for passenger cars. The Project trip distribution patterns were developed based on an understanding of existing travel patterns in the area, the geographical location of the site, and the site's proximity to the regional arterial and state highway system. The Project trip distribution patterns is graphically depicted on Exhibit 4-1.

4.3 MODAL SPLIT

Although the use of public transit, walking, and/or bicycling have the potential to reduce Project-related traffic, such reductions have not been taken into consideration in this traffic study in order to provide a conservative analysis of the Project's potential to contribute to circulation system deficiencies.

TABLE 4-1: PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1]									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	51 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	51 DU	10	28	38	32	19	51	481

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit

R:\UXRjobs_12600-13000\12892\Excel\[12892-03 - Report.xlsx]Trip Gen

EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION

LEGEND:

4 = INTERSECTION ANALYSIS LOCATION
10 = PERCENT NEW TRIPS FROM/TO PROJECT
= FUTURE PROJECT DRIVEWAY

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4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT, and weekday AM and PM peak hour turning movement volumes shown on Exhibit 4-2.

4.5 CUMULATIVE DEVELOPMENT TRAFFIC

California Environmental Quality Act (CEQA) guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis.

Exhibit 4-3 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown on Table 4-2. Where applicable, the traffic generated by individual cumulative projects has been manually added to the Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC) forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-2 are reflected as part of the background traffic.

4.6 TRAFFIC FORECASTS

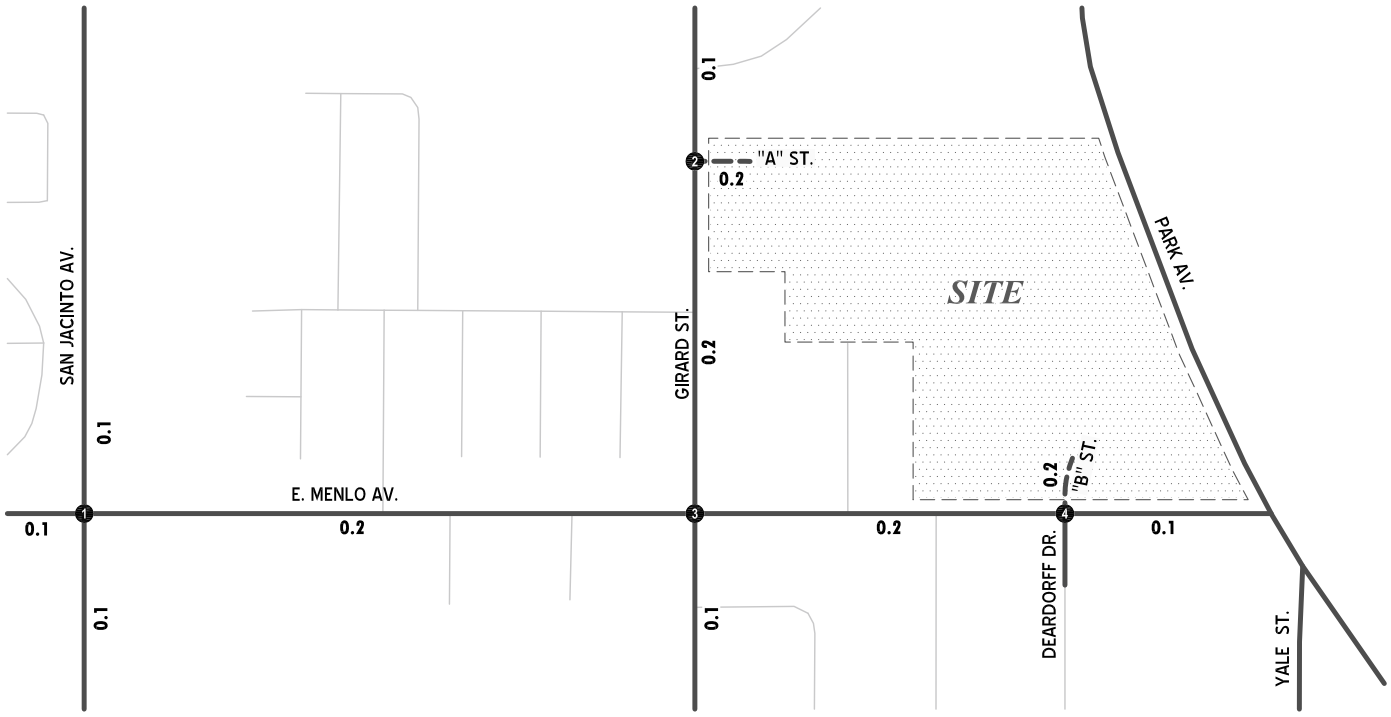
To provide a comprehensive assessment of the deficiencies, two types of analyses, "buildup" and "buildout", were performed in support of this work effort. The "buildup" method was used to approximate E+P, Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP), and Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC), and is intended to identify the near-term deficiencies on both the existing and planned near-term circulation system.

An ambient growth factor of 4.04% accounts for background (area-wide) traffic increases that occur over time up to the year 2021 from the year 2019 (compounded two percent per year growth over a 2-year period). Cumulative Project traffic is added to assess Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC). The 2021 roadway networks are similar to the existing conditions roadway network with the exception of Project access improvements.

The resulting near-term traffic analysis components include the following:

- Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP)
    - Existing 2019 counts
    - Ambient growth traffic (4.04%)
    - Project traffic
- Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC)
    - Existing 2019 counts
    - Ambient growth traffic (4.04%)
    - Cumulative development project traffic
    - Project traffic

EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



AM PEAK HOUR INTERSECTION VOLUMES

1 San Jacinto Av. / E. Menlo Av.	2 Girard St. / "A" St.	3 Girard St. / E. Menlo Av.	4 Deardorff Dr. - "B" St. / E. Menlo Av.
0 0 2 / 4 6 4	0 2 / 4 10	7 3 0 / 0 7 3	10 0 4 / 2 0 0
0 2 0 / 0 0 2	0 4	3 3 0 / 0 1 1	4 0 0 / 0 0 0

PM PEAK HOUR INTERSECTION VOLUMES

1 San Jacinto Av. / E. Menlo Av.	2 Girard St. / "A" St.	3 Girard St. / E. Menlo Av.	4 Deardorff Dr. - "B" St. / E. Menlo Av.
0 0 5 / 3 4 3	0 5 / 3 7	5 2 0 / 0 5 2	7 0 3 / 5 0 0
0 6 0 / 0 0 5	0 11	8 8 0 / 0 3 3	11 0 0 / 0 0 0

LEGEND:

- 4 = INTERSECTION ID
- = FUTURE PROJECT ROADWAY
- 10.0 = VEHICLES PER DAY (1000'S)
- 10 = PEAK HOUR VOLUME

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EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP

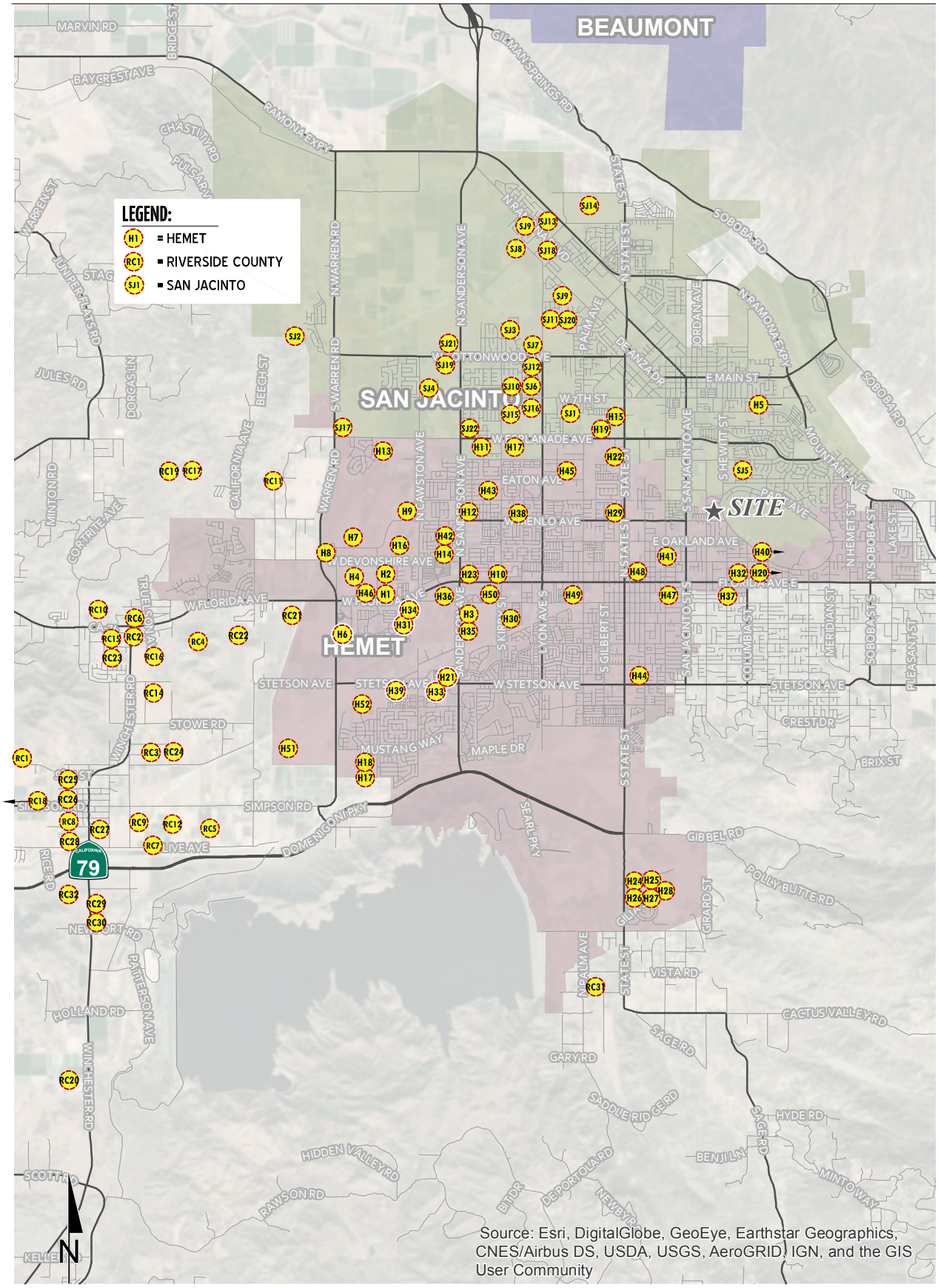


TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY *(Page 1 of 4)*

#	Name	Land Use	Quantity	Units[1]
City of Hemet				
H1	Florida Promenade (SP 06-04)	Commercial	200.00 (100.00 Built)	TSF
H2	Florida Promenade Residential	Senior Residential (attached)	440	DU
		Single Family Residential	145	DU
H3	Sanderson Square (SP 05-03)	Commercial	243.000	TSF
		Office/Industrial	186.700	TSF
H4	Ramona Creek Specific Plan	Single Family Residential	1077	DU
		Mixed-Use	145.645	TSF
		Shopping Center	535.788	TSF
		Open Space Corridor	23.8	AC
		Recreation Spine	12.2	AC
H5	TTM 35990 Corwin Ranch	Single Family Residential	12	DU
H6	Hemet Auto Mall Retail Expansion (CUP 07-21)	Commercial	108.000	TSF
H7	Tres Cerritos West (VTTM 31513)	Single Family Residential	178	DU
H8	Montero (VTTM 31146)	Single Family Residential	86 (70 Built)	DU
		Neighborhood Park	0.76	AC
H9	Peppertree Ranch (SP 01-3 and VTTM 29843)	Senior Residential (detached)	465 (16 Built)	DU
		Parks/Open Space	40.20	AC
H10	The Boardwalk (CUP 06-4)	Commercial	94.00 (20.00 Built)	TSF
H11	TTM 29581 (Covenant)	Single Family Residential	71	DU
H12	Zanderson Plaza (CUP 16-006 + TPM 37196)	Commercial	68.000	TSF
H13	Stoney Mountain Ranch (TTM 29129)	Single Family Residential	395 (303 Built)	DU
H14	TTM 33707 (Devonshire Partners) CUP 03-16A	Single Family Residential	98 (25 Built)	DU
H15	TTM 24147-1 Hideaway	Single Family Residential	71	DU
H16	Tres Cerritos East (SPA 06-1)	Single Family Residential	775	DU
H17	Page Ranch Elementary School	Elementary School	750	STU
H18	Freedom Middle School	Middle School	1500	STU
H19	TM 31976 Hideaway	Single Family Residential	121	DU
H20	St. Deminia Center (CUP 07-16)	Commercial	33.480	TSF
H21	Stetson Crossing (SP 07-4)	Commercial	189.000	TSF
H22	Nelson (SDR 06-28)	Industrial	16.200	TSF
H23	CUP 17-002 Crossroads	Commercial	1.000	TSF
H24	McSweeny TTM 33824 (Map 05-10)	Single Family Residential	238	DU
H25	McSweeny TTM 33825 (Map 05-11)	Single Family Residential	259	DU
H26	McSweeny TTM 34660	Single Family Residential	396	DU
H27	McSweeny TTM 34661	Single Family Residential	427	DU
H28	McSweeny TTM 34662	Single Family Residential	11	DU
H29	Santa Fe Pointe SDR 15-001	Multi-Family Residential	241	DU
H30	Acacia Gardens Expansion (CUP 06-5)	Multi-Family Residential	50	DU
H31	Cawston Plaza (CUP 07-26)	Commercial	21.000	TSF
H32	Scripps West (CUP 08-14)	Commercial	5.300	TSF
H33	Hemet Medical (CUP 07-24)(TPM 35701)	Medical Office	126.00 (50.00 Built)	TSF
H34	Hemet 63 (ZC 05-04)	Commercial	260.000	TSF
H35	JAKS LLC (ZC 04-13)	Commercial	170.000	TSF
H36	Les Schwab Tire Store	Automotive Retail	11.970	TSF

TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY *(Page 2 of 4)*

#	Name	Land Use	Quantity	Units[1]
H37	Taco Bell (CUP 16-004)	Fast-Food Restaurant	2.090	TSF
H38	TTM 33858	Single Family Residential	37	DU
H39	TTM 34712	Multi-Family Residential	40	DU
H40	7 Days Market (CUP 13-005)	Service Station	6	Pumps
H41	Downtown Hemet Specific Plan	Various	Various	
H42	TM 25225 (Copenhagen)	Multi-Family Residential	40	DU
H43	TTM 36929	Single Family Residential	21	DU
H44	TTM 36924	Single Family Residential	58	DU
H45	TTM 37087	Single Family Residential	20	DU
H46	Circle K (CUP 16-005)	Gas Station w/ Convenience Store & Car Wash	20	Pumps
H47	Clinca de Salud (SDR 16-003)	Medical Office	13.000	TSF
H48	Al For Show (CUP 16-002)	Retail	3.020	TSF
H49	Gas Mart Remodel	Gas Station w/ Convenience Store	6	Pumps
H50	KPC Towne Center (SDR 15-004)	Shopping Center	124.880	TSF
H51	Rancho Diamante (TTM No. 36841)	Single Family Residential	588	DU
		Commercial	100.000	TSF
H52	Tract 35392	Single Family Residential	150	DU
City of San Jacinto				
SJ1	TR22665 (50% Occupied)	Single Family Residential	75	DU
SJ2	TR30034 (SP 1-01)	Single Family Residential	50	DU
	TR30035 (SP 1-01)	Single Family Residential	74	DU
	TR30036 (SP 1-01)	Single Family Residential	104	DU
	TR30084 (SP 1-01)- Under Construction	Single Family Residential	111	DU
	TR30090 (SP 1-01)	Single Family Residential	5	DU
SJ3	TR30481	Single Family Residential	30	DU
SJ4	TR30597	Single Family Residential	116	DU
SJ5	TR30659	Single Family Residential	64	DU
SJ6	TR30878	Single Family Residential	18	DU
SJ7	TR30944	Single Family Residential	14	DU
SJ8	TR31037	Single Family Residential	263	DU
SJ9	TR31154	Single Family Residential	88	DU
SJ10	TR31294	Single Family Residential	37	DU
SJ11	VTR31384	Single Family Residential	91	DU
SJ12	TR33546	Single Family Residential	5	DU
SJ13	TR31886 - Under Construction	Single Family Residential	321	DU
SJ14	TR30598 (SP 1-03)	Single Family Residential	580	DU
SJ15	TR31929	Single Family Residential	78	DU
SJ16	TR32247	Single Family Residential	150	DU
SJ17	TR32955 (SP1-02)	Single Family Residential	613	DU
SJ18	TR32555	Single Family Residential	12	DU
SJ19	TR33420A1	Single Family Residential	108	DU
SJ20	Future Schools (Middle / Elementary)	School	1200	STU
SJ21	PM35626	Shopping Center	195.740	TSF
		Apartments	150	DU
SJ22	PM33196 San Jacinto Retail Center	Drive-In Bank	4.700	TSF
		Fast-Food w/ Drive Thru	3.450	TSF
SJ23	TR32352	Single Family Residential	153	DU

TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY *(Page 3 of 4)*

#	Name	Land Use	Quantity	Units[1]
County of Riverside				
RC1	K-1 Speed Outdoor Kart Track	Outdoor Kart Track	86.882	TSF
RC2	CUP03479	Gas Station	8	VFP
		Fast-Food w/ Drive Thru	1.500	TSF
RC3	PM33564	SFDR	4	DU
RC4	Emerald Acres Specific Plan SP00381	Single Family Residential	432	DU
RC5	TR35017	SFDR	44	DU
RC6	PP22849 (Jack-In-The-Box)	Fast-Food w/ Drive Thru	2.783	TSF
RC7	TR34129	SFDR	197	DU
RC8	TR31537	SFDR	726	DU
RC9	TR32237	SFDR	98	DU
RC10	TR32248	SFDR	86	DU
RC11	TR31076	SFDR	16	DU
RC12	TR34130	SFDR	384	DU
RC13	TR34677	SFDR	422	DU
	TR31100	SFDR	243	DU
	TR32391	SFDR	127	DU
	TR33448	SFDR	31	DU
	TR31101	SFDR	160	DU
	TR31099	SFDR	207	DU
	TR32282	SFDR	625	DU
RC14	TR36478	Condos	150	DU
	TR36480	Condos	138	DU
	PP25219	Apartments	180	DU
RC15	CUP03579	Restaurant	5.606	TSF
		Retail	8.764	TSF
		Gas Station w/ Convenience Store	3.031	TSF
RC16	TR36504	SFDR	562	DU
RC17	CUP01190	Mobile Home Park	60	SPACES
RC18	TR36711	Condos	102	DU
	TR36365	SFDR	224	DU
	TR33450	SFDR	57	DU
	TR33225	SFDR	14	DU
	TR31857	SFDR	140	DU
	TR31858	SFDR	185	DU
	TR36430	SFDR	340	DU
		Elementary School	600	STU
RC19	TR26973	Single Family Residential	43	DU
RC20	Domenigoni - Barton Properties (SP 310)	SFDR	4186	DU
		Golf Course	18	HOLES
		School	12.00	AC
RC21	PP14248	Automotive Retail	8.200	TSF
RC22	TR23551	Single Family Residential	38	DU
RC23	TR30351	Single Family Residential	273	DU
RC24	PP25623	Animal Hospital	--	
RC25	RVP00110 (Revision to PP11686)	Fast-Food w/o Drive Thru	2.475	TSF
RC26	PP15735	Fast-Food w/o Drive Thru	1.200	TSF
RC27	TR31538	Single Family Residential	257	DU
RC28	TR37079	Single Family Residential	53.46	AC
		Commercial		

TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY *(Page 4 of 4)*

#	Name	Land Use	Quantity	Units[1]
RC29	BSA Properties (SP 322)	Commercial	202	AC
		Single Family Residential	421	DU
RC30	PP13023	Commercial	7.360	TSF
RC31	PM29141	Single Family Residential	--	
RC32	The Crossroads in Winchester (SP 288 Amendment 2)	Single Family Residential	771	DU
		Condos/Townhomes	154	DU
		Commercial	32.50	AC

[1] DU = Dwelling Units; STU = Students; TSF = Thousand Square Feet; BEDS = Occupied Beds

5 EXISTING PLUS PROJECT TRAFFIC CONDITIONS

This section discusses the traffic forecasts for Existing plus Project (E+P) conditions and the resulting intersection operations, roadway segment capacity, and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for E+P conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access which are assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways).

5.2 EXISTING PLUS PROJECT TRAFFIC VOLUME FORECASTS

This scenario includes Existing traffic volumes plus Project traffic. Exhibit 5-1 shows the ADT, and weekday AM and PM peak hour turning movement volumes which can be expected for E+P traffic conditions.

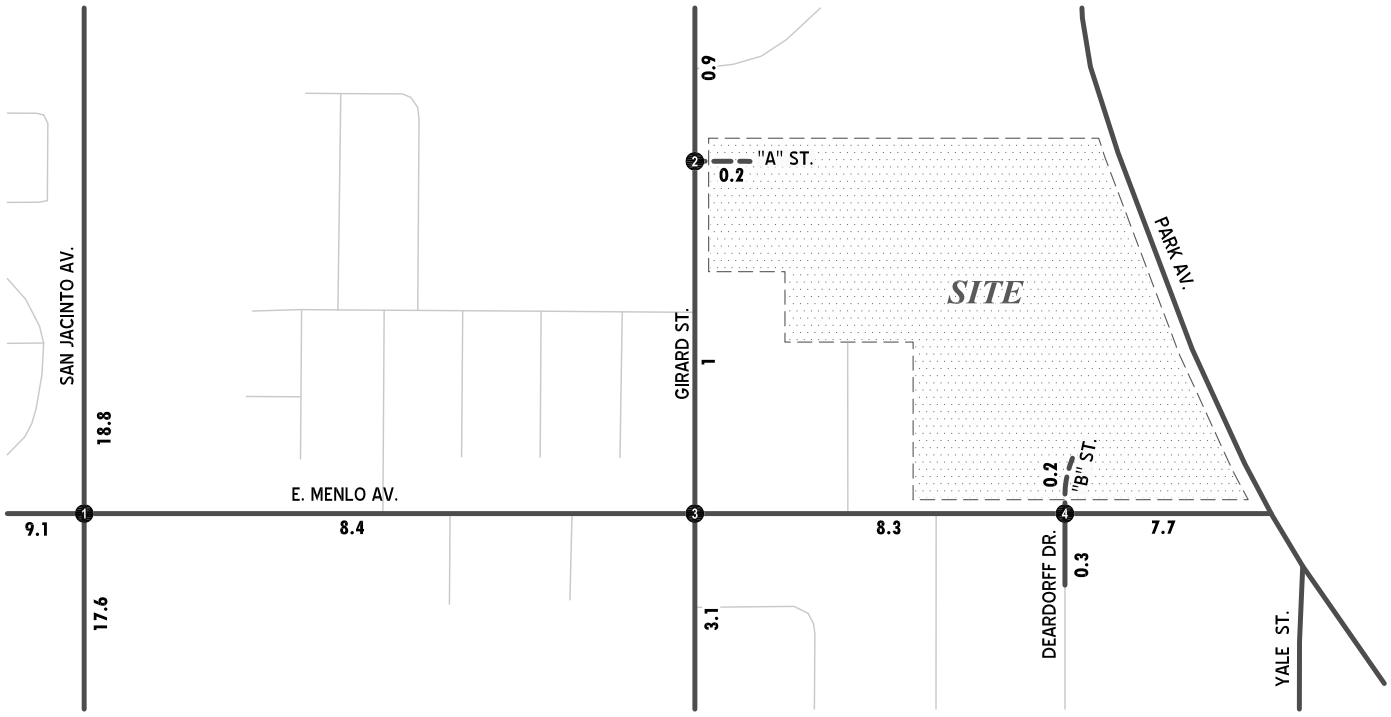
5.3 INTERSECTION OPERATIONS ANALYSIS

E+P peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TIA. The intersection analysis results are summarized in Table 5-1, which indicate that the addition of Project traffic is not anticipated to result in any LOS deficiencies. The intersection operations analysis worksheets are included in Appendix 5.1 of this TIA for E+P.

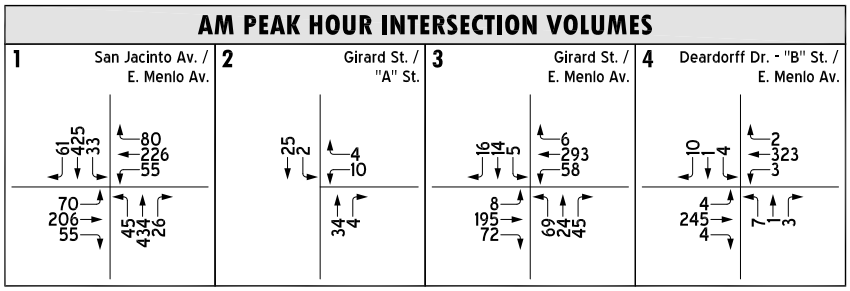
5.4 TRAFFIC SIGNAL WARRANTS ANALYSIS

For E+P conditions, there are no additional study area intersections anticipated to warrant a traffic signal, in addition to those previously warrant under Existing (2019) conditions (see Appendix 3.3).

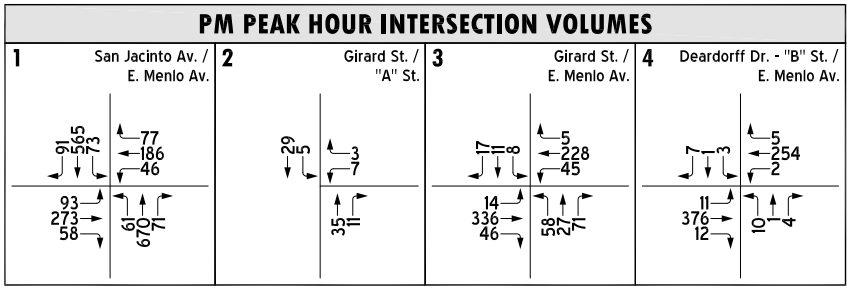
EXHIBIT 5-1: EXISTING PLUS PROJECT TRAFFIC VOLUMES



AM PEAK HOUR INTERSECTION VOLUMES



PM PEAK HOUR INTERSECTION VOLUMES



LEGEND:

- 4 = INTERSECTION ID
- = FUTURE PROJECT ROADWAY
- 10.0 = VEHICLES PER DAY (1000'S)
- 10 = PEAK HOUR VOLUME

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URBAN CROSSROADS

TABLE 5-1: INTERSECTION ANALYSIS FOR EXISTING PLUS PROJECT CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	San Jacinto Av. / E. Menlo Av.	TS	1	2	0	1	2	0	1	1	d	1	1	d	15.5	16.4	B	B
2	Girard St. / "A" St.	**CSS**	0	1	0	0	1	0	0	0	0	0	**1!**	0	8.9	9.0	A	A
3	Girard St. / E. Menlo Av.	CSS	0	1!	0	0	1!	0	0.5	0.5	d	0.5	0.5	d	18.5	21.4	C	C
4	Deardorff Dr. - "B" St. / E. Menlo Av.	CSS	0	1!	0	0	**1!**	0	0.5	0.5	d	0	1!	0	13.8	15.0	B	B

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1! = Shared Left-Through-Right Lane; 0.5 = Shared Lane; d = Defacto Right Turn Lane; **1** = Improvement

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 10.1 analysis software.

[3] TS = Traffic Signal; CSS = Cross-street Stop

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6 NEAR TERM (2021) TRAFFIC ANALYSIS

This section discusses the methods used to develop Near Term (2021) traffic forecasts, and the resulting intersection operations and traffic signal warrant analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP) are consistent with those included for E+P conditions. For Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC), the driveways and facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

6.2 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT (2021) CONDITIONS (EAP) TRAFFIC VOLUMES

This scenario includes Existing traffic volumes plus an ambient growth factor of 4.04% and Project traffic. Exhibit 6-1 shows the ADT, and weekday AM and PM peak hour turning movement volumes which can be expected for Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP).

