

**Traffic Impact and Parking Demand Study for
Proposed Commercial Project
707 and 801 North Sepulveda Boulevard,
Manhattan Beach**

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I. Introduction

The proposed commercial Project (Project) is located at 707 and 801 North Sepulveda Boulevard in the City of Manhattan Beach. KOA Corporation has been retained to analyze the potential traffic and parking impacts associated with the proposed Project.

1.1 Project Description

The Project site is located on the west side of Sepulveda Boulevard, between 8th Street and 6th Street. The proposed Project would include a specialty grocery store use (currently proposed to be a Gelson's Market), with an incidental prepared foods seating area and a pad tenant (currently proposed to be a First Republic Bank use, which operates as a financial services and investment company), and associated parking facilities.

The Project site is composed of two parcels. The parcel at 707 North Sepulveda Boulevard is the Primary Project Site and the parcel at 801 North Sepulveda Boulevard is the Auxiliary Employee Parking Site.

Land Use

The proposed Project specialty grocery store use would be accommodated within a 27,900 square foot building.

The analysis of the specialty grocery store use is based on an earlier version of the Project site plan that included 27,900 square feet of buildable floor area, including a prepared food service seating area of 206 square feet. In the current plan, the indoor prepared food service seating area has been reduced to 145 square feet. In addition, a 503 square foot outdoor seating area would be provided to serve patrons of the food service use.

The analysis of the financial services use is based on an earlier version of the Project site plan that included 7,000 square feet of floor area, including a service and mechanical room space of 200 square feet, which is not calculated as "buildable floor area" per City Code Section 10.04.030. The buildable floor area for this use has since been revised to be 6,684 square feet. The analysis presented herein therefore provides a conservative analysis, as the proposed buildable floor area for this use (6,684 square feet) is smaller than the analyzed project (7,000 square feet). The pad tenant was also conservatively analyzed as a walk-in bank use, but is currently anticipated to be a financial services/investment company.

The existing 40,349 square-foot automobile repair facility will be partially demolished under the proposed Project. The remainder of the existing facility will be redeveloped into the smaller specialty grocery store building, along with construction of the new pad building, under the proposed Project.

Parking Supply

The proposed Project parking supply would provide 119 vehicle stalls at the Primary Project Site, and 16 spaces at the Auxiliary Employee Parking Site on the north side of 8th Street. These two sites would therefore provide a minimum of 135 parking spaces at all times.

Additionally, and although also not required to address Project parking demands, the Project applicant has leased the following additional parking that may be used to accommodate extra employee parking:

- Five spaces have been leased by the Project applicant within an off-site office building parking lot on the south side of 6th Street across from the Primary Project Site, and would be available to employees on weekends.
- 20 spaces have been leased by the Project applicant located on the west side of Sepulveda Boulevard at 10th Street, two blocks to the north of the site and would be available to employees.

Based on the shared parking analysis conducted for this study, peak parking demand would occur within the 5:00 p.m. hour on weekdays and during the 2:00 p.m. hour on weekends.

Per the City of Manhattan Beach Municipal Code Section 10.64.080, the proposed Project site is required to have five percent of the total parking count in bicycle stalls. The total off-street parking supply would be 135 stalls, and therefore seven bicycle stalls would be required. The site will provide this supply through the installation of bicycle racks.