6.3 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT PLUS CUMULATIVE (2021) CONDITIONS (EAPC) TRAFFIC VOLUMES

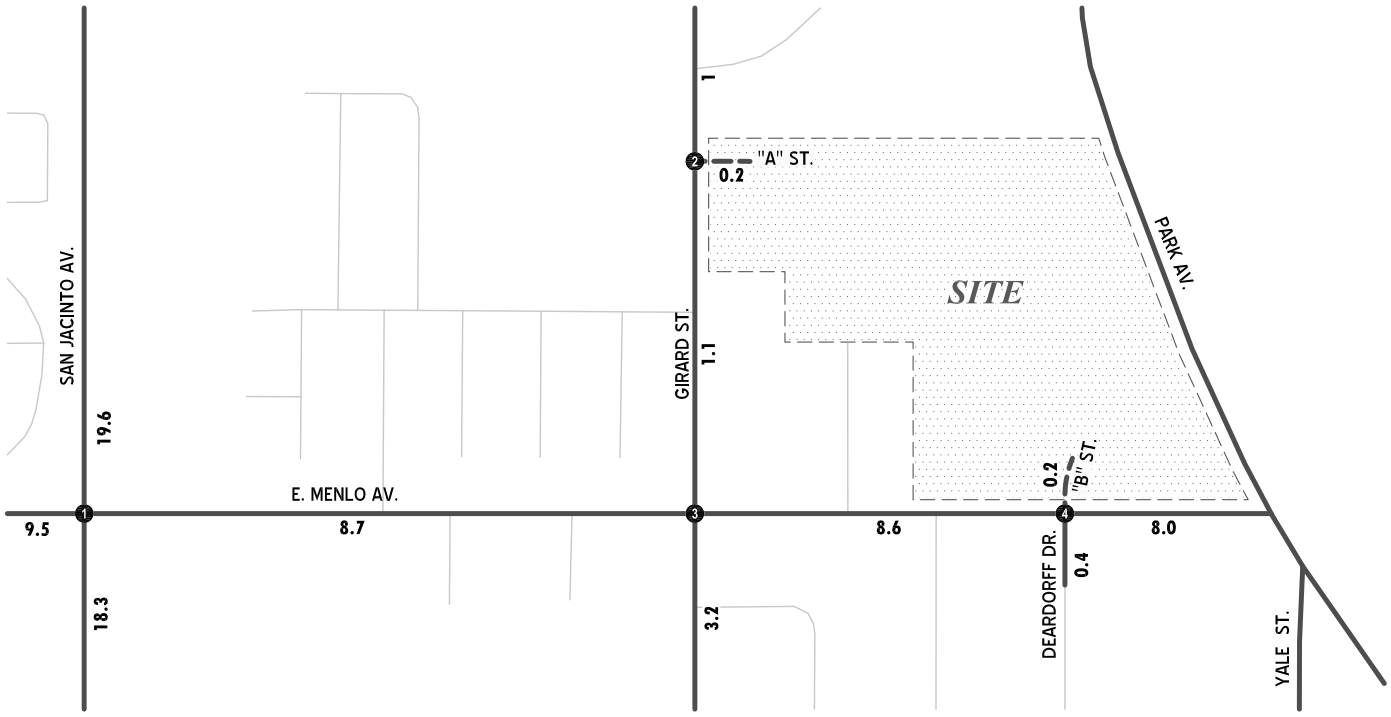
This scenario includes Existing traffic volumes plus an ambient growth factor of 4.04%, traffic from pending and approved, but not yet constructed, known development projects in the area, and Project traffic. Exhibit 6-2 shows the ADT, and weekday AM and PM peak hour turning movement volumes which can be expected for Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC) traffic conditions.

6.4 INTERSECTION OPERATIONS ANALYSIS

6.4.1 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT (2021) CONDITIONS (EAP)

Level of service calculations were conducted for the study intersections to evaluate their operations under Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP) with existing roadway and intersection geometrics consistent with those described under Section 6.1 *Roadway Improvements*. The intersection analysis results are summarized in Table 6-1, which indicates that no study area intersections are anticipated to operate at unacceptable LOS. The intersection operations analysis worksheets for Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP) are included in Appendix 6.1 of this TIA.

EXHIBIT 6-1: EXISTING PLUS AMBIENT PLUS PROJECT (2021) TRAFFIC VOLUMES



AM PEAK HOUR INTERSECTION VOLUMES

1 San Jacinto Av. / E. Menlo Av.	2 Girard St. / "A" St.	3 Girard St. / E. Menlo Av.	4 Deardorff Dr. - "B" St. / E. Menlo Av.
63, 442, 34 / 83, 235, 57 / 73, 214, 57 / 47, 452, 27	26, 2 / 4, 10 / 35, 4	16, 14, 5 / 6, 305, 60 / 8, 203, 75 / 72, 25, 47	10, 1, 4 / 2, 336, 3 / 4, 255, 4 / 7, 1, 3

PM PEAK HOUR INTERSECTION VOLUMES

1 San Jacinto Av. / E. Menlo Av.	2 Girard St. / "A" St.	3 Girard St. / E. Menlo Av.	4 Deardorff Dr. - "B" St. / E. Menlo Av.
95, 588, 76 / 80, 193, 48 / 97, 284, 60 / 63, 697, 74	30, 5 / 3, 7 / 36, 11	17, 11, 8 / 5, 237, 47 / 14, 349, 48 / 60, 28, 74	7, 3 / 5, 264, 2 / 11, 391, 12 / 10, 1, 4

LEGEND:

- 4 = INTERSECTION ID
- = FUTURE PROJECT ROADWAY
- 10.0 = VEHICLES PER DAY (1000'S)
- 10 = PEAK HOUR VOLUME

N

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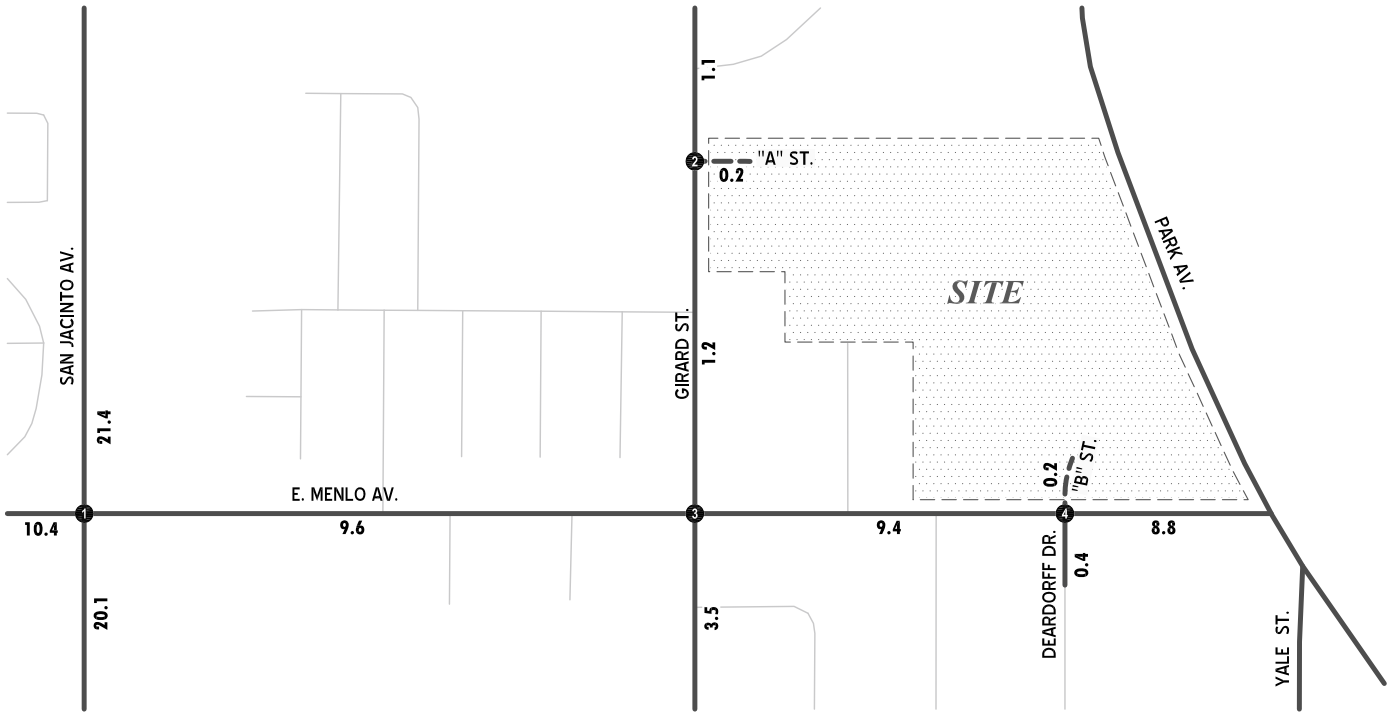
EXHIBIT 6-2: EXISTING PLUS AMBIENT PLUS PROJECT PLUS CUMULATIVE (2021) TRAFFIC VOLUMES



AM PEAK HOUR INTERSECTION VOLUMES

1 San Jacinto Av. / E. Menlo Av.	2 Girard St. / "A" St.	3 Girard St. / E. Menlo Av.	4 Deardorff Dr. - "B" St. / E. Menlo Av.
69, 485, 37 / 91, 259, 62	30, 2 / 4, 10	17, 15, 7 / 7, 334, 66	10, 1, 4 / 2, 372, 3
80, 237, 63 / 52, 495, 29	39, 4	9, 223, 82 / 79, 27, 51	4, 281, 4 / 7, 1, 3

PM PEAK HOUR INTERSECTION VOLUMES

1 San Jacinto Av. / E. Menlo Av.	2 Girard St. / "A" St.	3 Girard St. / E. Menlo Av.	4 Deardorff Dr. - "B" St. / E. Menlo Av.
104, 645, 83 / 87, 211, 52	33, 5 / 3, 7	18, 12, 9 / 6, 259, 51	7, 3 / 5, 291, 2
106, 311, 66 / 69, 764, 81	41, 11	16, 383, 53 / 66, 30, 81	11, 433, 12 / 10, 1, 4

LEGEND:

- 4 = INTERSECTION ID
- = FUTURE PROJECT ROADWAY
- 10.0 = VEHICLES PER DAY (1000'S)
- 10 = PEAK HOUR VOLUME

N

6.4.2 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT PLUS CUMULATIVE (2021) CONDITIONS (EAPC)

As shown on Table 6-2, there are no study area intersections are anticipated to experience unacceptable LOS (i.e., LOS E or worse) under Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC).

The intersection operations analysis worksheets for Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC) are included in Appendix 6.2 of this TIA.

6.6 TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants have been performed on unsignalized intersections.

6.6.1 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT (2021) CONDITIONS (EAP) TRAFFIC CONDITIONS

For Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP), there are no unsignalized intersections that appear to warrant a traffic signal (see Appendix 3.3).

6.6.2 EXISTING PLUS AMBIENT GROWTH PLUS PROJECT PLUS CUMULATIVE (2021) CONDITIONS (EAPC)

There are no study area intersections anticipated to warrant a traffic signal for Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC) (see Appendix 3.3).

TABLE 6-1: INTERSECTION ANALYSIS FOR EXISTING PLUS AMBIENT PLUS PROJECT (2021) CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	San Jacinto Av. / E. Menlo Av.	TS	1	2	0	1	2	0	1	1	d	1	1	d	15.7	16.7	B	B
2	Girard St. / "A" St.	**CSS**	0	1	0	0	1	0	0	0	0	0	**1!**	0	8.9	9.0	A	A
3	Girard St. / E. Menlo Av.	CSS	0	1!	0	0	1!	0	0.5	0.5	d	0.5	0.5	d	19.7	23.2	C	C
4	Deardorff Dr. - "B" St. / E. Menlo Av.	CSS	0	1!	0	0	**1!**	0	0.5	0.5	d	0	1!	0	14.2	15.4	B	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1! = Shared Left-Through-Right Lane; 0.5 = Shared Lane; d = Defacto Right Turn Lane; **1** = Improvement

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 10.1 analysis software.

[3] TS = Traffic Signal; CSS = Cross-street Stop

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TABLE 6-2: INTERSECTION ANALYSIS FOR EXISTING PLUS AMBIENT PLUS PROJECT PLUS CUMULATIVE (2021) CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	San Jacinto Av. / E. Menlo Av.	TS	1	2	0	1	2	0	1	1	d	1	1	d	16.1	17.7	B	B
2	Girard St. / "A" St.	**CSS**	0	1	0	0	1	0	0	0	0	0	**1!**	0	9.0	9.0	A	A
3	Girard St. / E. Menlo Av.	CSS	0	1!	0	0	1!	0	0.5	0.5	d	0.5	0.5	d	23.6	29.9	C	D
4	Deardorff Dr. - "B" St. / E. Menlo Av.	CSS	0	1!	0	0	**1!**	0	0.5	0.5	d	0	1!	0	15.1	16.7	C	C

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1! = Shared Left-Through-Right Lane; 0.5 = Shared Lane; d = Defacto Right Turn Lane; **1** = Improvement

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 10.1 analysis software.

[3] TS = Traffic Signal; CSS = Cross-street Stop

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7.0 VEHICLE MILES TRAVELED (VMT)

The California Environmental Quality Act (CEQA) procedures for determination of transportation impacts have recently changed to an evaluation of Vehicle Miles Traveled (VMT) rather than vehicle delay or level of service, due to Senate Bill 743 (SB 743). Vehicle delay and level of service are still used in Hemet traffic studies, as presented in earlier sections of this traffic study.

7.1 VMT ANALYSIS PROCEDURES

The Western Regional Council of Governments (WRCOG) provides procedures for VMT analysis in the region via WRCOG SB743 Implementation Pathway (March 2019). Projects are first screened to determine if a VMT analysis is required. If a Project has the potential to reduce VMT/SP, a VMT impact is not anticipated.

Consistency with the SCAG RTP/SCS is reviewed, and an analysis is necessary if the Project is inconsistent with the RTP/SCS. The Project area is screened to determine if it is in a Transit Priority Area or High Quality Transit Corridor. Local serving retail Projects of less than 50,000 square feet and neighborhood schools are not anticipated to cause VMT impacts. Projects in low VMT-generating TAZs may not require VMT analysis.

Based upon the WRCOG VMT Screening Tool, the Project is located within a TAZ where the VMT / service population (population and employment) is approximately 32.15 VMT/SP, which is more than the City of Hemet average of approximately 28.88 VMT/SP.

7.2 PROJECT DESIGN FEATURES

The Project contributes to long range future pedestrian and bicycle connectivity via construction of these improvements along the Project frontage:

Girard Street –Provide reconstructed pavement and curb and gutter and sidewalk improvements for the east side of Girard Street along the Project frontage, the Project's north boundary and south boundary adjacent to Girard Street.

East Menlo Avenue – Provide westbound lanes plus a bike lane and sidewalk improvements for the north side of East Menlo Avenue along the Project frontage.

Park Avenue – Providing southbound lanes plus a bike lane and sidewalk improvements for the west side of Park Avenue along the Project frontage.

In the future, these adjacent bike lane and sidewalk improvements will connect the project to nearby destinations when off-site General Plan improvements occur.

7.3 PROJECT POPULATION AND VMT ESTIMATES

The Southern California Association of Governments (SCAG) Profile of the City of Hemet (May 2019) indicates that the average household size in Hemet in 2018 was approximately 2.7 persons per occupied residence, which is lower than the Riverside County average of 3.3 persons per occupied residence. Based upon the average persons per occupied residence in Hemet, for the

51 single family residences the population of the Project is anticipated to contribute an additional 138 residents to the Hemet community.

The VMT / service population (population and employment) for the Project zone is approximately 32.15 VMT/SP. The total daily Project VMT therefore amounts to 4,437 daily.

8 REFERENCES

1. **Institute of Transportation Engineers.** *Trip Generation.* 10th Edition. 2017.

2. **Transportation Research Board.** *Highway Capacity Manual (HCM).* 6th Edition. s.l. : National Academy of Sciences, 2016.

3. **California Department of Transportation.** Manual on Uniform Traffic Control Devices (MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CAMUTCD).* 2014.

4. **Hemet, City of.** *City of Hemet 2030 General Plan.* City of Hemet : s.n., January 24, 2015.

5. **Southern California Association of Governments.** *2016 Regional Transportation Plan.* April 2016.

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APPENDIX 1.1:

APPROVED TRAFFIC STUDY SCOPING AGREEMENT

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URBAN CROSSROADS

Ofc: 1001 Dove St. | Suite 260 | Newport Beach, CA 92660
Main: 260 E. Baker St. | Suite 200 | Costa Mesa, CA 92626
urbanxroads.com

October 1, 2019

Mr. Robert Vestal
City of Hemet, City Engineer
445 E. Florida Avenue
Hemet, CA 92543

SUBJECT: 800 N. GIRARD STREET (APN 439-230-005) TRAFFIC IMPACT ANALYSIS SCOPE

Dear Mr. Robert Vestal:

Urban Crossroads, Inc. is pleased to submit this traffic study scope for the proposed 800 N. Girard Street (APN 439-230-005) ("Project"), which is located on the northwest corner of the Park Avenue / East Menlo Avenue intersection in the City of Hemet. It is our understanding that the Project is to consist of 51 single family residences.

A preliminary site plan (Exhibit 1) for the proposed Project is attached. Access to the Project will be provided to Girard Street via the intersection of "A" Street and to Menlo Avenue via the intersection of "B" Street / Deardorff Drive.

Our goal is to obtain comments from City of Hemet staff, to ensure that the traffic study fully addresses the potential impacts of the proposed Project. The remainder of this letter describes the draft proposed analysis methodology, project trip generation, trip distribution, and project traffic assignment/project trips on the surrounding roadway network, which have been used to establish the draft proposed project study area and analysis locations.

STUDY AREA

The Riverside County Transportation Department Traffic Impact Analysis Preparation Guide (April 2008), which is accepted by jurisdictions throughout the County, indicates that intersections of "Collector" or higher classification street at which the proposed project will add 50 or more peak hour trips are to be evaluated in a traffic study. Although the Project traffic contribution to all adjacent intersections is less than 50 trips in either the morning or evening peak hour, the majority of Project traffic is anticipated to utilize Menlo Avenue. The nearest traffic signal location along Menlo Avenue is at the San Jacinto Street / Menlo Avenue intersection. Study area intersection analysis locations therefore include San Jacinto Street at E. Menlo Avenue, Girard Street at "A" Street, Girard Street at E. Menlo Avenue, and "B" Street at E. Menlo Avenue.

Study area intersections will be evaluated using the HCM 6 methodology. Count data will be collected during the weekday AM and weekday PM peak hours.

ANALYSIS SCENARIOS

The analysis of peak hour operations at study area intersections will be provided for the following analysis scenarios:

- Existing (2019)
- Existing Plus Project
- Existing Plus Ambient Growth Plus Project (2021) Conditions (EAP)
- Existing Plus Ambient Growth Plus Project Plus Cumulative (2021) Conditions (EAPC)

E+P traffic conditions will be utilized to determine direct Project traffic impacts, while the EAPC (2021) analysis will be utilized to determine the Project's cumulatively considerable impacts (subject to payment of fees/fair share).

AMBIENT GROWTH ASSUMPTIONS

An ambient growth rate of 2.0 percent per year is proposed for the study area intersections which will be compounded for each year to the Project's Opening Year of 2021 (in addition to cumulative development traffic overlays). The growth rate is consistent with the growth rate utilized by the County of Riverside.

TRIP GENERATION

Trip generation represents the amount of traffic that is attracted and produced by a development, and is based upon the specific land uses planned for a given project. Table 1 presents the trip generation rates and the resulting trip generation summary for the proposed Project. The trip generation rates used for this analysis are based upon information collected by the Institute of Transportation Engineers (ITE) as provided in their Trip Generation manual, 10th Edition, 2017. As shown in Table 1, the Project is anticipated to generate a total of 481 trip-ends per day with 38 AM peak hour trips and 51 PM peak hour trips.

TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions, or traffic routes that will be utilized by Project traffic. The potential interaction between the planned land use and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, and the proximity to the regional freeway system. Project trips are generally anticipated to be distributed as shown on Exhibit 2.

LEVEL OF SERVICE (LOS) CRITERIA AND THRESHOLDS OF SIGNIFICANCE

The City of Hemet's current General Plan applies LOS D as a performance threshold for roadway segments and intersections. The following thresholds of significance will be applied to study area intersections to identify significant impacts through a comparison of Existing and EAP traffic conditions:

- If an intersection is projected to operate at an acceptable level of service (i.e., LOS D or better) under Existing traffic conditions and the addition of project traffic is expected to cause the intersection to operate at an unacceptable level of service (i.e., LOS E or F), the impact is considered significant;
- If an intersection is projected to operate at LOS E or LOS F under Existing, with the addition of project traffic, the impact is considered significant.

EXISTING COUNT DATA

Intersection turning movement counts will be conducted at the study area intersection locations for **weekday AM** (7-9AM) and **weekday PM** (4-6PM).

CUMULATIVE DEVELOPMENT AND CITY GENERAL PLAN CIRCULATION ELEMENT

It is requested that the City provide any information for cumulative projects that should be included in this traffic study. Information pertaining to project location, land use, and intensity are necessary for consideration and to estimate trip generation.

VEHICLE MILES TRAVELED

VMT for the Project will be calculated, consistent with the Office of Planning and Research (OPR) updates to CEQA guidelines which are responding to Senate Bill 743 (SB 743). Potential mitigation measures and estimated effectiveness will be identified in the traffic study.

Please review this scoping agreement let us know if it is acceptable, or if the City requests any changes to this proposed scope of work. If you have any questions, please contact John Kain at (949) 336-5990 or Marlie Whiteman (949) 336-5990.

Respectfully submitted,

URBAN CROSSROADS, INC.

John Kain, AICP
Principal

Marlie Whiteman, PE
Senior Associate

Attachments

EXHIBIT 1: PRELIMINARY SITE PLAN

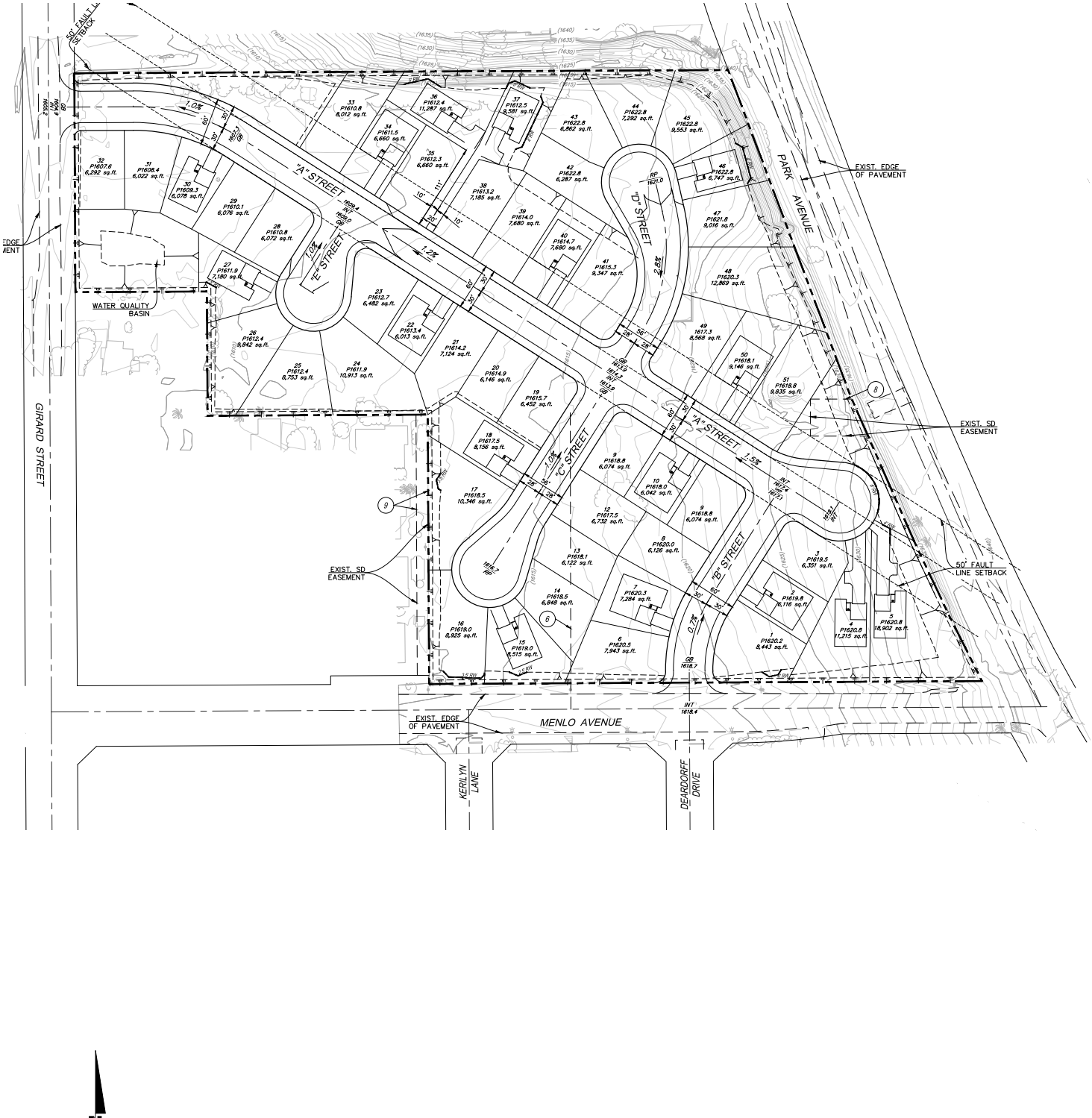

EXHIBIT 2: PROJECT TRIP DISTRIBUTION

LEGEND:

4 = INTERSECTION ANALYSIS LOCATION
10 = PERCENT NEW TRIPS FROM/TO PROJECT
= FUTURE PROJECT DRIVEWAY

N

TABLE 1: PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1]									
	ITE LU		AM Peak Hour			PM Peak Hour			
Land Use	Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	51 DU	0.19	0.55	0.74	0.62	0.37	0.99	9.44

Trip Generation Results									
	ITE LU		AM Peak Hour			PM Peak Hour			
Land Use	Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Single Family Detached	210	51 DU	10	28	38	32	19	51	481

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] DU = Dwelling Unit

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APPENDIX 3.1:

EXISTING TRAFFIC COUNTS – OCTOBER 2019

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Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Hemet
N/S: San Jacinto Avenue
E/W: East Menlo Avenue
Weather: Clear

File Name : 01_HEM_San Jacinto_Menlo AM
Site Code : 05119708
Start Date : 10/16/2019
Page No : 1

Groups Printed- Total Volume

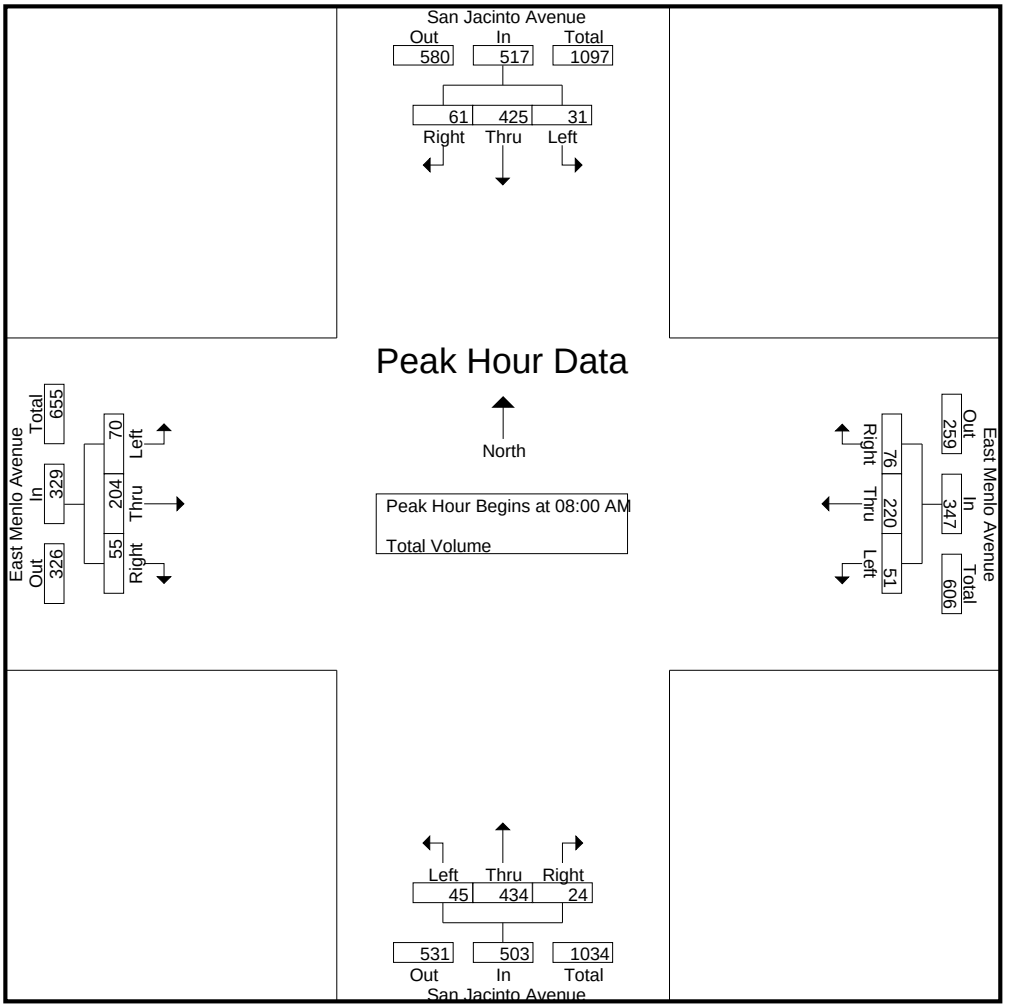
	San Jacinto Avenue Southbound				East Menlo Avenue Westbound				San Jacinto Avenue Northbound				East Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	77	9	89	12	48	14	74	3	73	5	81	8	45	7	60	304
07:15 AM	8	92	12	112	8	62	15	85	8	85	2	95	9	60	17	86	378
07:30 AM	5	100	9	114	16	65	23	104	14	103	4	121	13	51	11	75	414
07:45 AM	6	89	11	106	10	72	24	106	9	108	5	122	15	58	11	84	418
Total	22	358	41	421	46	247	76	369	34	369	16	419	45	214	46	305	1514
08:00 AM	13	106	16	135	11	51	28	90	7	126	6	139	20	69	13	102	466
08:15 AM	6	91	11	108	11	55	15	81	11	90	8	109	17	46	10	73	371
08:30 AM	5	109	16	130	13	63	16	92	16	100	6	122	14	52	16	82	426
08:45 AM	7	119	18	144	16	51	17	84	11	118	4	133	19	37	16	72	433
Total	31	425	61	517	51	220	76	347	45	434	24	503	70	204	55	329	1696
Grand Total	53	783	102	938	97	467	152	716	79	803	40	922	115	418	101	634	3210
Apprch %	5.7	83.5	10.9		13.5	65.2	21.2		8.6	87.1	4.3		18.1	65.9	15.9		
Total %	1.7	24.4	3.2	29.2	3	14.5	4.7	22.3	2.5	25	1.2	28.7	3.6	13	3.1	19.8	