Parking Management Plan

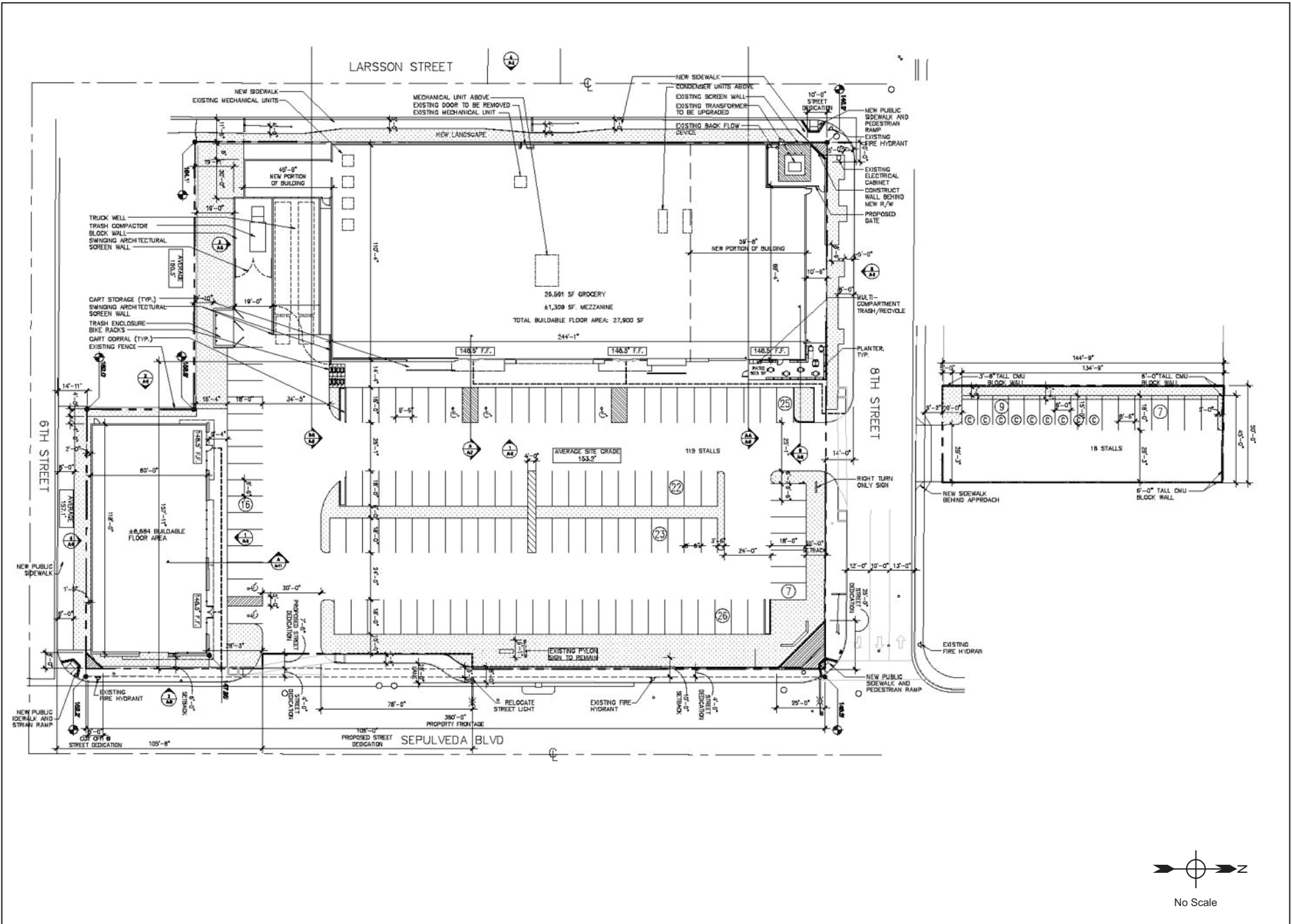
In order to manage the Primary Project Site parking supply adequately for customers, so that demand does not negatively affect parking at adjacent properties or on-street parking areas, a Parking Management Plan has been included as part of the proposed Project. This Plan, summarized in Section 10 of this report, provides management actions in the areas of employee parking location designations and designated actions by site management to control employee and Primary Project Site parking use.

Access

The Primary Project Site on 707 North Sepulveda Boulevard will have one driveway on Sepulveda Boulevard and one driveway on 8th Street. The existing site has one driveway on Sepulveda Boulevard, which will be relocated south of the existing driveway. The driveway configurations will be as follows:

- The Project driveway on Sepulveda Boulevard would provide right-turn ingress and egress movements.
- The Project driveway on 8th Street would provide full inbound access, but outbound movements would be restricted to right-turns only.
- The existing site driveway on 6th Street will be closed as part of the Project.

The Project is anticipated to be completed and occupied in 2017. The plan for the Primary Project Site and the Auxiliary Employee Parking Site is provided on Figure 1.