	San Jacinto Avenue Southbound				East Menlo Avenue Westbound				San Jacinto Avenue Northbound				East Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 08:00 AM																	
08:00 AM	**13**	106	16	135	11	51	**28**	90	7	**126**	6	**139**	**20**	**69**	13	**102**	**466**
08:15 AM	6	91	11	108	11	55	15	81	11	90	**8**	109	17	46	10	73	371
08:30 AM	5	109	16	130	13	**63**	16	**92**	**16**	100	6	122	14	52	**16**	82	426
08:45 AM	7	**119**	**18**	**144**	**16**	51	17	84	11	118	4	133	19	37	16	72	433
Total Volume	31	425	61	517	51	220	76	347	45	434	24	503	70	204	55	329	1696
% App. Total	6	82.2	11.8		14.7	63.4	21.9		8.9	86.3	4.8		21.3	62	16.7		
PHF	.596	.893	.847	.898	.797	.873	.679	.943	.703	.861	.750	.905	.875	.739	.859	.806	.910

Counts Unlimited
PO Box 1178
Corona, CA 92878
(951) 268-6268

City of Hemet
N/S: San Jacinto Avenue
E/W: East Menlo Avenue
Weather: Clear

File Name : 01_HEM_San Jacinto_Menlo AM
Site Code : 05119708
Start Date : 10/16/2019



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	08:00 AM				07:15 AM				08:00 AM				07:15 AM			
+0 mins.	**13**	106	16	135	8	62	15	85	7	**126**	6	**139**	9	60	**17**	86
+15 mins.	6	91	11	108	**16**	65	23	104	11	90	**8**	109	13	51	11	75
+30 mins.	5	109	16	130	10	**72**	24	**106**	**16**	100	6	122	15	58	11	84
+45 mins.	7	**119**	**18**	**144**	11	51	**28**	90	11	118	4	133	**20**	**69**	13	**102**
Total Volume	31	425	61	517	45	250	90	385	45	434	24	503	57	238	52	347
% App. Total	6	82.2	11.8		11.7	64.9	23.4		8.9	86.3	4.8		16.4	68.6	15	
PHF	.596	.893	.847	.898	.703	.868	.804	.908	.703	.861	.750	.905	.713	.862	.765	.850

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City of Hemet
N/S: San Jacinto Avenue
E/W: East Menlo Avenue
Weather: Clear

File Name : 01_HEM_San Jacinto_Menlo PM
Site Code : 05119708
Start Date : 10/16/2019
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Groups Printed- Total Volume

	San Jacinto Avenue Southbound				East Menlo Avenue Westbound				San Jacinto Avenue Northbound				East Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	11	143	27	181	12	36	14	62	20	169	16	205	32	59	13	104	552
04:15 PM	11	120	23	154	8	54	9	71	16	150	10	176	38	58	16	112	513
04:30 PM	14	161	24	199	8	42	11	61	13	165	14	192	22	73	18	113	565
04:45 PM	18	138	21	177	10	45	22	77	12	135	16	163	21	65	9	95	512
Total	54	562	95	711	38	177	56	271	61	619	56	736	113	255	56	424	2142
05:00 PM	17	120	24	161	13	42	23	78	18	213	17	248	22	66	14	102	589
05:15 PM	19	146	22	187	12	53	18	83	18	157	19	194	28	63	17	108	572
05:30 PM	10	129	21	160	6	55	13	74	14	164	22	200	26	67	10	103	537
05:45 PM	18	135	30	183	10	48	22	80	14	145	10	169	27	53	10	90	522
Total	64	530	97	691	41	198	76	315	64	679	68	811	103	249	51	403	2220
Grand Total	118	1092	192	1402	79	375	132	586	125	1298	124	1547	216	504	107	827	4362
Apprch %	8.4	77.9	13.7		13.5	64	22.5		8.1	83.9	8		26.1	60.9	12.9		
Total %	2.7	25	4.4	32.1	1.8	8.6	3	13.4	2.9	29.8	2.8	35.5	5	11.6	2.5	19	

	San Jacinto Avenue Southbound				East Menlo Avenue Westbound				San Jacinto Avenue Northbound				East Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 04:30 PM																	
04:30 PM	14	**161**	**24**	**199**	8	42	11	61	13	165	14	192	22	**73**	**18**	**113**	565
04:45 PM	18	138	21	177	10	45	22	77	12	135	16	163	21	65	9	95	512
05:00 PM	17	120	24	161	**13**	42	**23**	78	**18**	**213**	17	**248**	22	66	14	102	**589**
05:15 PM	**19**	146	22	187	12	**53**	18	**83**	18	157	**19**	194	**28**	63	17	108	572
Total Volume	68	565	91	724	43	182	74	299	61	670	66	797	93	267	58	418	2238
% App. Total	9.4	78	12.6		14.4	60.9	24.7		7.7	84.1	8.3		22.2	63.9	13.9		
PHF	.895	.877	.948	.910	.827	.858	.804	.901	.847	.786	.868	.803	.830	.914	.806	.925	.950

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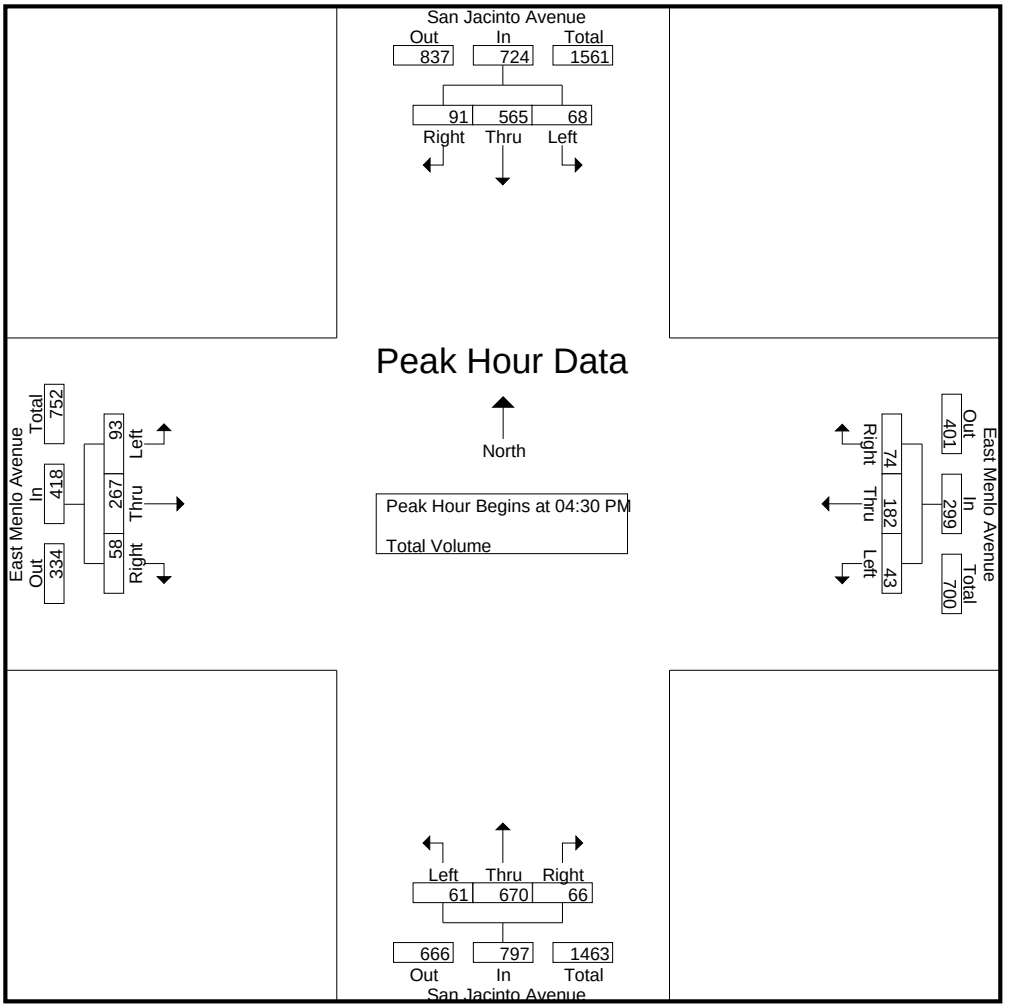

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:30 PM				05:00 PM				05:00 PM				04:00 PM			
+0 mins.	14	**161**	**24**	**199**	**13**	42	**23**	78	**18**	**213**	17	**248**	32	59	13	104
+15 mins.	18	138	21	177	12	53	18	**83**	18	157	19	194	**38**	58	16	112
+30 mins.	17	120	24	161	6	**55**	13	74	14	164	**22**	200	22	**73**	**18**	**113**
+45 mins.	**19**	146	22	187	10	48	22	80	14	145	10	169	21	65	9	95
Total Volume	68	565	91	724	41	198	76	315	64	679	68	811	113	255	56	424
% App. Total	9.4	78	12.6		13	62.9	24.1		7.9	83.7	8.4		26.7	60.1	13.2	
PHF	.895	.877	.948	.910	.788	.900	.826	.949	.889	.797	.773	.818	.743	.873	.778	.938

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City of Hemet
N/S: North Girard Street
E/W: East Menlo Avenue
Weather: Clear

File Name : 02_HEM_N Girard_Menlo AM
Site Code : 05119708
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Groups Printed- Total Volume

	North Girard Street Southbound				East Menlo Avenue Westbound				North Girard Street Northbound				East Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	1	3	6	7	60	0	67	14	6	8	28	2	46	1	49	150
07:15 AM	4	3	2	9	12	61	1	74	11	2	10	23	0	63	7	70	176
07:30 AM	0	4	2	6	6	81	0	87	15	8	15	38	1	44	14	59	190
07:45 AM	2	3	3	8	18	82	0	100	18	7	9	34	1	48	14	63	205
Total	8	11	10	29	43	284	1	328	58	23	42	123	4	201	36	241	721
08:00 AM	0	2	3	5	16	66	1	83	18	3	12	33	1	50	30	81	202
08:15 AM	3	2	1	6	15	57	5	77	18	5	8	31	2	50	14	66	180
08:30 AM	0	2	3	5	10	71	3	84	15	4	11	30	1	45	14	60	179
08:45 AM	2	3	4	9	9	63	0	72	13	5	9	27	1	37	8	46	154
Total	5	9	11	25	50	257	9	316	64	17	40	121	5	182	66	253	715
Grand Total	13	20	21	54	93	541	10	644	122	40	82	244	9	383	102	494	1436
Apprch %	24.1	37	38.9		14.4	84	1.6		50	16.4	33.6		1.8	77.5	20.6		
Total %	0.9	1.4	1.5	3.8	6.5	37.7	0.7	44.8	8.5	2.8	5.7	17	0.6	26.7	7.1	34.4	

	North Girard Street Southbound				East Menlo Avenue Westbound				North Girard Street Northbound				East Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 07:30 AM																	
07:30 AM	0	**4**	2	6	6	81	0	87	15	**8**	**15**	**38**	1	44	14	59	190
07:45 AM	2	3	**3**	**8**	**18**	**82**	0	**100**	**18**	7	9	34	1	48	14	63	**205**
08:00 AM	0	2	3	5	16	66	1	83	18	3	12	33	1	**50**	**30**	**81**	202
08:15 AM	**3**	2	1	6	15	57	**5**	77	18	5	8	31	**2**	50	14	66	180
Total Volume	5	11	9	25	55	286	6	347	69	23	44	136	5	192	72	269	777
% App. Total	20	44	36		15.9	82.4	1.7		50.7	16.9	32.4		1.9	71.4	26.8		
PHF	.417	.688	.750	.781	.764	.872	.300	.868	.958	.719	.733	.895	.625	.960	.600	.830	.948

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City of Hemet
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Site Code : 05119708
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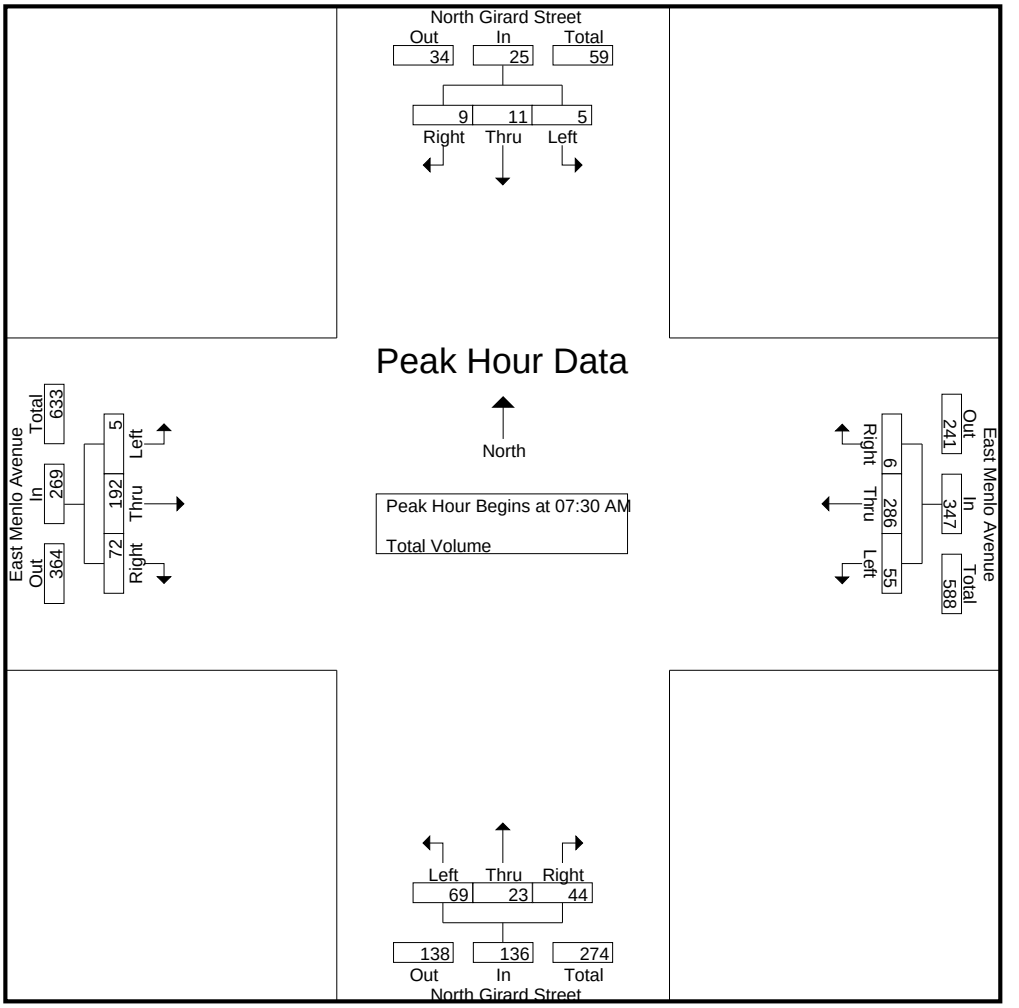

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:30 AM				07:30 AM				07:15 AM			
+0 mins.	2	1	**3**	6	6	81	0	87	15	**8**	**15**	**38**	0	**63**	7	70
+15 mins.	**4**	3	2	**9**	**18**	**82**	0	**100**	**18**	7	9	34	**1**	44	14	59
+30 mins.	0	**4**	2	6	16	66	1	83	18	3	12	33	1	48	14	63
+45 mins.	2	3	3	8	15	57	**5**	77	18	5	8	31	1	50	**30**	**81**
Total Volume	8	11	10	29	55	286	6	347	69	23	44	136	3	205	65	273
% App. Total	27.6	37.9	34.5		15.9	82.4	1.7		50.7	16.9	32.4		1.1	75.1	23.8	
PHF	.500	.688	.833	.806	.764	.872	.300	.868	.958	.719	.733	.895	.750	.813	.542	.843

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Groups Printed- Total Volume

	North Girard Street Southbound				East Menlo Avenue Westbound				North Girard Street Northbound				East Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	2	4	4	10	6	45	1	52	8	3	17	28	2	68	13	83	173
04:15 PM	0	8	1	9	9	57	1	67	19	12	10	41	3	61	10	74	191
04:30 PM	2	4	3	9	13	49	1	63	9	8	19	36	3	82	9	94	202
04:45 PM	2	1	3	6	6	51	1	58	15	4	14	33	2	76	10	88	185
Total	6	17	11	34	34	202	4	240	51	27	60	138	10	287	42	339	751
05:00 PM	2	1	0	3	14	58	2	74	22	6	23	51	0	82	19	101	229
05:15 PM	2	3	6	11	10	65	1	76	12	6	12	30	1	88	8	97	214
05:30 PM	1	2	0	3	8	51	3	62	10	10	13	33	4	71	7	82	180
05:45 PM	1	4	2	7	6	67	0	73	16	6	15	37	3	69	9	81	198
Total	6	10	8	24	38	241	6	285	60	28	63	151	8	310	43	361	821
Grand Total	12	27	19	58	72	443	10	525	111	55	123	289	18	597	85	700	1572
Apprch %	20.7	46.6	32.8		13.7	84.4	1.9		38.4	19	42.6		2.6	85.3	12.1		
Total %	0.8	1.7	1.2	3.7	4.6	28.2	0.6	33.4	7.1	3.5	7.8	18.4	1.1	38	5.4	44.5	

	North Girard Street Southbound				East Menlo Avenue Westbound				North Girard Street Northbound				East Menlo Avenue Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	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 04:30 PM																	
04:30 PM	**2**	**4**	3	9	13	49	1	63	9	**8**	19	36	**3**	82	9	94	202
04:45 PM	2	1	3	6	6	51	1	58	15	4	14	33	2	76	10	88	185
05:00 PM	2	1	0	3	**14**	58	**2**	74	**22**	6	**23**	**51**	0	82	**19**	**101**	**229**
05:15 PM	2	3	**6**	**11**	10	**65**	1	**76**	12	6	12	30	1	**88**	8	97	214
Total Volume	8	9	12	29	43	223	5	271	58	24	68	150	6	328	46	380	830
% App. Total	27.6	31	41.4		15.9	82.3	1.8		38.7	16	45.3		1.6	86.3	12.1		
PHF	1.00	.563	.500	.659	.768	.858	.625	.891	.659	.750	.739	.735	.500	.932	.605	.941	.906

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City of Hemet
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Weather: Clear

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Site Code : 05119708
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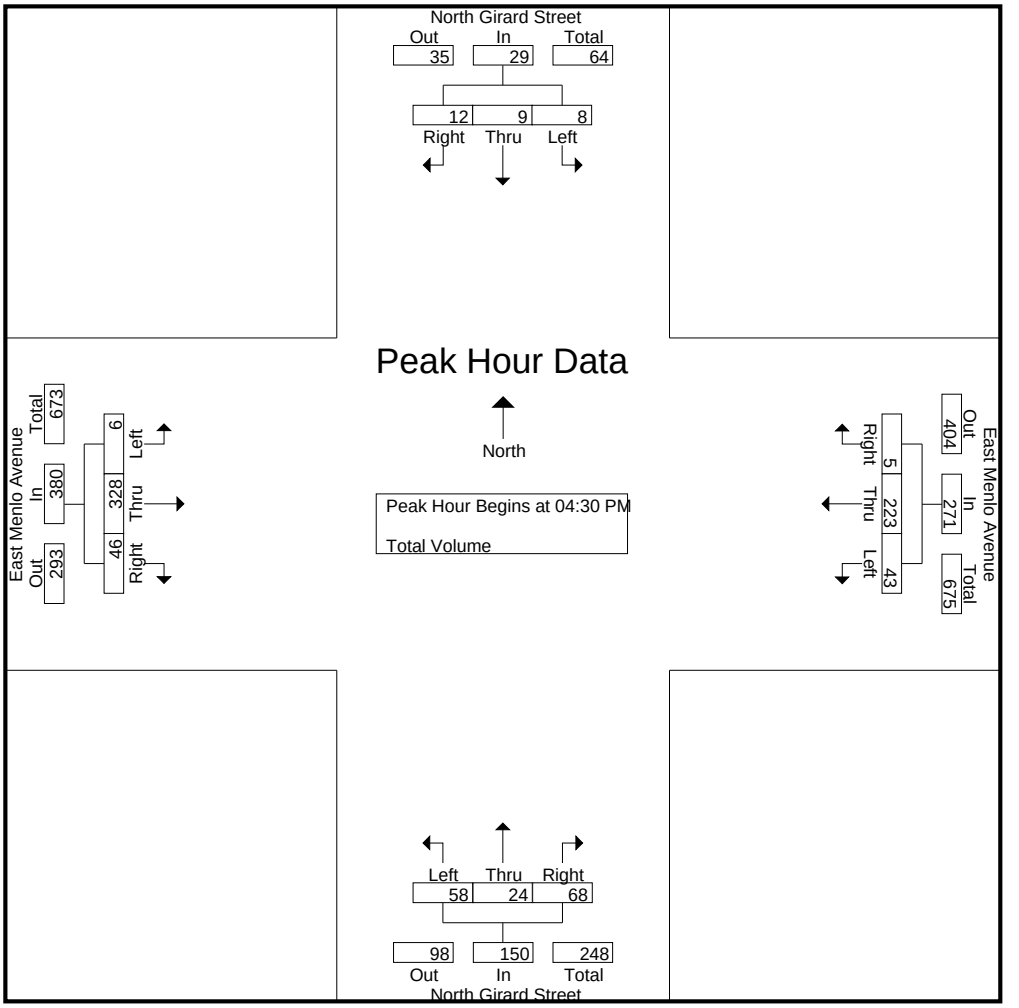

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				05:00 PM				04:15 PM				04:30 PM			
+0 mins.	**2**	4	**4**	**10**	**14**	58	2	74	19	**12**	10	41	**3**	82	9	94
+15 mins.	0	**8**	1	9	10	65	1	**76**	9	8	19	36	2	76	10	88
+30 mins.	2	4	3	9	8	51	**3**	62	15	4	14	33	0	82	**19**	**101**
+45 mins.	2	1	3	6	6	**67**	0	73	**22**	6	**23**	**51**	1	**88**	8	97
Total Volume	6	17	11	34	38	241	6	285	65	30	66	161	6	328	46	380
% App. Total	17.6	50	32.4		13.3	84.6	2.1		40.4	18.6	41		1.6	86.3	12.1	
PHF	.750	.531	.688	.850	.679	.899	.500	.938	.739	.625	.717	.789	.500	.932	.605	.941

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City of Hemet
N/S: Deardorff Drive
E/W: East Menlo Avenue
Weather: Clear

File Name : 03_HEM_Deardorff_Menlo AM
Site Code : 05119708
Start Date : 10/16/2019
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Groups Printed- Total Volume

	East Menlo Avenue Westbound			Deardorff Drive Northbound			East Menlo Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
07:00 AM	0	64	64	3	0	3	58	0	58	125
07:15 AM	1	68	69	2	0	2	73	1	74	145
07:30 AM	0	83	83	2	0	2	55	2	57	142
07:45 AM	1	95	96	3	3	6	62	0	62	164
Total	2	310	312	10	3	13	248	3	251	576
08:00 AM	1	77	78	0	0	0	55	1	56	134
08:15 AM	1	80	81	1	1	2	55	0	55	138
08:30 AM	0	79	79	2	0	2	53	2	55	136
08:45 AM	0	70	70	1	0	1	48	2	50	121
Total	2	306	308	4	1	5	211	5	216	529
Grand Total	4	616	620	14	4	18	459	8	467	1105
Apprch %	0.6	99.4		77.8	22.2		98.3	1.7		
Total %	0.4	55.7	56.1	1.3	0.4	1.6	41.5	0.7	42.3	

	East Menlo Avenue Westbound			Deardorff Drive Northbound			East Menlo Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	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 07:15 AM										
07:15 AM	**1**	68	69	2	0	2	**73**	1	**74**	145
07:30 AM	0	83	83	2	0	2	55	**2**	57	142
07:45 AM	1	**95**	**96**	**3**	**3**	**6**	62	0	62	**164**
08:00 AM	1	77	78	0	0	0	55	1	56	134
Total Volume	3	323	326	7	3	10	245	4	249	585
% App. Total	0.9	99.1		70	30		98.4	1.6		
PHF	.750	.850	.849	.583	.250	.417	.839	.500	.841	.892

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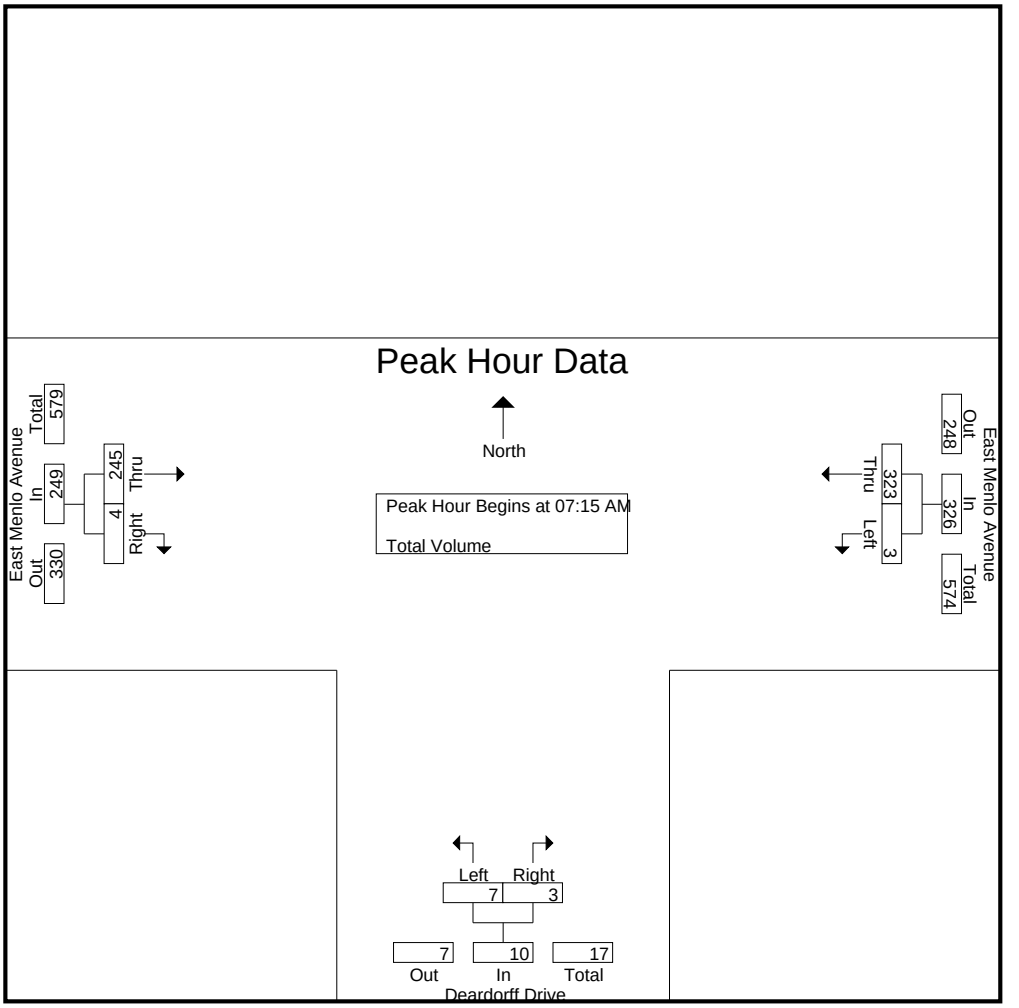