No Scale

I.2 Project Study Area

The Project study area, as defined through a scoping process with the City, includes the following eight study intersections:

1. Sepulveda Boulevard and Manhattan Beach Boulevard
2. Sepulveda Boulevard and 8th Street
3. Sepulveda Boulevard and 6th Street (unsignalized)
4. Sepulveda Boulevard and 2nd Street
5. Sepulveda Boulevard-Pacific Coast Highway (PCH) and Gould Avenue-Artesia Boulevard
6. Larsson Street and 8th Street (unsignalized)
7. Dianthus Street and 8th Street (unsignalized)
8. Larsson Street and 6th Street (unsignalized)

Figure 2 illustrates the locations of the study intersections.

I.3 Study Scenarios

Traffic impacts associated with the proposed Project were analyzed at the study intersections for the weekday a.m. and p.m. peak-hour periods. The study included the analysis of the following traffic scenarios:

- Existing
- Existing with-Project
- Future Year (2017) without-Project
- Future Year (2017) with-Project

I.4 Analysis Methodology

The following text describes the study methodology contained in this report.

Level of Service Methodology

The level of service (LOS) calculations were conducted using two methodologies. The first methodology, the volume-to-capacity ratio with output values ranging from 0.000 to 1.0000, is used for signalized intersections. The second methodology, the average delay value per vehicle based on seconds, is used for stop-controlled, or unsignalized intersections. These two methodologies are discussed here, and both are acceptable for use in this study, based on the policies of the City.

For signalized study intersections, the Intersection Capacity Utilization (ICU) methodology was used to compute LOS values. The concept of roadway level of service under the ICU methodology is calculated as the volume of vehicles that pass through the facility divided by the capacity of that facility. A facility is defined as being “at capacity” (v/c of 1.00 or greater) when extreme congestion occurs. This volume/capacity ratio value is based upon volumes by lane, signal phasing, and approach lane configuration. For this analysis, a lane capacity of 1,600 vehicles per hour per lane for all through lanes and turn lanes, a lane capacity of 2,880 vehicles per hour per lane for dual turn lanes and a total loss time of 10% were used. This value is a function of hourly volumes and approach lane configurations on each leg of the intersection.

For the stop-controlled study intersection, the *Highway Capacity Manual (HCM)* unsignalized intersection analysis methodology was used to compute LOS values. For this methodology, conditions are based upon intersection delay, defined as the worst-case approach delay experienced by users of the intersection who must stop or yield to free-flow through traffic. This method uses a “gap acceptance” technique to predict driver delay. This methodology is applicable to unsignalized and partially-controlled intersections on major streets where there is potential for crossing difficulty from the minor approaches due to heavy traffic volumes on the major approaches.

Level of service values range from LOS A to LOS F. LOS A indicates excellent operating conditions with little delay to motorists, whereas LOS F represents congested conditions with excessive vehicle delay. LOS E is defined as the operating “capacity” of a facility. LOS F defines conditions that are at or beyond the capacity of a facility.

Table I defines the level of service criteria applied to the study intersections.

Table I - Level of Service Definitions

LOS	Definition	Signalized Intersection Volume/Capacity Ratio (ICU)	Stop-Controlled Intersection Average Stop Delay Per Vehicle (Sec/Veh) (HCM)
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	0.000 - 0.600	≤10
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	0.601 - 0.700	>10 - 15
C	Good operation. Occasionally backups may develop behind turning vehicles. Most drivers feel somewhat restricted.	0.701 - 0.800	>15 - 25
D	Fair operation. There are no long-standing traffic queues. This level is typically associated with design practice for peak periods.	0.801 - 0.900	>25 - 35
E	Poor operation. Some long standing vehicular queues develop on critical approaches.	0.901 - 1.000	>35 - 50
F	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movements of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	Greater than 1.000	>50

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, Washington D.C., 2000 and Interim Materials on Highway Capacity, NCHRP Circular 212, 1982

Existing Conditions

Fieldwork within the Project study area was undertaken to identify the condition of major roadways, and to identify traffic controls, approach lane configuration, and other characteristics of each study intersection.

KOA compiled manual intersection counts for the eight study intersections, which were conducted in March and December 2014 during the 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. peak periods. The March data was provided by the City of Manhattan Beach for selected study intersections. The remainder of the counts were collected via new counts compiled by KOA. As the existing year is 2016, a growth rate of one percent per year was applied to the 2014 counts. The Congestion Management Program of Los Angeles County defines annual traffic growth for the South Bay area at less than 0.5% per year. The applied annual growth rate of one percent is therefore conservative.

The busiest time for a specialty grocery store use is typically during the mid-day period on weekends. However, the overall traffic volumes during those periods are lower than the a.m. and p.m. peak periods during a weekday. The traffic impact study therefore evaluated the worst-case period for surrounding

street traffic. Traffic counts and impact analysis were not conducted for weekend periods.

The existing level of service (LOS) at each of the study intersections is discussed in Section 2 of this report.

Roadway Improvements

The City is in the process of installing northbound and southbound left-turn protected signal phasing at the Sepulveda Boulevard and 8th Street intersection. The installation of this improvement is expected to be completed by Fall 2016.

Project Trip Generation and Distribution

Project trip generation was based on trip rates defined by the *Institute of Transportation Engineers (ITE) Trip Generation, 9th Edition*. The proposed Project specialty grocery store floor area would be 27,900 square feet, with 206 square feet of that area dedicated to incidental prepared food seating areas. In addition, 503 square feet of outdoor seating area would be provided for patrons of the incidental prepared food service use.

The proposed First Republic Bank tenant space was conservatively analyzed for the traffic analysis using trip generation rates for bank uses. Further, it was conservatively analyzed for parking purposes as a 7,000 square foot building, even though that figure includes 200 square feet of service and mechanical rooms.

As currently proposed, this use will operate similar to a financial services and investment company, with a small retail component. The actual trips generated by this use could be as much as 70 to 90 percent less than the numbers applied here for peak-hour trip activity, based on rates for general office or retail uses versus the more intense rates for bank uses.

The detailed methodology utilized for the Project trip generation and distribution calculations is discussed in Section 3 of this report.

Existing with-Project Conditions

Based on the traffic that is projected for the proposed Project and the existing traffic volumes, a separate existing with-Project conditions scenario was analyzed. This scenario was analyzed in order to comply with rulings in the *Sunnyvale* and *Expo Line* California Environmental Quality Act (CEQA) court cases. The level of service values for existing with-Project conditions at the study intersections are discussed in Section 4 of this report.

Future (2017) without-Project Conditions

In order to account for traffic growth in the study area, an ambient/background traffic growth rate was applied to the existing traffic counts. In addition, traffic from related/area projects (approved and pending developments) was also added to the study area. The level of service values at the study intersections for Future (2017) without-Project conditions are discussed in Section 5 of this report.

Future (2017) with-Project Conditions

Based on the Future (2017) without-Project volumes plus traffic from the proposed Project, the Future (2017) with-Project traffic volume conditions were determined and analyzed. The level of service values at the study intersections for Future (2017) with-Project conditions are discussed in Section 6 of this report.

Significant Traffic Impacts

As defined by the City of Manhattan Beach procedures, and required by the California Environmental Quality Act (CEQA), significant impacts of a proposed Project must be mitigated to less than significant, where feasible. The determination of potential significant traffic impacts due to the proposed Project is discussed in Section 7 of this report.

2. Existing Conditions

This section describes the existing conditions within the study area in terms of roadway facilities, transit service and traffic operating conditions. The study area includes portions of the City of Manhattan Beach and the City of Hermosa Beach.

2.1 Existing Roadway System

The key roadways within the study area are described below. The discussion presented here is limited to specific roadways that traverse the study intersections and provide direct access to the Project site.

Sepulveda Boulevard is a north-south roadway that borders the Project site on the east. This roadway is designated as a Regional Arterial in the City of Manhattan Beach General Plan. Sepulveda Boulevard provides three travel lanes on northbound direction and two travel lanes in the southbound direction during the AM peak period (5:30 a.m. to 9:30 a.m.) in the study area. During the PM peak period (3:00 p.m. to 7:00 p.m.), Sepulveda Boulevard provides two travel lanes in the northbound direction and three travel lanes in the southbound direction. The posted speed limit on Sepulveda Boulevard is 35 miles per hour (mph) within the study area. The City of Manhattan Beach General Plans designates Sepulveda Boulevard as a truck route. On-street parking is permitted during the off peak periods on both sides of Sepulveda Boulevard within the study area.