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:30 AM			07:00 AM			07:00 AM		
+0 mins.	0	83	83	**3**	0	3	58	0	58
+15 mins.	**1**	**95**	**96**	2	0	2	**73**	1	**74**
+30 mins.	1	77	78	2	0	2	55	**2**	57
+45 mins.	1	80	81	3	**3**	**6**	62	0	62
Total Volume	3	335	338	10	3	13	248	3	251
% App. Total	0.9	99.1		76.9	23.1		98.8	1.2	
PHF	.750	.882	.880	.833	.250	.542	.849	.375	.848

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Site Code : 05119708
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Groups Printed- Total Volume

	East Menlo Avenue Westbound			Deardorff Drive Northbound			East Menlo Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	App. Total	Int. Total
04:00 PM	0	52	52	1	0	1	82	1	83	136
04:15 PM	1	62	63	1	0	1	65	1	66	130
04:30 PM	1	58	59	3	0	3	94	5	99	161
04:45 PM	0	57	57	2	0	2	82	2	84	143
Total	2	229	231	7	0	7	323	9	332	570
05:00 PM	1	65	66	4	1	5	105	2	107	178
05:15 PM	0	74	74	1	3	4	95	3	98	176
05:30 PM	1	62	63	2	0	2	79	2	81	146
05:45 PM	1	68	69	1	0	1	82	2	84	154
Total	3	269	272	8	4	12	361	9	370	654
Grand Total	5	498	503	15	4	19	684	18	702	1224
Apprch %	1	99		78.9	21.1		97.4	2.6		
Total %	0.4	40.7	41.1	1.2	0.3	1.6	55.9	1.5	57.4	

	East Menlo Avenue Westbound			Deardorff Drive Northbound			East Menlo Avenue Eastbound			
Start Time	Left	Thru	App. Total	Left	Right	App. Total	Thru	Right	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 04:30 PM										
04:30 PM	**1**	58	59	3	0	3	94	**5**	99	161
04:45 PM	0	57	57	2	0	2	82	2	84	143
05:00 PM	1	65	66	**4**	1	**5**	**105**	2	**107**	**178**
05:15 PM	0	**74**	**74**	1	**3**	4	95	3	98	176
Total Volume	2	254	256	10	4	14	376	12	388	658
% App. Total	0.8	99.2		71.4	28.6		96.9	3.1		
PHF	.500	.858	.865	.625	.333	.700	.895	.600	.907	.924

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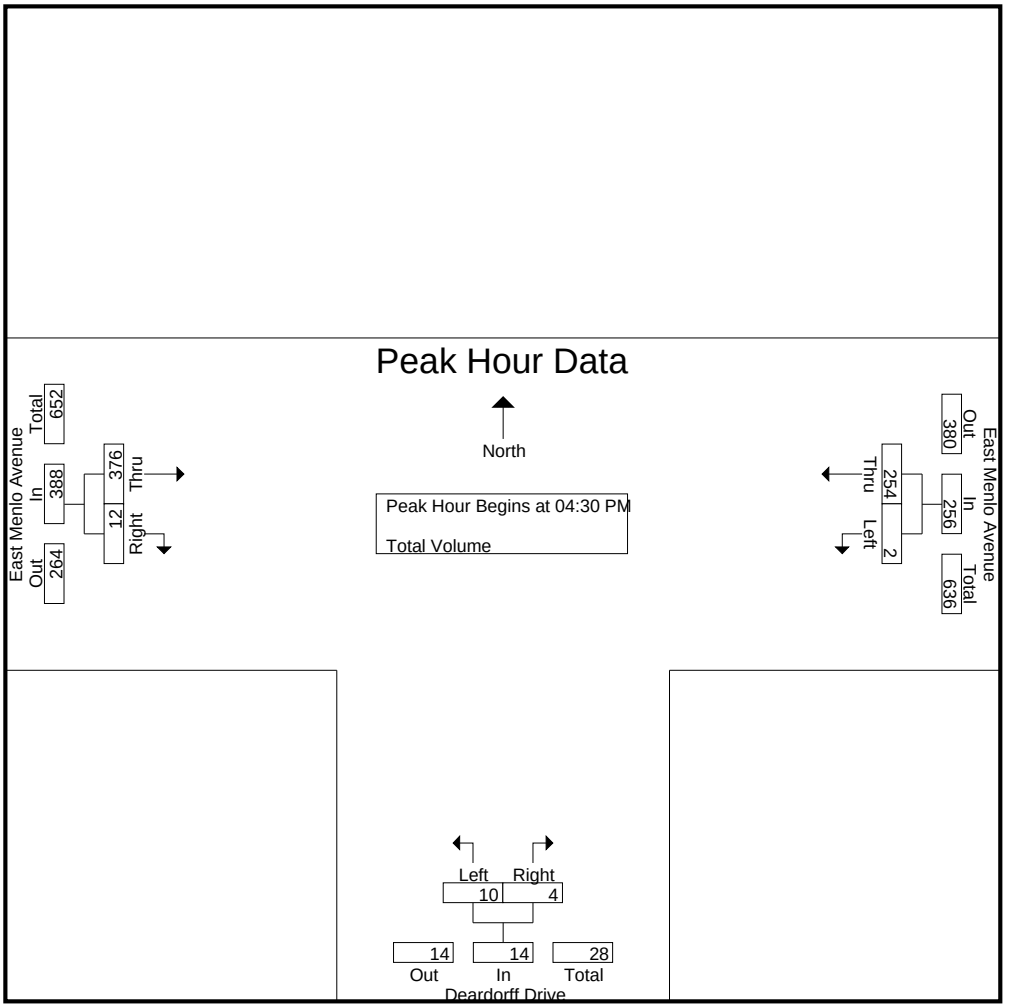
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	05:00 PM			04:30 PM			04:30 PM		
+0 mins.	**1**	65	66	3	0	3	94	**5**	99
+15 mins.	0	**74**	**74**	2	0	2	82	2	84
+30 mins.	1	62	63	**4**	1	**5**	**105**	2	**107**
+45 mins.	1	68	69	1	**3**	4	95	3	98
Total Volume	3	269	272	10	4	14	376	12	388
% App. Total	1.1	98.9		71.4	28.6		96.9	3.1	
PHF	.750	.909	.919	.625	.333	.700	.895	.600	.907

Counts Unlimited, Inc.

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City of Hemet
East Menlo Avenue
W/ Girard Street
24 Hour Directional Volume Count

HEM001
Site Code: 051-19708

Start	16-Oct-19	Eastbound		Hour Totals		Westbound		Hour Totals		Combined Totals	
Time	Wed	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon	Morning	Afternoon
12:00		8	45			9	72				
12:15		6	55			4	64				
12:30		5	64			5	67				
12:45		5	55	24	219	5	72	23	275	47	494
01:00		5	76			4	75				
01:15		0	72			6	54				
01:30		2	74			7	62				
01:45		6	72	13	294	3	70	20	261	33	555
02:00		4	85			3	72				
02:15		8	75			4	70				
02:30		3	69			3	68				
02:45		5	85	20	314	3	60	13	270	33	584
03:00		1	96			2	77				
03:15		3	84			7	59				
03:30		2	97			5	79				
03:45		2	79	8	356	6	70	20	285	28	641
04:00		5	75			13	58				
04:15		3	75			13	76				
04:30		4	**96**			15	61				
04:45		7	**85**	19	331	21	75	62	270	81	601
05:00		4	**106**			20	**76**				
05:15		7	**89**			20	**81**				
05:30		9	87			33	**64**				
05:45		17	73	37	355	35	**81**	108	302	145	657
06:00		15	90			34	64				
06:15		19	68			30	50				
06:30		24	83			58	53				
06:45		41	63	99	304	63	45	185	212	284	516
07:00		52	69			77	50				
07:15		66	52			70	31				
07:30		57	66			**98**	26				
07:45		**72**	52	247	239	**109**	32	354	139	601	378
08:00		**76**	53			**88**	32				
08:15		**63**	46			**78**	26				
08:30		**62**	43			85	23				
08:45		47	34	248	176	78	25	329	106	577	282
09:00		38	45			58	22				
09:15		46	24			57	26				
09:30		40	27			49	17				
09:45		56	15	180	111	60	8	224	73	404	184
10:00		46	20			52	14				
10:15		33	16			54	13				
10:30		56	18			62	14				
10:45		53	9	188	63	44	7	212	48	400	111
11:00		57	12			70	10				
11:15		44	8			70	5				
11:30		55	9			58	11				
11:45		51	14	207	43	49	10	247	36	454	79
Total		1290	2805	1290	2805	1797	2277	1797	2277	3087	5082
Combined Total		4095		4095		4074		4074		8169	
AM Peak	-	07:45	-	-	-	07:30	-	-	-	-	-
Vol.	-	273	-	-	-	373	-	-	-	-	-
P.H.F.		0.898				0.856					
PM Peak	-	-	04:30	-	-	-	05:00	-	-	-	-
Vol.	-	-	376	-	-	-	302	-	-	-	-
P.H.F.			0.887				0.932				
Percentage		31.5%	68.5%			44.1%	55.9%				
ADT/AADT		ADT 8,169		AADT 8,169							

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City of Hemet
East Menlo Avenue
E/ Deardorff Drive
24 Hour Directional Volume Count

HEM002
Site Code: 051-19708

Start Time	16-Oct-19 Wed	Eastbound Morning	Eastbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Westbound Morning	Westbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		3	50			7	62				
12:15		7	54			3	61				
12:30		5	62			3	57				
12:45		2	57	17	223	6	61	19	241	36	464
01:00		0	73			4	61				
01:15		2	76			6	47				
01:30		2	72			6	60				
01:45		5	76	9	297	3	58	19	226	28	523
02:00		3	72			6	67				
02:15		5	73			3	67				
02:30		2	74			4	54				
02:45		3	94	13	313	0	56	13	244	26	557
03:00		2	80			2	68				
03:15		2	75			6	58				
03:30		1	79			6	77				
03:45		3	67	8	301	7	58	21	261	29	562
04:00		4	74			6	61				
04:15		1	80			8	60				
04:30		5	**91**			12	59				
04:45		4	**81**	14	326	19	**70**	45	250	59	576
05:00		5	**119**			11	**63**				
05:15		5	**97**			17	**68**				
05:30		12	90			33	**69**				
05:45		22	68	44	374	32	69	93	269	137	643
06:00		9	95			28	52				
06:15		22	61			27	52				
06:30		28	74			52	57				
06:45		46	68	105	298	49	34	156	195	261	493
07:00		**64**	59			71	39				
07:15		**74**	55			75	25				
07:30		**57**	61			**83**	26				
07:45		**70**	53	265	228	**107**	30	336	120	601	348
08:00		58	48			**71**	31				
08:15		60	39			**89**	26				
08:30		43	40			73	19				
08:45		51	32	212	159	61	26	294	102	506	261
09:00		34	37			56	11				
09:15		40	25			46	17				
09:30		37	24			39	17				
09:45		58	17	169	103	65	6	206	51	375	154
10:00		47	17			47	15				
10:15		44	16			53	13				
10:30		55	16			48	9				
10:45		45	5	191	54	39	9	187	46	378	100
11:00		57	10			63	10				
11:15		42	11			57	7				
11:30		51	14			56	10				
11:45		56	6	206	41	47	10	223	37	429	78
Total		1253	2717	1253	2717	1612	2042	1612	2042	2865	4759
Combined Total		3970		3970		3654		3654		7624	
AM Peak	-	07:00	-	-	-	07:30	-	-	-	-	-
Vol.	-	265	-	-	-	350	-	-	-	-	-
P.H.F.		0.895				0.818					
PM Peak	-	-	04:30	-	-	-	04:45	-	-	-	-
Vol.	-	-	388	-	-	-	270	-	-	-	-
P.H.F.			0.815				0.877				
Percentage		31.6%	68.4%			44.1%	55.9%				
ADT/AADT		ADT 7,624		AADT 7,624							

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City of Hemet
Girard Street
N/ East Menlo Avenue
24 Hour Directional Volume Count

HEM003
Site Code: 051-19708

Start Time	16-Oct-19 Wed	Northbound Morning	Northbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Southbound Morning	Southbound Afternoon	Hour Totals Morning	Hour Totals Afternoon	Combined Totals Morning	Combined Totals Afternoon
12:00		0	7			1	9				
12:15		1	13			0	5				
12:30		1	13			1	3				
12:45		0	6	2	39	3	2	5	19	7	58
01:00		2	5			0	2				
01:15		0	2			1	6				
01:30		2	8			0	11				
01:45		0	7	4	22	0	5	1	24	5	46
02:00		0	12			1	11				
02:15		0	6			0	5				
02:30		1	3			1	7				
02:45		1	9	2	30	2	5	4	28	6	58
03:00		0	14			0	**16**				
03:15		0	9			0	**10**				
03:30		0	6			0	**9**				
03:45		0	**17**	0	46	0	**7**	0	42	0	88
04:00		0	**5**			1	13				
04:15		1	**17**			0	8				
04:30		0	**12**			2	10				
04:45		1	6	2	40	0	4	3	35	5	75
05:00		1	7			2	5				
05:15		2	9			2	9				
05:30		2	18			4	4				
05:45		2	8	7	42	3	6	11	24	18	66
06:00		2	8			5	8				
06:15		0	8			1	9				
06:30		5	11			6	6				
06:45		5	7	12	34	2	1	14	24	26	58
07:00		7	5			**9**	1				
07:15		3	6			**6**	4				
07:30		**10**	8			**5**	8				
07:45		**10**	2	30	21	**10**	1	30	14	60	35
08:00		**4**	2			8	2				
08:15		**11**	3			5	8				
08:30		8	3			4	2				
08:45		6	5	29	13	8	5	25	17	54	30
09:00		6	1			7	0				
09:15		5	3			6	6				
09:30		4	3			5	1				
09:45		12	5	27	12	4	1	22	8	49	20
10:00		2	2			4	5				
10:15		2	1			5	1				
10:30		6	2			8	2				
10:45		7	1	17	6	3	1	20	9	37	15
11:00		2	3			6	1				
11:15		6	1			7	1				
11:30		5	2			7	2				
11:45		6	2	19	8	4	0	24	4	43	12
Total		151	313	151	313	159	248	159	248	310	561
Combined Total		464		464		407		407		871	
AM Peak	-	07:30	-	-	-	07:00	-	-	-	-	-
Vol.	-	35	-	-	-	30	-	-	-	-	-
P.H.F.		0.795				0.750					
PM Peak	-	-	03:45	-	-	-	03:00	-	-	-	-
Vol.	-	-	51	-	-	-	42	-	-	-	-
P.H.F.			0.750				0.656				
Percentage		32.5%	67.5%			39.1%	60.9%				
ADT/AADT		ADT 871		AADT 871							

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APPENDIX 3.2:

EXISTING (2019) CONDITIONS
INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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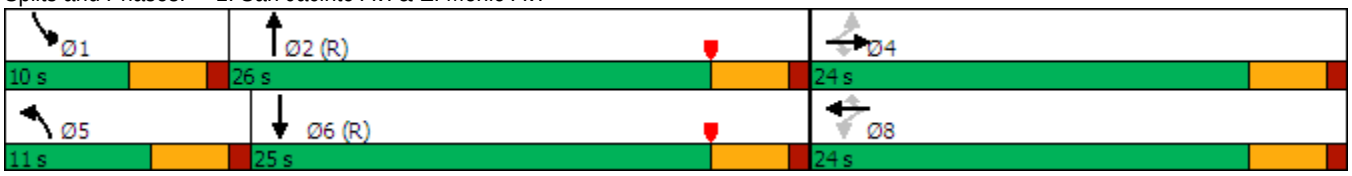
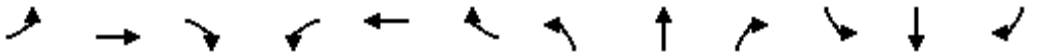
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	204	55	51	220	76	45	434	24	31	425	61
Future Volume (vph)	70	204	55	51	220	76	45	434	24	31	425	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	105		50	85		0	110		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		791			351			576			1297	
Travel Time (s)		15.4			6.8			9.8			22.1	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	26.0		10.0	25.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	18.3%	43.3%		16.7%	41.7%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: San Jacinto Av. & E. Menlo Av.

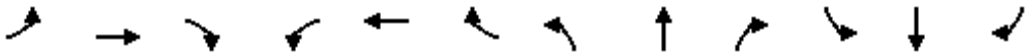




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	204	55	51	220	76	45	434	24	31	425	61
Future Volume (veh/h)	70	204	55	51	220	76	45	434	24	31	425	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		1.00	1.00		0.99
Parking Bus, 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	224	60	56	242	84	49	477	26	34	467	67
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	250	444	374	266	444	374	83	1719	93	64	1532	219
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.50	0.50	0.04	0.49	0.49
Sat Flow, veh/h	1051	1870	1575	1092	1870	1575	1781	3426	186	1781	3119	445
Grp Volume(v), veh/h	77	224	60	56	242	84	49	247	256	34	265	269
Grp Sat Flow(s),veh/h/ln	1051	1870	1575	1092	1870	1575	1781	1777	1836	1781	1777	1788
Q Serve(g_s), s	4.2	6.2	1.8	2.8	6.8	2.6	1.6	4.8	4.8	1.1	5.4	5.4
Cycle Q Clear(g_c), s	11.0	6.2	1.8	9.0	6.8	2.6	1.6	4.8	4.8	1.1	5.4	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.10	1.00		0.25
Lane Grp Cap(c), veh/h	250	444	374	266	444	374	83	891	921	64	873	878
V/C Ratio(X)	0.31	0.50	0.16	0.21	0.55	0.22	0.59	0.28	0.28	0.53	0.30	0.31
Avail Cap(c_a), veh/h	342	608	512	361	608	512	193	891	921	163	873	878
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	19.8	18.1	23.7	20.0	18.4	28.0	8.7	8.7	28.4	9.1	9.1
Incr Delay (d2), s/veh	0.7	0.9	0.2	0.4	1.0	0.3	6.6	0.8	0.8	6.6	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	0.6	0.7	2.8	0.9	0.8	1.6	1.7	0.6	1.8	1.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	20.7	18.3	24.1	21.1	18.7	34.6	9.4	9.4	35.0	10.0	10.0
LnGrp LOS	C	C	B	C	C	B	C	A	A	D	B	B
Approach Vol, veh/h		361			382			552			568	
Approach Delay, s/veh		21.3			21.0			11.7			11.5	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.7	34.6		18.7	7.3	34.0		18.7				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	21.5		19.5	6.5	20.5		19.5				
Max Q Clear Time (g_c+I1), s	3.1	6.8		13.0	3.6	7.4		11.0				
Green Ext Time (p_c), s	0.0	2.4		0.9	0.0	2.5		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			15.4									
HCM 6th LOS			B									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	192	72	55	286	6	69	23	44	5	11	9
Future Volume (vph)	5	192	72	55	286	6	69	23	44	5	11	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		50	0		50
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		973			799			579			737	
Travel Time (s)		19.0			15.6			11.3			14.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↔			↔	
Traffic Vol, veh/h	5	192	72	55	286	6	69	23	44	5	11	9
Future Vol, veh/h	5	192	72	55	286	6	69	23	44	5	11	9
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	202	76	58	301	6	73	24	46	5	12	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	312	0	0	283	0	0	653	645	212	712	715	311
Stage 1	-	-	-	-	-	-	217	217	-	422	422	-
Stage 2	-	-	-	-	-	-	436	428	-	290	293	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1248	-	-	1279	-	-	380	391	828	347	356	729
Stage 1	-	-	-	-	-	-	785	723	-	609	588	-
Stage 2	-	-	-	-	-	-	599	585	-	718	670	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1242	-	-	1273	-	-	345	364	820	294	331	722
Mov Cap-2 Maneuver	-	-	-	-	-	-	345	364	-	294	331	-
Stage 1	-	-	-	-	-	-	777	716	-	603	553	-
Stage 2	-	-	-	-	-	-	544	550	-	648	663	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	17.5	14.7
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	429	1242	-	-	1273	-	-	399
HCM Lane V/C Ratio	0.334	0.004	-	-	0.045	-	-	0.066
HCM Control Delay (s)	17.5	7.9	0	-	8	0	-	14.7
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.4	0	-	-	0.1	-	-	0.2

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	245	4	3	323	7	3
Future Volume (vph)	245	4	3	323	7	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		50	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	35			35	30	
Link Distance (ft)	799			462	503	
Travel Time (s)	15.6			9.0	11.4	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	245	4	3	323	7	3
Future Vol, veh/h	245	4	3	323	7	3
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	275	4	3	363	8	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	284	0	654	285
Stage 1	-	-	-	-	280	-
Stage 2	-	-	-	-	374	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1278	-	431	754
Stage 1	-	-	-	-	767	-
Stage 2	-	-	-	-	696	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1272	-	425	747
Mov Cap-2 Maneuver	-	-	-	-	425	-
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	693	-

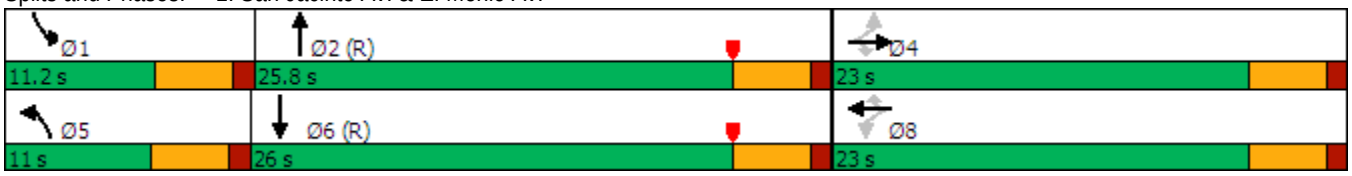
Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	12.6
HCM LOS			B

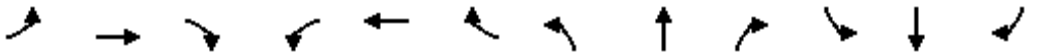
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	488	-	-	1272	-
HCM Lane V/C Ratio	0.023	-	-	0.003	-
HCM Control Delay (s)	12.6	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	267	58	43	182	74	61	670	66	68	565	91
Future Volume (vph)	93	267	58	43	182	74	61	670	66	68	565	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	105		50	85		0	110		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		791			351			576			1297	
Travel Time (s)		15.4			6.8			9.8			22.1	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	11.0	25.8		11.2	26.0	
Total Split (%)	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	18.3%	43.0%		18.7%	43.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: San Jacinto Av. & E. Menlo Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	267	58	43	182	74	61	670	66	68	565	91
Future Volume (veh/h)	93	267	58	43	182	74	61	670	66	68	565	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	281	61	45	192	78	64	705	69	72	595	96
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	431	363	218	431	363	97	1590	155	104	1501	242
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.49	0.49	0.06	0.49	0.49
Sat Flow, veh/h	1105	1870	1575	1036	1870	1575	1781	3268	320	1781	3063	493
Grp Volume(v), veh/h	98	281	61	45	192	78	64	383	391	72	345	346
Grp Sat Flow(s),veh/h/ln	1105	1870	1575	1036	1870	1575	1781	1777	1811	1781	1777	1779
Q Serve(g_s), s	5.0	8.2	1.9	2.5	5.3	2.4	2.1	8.5	8.5	2.4	7.4	7.4
Cycle Q Clear(g_c), s	10.3	8.2	1.9	10.6	5.3	2.4	2.1	8.5	8.5	2.4	7.4	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.18	1.00		0.28
Lane Grp Cap(c), veh/h	277	431	363	218	431	363	97	864	881	104	871	872
V/C Ratio(X)	0.35	0.65	0.17	0.21	0.45	0.22	0.66	0.44	0.44	0.69	0.40	0.40
Avail Cap(c_a), veh/h	363	577	486	298	577	486	193	864	881	199	871	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	20.9	18.5	25.7	19.8	18.7	27.8	10.1	10.1	27.7	9.7	9.7
Incr Delay (d2), s/veh	0.8	1.7	0.2	0.5	0.7	0.3	7.3	1.6	1.6	8.0	1.3	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.4	0.6	0.6	2.2	0.8	1.0	2.9	3.0	1.2	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	22.6	18.7	26.2	20.5	19.0	35.1	11.7	11.7	35.8	11.0	11.0
LnGrp LOS	C	C	B	C	C	B	D	B	B	D	B	B
Approach Vol, veh/h		440			315			838			763	
Approach Delay, s/veh		22.6			21.0			13.5			13.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	33.7		18.3	7.8	33.9		18.3				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.7	21.3		18.5	6.5	21.5		18.5				
Max Q Clear Time (g_c+I1), s	4.4	10.5		12.3	4.1	9.4		12.6				
Green Ext Time (p_c), s	0.0	3.4		1.2	0.0	3.2		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			B									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	328	46	43	223	5	58	24	68	8	9	12
Future Volume (vph)	6	328	46	43	223	5	58	24	68	8	9	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		50	0		50
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		973			799			579			737	
Travel Time (s)		19.0			15.6			11.3			14.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↰	↱		↰	↱		↔			↔	
Traffic Vol, veh/h	6	328	46	43	223	5	58	24	68	8	9	12
Future Vol, veh/h	6	328	46	43	223	5	58	24	68	8	9	12
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	360	51	47	245	5	64	26	75	9	10	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	255	0	0	416	0	0	737	728	370	799	774	255
Stage 1	-	-	-	-	-	-	379	379	-	344	344	-
Stage 2	-	-	-	-	-	-	358	349	-	455	430	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1310	-	-	1143	-	-	334	350	676	304	329	784
Stage 1	-	-	-	-	-	-	643	615	-	671	637	-
Stage 2	-	-	-	-	-	-	660	633	-	585	583	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1304	-	-	1138	-	-	304	328	670	241	308	777
Mov Cap-2 Maneuver	-	-	-	-	-	-	304	328	-	241	308	-
Stage 1	-	-	-	-	-	-	635	608	-	663	603	-
Stage 2	-	-	-	-	-	-	605	599	-	491	576	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.3	19.6	15.6
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	410	1304	-	-	1138	-	-	372
HCM Lane V/C Ratio	0.402	0.005	-	-	0.042	-	-	0.086
HCM Control Delay (s)	19.6	7.8	0	-	8.3	0	-	15.6
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.9	0	-	-	0.1	-	-	0.3

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	376	12	2	254	10	4
Future Volume (vph)	376	12	2	254	10	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		50	0		0	0
Storage Lanes		1	0		1	0
Taper Length (ft)			90		90	
Link Speed (mph)	35			35	30	
Link Distance (ft)	799			462	503	
Travel Time (s)	15.6			9.0	11.4	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	376	12	2	254	10	4
Future Vol, veh/h	376	12	2	254	10	4
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	50	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	409	13	2	276	11	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	427	0	699	419
Stage 1	-	-	-	-	414	-
Stage 2	-	-	-	-	285	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1132	-	406	634
Stage 1	-	-	-	-	667	-
Stage 2	-	-	-	-	763	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1127	-	401	628
Mov Cap-2 Maneuver	-	-	-	-	401	-
Stage 1	-	-	-	-	662	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	13.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	447	-	-	1127	-
HCM Lane V/C Ratio	0.034	-	-	0.002	-
HCM Control Delay (s)	13.3	-	-	8.2	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

APPENDIX 3.3:

TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2019) AM PEAK HOUR WARRANTS**