Manhattan Beach Boulevard is an east-west roadway located north of the Project site. Manhattan Beach Boulevard is designated as a Minor Arterial west of Sepulveda Boulevard and as a Major Arterial east of Sepulveda Boulevard in the City of Manhattan Beach General Plan. This roadway provides two travel lanes in each direction within the study area. The City of Manhattan Beach General Plan designates Manhattan Beach Boulevard as a truck route. The posted speed limit is 35 mph and on-street parking is allowed along this roadway within the study area.

Artesia Boulevard is an east-west roadway located south of the Project site. Artesia Boulevard is designated as a Major Arterial east of Sepulveda Boulevard in the City of Manhattan Beach General Plan. This roadway provides two travel lanes in each direction in the study area. The City of Manhattan Beach General Plan designates Artesia Boulevard as a truck route. The posted speed limit is 40 mph and on-street parking is allowed along this roadway within the study area.

8th Street is an east-west roadway that borders the Project site on the north. This roadway is designated as a Major Local in the City of Manhattan Beach General Plan. 8th Street provides one travel lane in each direction, with on-street parking permitted on both sides.

6th Street is an east-west roadway that borders the Project site on the south. This roadway is designated as a local street in the City of Manhattan Beach General Plan. 6th Street provides one travel lane in each direction, with on-street parking permitted on both sides.

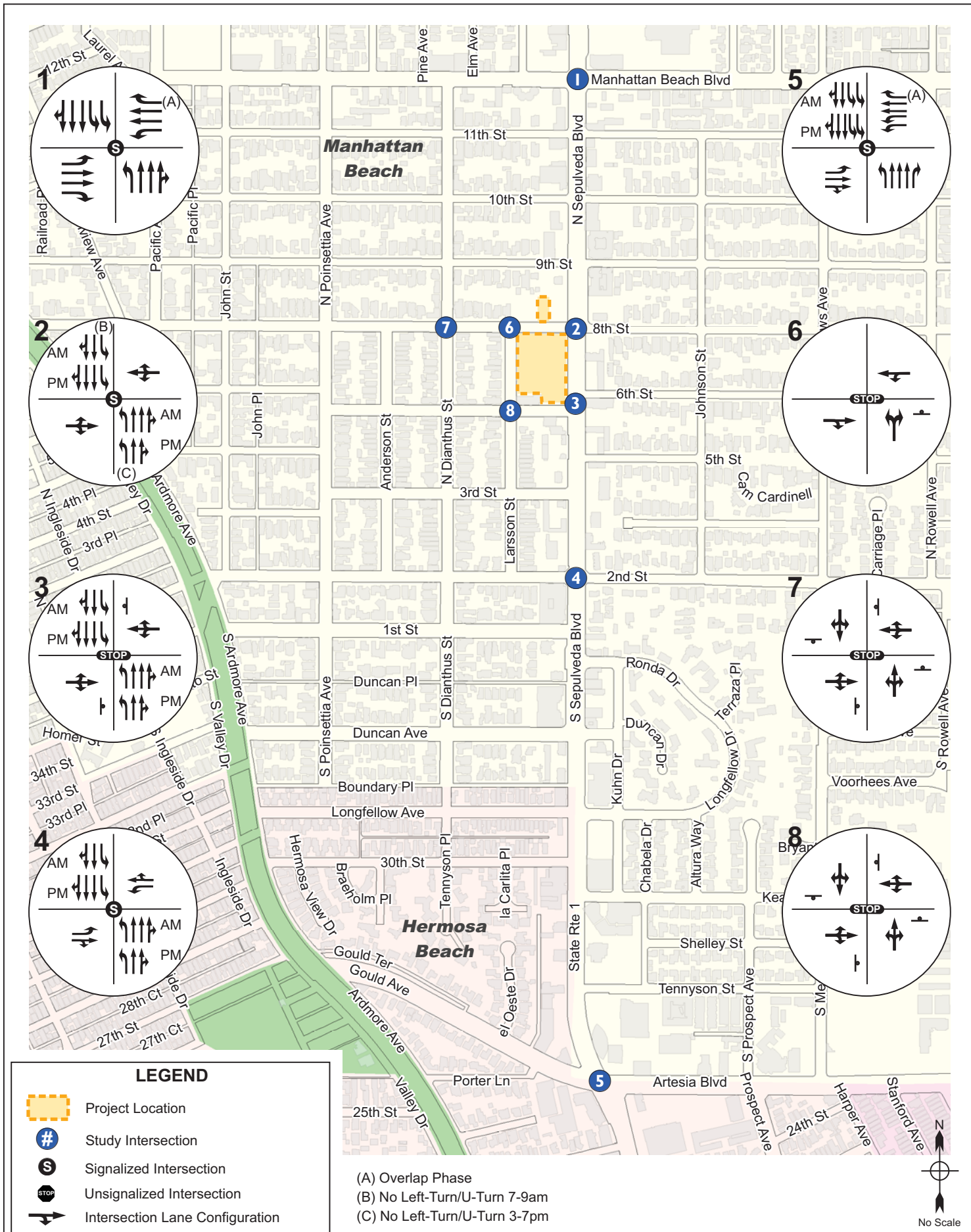
2nd Street is an east-west roadway located south of the Project site. This roadway is designated as a Major Local in the City of Manhattan Beach General Plan. 2nd Street provides one travel lane in each direction, with on-street parking permitted on both sides.