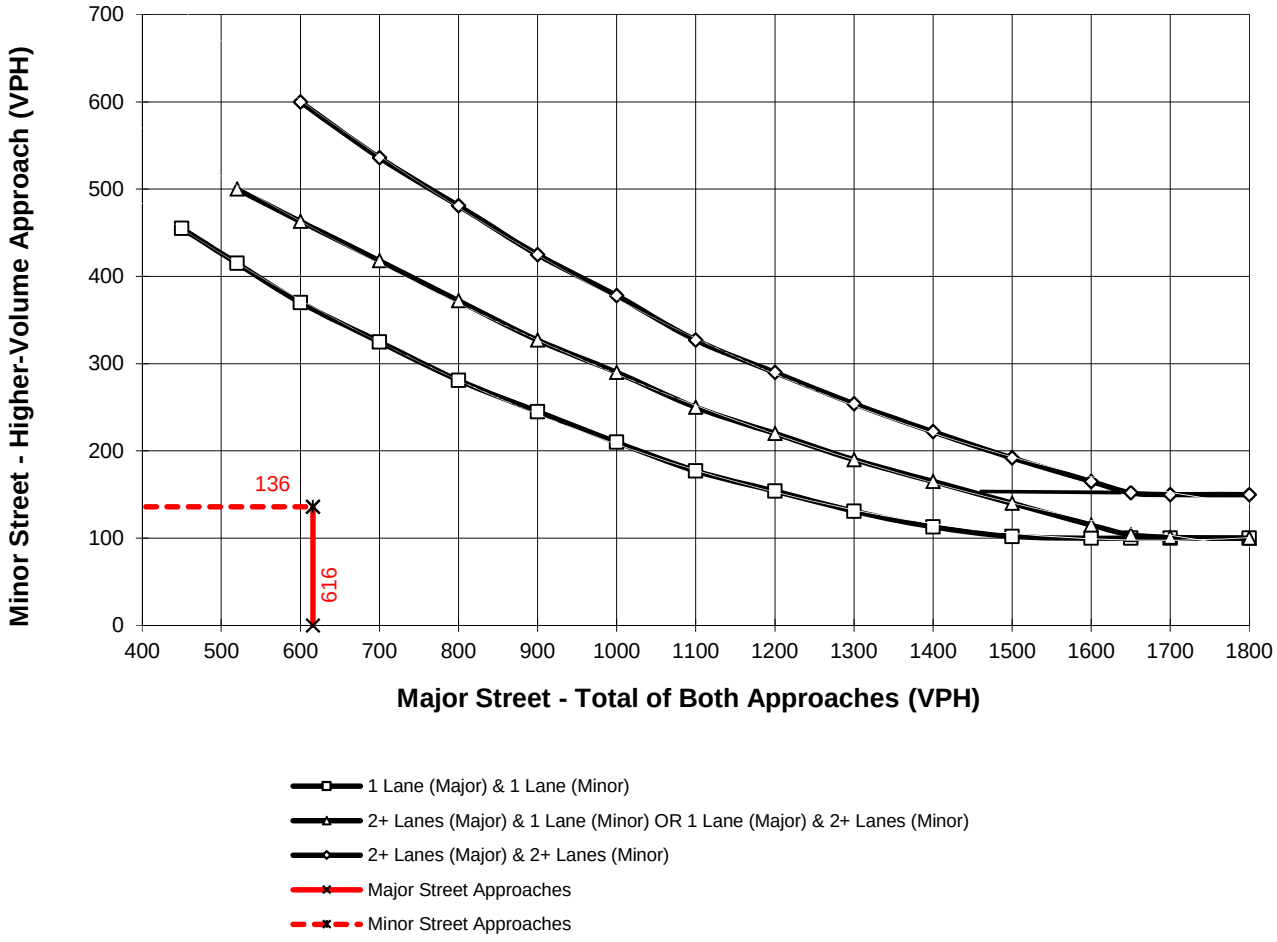
Major Street Name = **E. Menlo Av.**

Total of Both Approaches (VPH) = **616**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Girard St.**

High Volume Approach (VPH) = **136**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2019) PM PEAK HOUR WARRANTS**

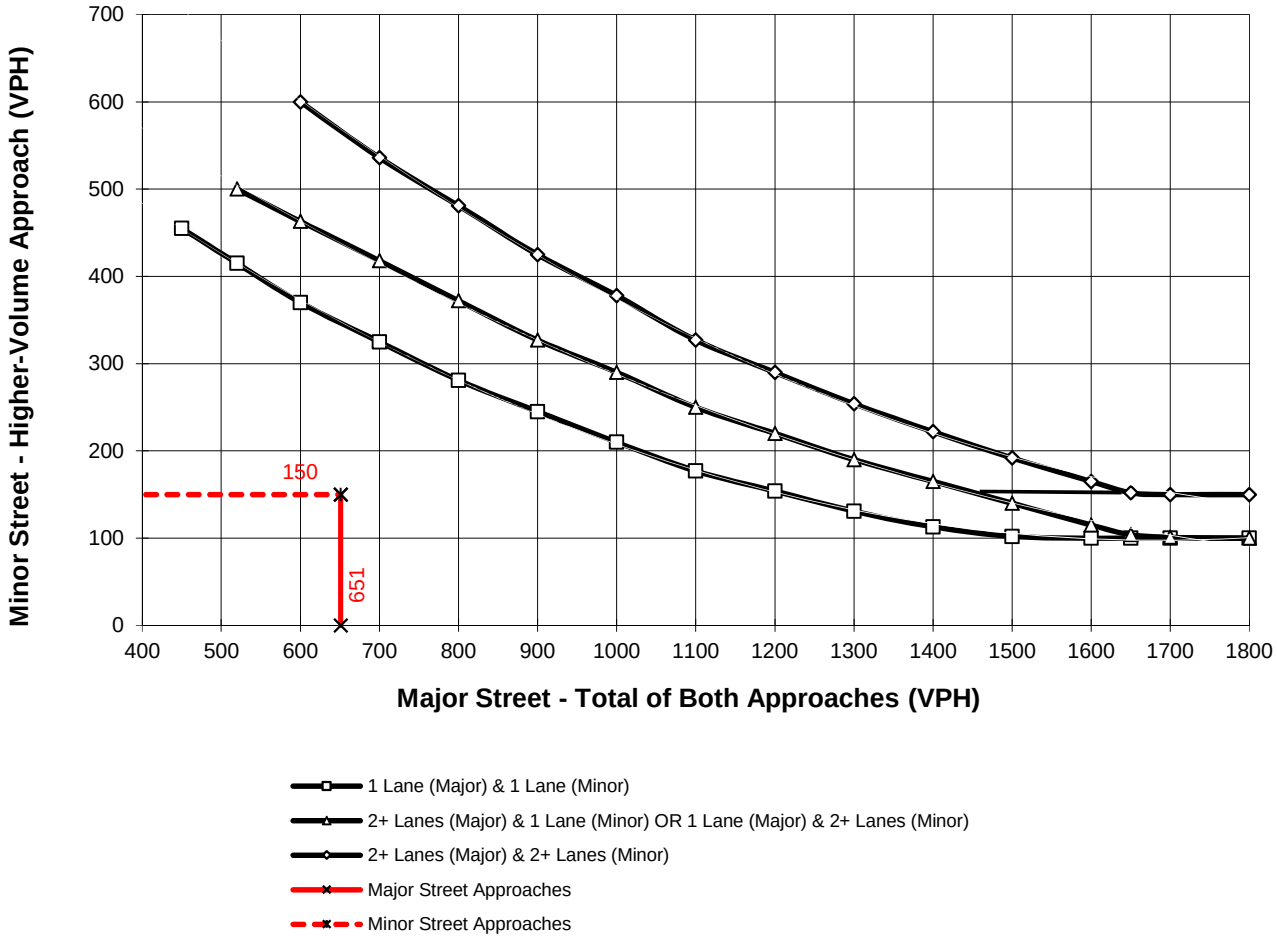
Major Street Name = **E. Menlo Av.**

Total of Both Approaches (VPH) = **651**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Girard St.**

High Volume Approach (VPH) = **150**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

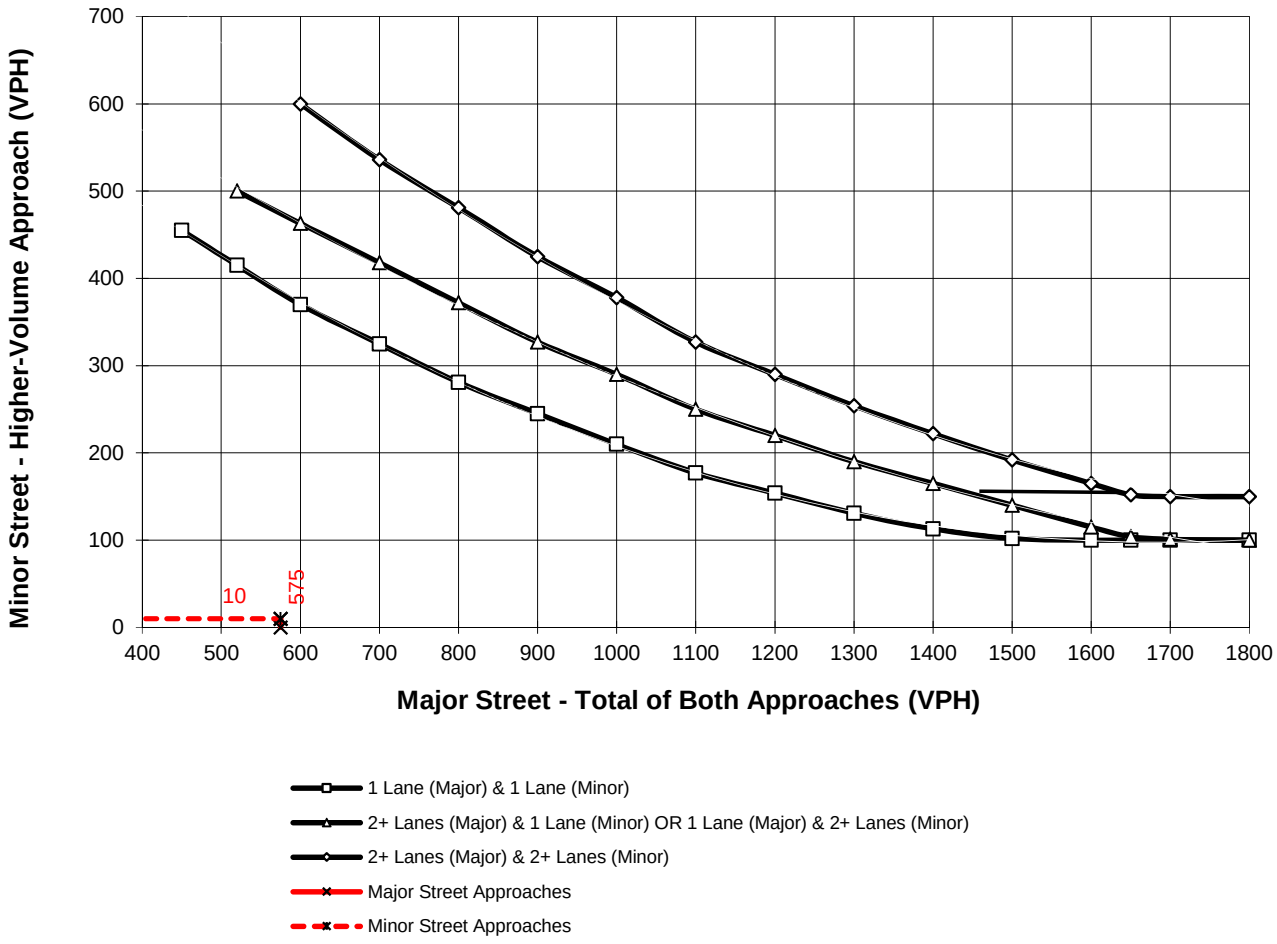
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2019) AM PEAK HOUR WARRANTS**

Major Street Name = **E. Menlo Av.**
Total of Both Approaches (VPH) = **575**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Deardorff Dr. - "B" St.**
High Volume Approach (VPH) = **10**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

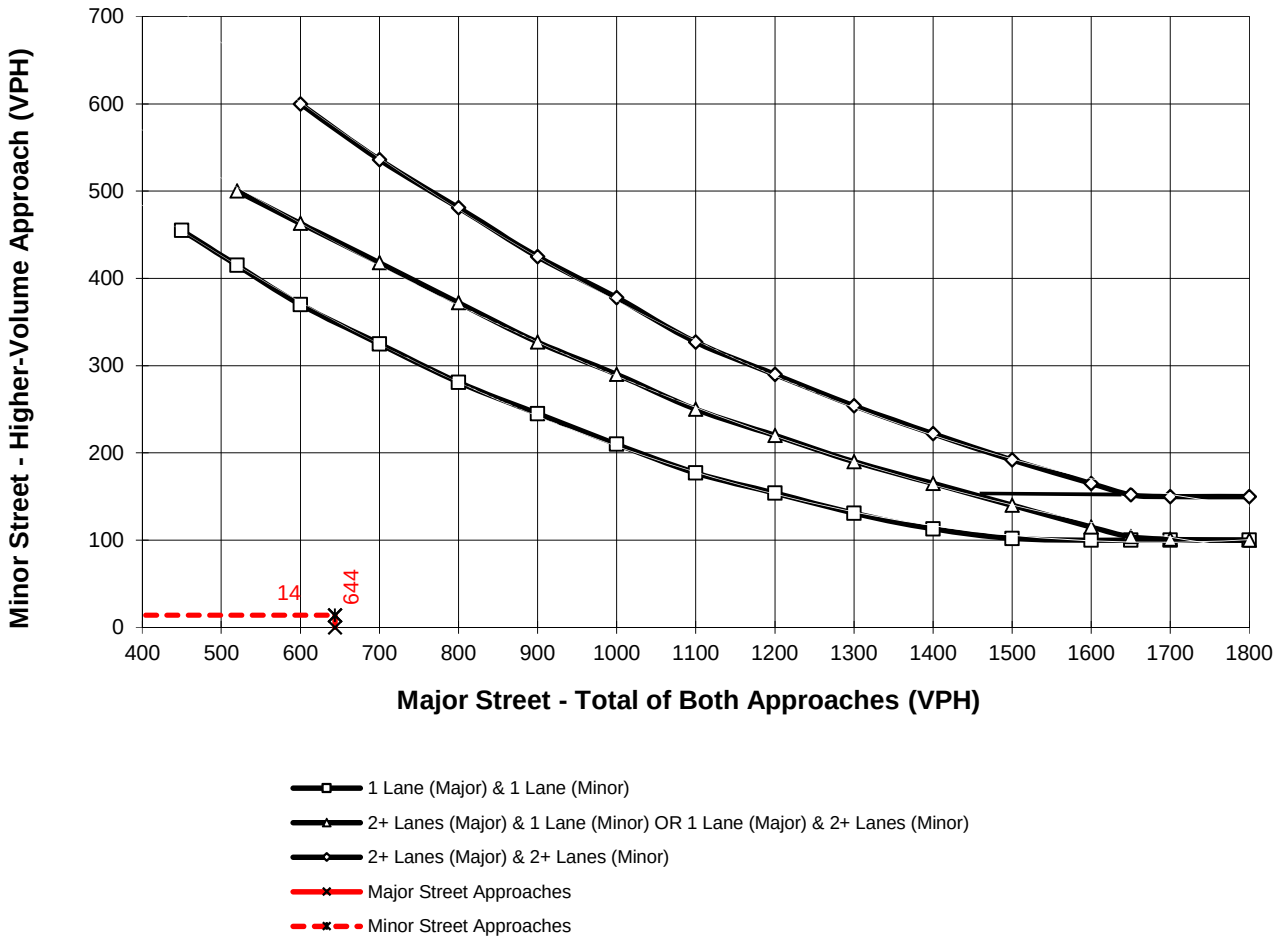
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EXISTING (2019) PM PEAK HOUR WARRANTS**

Major Street Name = **E. Menlo Av.**
Total of Both Approaches (VPH) = **644**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Deardorff Dr. - "B" St.**
High Volume Approach (VPH) = **14**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	E+P
				CALC JC	DATE 10/29/19
Jurisdiction: **City of Hemet**				CHK	DATE
Major Street: **Girard St.**				Critical Approach Speed (Major)	35 mph
Minor Street: **"A" St.**				Critical Approach Speed (Minor)	30 mph

Major Street Approach Lanes = **1** lane Minor Street Approach Lanes **1** lane

Major Street Future ADT = **991** vpd Minor Street Future ADT = **120** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **991**	*1* **120**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **991**	*1* **120**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 5% **B** 8%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing + Project AM PEAK HOUR WARRANTS**

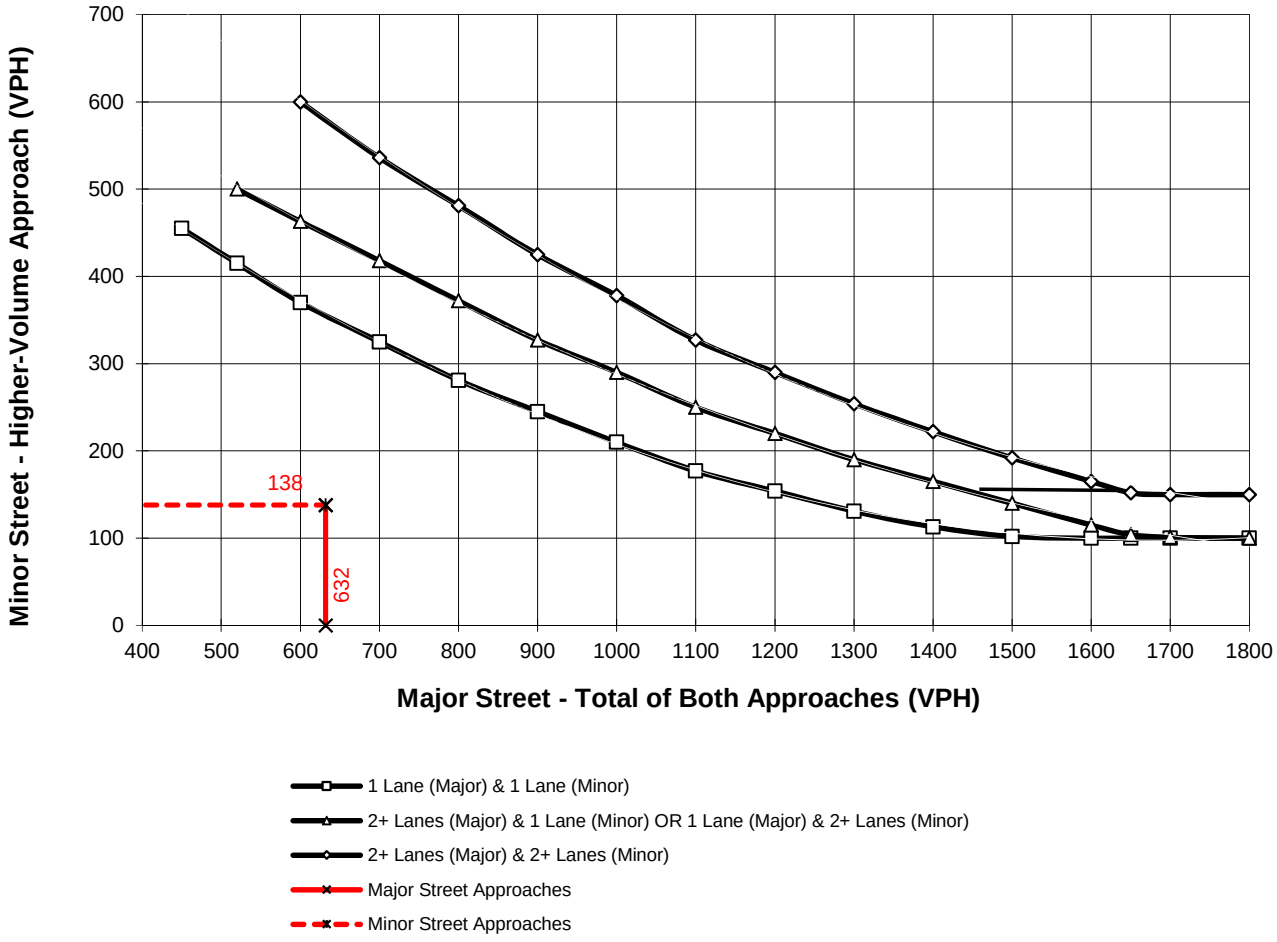
Major Street Name = **E. Menlo Av.**

Total of Both Approaches (VPH) = **632**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Girard St.**

High Volume Approach (VPH) = **138**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing + Project PM PEAK HOUR WARRANTS**

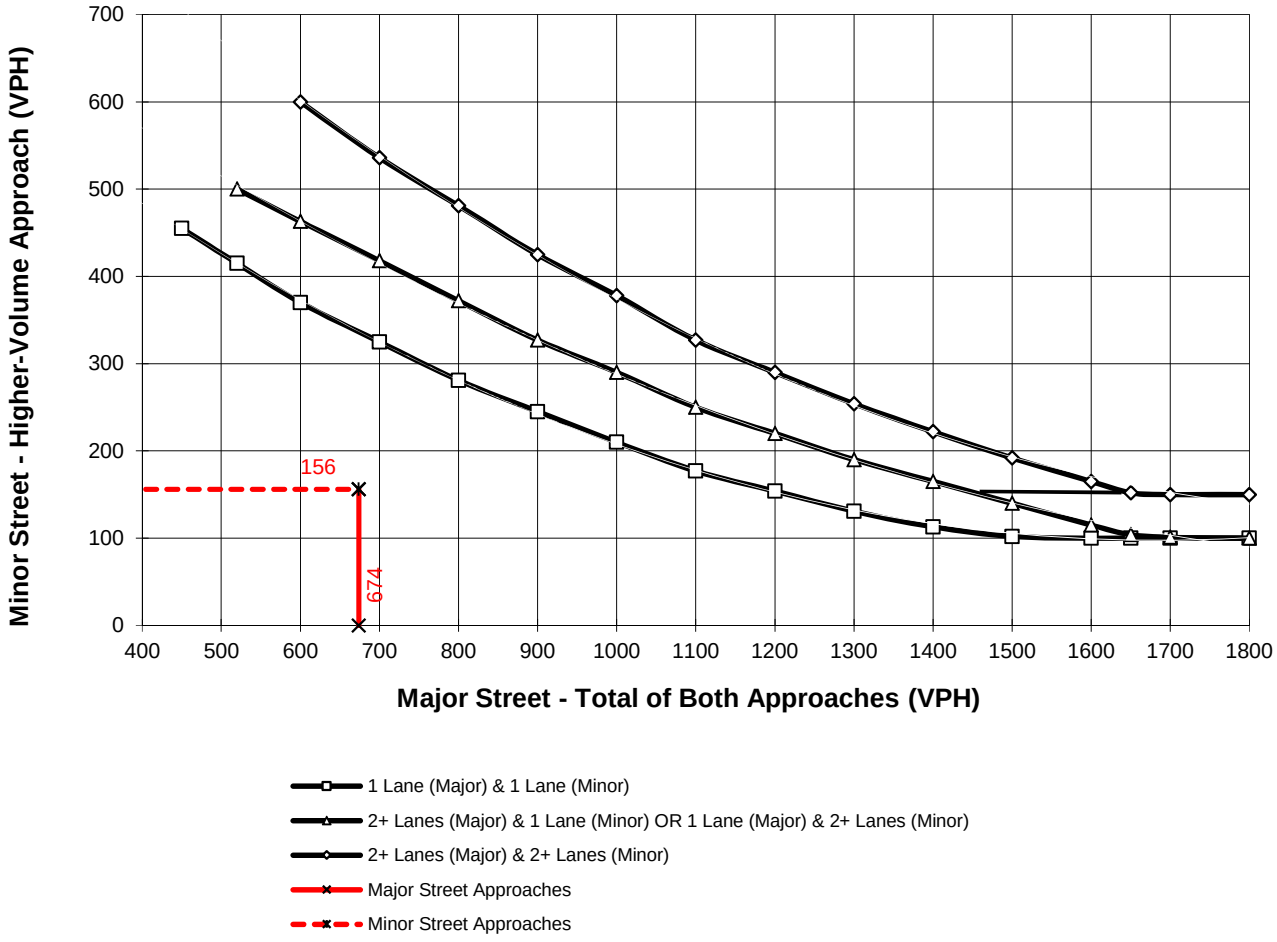
Major Street Name = **E. Menlo Av.**

Total of Both Approaches (VPH) = **674**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Girard St.**

High Volume Approach (VPH) = **156**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

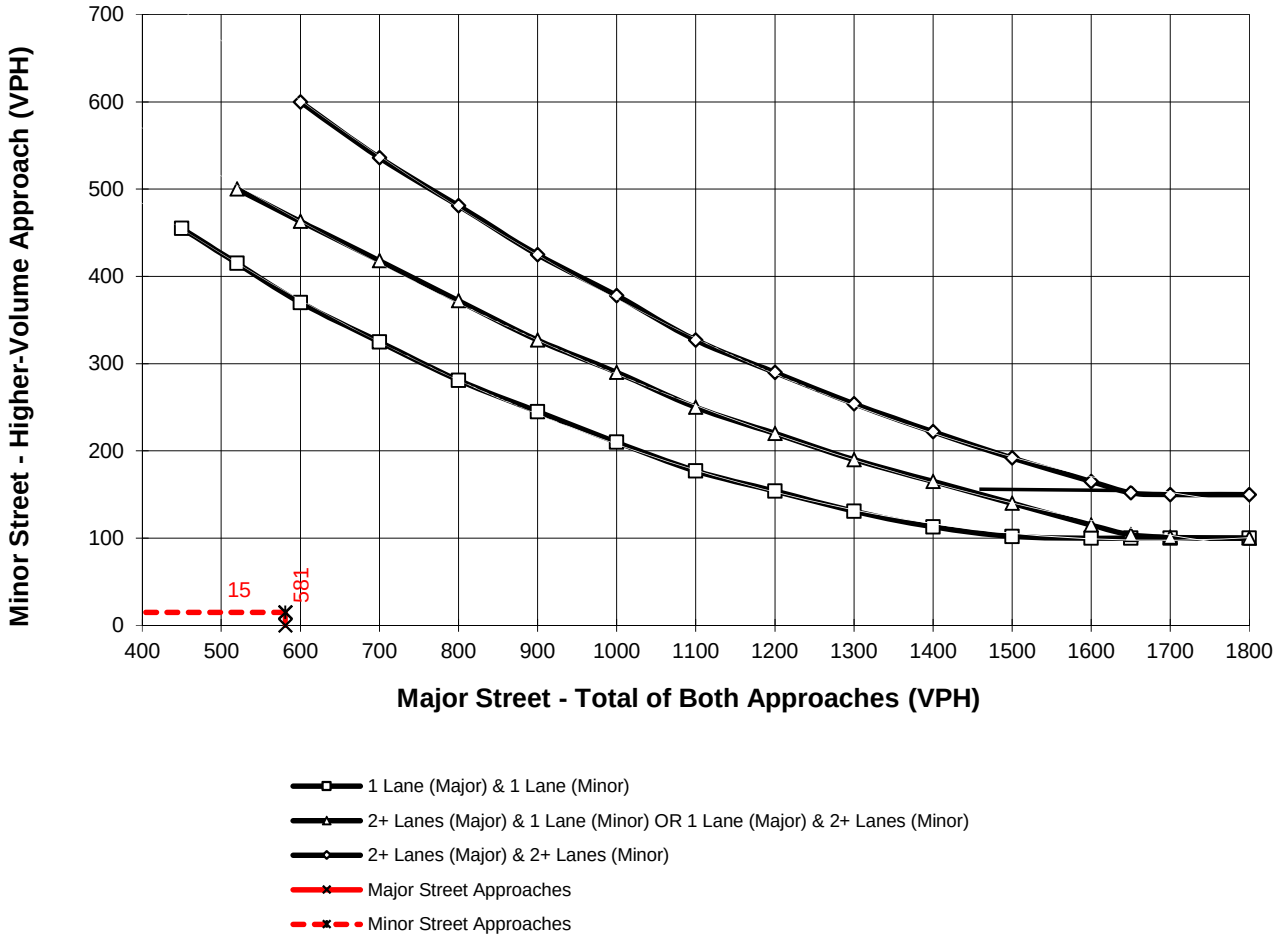
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing + Project AM PEAK HOUR WARRANTS**

Major Street Name = **E. Menlo Av.**
Total of Both Approaches (VPH) = **581**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Deardorff Dr. - "B" St.**
High Volume Approach (VPH) = **15**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