Larsson Street is a north-south roadway located west of the Project site. This roadway is designated as a local street in the City of Manhattan Beach General Plan. Larsson Street provides one travel lane in each direction in the study area. On-street parking is permitted on both sides of Larsson Street within the study area.

Dianthus Street is a north-south roadway located west of the Project site. This roadway is designated as a local street in the City of Manhattan Beach General Plan. Dianthus Street provides one travel lane in each direction in the study area. On-street parking is permitted on both sides of Larsson Street within the study area.

Gould Avenue is an east-west roadway located south of the Project site. This roadway is designated as a Collector in the City of Hermosa Beach General Plan. Gould Avenue provides one travel lane in each direction, with on-street parking permitted on the south side.

Figure 3 illustrates the existing traffic controls and approach lane geometries at the study intersections.



2.2 Existing Transit Service

Table 2 provides a description of the public transit lines that operate within the study area.

Table 2 - Existing Transit Service Summary

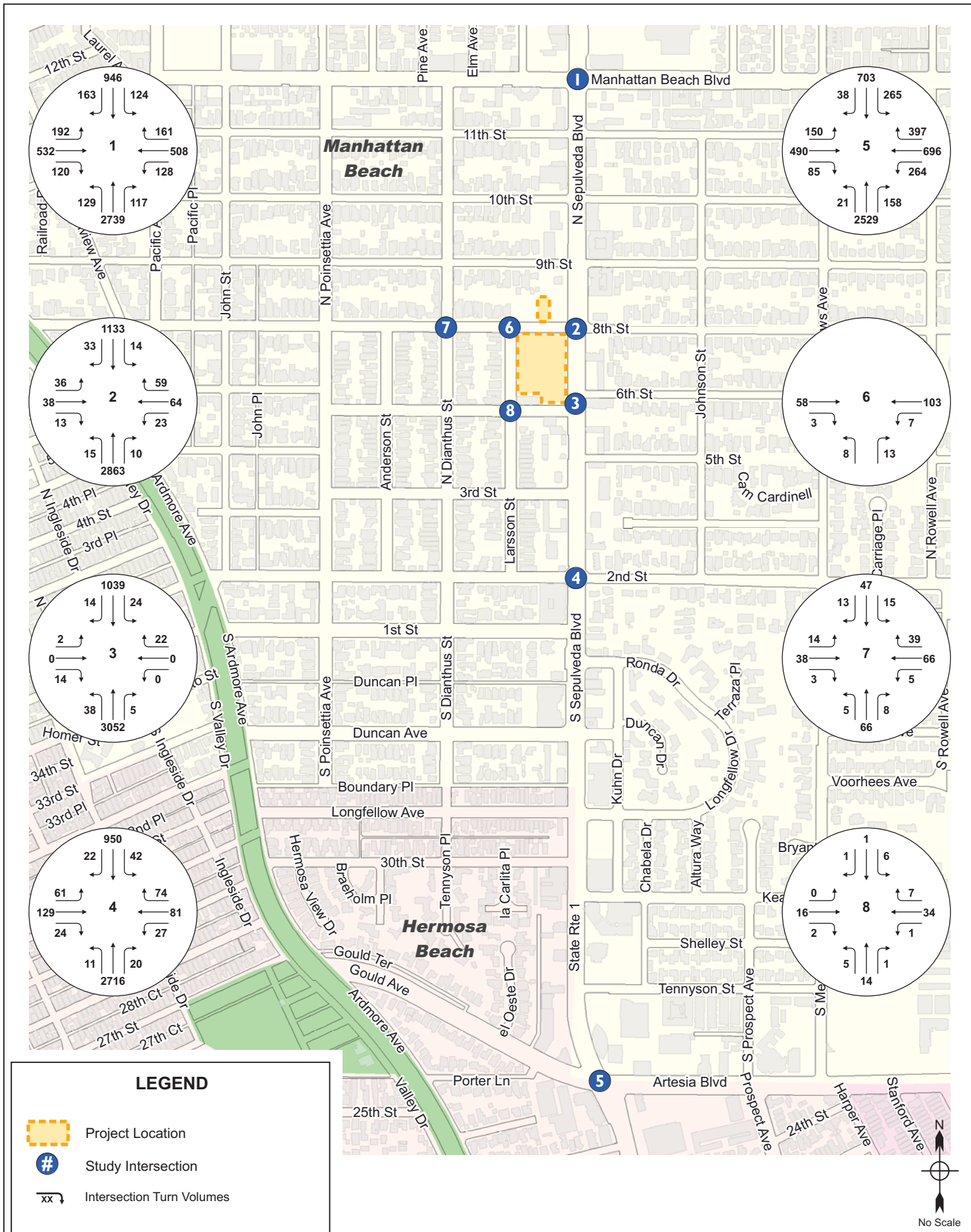
Agency	Line	From	To	Via	Peak Frequency
Metro	126	Manhattan Beach	Redondo Beach	Manhattan Beach Boulevard	60 Minutes
Metro	130	Redondo Beach	Cerritos	Artesia Boulevard	20 - 35 Minutes
Metro	232	Long Beach	LAX	Sepulveda Boulevard	12 - 20 Minutes