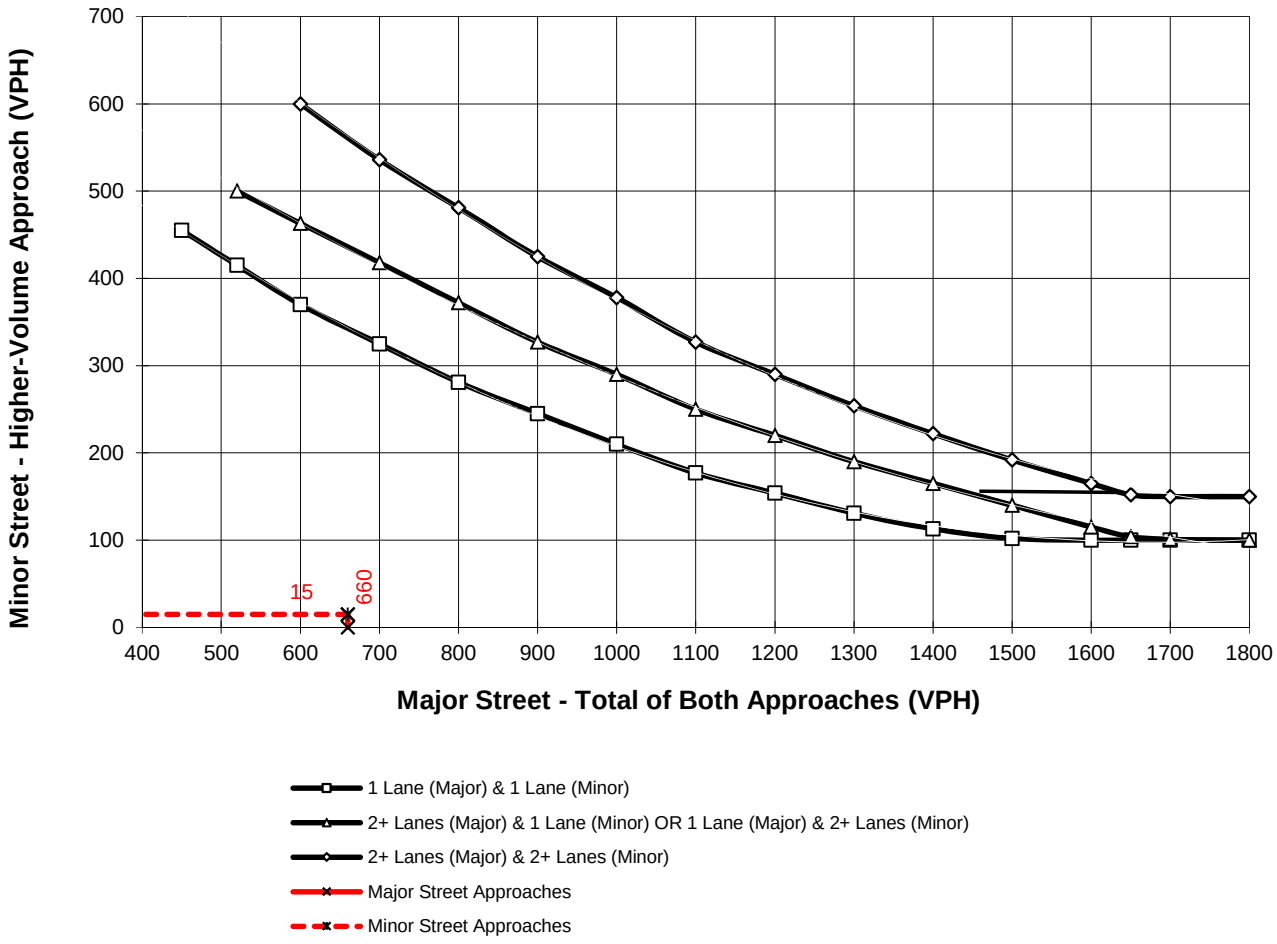
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **Existing + Project PM PEAK HOUR WARRANTS**

Major Street Name = **E. Menlo Av.**
Total of Both Approaches (VPH) = **660**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Deardorff Dr. - "B" St.**
High Volume Approach (VPH) = **15**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	EAP (2021)
				CALC JC	DATE 10/29/19
				CHK	DATE

Jurisdiction: **City of Hemet**

Major Street: **Girard St.** — Critical Approach Speed (Major) 35 mph

Minor Street: **"A" St.** — Critical Approach Speed (Minor) 30 mph

Major Street Approach Lanes = **1** lane — Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,026** vpd — Minor Street Future ADT = **120** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……

URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL	Number of lanes for moving traffic on each approach	Minimum Requirements ADT: Vehicles Per Day on Major Street (Total of Both Approaches)		Minimum Requirements ADT: Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
	Major Street / Minor Street	Urban	Rural	Urban	Rural
XX	**CONDITION A - Minimum Vehicular Volume**				
Satisfied / Not Satisfied XX					
	1 **1,026** / *1* **120**	8,000	5,600	2,400	1,680
	2 + / *1*	9,600	6,720	2,400	1,680
	2 + / *2* +	9,600	6,720	3,200	2,240
	1 / *2* +	8,000	5,600	3,200	2,240
	CONDITION B - Interruption of Continuous Traffic				
Satisfied / Not Satisfied XX					
	1 **1,026** / *1* **120**	12,000	8,400	1,200	850
	2 + / *1*	14,400	10,080	1,200	850
	2 + / *2* +	14,400	10,080	1,600	1,120
	1 / *2* +	12,000	8,400	1,600	1,120
	Combination of CONDITIONS A + B				
Satisfied / Not Satisfied XX		2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 5% / **B** 9%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP AM PEAK HOUR WARRANTS**

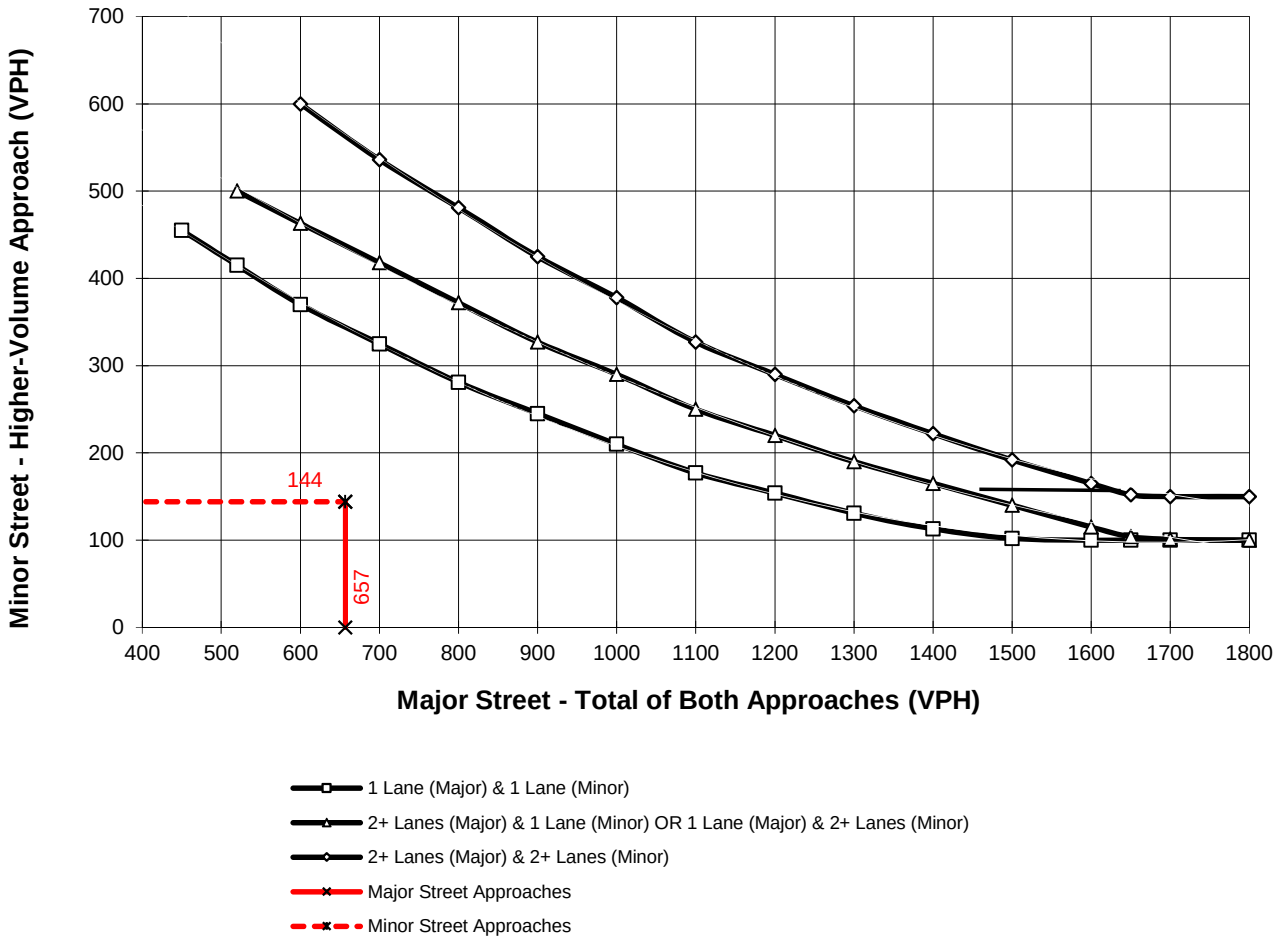
Major Street Name = **E. Menlo Av.**

Total of Both Approaches (VPH) = **657**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Girard St.**

High Volume Approach (VPH) = **144**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP PM PEAK HOUR WARRANTS**

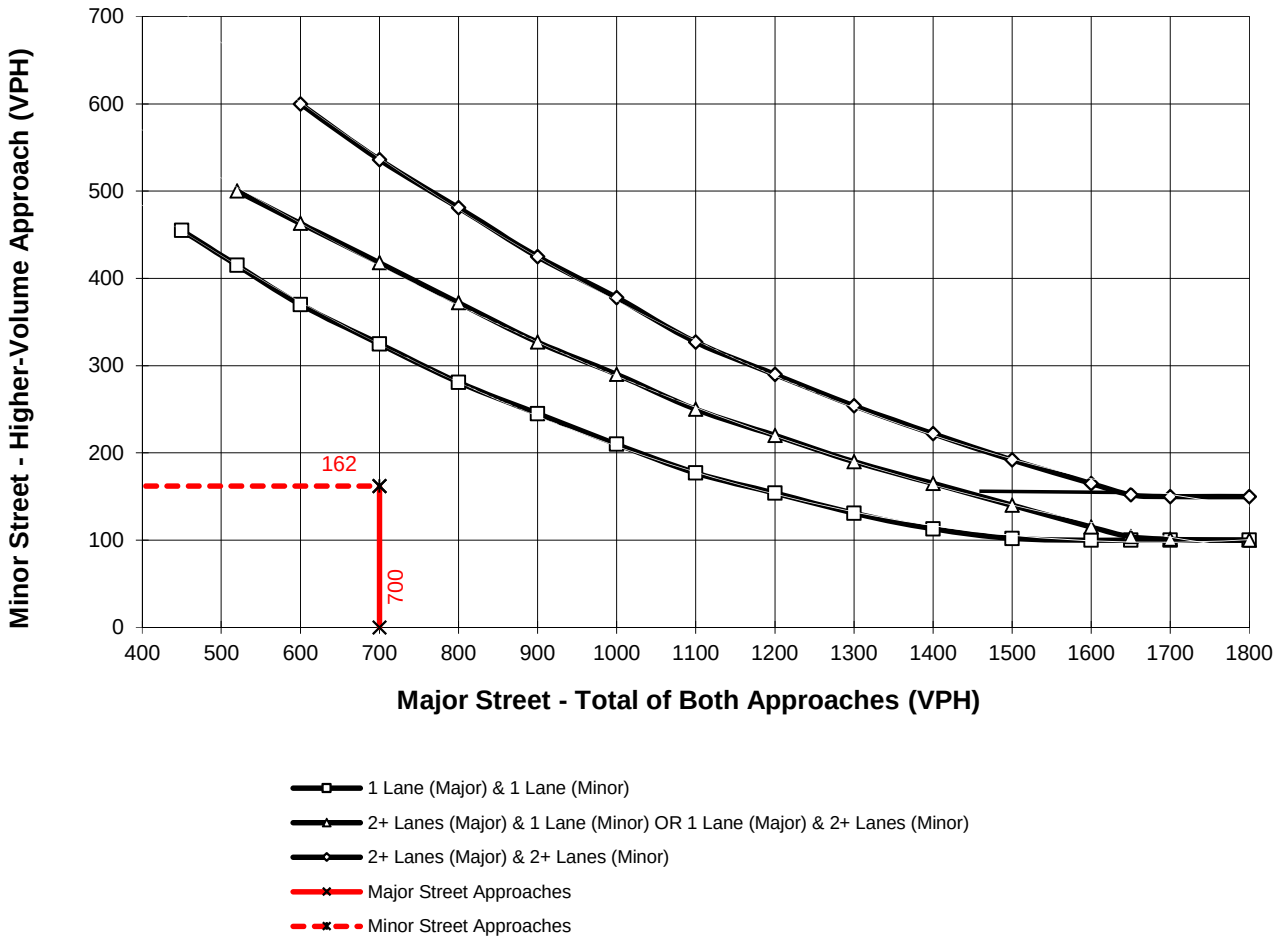
Major Street Name = **E. Menlo Av.**

Total of Both Approaches (VPH) = **700**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Girard St.**

High Volume Approach (VPH) = **162**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

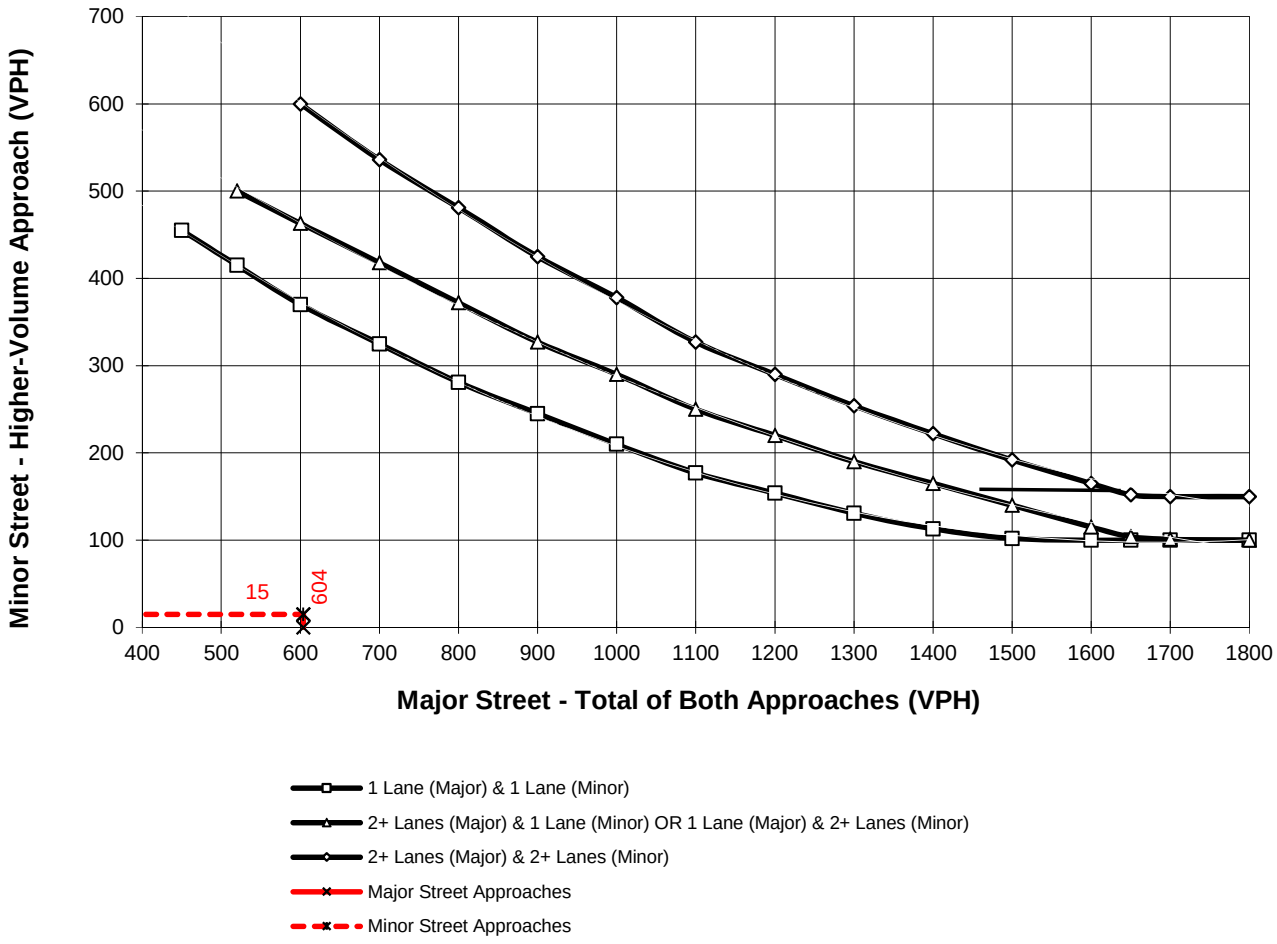
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP AM PEAK HOUR WARRANTS**

Major Street Name = **E. Menlo Av.**
Total of Both Approaches (VPH) = **604**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Deardorff Dr. - "B" St.**
High Volume Approach (VPH) = **15**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

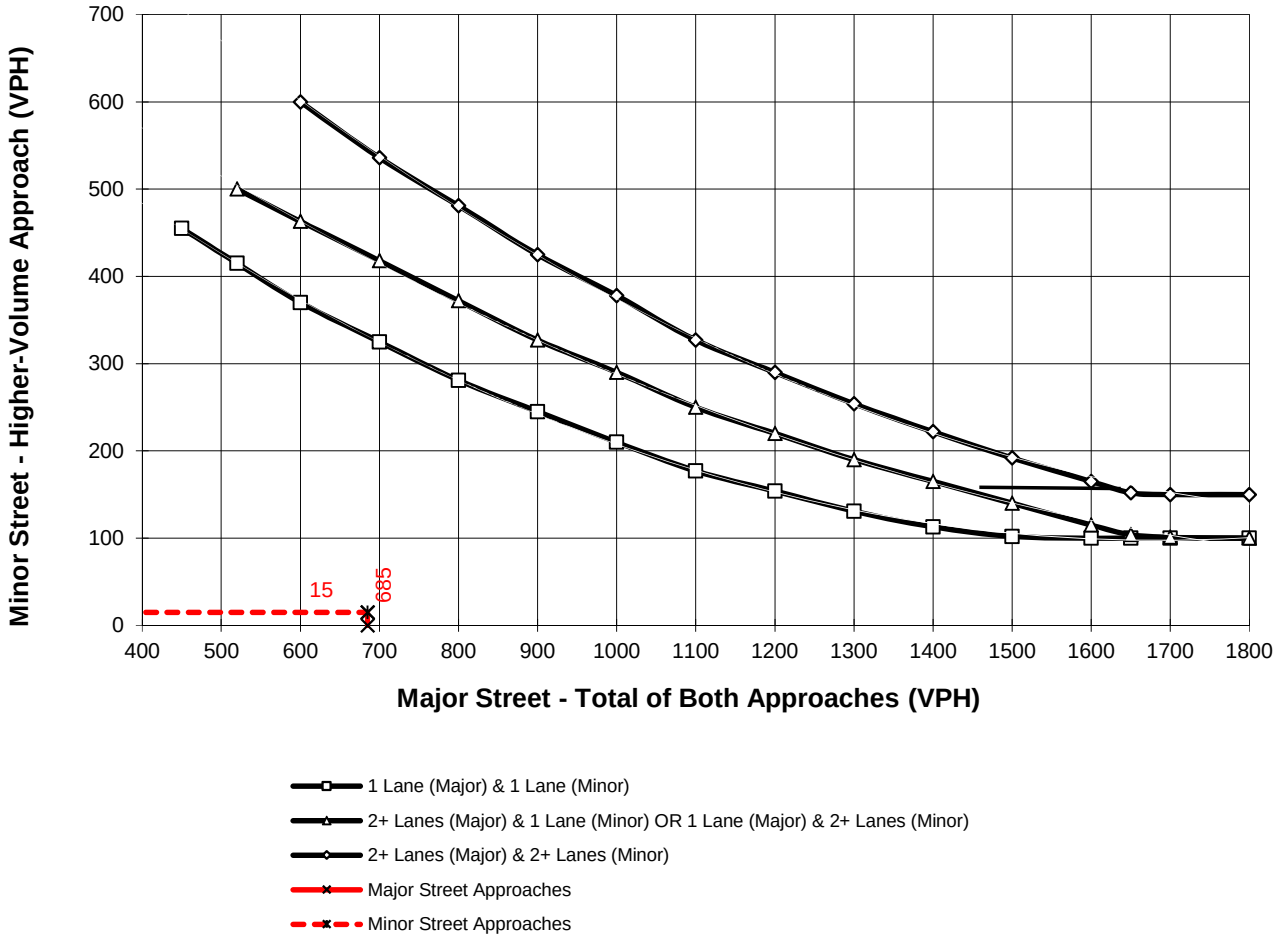
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAP PM PEAK HOUR WARRANTS**

Major Street Name = **E. Menlo Av.**
Total of Both Approaches (VPH) = **685**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Deardorff Dr. - "B" St.**
High Volume Approach (VPH) = **15**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet (Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	EAPC (2021)
				CALC JC	DATE 10/29/19
				CHK	DATE

Jurisdiction: **City of Hemet**

Major Street: **Girard St.** — Critical Approach Speed (Major) 35 mph

Minor Street: **"A" St.** — Critical Approach Speed (Minor) 30 mph

Major Street Approach Lanes = **1** lane — Minor Street Approach Lanes **1** lane

Major Street Future ADT = **1,113** vpd — Minor Street Future ADT = **120** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……..

or

In built up area of isolated community of < 10,000 population ……..

URBAN (U)

(Based on Estimated Average Daily Traffic - See Note)

URBAN	RURAL	Minimum Requirements ADT			
XX					
CONDITION A - Minimum Vehicular Volume		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,113**	*1* **120**	8,000	5,600	2,400	1,680
2 +	*1*	9,600	6,720	2,400	1,680
2 +	*2* +	9,600	6,720	3,200	2,240
1	*2* +	8,000	5,600	3,200	2,240
CONDITION B - Interruption of Continuous Traffic		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Satisfied	Not Satisfied				
	XX				
Number of lanes for moving traffic on each approach					
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **1,113**	*1* **120**	12,000	8,400	1,200	850
2 +	*1*	14,400	10,080	1,200	850
2 +	*2* +	14,400	10,080	1,600	1,120
1	*2* +	12,000	8,400	1,600	1,120
Combination of CONDITIONS A + B					
Satisfied	Not Satisfied				
	XX	2 CONDITIONS 80%		2 CONDITIONS 80%	
No one condition satisfied, but following conditions fulfilled 80% of more …..	**A** 5% **B** 9%				

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC AM PEAK HOUR WARRANTS**

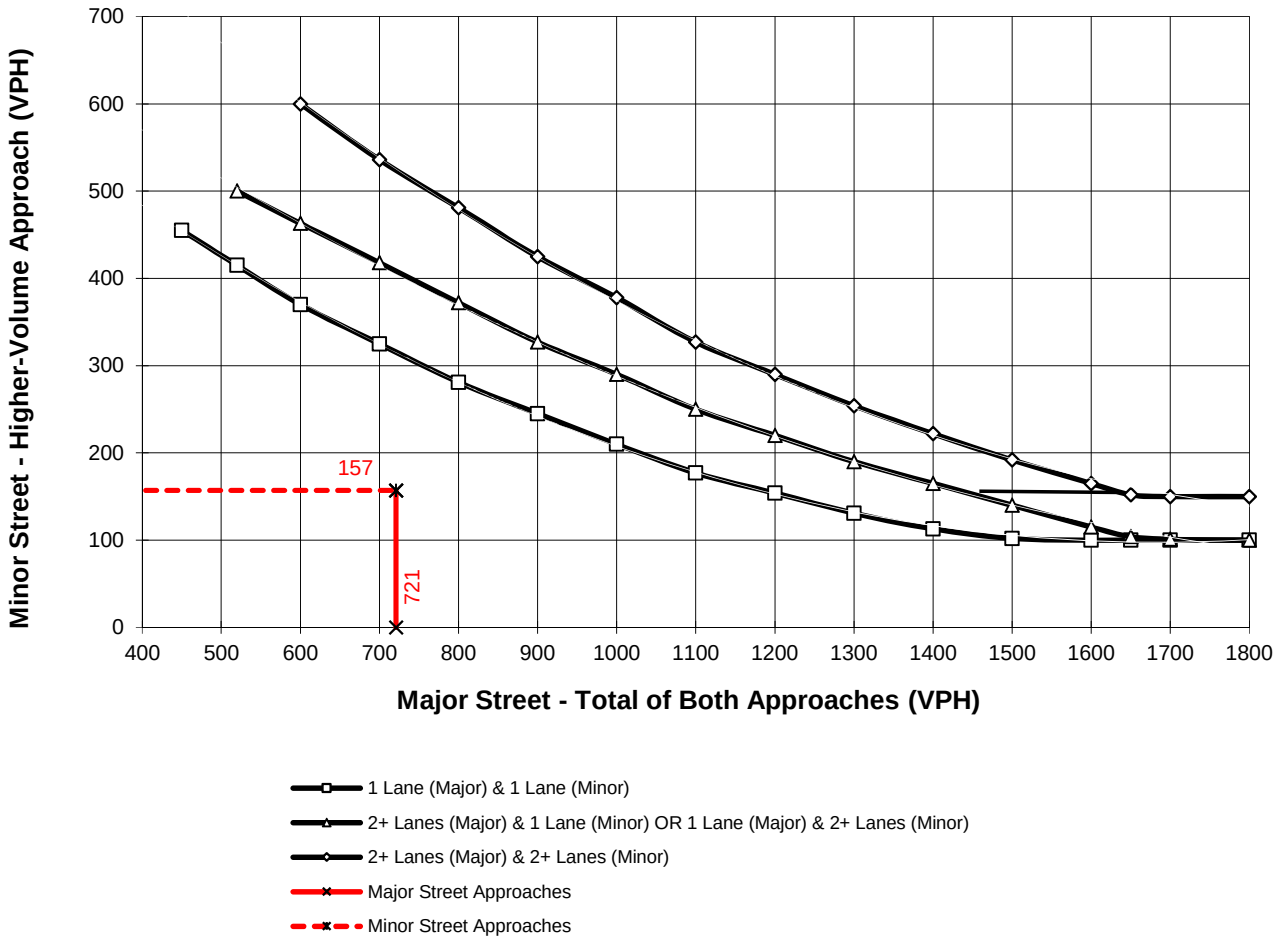
Major Street Name = **E. Menlo Av.**

Total of Both Approaches (VPH) = **721**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Girard St.**

High Volume Approach (VPH) = **157**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC PM PEAK HOUR WARRANTS**

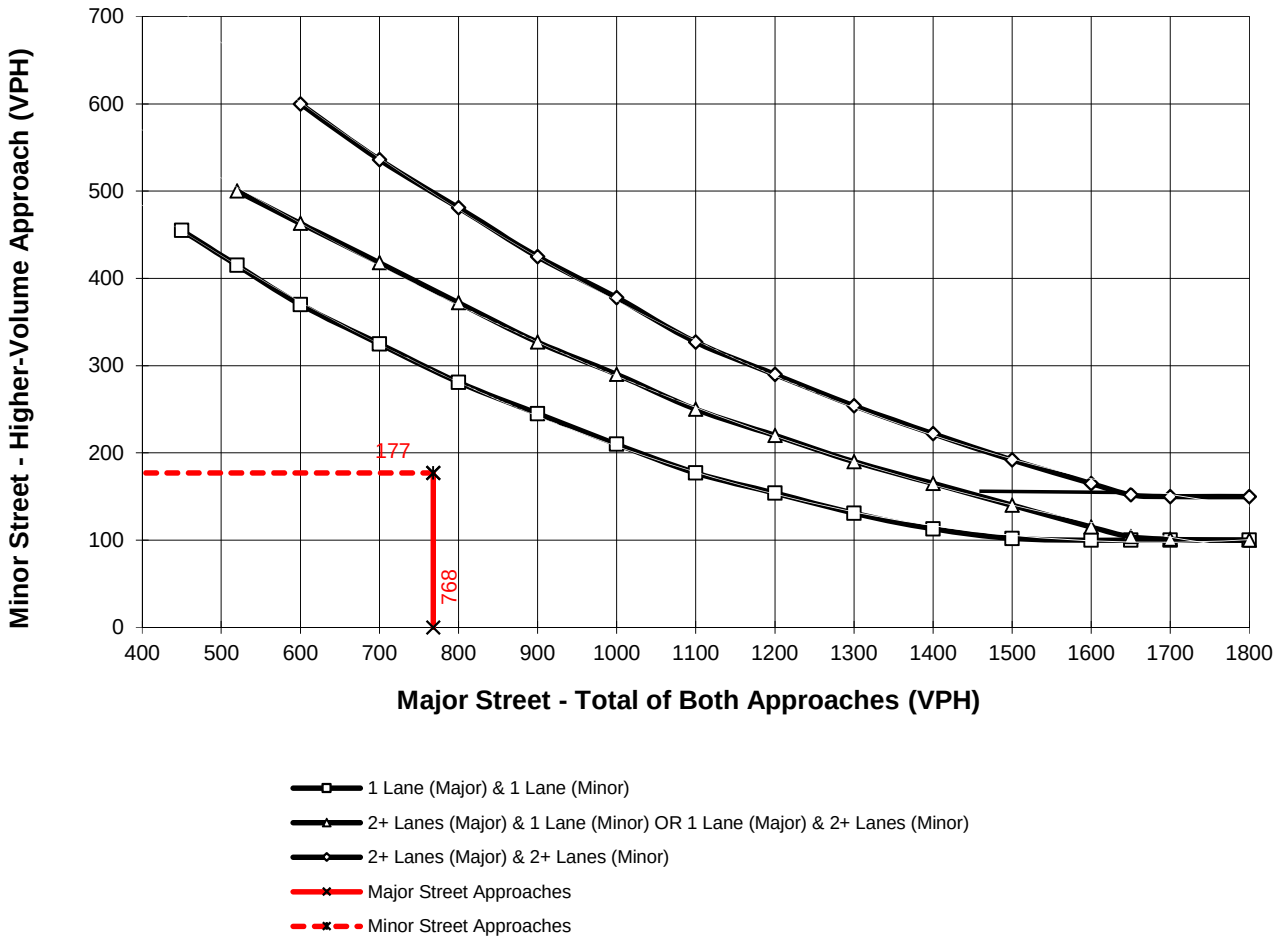
Major Street Name = **E. Menlo Av.**

Total of Both Approaches (VPH) = **768**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Girard St.**

High Volume Approach (VPH) = **177**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

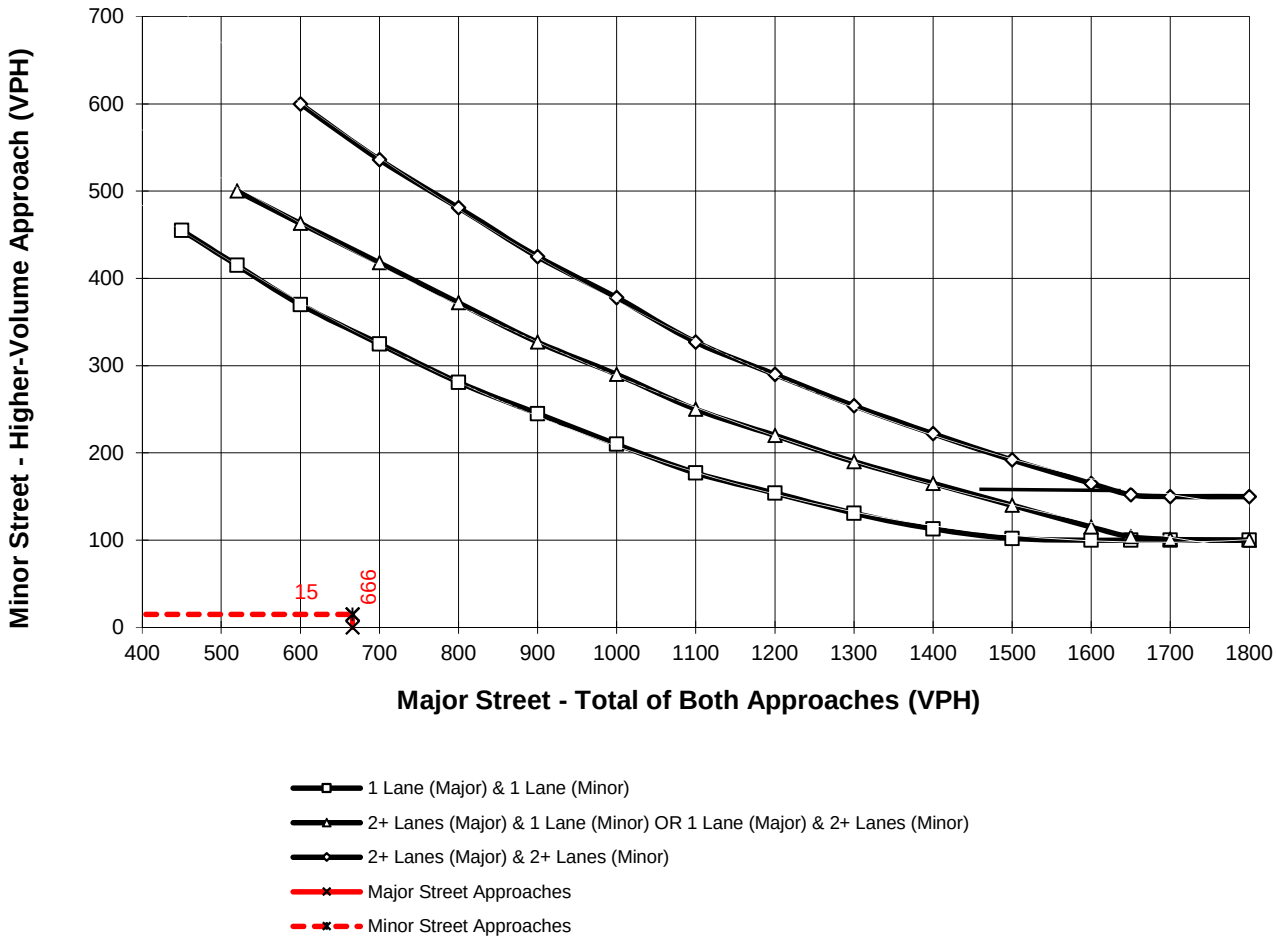
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC AM PEAK HOUR WARRANTS**

Major Street Name = **E. Menlo Av.**
Total of Both Approaches (VPH) = **666**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Deardorff Dr. - "B" St.**
High Volume Approach (VPH) = **15**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

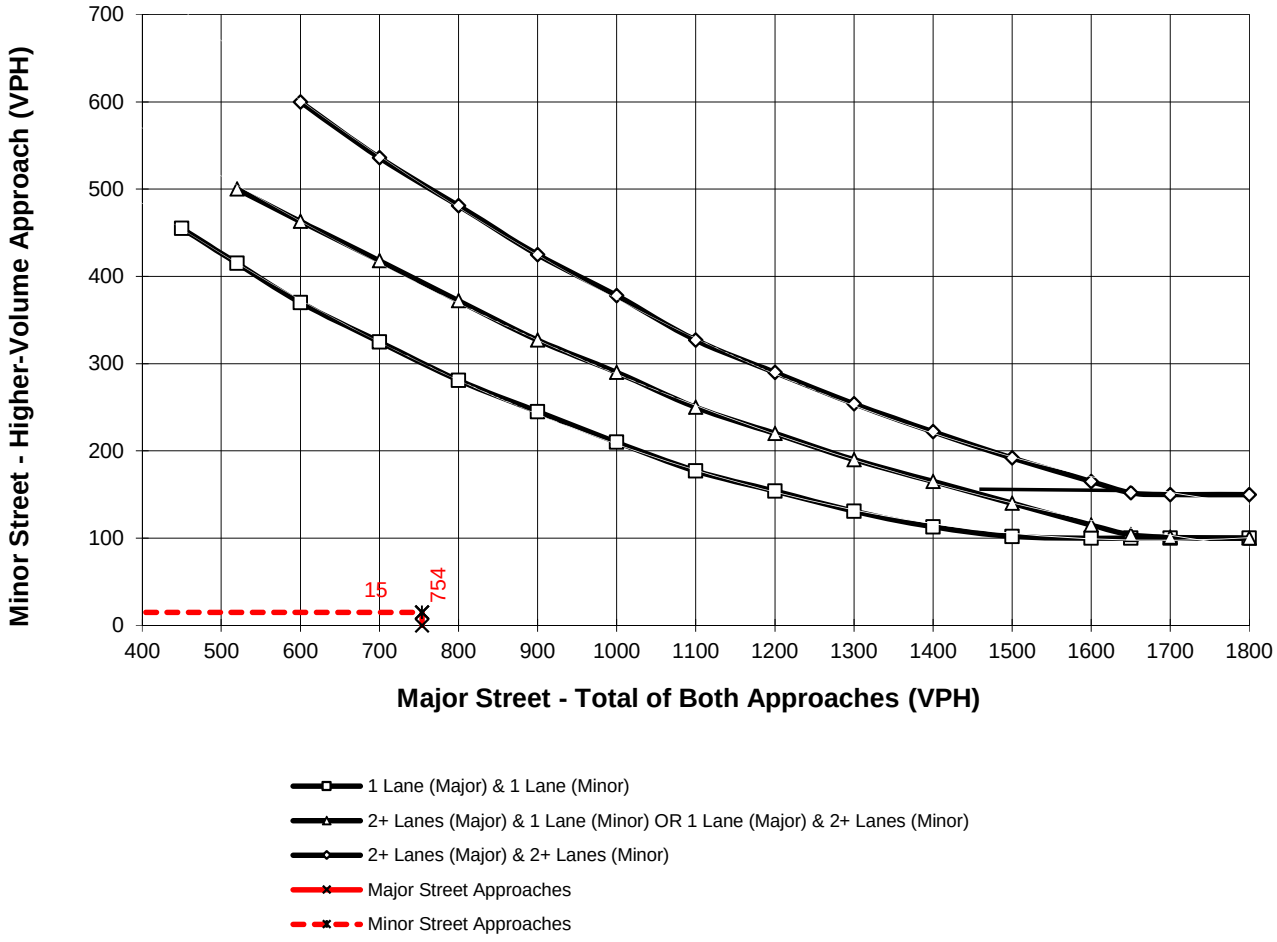
Figure 4C-3. Warrant 3, Peak Hour

Traffic Conditions = **EAPC PM PEAK HOUR WARRANTS**

Major Street Name = **E. Menlo Av.**
Total of Both Approaches (VPH) = **754**
Number of Approach Lanes on Major Street = **1**

Minor Street Name = **Deardorff Dr. - "B" St.**
High Volume Approach (VPH) = **15**
Number of Approach Lanes On Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 150 vph applies as the lower threshold for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

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APPENDIX 5.1:

EXISTING PLUS PROJECT CONDITIONS
INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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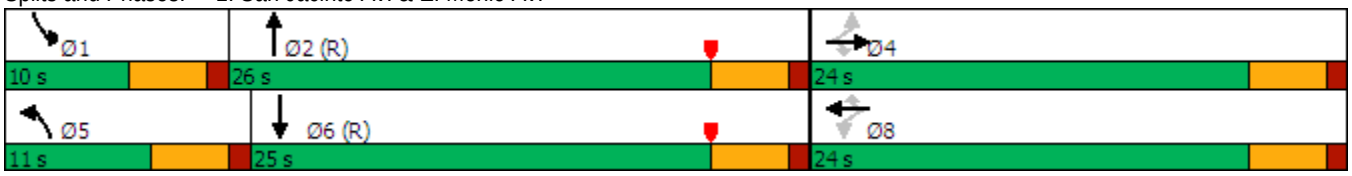
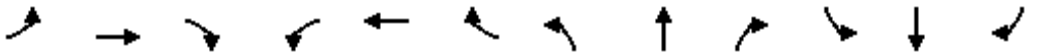
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	206	55	55	226	80	45	434	26	33	425	61
Future Volume (vph)	70	206	55	55	226	80	45	434	26	33	425	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	105		50	85		0	110		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		791			351			576			1297	
Travel Time (s)		15.4			6.8			9.8			22.1	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	26.0		10.0	25.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	18.3%	43.3%		16.7%	41.7%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: San Jacinto Av. & E. Menlo Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	206	55	55	226	80	45	434	26	33	425	61
Future Volume (veh/h)	70	206	55	55	226	80	45	434	26	33	425	61
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	77	226	60	60	248	88	49	477	29	36	467	67
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	449	379	268	449	379	83	1691	103	67	1523	217
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.05	0.50	0.50	0.04	0.49	0.49
Sat Flow, veh/h	1041	1870	1575	1090	1870	1575	1781	3402	206	1781	3119	445
Grp Volume(v), veh/h	77	226	60	60	248	88	49	249	257	36	265	269
Grp Sat Flow(s),veh/h/ln	1041	1870	1575	1090	1870	1575	1781	1777	1832	1781	1777	1788
Q Serve(g_s), s	4.2	6.3	1.8	3.0	7.0	2.7	1.6	4.9	4.9	1.2	5.4	5.4
Cycle Q Clear(g_c), s	11.2	6.3	1.8	9.3	7.0	2.7	1.6	4.9	4.9	1.2	5.4	5.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.25
Lane Grp Cap(c), veh/h	249	449	379	268	449	379	83	883	911	67	867	873
V/C Ratio(X)	0.31	0.50	0.16	0.22	0.55	0.23	0.59	0.28	0.28	0.54	0.31	0.31
Avail Cap(c_a), veh/h	337	608	512	360	608	512	193	883	911	163	867	873
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	19.7	18.0	23.7	20.0	18.3	28.0	8.8	8.8	28.4	9.2	9.3
Incr Delay (d2), s/veh	0.7	0.9	0.2	0.4	1.1	0.3	6.6	0.8	0.8	6.5	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	0.6	0.7	2.9	0.9	0.8	1.7	1.7	0.6	1.8	1.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	20.6	18.2	24.1	21.0	18.6	34.6	9.6	9.6	34.9	10.1	10.2
LnGrp LOS	C	C	B	C	C	B	C	A	A	C	B	B
Approach Vol, veh/h		363			396			555			570	
Approach Delay, s/veh		21.2			21.0			11.8			11.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	34.3		18.9	7.3	33.8		18.9				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	21.5		19.5	6.5	20.5		19.5				
Max Q Clear Time (g_c+I1), s	3.2	6.9		13.2	3.6	7.4		11.3				
Green Ext Time (p_c), s	0.0	2.4		0.9	0.0	2.5		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			15.5									
HCM 6th LOS			B									

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	4	34	4	2	25
Future Volume (vph)	10	4	34	4	2	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30		35			35
Link Distance (ft)	264		737			545
Travel Time (s)	6.0		14.4			10.6
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	4	34	4	2	25
Future Vol, veh/h	10	4	34	4	2	25
Conflicting Peds, #/hr	5	5	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	4	37	4	2	27

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	80	49	0	0	46	0
Stage 1	44	-	-	-	-	-
Stage 2	36	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	922	1020	-	-	1562	-
Stage 1	978	-	-	-	-	-
Stage 2	986	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	912	1010	-	-	1555	-
Mov Cap-2 Maneuver	912	-	-	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	981	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	938	1555	-
HCM Lane V/C Ratio	-	-	0.016	0.001	-
HCM Control Delay (s)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	195	72	58	293	6	69	24	45	5	14	16
Future Volume (vph)	8	195	72	58	293	6	69	24	45	5	14	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		50	0		50
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		973			799			579			737	
Travel Time (s)		19.0			15.6			11.3			14.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	195	72	58	293	6	69	24	45	5	14	16
Future Vol, veh/h	8	195	72	58	293	6	69	24	45	5	14	16
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	205	76	61	308	6	73	25	47	5	15	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	319	0	0	286	0	0	680	667	215	735	737	318
Stage 1	-	-	-	-	-	-	226	226	-	435	435	-
Stage 2	-	-	-	-	-	-	454	441	-	300	302	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1241	-	-	1276	-	-	365	380	825	335	346	723
Stage 1	-	-	-	-	-	-	777	717	-	600	580	-
Stage 2	-	-	-	-	-	-	586	577	-	709	664	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1235	-	-	1270	-	-	324	352	817	281	320	716
Mov Cap-2 Maneuver	-	-	-	-	-	-	324	352	-	281	320	-
Stage 1	-	-	-	-	-	-	767	708	-	592	543	-
Stage 2	-	-	-	-	-	-	522	541	-	636	655	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.3	18.5	14.5
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	410	1235	-	-	1270	-	-	417
HCM Lane V/C Ratio	0.354	0.007	-	-	0.048	-	-	0.088
HCM Control Delay (s)	18.5	7.9	0	-	8	0	-	14.5
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.6	0	-	-	0.2	-	-	0.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	245	4	3	323	2	7	1	3	4	1	10
Future Volume (vph)	4	245	4	3	323	2	7	1	3	4	1	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		799			462			503			278	
Travel Time (s)		15.6			9.0			11.4			6.3	
Confl. Peds. (#/hr)			5	5			5		5			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	245	4	3	323	2	7	1	3	4	1	10
Future Vol, veh/h	4	245	4	3	323	2	7	1	3	4	1	10
Conflicting Peds, #/hr	0	0	5	5	0	0	5	0	5	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	275	4	3	363	2	8	1	3	4	1	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	365	0	0	284	0	0	669	659	285	662	662	369
Stage 1	-	-	-	-	-	-	288	288	-	370	370	-
Stage 2	-	-	-	-	-	-	381	371	-	292	292	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1194	-	-	1278	-	-	371	384	754	375	382	677
Stage 1	-	-	-	-	-	-	720	674	-	650	620	-
Stage 2	-	-	-	-	-	-	641	620	-	716	671	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1194	-	-	1272	-	-	359	379	747	369	377	674
Mov Cap-2 Maneuver	-	-	-	-	-	-	359	379	-	369	377	-
Stage 1	-	-	-	-	-	-	714	668	-	647	618	-
Stage 2	-	-	-	-	-	-	624	618	-	705	665	-

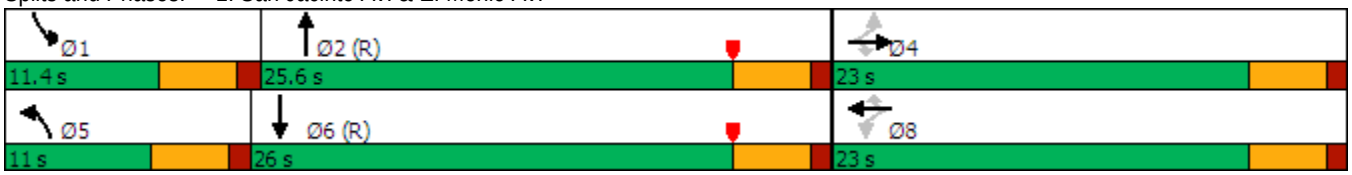
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	13.8	12
HCM LOS			B	B

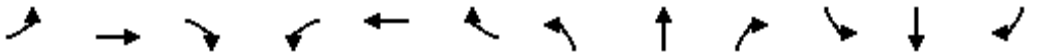
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	421	1194	-	-	1272	-	-	529
HCM Lane V/C Ratio	0.029	0.004	-	-	0.003	-	-	0.032
HCM Control Delay (s)	13.8	8	0	-	7.8	0	-	12
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	273	58	46	186	77	61	670	71	73	565	91
Future Volume (vph)	93	273	58	46	186	77	61	670	71	73	565	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	105		50	85		0	110		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		791			351			576			1297	
Travel Time (s)		15.4			6.8			9.8			22.1	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	11.0	25.6		11.4	26.0	
Total Split (%)	38.3%	38.3%	38.3%	38.3%	38.3%	38.3%	18.3%	42.7%		19.0%	43.3%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: San Jacinto Av. & E. Menlo Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	93	273	58	46	186	77	61	670	71	73	565	91
Future Volume (veh/h)	93	273	58	46	186	77	61	670	71	73	565	91
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	98	287	61	48	196	81	64	705	75	77	595	96
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	277	435	366	216	435	366	97	1562	166	107	1494	240
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.05	0.48	0.48	0.06	0.49	0.49
Sat Flow, veh/h	1098	1870	1575	1030	1870	1575	1781	3239	344	1781	3063	493
Grp Volume(v), veh/h	98	287	61	48	196	81	64	387	393	77	345	346
Grp Sat Flow(s),veh/h/ln	1098	1870	1575	1030	1870	1575	1781	1777	1806	1781	1777	1779
Q Serve(g_s), s	5.0	8.3	1.9	2.7	5.4	2.5	2.1	8.6	8.7	2.5	7.4	7.4
Cycle Q Clear(g_c), s	10.4	8.3	1.9	11.0	5.4	2.5	2.1	8.6	8.7	2.5	7.4	7.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.28
Lane Grp Cap(c), veh/h	277	435	366	216	435	366	97	857	871	107	867	868
V/C Ratio(X)	0.35	0.66	0.17	0.22	0.45	0.22	0.66	0.45	0.45	0.72	0.40	0.40
Avail Cap(c_a), veh/h	360	577	486	294	577	486	193	857	871	205	867	868
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	20.9	18.4	25.9	19.7	18.6	27.8	10.3	10.3	27.7	9.8	9.8
Incr Delay (d2), s/veh	0.8	1.7	0.2	0.5	0.7	0.3	7.3	1.7	1.7	8.6	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.5	0.6	0.6	2.2	0.9	1.0	3.0	3.1	1.2	2.5	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	22.6	18.6	26.4	20.5	18.9	35.1	12.0	12.0	36.3	11.1	11.1
LnGrp LOS	C	C	B	C	C	B	D	B	B	D	B	B
Approach Vol, veh/h		446			325			844			768	
Approach Delay, s/veh		22.6			21.0			13.7			13.7	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	33.4		18.5	7.8	33.8		18.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.9	21.1		18.5	6.5	21.5		18.5				
Max Q Clear Time (g_c+I1), s	4.5	10.7		12.4	4.1	9.4		13.0				
Green Ext Time (p_c), s	0.0	3.4		1.2	0.0	3.2		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			16.4									
HCM 6th LOS			B									

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	3	35	11	5	29
Future Volume (vph)	7	3	35	11	5	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30		35			35
Link Distance (ft)	264		737			545
Travel Time (s)	6.0		14.4			10.6
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

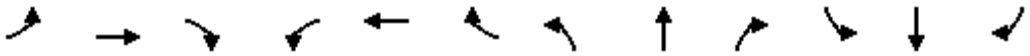
Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	3	35	11	5	29
Future Vol, veh/h	7	3	35	11	5	29
Conflicting Peds, #/hr	5	5	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	3	38	12	5	32

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	96	54	0	0	55	0
Stage 1	49	-	-	-	-	-
Stage 2	47	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	903	1013	-	-	1550	-
Stage 1	973	-	-	-	-	-
Stage 2	975	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	891	1003	-	-	1543	-
Mov Cap-2 Maneuver	891	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	970	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	922	1543	-
HCM Lane V/C Ratio	-	-	0.012	0.004	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	336	46	45	228	5	58	27	71	8	11	17
Future Volume (vph)	14	336	46	45	228	5	58	27	71	8	11	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		50	0		50
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		973			799			579			737	
Travel Time (s)		19.0			15.6			11.3			14.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	336	46	45	228	5	58	27	71	8	11	17
Future Vol, veh/h	14	336	46	45	228	5	58	27	71	8	11	17
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	369	51	49	251	5	64	30	78	9	12	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	261	0	0	425	0	0	776	763	379	838	809	261
Stage 1	-	-	-	-	-	-	404	404	-	354	354	-
Stage 2	-	-	-	-	-	-	372	359	-	484	455	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1303	-	-	1134	-	-	315	334	668	286	314	778
Stage 1	-	-	-	-	-	-	623	599	-	663	630	-
Stage 2	-	-	-	-	-	-	648	627	-	564	569	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1297	-	-	1129	-	-	280	309	662	220	290	771
Mov Cap-2 Maneuver	-	-	-	-	-	-	280	309	-	220	290	-
Stage 1	-	-	-	-	-	-	611	587	-	650	595	-
Stage 2	-	-	-	-	-	-	585	592	-	463	558	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.3	21.4	15.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	388	1297	-	-	1129	-	-	374
HCM Lane V/C Ratio	0.442	0.012	-	-	0.044	-	-	0.106
HCM Control Delay (s)	21.4	7.8	0	-	8.3	0	-	15.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.2	0	-	-	0.1	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	376	12	2	254	5	10	1	4	3	1	7
Future Volume (vph)	11	376	12	2	254	5	10	1	4	3	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		799			462			503			278	
Travel Time (s)		15.6			9.0			11.4			6.3	
Confl. Peds. (#/hr)			5	5			5		5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	376	12	2	254	5	10	1	4	3	1	7
Future Vol, veh/h	11	376	12	2	254	5	10	1	4	3	1	7
Conflicting Peds, #/hr	0	0	5	5	0	0	5	0	5	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	409	13	2	276	5	11	1	4	3	1	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	281	0	0	427	0	0	730	723	419	730	734	284
Stage 1	-	-	-	-	-	-	438	438	-	283	283	-
Stage 2	-	-	-	-	-	-	292	285	-	447	451	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1282	-	-	1132	-	-	338	352	634	338	347	755
Stage 1	-	-	-	-	-	-	597	579	-	724	677	-
Stage 2	-	-	-	-	-	-	716	676	-	591	571	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1282	-	-	1127	-	-	327	345	628	330	340	751
Mov Cap-2 Maneuver	-	-	-	-	-	-	327	345	-	330	340	-
Stage 1	-	-	-	-	-	-	587	569	-	715	676	-
Stage 2	-	-	-	-	-	-	703	675	-	576	561	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	15	12.2
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	376	1282	-	-	1127	-	-	515
HCM Lane V/C Ratio	0.043	0.009	-	-	0.002	-	-	0.023
HCM Control Delay (s)	15	7.8	0	-	8.2	0	-	12.2
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

APPENDIX 6.1:

EXISTING PLUS AMBIENT PLUS PROJECT (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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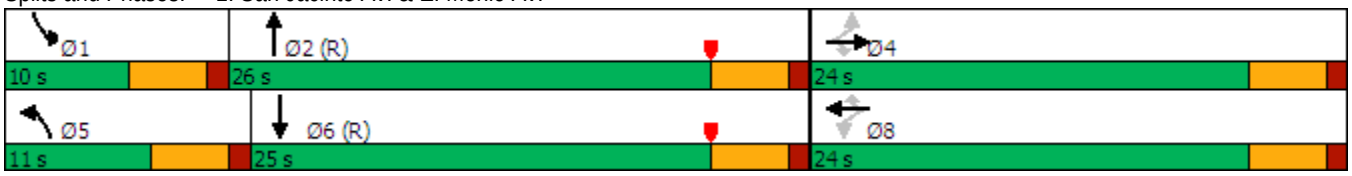
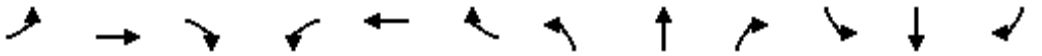
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	214	57	57	235	83	47	452	27	34	442	63
Future Volume (vph)	73	214	57	57	235	83	47	452	27	34	442	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	105		50	85		0	110		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		791			351			576			1297	
Travel Time (s)		15.4			6.8			9.8			22.1	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	26.0		10.0	25.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	18.3%	43.3%		16.7%	41.7%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: San Jacinto Av. & E. Menlo Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	73	214	57	57	235	83	47	452	27	34	442	63
Future Volume (veh/h)	73	214	57	57	235	83	47	452	27	34	442	63
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	80	235	63	63	258	91	52	497	30	37	486	69
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	251	463	390	270	463	390	86	1665	100	68	1497	212
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.05	0.49	0.49	0.04	0.48	0.48
Sat Flow, veh/h	1029	1870	1575	1078	1870	1575	1781	3404	205	1781	3124	441
Grp Volume(v), veh/h	80	235	63	63	258	91	52	259	268	37	275	280
Grp Sat Flow(s),veh/h/ln	1029	1870	1575	1078	1870	1575	1781	1777	1832	1781	1777	1788
Q Serve(g_s), s	4.4	6.5	1.9	3.2	7.2	2.8	1.7	5.2	5.3	1.2	5.7	5.8
Cycle Q Clear(g_c), s	11.6	6.5	1.9	9.7	7.2	2.8	1.7	5.2	5.3	1.2	5.7	5.8
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.25
Lane Grp Cap(c), veh/h	251	463	390	270	463	390	86	869	896	68	851	857
V/C Ratio(X)	0.32	0.51	0.16	0.23	0.56	0.23	0.60	0.30	0.30	0.54	0.32	0.33
Avail Cap(c_a), veh/h	331	608	512	354	608	512	193	869	896	163	851	857
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.8	19.4	17.7	23.6	19.7	18.0	28.0	9.2	9.2	28.3	9.6	9.6
Incr Delay (d2), s/veh	0.7	0.9	0.2	0.4	1.1	0.3	6.7	0.9	0.9	6.5	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	2.6	0.6	0.8	3.0	0.9	0.8	1.8	1.8	0.6	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	20.3	17.9	24.0	20.8	18.3	34.6	10.0	10.0	34.8	10.6	10.7
LnGrp LOS	C	C	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		378			412			579			592	
Approach Delay, s/veh		21.0			20.7			12.2			12.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.8	33.8		19.4	7.4	33.2		19.4				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	5.5	21.5		19.5	6.5	20.5		19.5				
Max Q Clear Time (g_c+I1), s	3.2	7.3		13.6	3.7	7.8		11.7				
Green Ext Time (p_c), s	0.0	2.5		0.9	0.0	2.5		1.2				

Intersection Summary												
HCM 6th Ctrl Delay			15.7									
HCM 6th LOS			B									

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	4	35	4	2	26
Future Volume (vph)	10	4	35	4	2	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30		35			35
Link Distance (ft)	264		737			545
Travel Time (s)	6.0		14.4			10.6
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

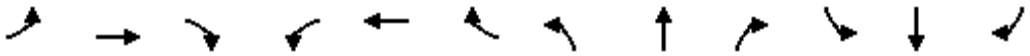
Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	4	35	4	2	26
Future Vol, veh/h	10	4	35	4	2	26
Conflicting Peds, #/hr	5	5	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	4	38	4	2	28

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	82	50	0	0	47	0
Stage 1	45	-	-	-	-	-
Stage 2	37	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	920	1018	-	-	1560	-
Stage 1	977	-	-	-	-	-
Stage 2	985	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	910	1008	-	-	1553	-
Mov Cap-2 Maneuver	910	-	-	-	-	-
Stage 1	971	-	-	-	-	-
Stage 2	980	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	936	1553	-
HCM Lane V/C Ratio	-	-	0.016	0.001	-
HCM Control Delay (s)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	203	75	60	305	6	72	25	47	5	14	16
Future Volume (vph)	8	203	75	60	305	6	72	25	47	5	14	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		50	0		50
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		973			799			579			737	
Travel Time (s)		19.0			15.6			11.3			14.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

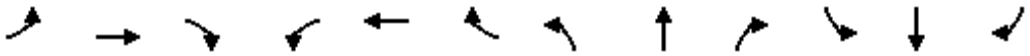
Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	203	75	60	305	6	72	25	47	5	14	16
Future Vol, veh/h	8	203	75	60	305	6	72	25	47	5	14	16
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	214	79	63	321	6	76	26	49	5	15	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	332	0	0	298	0	0	706	693	224	764	766	331
Stage 1	-	-	-	-	-	-	235	235	-	452	452	-
Stage 2	-	-	-	-	-	-	471	458	-	312	314	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1227	-	-	1263	-	-	351	367	815	321	333	711
Stage 1	-	-	-	-	-	-	768	710	-	587	570	-
Stage 2	-	-	-	-	-	-	573	567	-	699	656	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1221	-	-	1257	-	-	310	338	807	266	307	704
Mov Cap-2 Maneuver	-	-	-	-	-	-	310	338	-	266	307	-
Stage 1	-	-	-	-	-	-	758	701	-	579	532	-
Stage 2	-	-	-	-	-	-	508	530	-	623	647	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.3	19.7	14.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	395	1221	-	-	1257	-	-	402
HCM Lane V/C Ratio	0.384	0.007	-	-	0.05	-	-	0.092
HCM Control Delay (s)	19.7	8	0	-	8	0	-	14.9
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.8	0	-	-	0.2	-	-	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	255	4	3	336	2	7	1	3	4	1	10
Future Volume (vph)	4	255	4	3	336	2	7	1	3	4	1	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		799			462			503			278	
Travel Time (s)		15.6			9.0			11.4			6.3	
Confl. Peds. (#/hr)			5	5			5		5			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	255	4	3	336	2	7	1	3	4	1	10
Future Vol, veh/h	4	255	4	3	336	2	7	1	3	4	1	10
Conflicting Peds, #/hr	0	0	5	5	0	0	5	0	5	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	287	4	3	378	2	8	1	3	4	1	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	380	0	0	296	0	0	696	686	297	689	689	384
Stage 1	-	-	-	-	-	-	300	300	-	385	385	-
Stage 2	-	-	-	-	-	-	396	386	-	304	304	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1178	-	-	1265	-	-	356	370	742	360	369	664
Stage 1	-	-	-	-	-	-	709	666	-	638	611	-
Stage 2	-	-	-	-	-	-	629	610	-	705	663	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1178	-	-	1259	-	-	344	366	735	354	365	661
Mov Cap-2 Maneuver	-	-	-	-	-	-	344	366	-	354	365	-
Stage 1	-	-	-	-	-	-	703	660	-	635	609	-
Stage 2	-	-	-	-	-	-	612	608	-	694	657	-

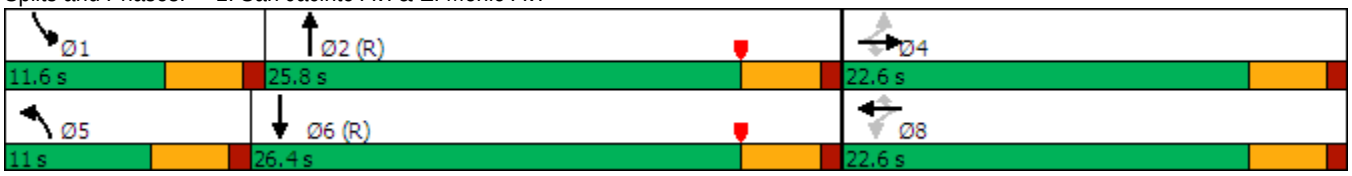
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	14.2	12.2
HCM LOS			B	B

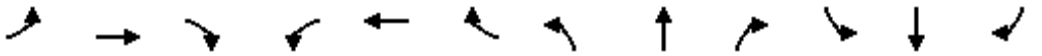
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	405	1178	-	-	1259	-	-	514
HCM Lane V/C Ratio	0.031	0.004	-	-	0.003	-	-	0.033
HCM Control Delay (s)	14.2	8.1	0	-	7.9	0	-	12.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	284	60	48	193	80	63	697	74	76	588	95
Future Volume (vph)	97	284	60	48	193	80	63	697	74	76	588	95
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	105		50	85		0	110		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		791			351			576			1297	
Travel Time (s)		15.4			6.8			9.8			22.1	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	22.6	22.6	22.6	22.6	22.6	22.6	11.0	25.8		11.6	26.4	
Total Split (%)	37.7%	37.7%	37.7%	37.7%	37.7%	37.7%	18.3%	43.0%		19.3%	44.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: San Jacinto Av. & E. Menlo Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	284	60	48	193	80	63	697	74	76	588	95
Future Volume (veh/h)	97	284	60	48	193	80	63	697	74	76	588	95
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	102	299	63	51	203	84	66	734	78	80	619	100
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	278	446	375	215	446	375	99	1540	164	109	1473	238
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.06	0.48	0.48	0.06	0.48	0.48
Sat Flow, veh/h	1088	1870	1575	1017	1870	1575	1781	3239	344	1781	3062	494
Grp Volume(v), veh/h	102	299	63	51	203	84	66	402	410	80	359	360
Grp Sat Flow(s),veh/h/ln	1088	1870	1575	1017	1870	1575	1781	1777	1806	1781	1777	1778
Q Serve(g_s), s	5.3	8.7	1.9	2.9	5.6	2.6	2.2	9.2	9.2	2.6	7.9	7.9
Cycle Q Clear(g_c), s	10.9	8.7	1.9	11.6	5.6	2.6	2.2	9.2	9.2	2.6	7.9	7.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.28
Lane Grp Cap(c), veh/h	278	446	375	215	446	375	99	845	859	109	855	856
V/C Ratio(X)	0.37	0.67	0.17	0.24	0.46	0.22	0.67	0.48	0.48	0.73	0.42	0.42
Avail Cap(c_a), veh/h	347	564	475	279	564	475	193	845	859	211	855	856
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.2	20.7	18.1	26.0	19.5	18.4	27.8	10.7	10.7	27.7	10.1	10.1
Incr Delay (d2), s/veh	0.8	2.1	0.2	0.6	0.7	0.3	7.5	1.9	1.9	9.0	1.5	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	3.7	0.7	0.7	2.3	0.9	1.1	3.3	3.3	1.3	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.0	22.9	18.3	26.5	20.3	18.7	35.3	12.6	12.6	36.7	11.6	11.6
LnGrp LOS	C	C	B	C	C	B	D	B	B	D	B	B
Approach Vol, veh/h		464			338			878			799	
Approach Delay, s/veh		22.7			20.8			14.3			14.2	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.2	33.0		18.8	7.8	33.4		18.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	7.1	21.3		18.1	6.5	21.9		18.1				
Max Q Clear Time (g_c+I1), s	4.6	11.2		12.9	4.2	9.9		13.6				
Green Ext Time (p_c), s	0.0	3.4		1.1	0.0	3.3		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			16.7									
HCM 6th LOS			B									

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	3	36	11	5	30
Future Volume (vph)	7	3	36	11	5	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30		35			35
Link Distance (ft)	264		737			545
Travel Time (s)	6.0		14.4			10.6
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	3	36	11	5	30
Future Vol, veh/h	7	3	36	11	5	30
Conflicting Peds, #/hr	5	5	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	3	39	12	5	33

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	98	55	0	0	56	0
Stage 1	50	-	-	-	-	-
Stage 2	48	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	901	1012	-	-	1549	-
Stage 1	972	-	-	-	-	-
Stage 2	974	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	889	1002	-	-	1542	-
Mov Cap-2 Maneuver	889	-	-	-	-	-
Stage 1	964	-	-	-	-	-
Stage 2	969	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	920	1542	-
HCM Lane V/C Ratio	-	-	0.012	0.004	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	349	48	47	237	5	60	28	74	8	11	17
Future Volume (vph)	14	349	48	47	237	5	60	28	74	8	11	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		50	0		50
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		973			799			579			737	
Travel Time (s)		19.0			15.6			11.3			14.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	349	48	47	237	5	60	28	74	8	11	17
Future Vol, veh/h	14	349	48	47	237	5	60	28	74	8	11	17
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	384	53	52	260	5	66	31	81	9	12	19

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	270	0	0	442	0	0	806	793	394	871	841	270
Stage 1	-	-	-	-	-	-	419	419	-	369	369	-
Stage 2	-	-	-	-	-	-	387	374	-	502	472	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1293	-	-	1118	-	-	300	321	655	271	301	769
Stage 1	-	-	-	-	-	-	612	590	-	651	621	-
Stage 2	-	-	-	-	-	-	637	618	-	552	559	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1287	-	-	1113	-	-	265	296	649	205	277	762
Mov Cap-2 Maneuver	-	-	-	-	-	-	265	296	-	205	277	-
Stage 1	-	-	-	-	-	-	599	578	-	637	584	-
Stage 2	-	-	-	-	-	-	572	581	-	448	547	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.4	23.2	16.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	372	1287	-	-	1113	-	-	356
HCM Lane V/C Ratio	0.479	0.012	-	-	0.046	-	-	0.111
HCM Control Delay (s)	23.2	7.8	0	-	8.4	0	-	16.4
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.5	0	-	-	0.1	-	-	0.4

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	391	12	2	264	5	10	1	4	3	1	7
Future Volume (vph)	11	391	12	2	264	5	10	1	4	3	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		799			462			503			278	
Travel Time (s)		15.6			9.0			11.4			6.3	
Confl. Peds. (#/hr)			5	5			5		5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	391	12	2	264	5	10	1	4	3	1	7
Future Vol, veh/h	11	391	12	2	264	5	10	1	4	3	1	7
Conflicting Peds, #/hr	0	0	5	5	0	0	5	0	5	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	425	13	2	287	5	11	1	4	3	1	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	292	0	0	443	0	0	757	750	435	757	761	295
Stage 1	-	-	-	-	-	-	454	454	-	294	294	-
Stage 2	-	-	-	-	-	-	303	296	-	463	467	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1270	-	-	1117	-	-	324	340	621	324	335	744
Stage 1	-	-	-	-	-	-	586	569	-	714	670	-
Stage 2	-	-	-	-	-	-	706	668	-	579	562	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1270	-	-	1112	-	-	313	333	615	316	328	740
Mov Cap-2 Maneuver	-	-	-	-	-	-	313	333	-	316	328	-
Stage 1	-	-	-	-	-	-	575	559	-	705	669	-
Stage 2	-	-	-	-	-	-	693	667	-	564	552	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	15.4	12.4
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	362	1270	-	-	1112	-	-	500
HCM Lane V/C Ratio	0.045	0.009	-	-	0.002	-	-	0.024
HCM Control Delay (s)	15.4	7.9	0	-	8.2	0	-	12.4
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

APPENDIX 6.2:

EXISTING PLUS AMBIENT PLUS PROJECT PLUS CUMULATIVE (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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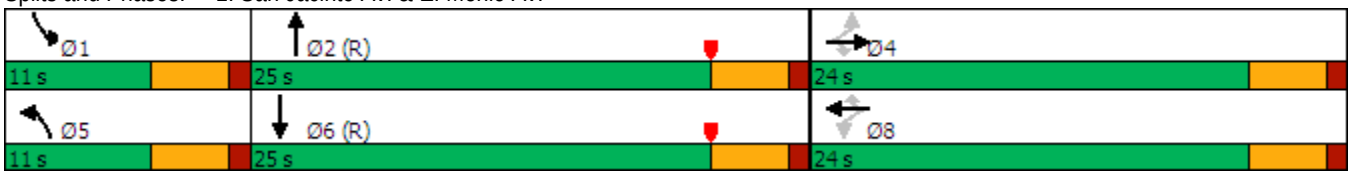
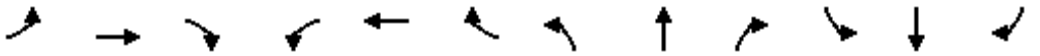
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	80	237	63	62	259	91	52	495	29	37	485	69
Future Volume (vph)	80	237	63	62	259	91	52	495	29	37	485	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	105		50	85		0	110		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		791			351			576			1297	
Travel Time (s)		15.4			6.8			9.8			22.1	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	24.0	24.0	24.0	24.0	24.0	24.0	11.0	25.0		11.0	25.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%	18.3%	41.7%		18.3%	41.7%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: San Jacinto Av. & E. Menlo Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	80	237	63	62	259	91	52	495	29	37	485	69
Future Volume (veh/h)	80	237	63	62	259	91	52	495	29	37	485	69
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	88	260	69	68	285	100	57	544	32	41	533	76
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	254	499	420	275	499	420	91	1593	94	73	1427	203
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.05	0.47	0.47	0.04	0.46	0.46
Sat Flow, veh/h	996	1870	1576	1048	1870	1576	1781	3410	200	1781	3121	443
Grp Volume(v), veh/h	88	260	69	68	285	100	57	283	293	41	303	306
Grp Sat Flow(s),veh/h/ln	996	1870	1576	1048	1870	1576	1781	1777	1833	1781	1777	1788
Q Serve(g_s), s	5.0	7.1	2.0	3.5	7.9	3.0	1.9	6.1	6.1	1.4	6.7	6.7
Cycle Q Clear(g_c), s	12.9	7.1	2.0	10.7	7.9	3.0	1.9	6.1	6.1	1.4	6.7	6.7
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.11	1.00		0.25
Lane Grp Cap(c), veh/h	254	499	420	275	499	420	91	830	856	73	812	817
V/C Ratio(X)	0.35	0.52	0.16	0.25	0.57	0.24	0.63	0.34	0.34	0.56	0.37	0.37
Avail Cap(c_a), veh/h	312	608	512	337	608	512	193	830	856	193	812	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.6	18.7	16.9	23.3	19.0	17.2	27.9	10.1	10.1	28.2	10.7	10.7
Incr Delay (d2), s/veh	0.8	0.8	0.2	0.5	1.0	0.3	6.9	1.1	1.1	6.5	1.3	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.9	0.7	0.8	3.2	1.0	0.9	2.1	2.2	0.7	2.4	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.4	19.6	17.1	23.7	20.1	17.5	34.8	11.3	11.2	34.7	12.0	12.0
LnGrp LOS	C	B	B	C	C	B	C	B	B	C	B	B
Approach Vol, veh/h		417			453			633			650	
Approach Delay, s/veh		20.4			20.1			13.4			13.4	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	32.5		20.5	7.6	31.9		20.5				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	20.5		19.5	6.5	20.5		19.5				
Max Q Clear Time (g_c+I1), s	3.4	8.1		14.9	3.9	8.7		12.7				
Green Ext Time (p_c), s	0.0	2.6		0.9	0.0	2.7		1.3				

Intersection Summary												
HCM 6th Ctrl Delay			16.1									
HCM 6th LOS			B									

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	10	4	39	4	2	30
Future Volume (vph)	10	4	39	4	2	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30		35			35
Link Distance (ft)	264		737			545
Travel Time (s)	6.0		14.4			10.6
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

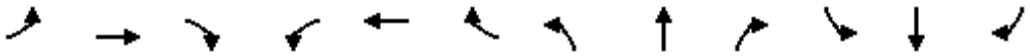
Intersection	
Int Delay, s/veh	1.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	4	39	4	2	30
Future Vol, veh/h	10	4	39	4	2	30
Conflicting Peds, #/hr	5	5	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	4	42	4	2	33

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	91	54	0	0	51	0
Stage 1	49	-	-	-	-	-
Stage 2	42	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	909	1013	-	-	1555	-
Stage 1	973	-	-	-	-	-
Stage 2	980	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	899	1003	-	-	1548	-
Mov Cap-2 Maneuver	899	-	-	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	975	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	926	1548	-
HCM Lane V/C Ratio	-	-	0.016	0.001	-
HCM Control Delay (s)	-	-	9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	223	82	66	334	7	79	27	51	7	15	17
Future Volume (vph)	9	223	82	66	334	7	79	27	51	7	15	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		50	0		50
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		973			799			579			737	
Travel Time (s)		19.0			15.6			11.3			14.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

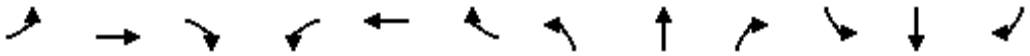
Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	223	82	66	334	7	79	27	51	7	15	17
Future Vol, veh/h	9	223	82	66	334	7	79	27	51	7	15	17
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	235	86	69	352	7	83	28	54	7	16	18

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	364	0	0	326	0	0	774	760	245	837	839	362
Stage 1	-	-	-	-	-	-	258	258	-	495	495	-
Stage 2	-	-	-	-	-	-	516	502	-	342	344	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1195	-	-	1234	-	-	316	336	794	286	302	683
Stage 1	-	-	-	-	-	-	747	694	-	556	546	-
Stage 2	-	-	-	-	-	-	542	542	-	673	637	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1189	-	-	1228	-	-	274	306	786	231	275	677
Mov Cap-2 Maneuver	-	-	-	-	-	-	274	306	-	231	275	-
Stage 1	-	-	-	-	-	-	737	684	-	548	505	-
Stage 2	-	-	-	-	-	-	473	501	-	593	628	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.3	23.6	16.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	356	1189	-	-	1228	-	-	355
HCM Lane V/C Ratio	0.464	0.008	-	-	0.057	-	-	0.116
HCM Control Delay (s)	23.6	8.1	0	-	8.1	0	-	16.5
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.4	0	-	-	0.2	-	-	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	281	4	3	372	2	7	1	3	4	1	10
Future Volume (vph)	4	281	4	3	372	2	7	1	3	4	1	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		799			462			503			278	
Travel Time (s)		15.6			9.0			11.4			6.3	
Confl. Peds. (#/hr)			5	5			5		5			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	281	4	3	372	2	7	1	3	4	1	10
Future Vol, veh/h	4	281	4	3	372	2	7	1	3	4	1	10
Conflicting Peds, #/hr	0	0	5	5	0	0	5	0	5	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	316	4	3	418	2	8	1	3	4	1	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	420	0	0	325	0	0	765	755	326	758	758	424
Stage 1	-	-	-	-	-	-	329	329	-	425	425	-
Stage 2	-	-	-	-	-	-	436	426	-	333	333	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1139	-	-	1235	-	-	320	338	715	324	336	630
Stage 1	-	-	-	-	-	-	684	646	-	607	586	-
Stage 2	-	-	-	-	-	-	599	586	-	681	644	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1139	-	-	1229	-	-	309	334	708	318	332	627
Mov Cap-2 Maneuver	-	-	-	-	-	-	309	334	-	318	332	-
Stage 1	-	-	-	-	-	-	678	640	-	605	584	-
Stage 2	-	-	-	-	-	-	583	584	-	671	638	-

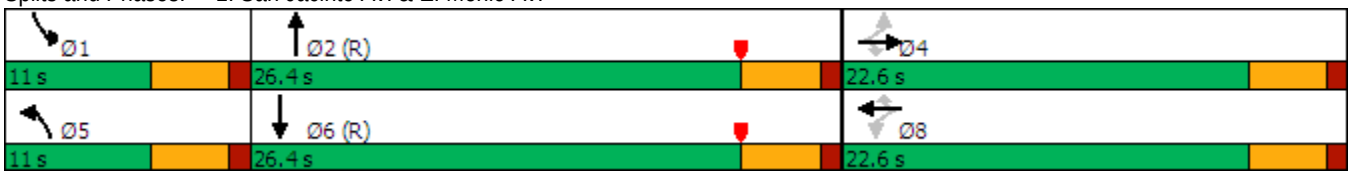
Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	15.1	12.8
HCM LOS			C	B

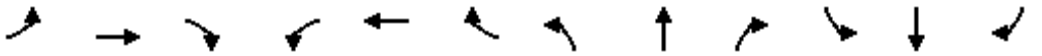
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	368	1139	-	-	1229	-	-	476
HCM Lane V/C Ratio	0.034	0.004	-	-	0.003	-	-	0.035
HCM Control Delay (s)	15.1	8.2	0	-	7.9	0	-	12.8
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	311	66	52	211	87	69	764	81	83	645	104
Future Volume (vph)	106	311	66	52	211	87	69	764	81	83	645	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		50	105		50	85		0	110		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		791			351			576			1297	
Travel Time (s)		15.4			6.8			9.8			22.1	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm	Perm	NA	Perm	Prot	NA		Prot	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5	9.5	22.5		9.5	22.5	
Total Split (s)	22.6	22.6	22.6	22.6	22.6	22.6	11.0	26.4		11.0	26.4	
Total Split (%)	37.7%	37.7%	37.7%	37.7%	37.7%	37.7%	18.3%	44.0%		18.3%	44.0%	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 60	
Actuated Cycle Length: 60	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow, Master Intersection	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 1: San Jacinto Av. & E. Menlo Av.





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	106	311	66	52	211	87	69	764	81	83	645	104
Future Volume (veh/h)	106	311	66	52	211	87	69	764	81	83	645	104
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	1.00		0.99	1.00		0.99
Parking Bus, 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
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	112	327	69	55	222	92	73	804	85	87	679	109
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	284	476	401	215	476	401	104	1480	156	114	1415	227
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.06	0.46	0.46	0.06	0.46	0.46
Sat Flow, veh/h	1062	1870	1576	986	1870	1576	1781	3241	343	1781	3064	491
Grp Volume(v), veh/h	112	327	69	55	222	92	73	441	448	87	393	395
Grp Sat Flow(s),veh/h/ln	1062	1870	1576	986	1870	1576	1781	1777	1806	1781	1777	1779
Q Serve(g_s), s	6.0	9.5	2.0	3.2	6.0	2.8	2.4	10.8	10.8	2.9	9.2	9.2
Cycle Q Clear(g_c), s	12.0	9.5	2.0	12.7	6.0	2.8	2.4	10.8	10.8	2.9	9.2	9.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.28
Lane Grp Cap(c), veh/h	284	476	401	215	476	401	104	812	825	114	821	822
V/C Ratio(X)	0.39	0.69	0.17	0.26	0.47	0.23	0.70	0.54	0.54	0.77	0.48	0.48
Avail Cap(c_a), veh/h	334	564	475	262	564	475	193	812	825	193	821	822
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	24.0	20.2	17.4	25.9	18.9	17.7	27.7	11.8	11.8	27.6	11.2	11.2
Incr Delay (d2), s/veh	0.9	2.8	0.2	0.6	0.7	0.3	8.1	2.6	2.6	10.2	2.0	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	4.1	0.7	0.7	2.4	0.9	1.2	3.9	4.0	1.4	3.3	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.9	23.0	17.6	26.6	19.6	18.0	35.9	14.4	14.3	37.8	13.2	13.2
LnGrp LOS	C	C	B	C	B	B	D	B	B	D	B	B
Approach Vol, veh/h		508			369			962			875	
Approach Delay, s/veh		22.7			20.3			16.0			15.6	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.3	31.9		19.8	8.0	32.2		19.8				
Change Period (Y+Rc), s	4.5	4.5		4.5	4.5	4.5		4.5				
Max Green Setting (Gmax), s	6.5	21.9		18.1	6.5	21.9		18.1				
Max Q Clear Time (g_c+I1), s	4.9	12.8		14.0	4.4	11.2		14.7				
Green Ext Time (p_c), s	0.0	3.6		1.0	0.0	3.5		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			17.7									
HCM 6th LOS			B									

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	3	41	11	5	33
Future Volume (vph)	7	3	41	11	5	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	30		35			35
Link Distance (ft)	264		737			545
Travel Time (s)	6.0		14.4			10.6
Confl. Peds. (#/hr)	5	5		5	5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	3	41	11	5	33
Future Vol, veh/h	7	3	41	11	5	33
Conflicting Peds, #/hr	5	5	0	5	5	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	3	45	12	5	36

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	107	61	0	0	62	0
Stage 1	56	-	-	-	-	-
Stage 2	51	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	891	1004	-	-	1541	-
Stage 1	967	-	-	-	-	-
Stage 2	971	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	879	994	-	-	1534	-
Mov Cap-2 Maneuver	879	-	-	-	-	-
Stage 1	959	-	-	-	-	-
Stage 2	966	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	911	1534	-
HCM Lane V/C Ratio	-	-	0.012	0.004	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	383	53	51	259	6	66	30	81	9	12	18
Future Volume (vph)	16	383	53	51	259	6	66	30	81	9	12	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		50	0		50	0		50
Storage Lanes	0		1	0		1	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		973			799			579			737	
Travel Time (s)		19.0			15.6			11.3			14.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	383	53	51	259	6	66	30	81	9	12	18
Future Vol, veh/h	16	383	53	51	259	6	66	30	81	9	12	18
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	50	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	18	421	58	56	285	7	73	33	89	10	13	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	297	0	0	484	0	0	884	871	431	954	922	295
Stage 1	-	-	-	-	-	-	462	462	-	402	402	-
Stage 2	-	-	-	-	-	-	422	409	-	552	520	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1264	-	-	1079	-	-	266	289	624	238	270	744
Stage 1	-	-	-	-	-	-	580	565	-	625	600	-
Stage 2	-	-	-	-	-	-	609	596	-	518	532	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1258	-	-	1074	-	-	231	263	618	171	246	737
Mov Cap-2 Maneuver	-	-	-	-	-	-	231	263	-	171	246	-
Stage 1	-	-	-	-	-	-	566	551	-	609	560	-
Stage 2	-	-	-	-	-	-	540	556	-	407	519	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	1.4	29.9	18.5
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	333	1258	-	-	1074	-	-	310
HCM Lane V/C Ratio	0.584	0.014	-	-	0.052	-	-	0.138
HCM Control Delay (s)	29.9	7.9	0	-	8.5	0	-	18.5
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	3.5	0	-	-	0.2	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	11	433	12	2	291	5	10	1	4	3	1	7
Future Volume (vph)	11	433	12	2	291	5	10	1	4	3	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		35			35			30			30	
Link Distance (ft)		799			462			503			278	
Travel Time (s)		15.6			9.0			11.4			6.3	
Confl. Peds. (#/hr)			5	5			5		5			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	433	12	2	291	5	10	1	4	3	1	7
Future Vol, veh/h	11	433	12	2	291	5	10	1	4	3	1	7
Conflicting Peds, #/hr	0	0	5	5	0	0	5	0	5	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	50	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	471	13	2	316	5	11	1	4	3	1	8

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	321	0	0	489	0	0	832	825	481	832	836	324
Stage 1	-	-	-	-	-	-	500	500	-	323	323	-
Stage 2	-	-	-	-	-	-	332	325	-	509	513	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1239	-	-	1074	-	-	288	308	585	288	303	717
Stage 1	-	-	-	-	-	-	553	543	-	689	650	-
Stage 2	-	-	-	-	-	-	681	649	-	547	536	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1239	-	-	1069	-	-	278	302	579	281	297	714
Mov Cap-2 Maneuver	-	-	-	-	-	-	278	302	-	281	297	-
Stage 1	-	-	-	-	-	-	543	533	-	680	649	-
Stage 2	-	-	-	-	-	-	668	648	-	532	526	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	16.7	13
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	325	1239	-	-	1069	-	-	461
HCM Lane V/C Ratio	0.05	0.01	-	-	0.002	-	-	0.026
HCM Control Delay (s)	16.7	7.9	0	-	8.4	0	-	13
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1