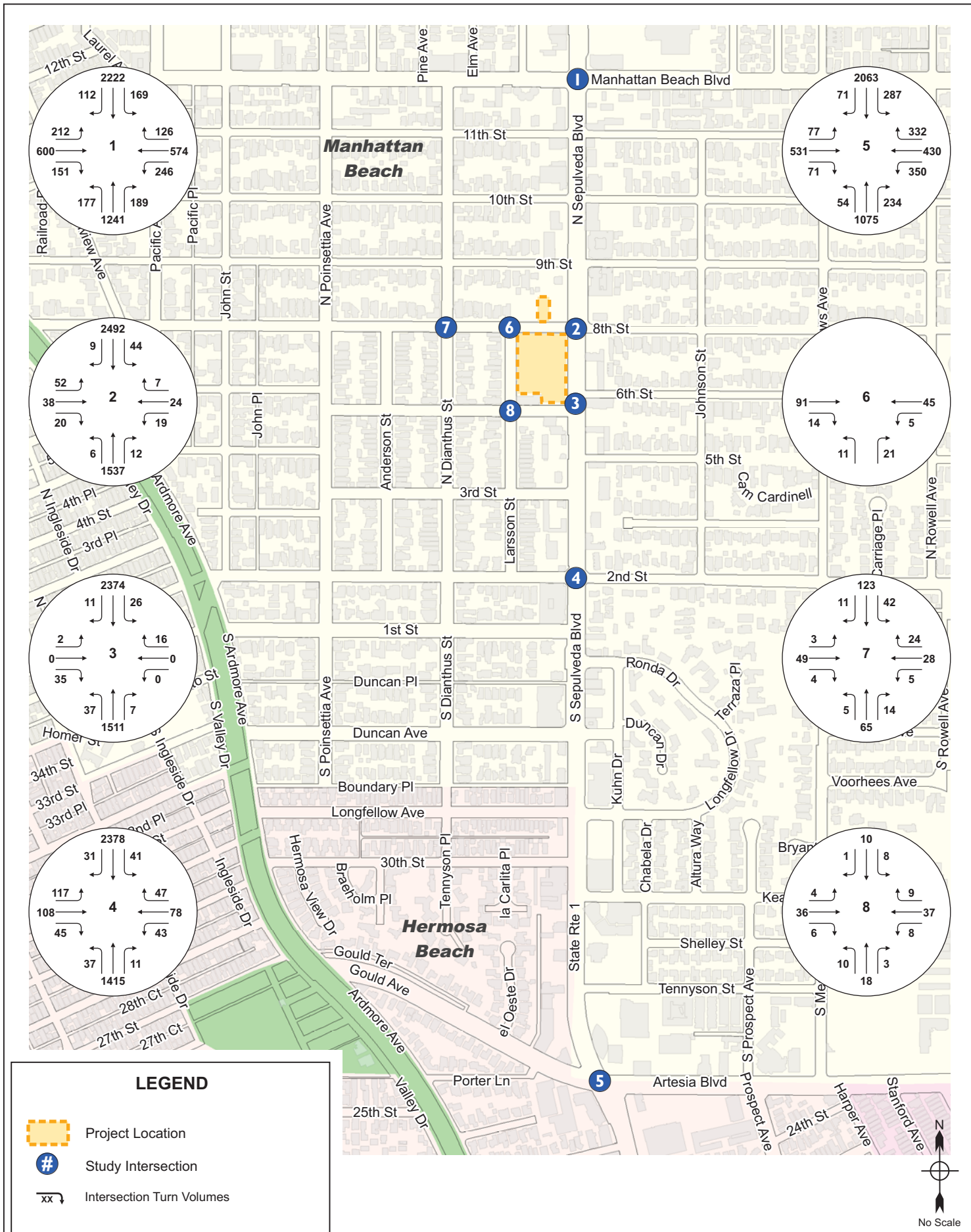
The nearest transit stop to the Project site is located at the Sepulveda Boulevard and 8th Street intersection.

2.3 Existing Traffic Volumes

Study intersection counts were collected in March and December, 2014 from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. on the weekdays. The highest four consecutive 15-minute vehicle counts during the a.m. and p.m. time periods were used to determine the peak-hour traffic volumes at each intersection. As the existing year is 2016, a growth rate of one percent per year was applied to the 2014 counts. The Congestion Management Program of Los Angeles County defines annual traffic growth for the South Bay area at less than 0.5% per year. The applied annual growth rate of one percent is therefore conservative.

The existing weekday a.m. peak-hour and p.m. peak-hour traffic turn movement volumes are illustrated on Figures 4 and 5, respectively. The traffic count data sheets are provided in Appendix A.





2.4 Existing Intersection Levels of Service

Based on the intersection lane geometries depicted on Figure 3 and the existing traffic volumes illustrated on Figures 4 and 5, volume-to-capacity ratios and corresponding levels of service (LOS) were determined for each of the study intersections during the weekday a.m. and p.m. peak hours.

The existing traffic analysis scenario worksheets are provided in Appendix B of this report.

Table 3 summarizes the volume-to-capacity ratios for signalized intersections (values from 0.000 to 1.000), or delay in seconds per vehicle for unsignalized intersections, and LOS values for existing traffic conditions.

As shown in Table 3, five of the eight study intersections are currently operating at LOS D or better during the weekday a.m. and p.m. peak hours. The three study intersections that are operating at LOS E or F during one or more study periods are as follows:

- Sepulveda Boulevard and Manhattan Beach Boulevard (weekday a.m. and p.m.)
- Sepulveda Boulevard and 6th Street (weekday a.m. and p.m.)
- Sepulveda Boulevard-PCH and Gould Avenue-Artesia Boulevard (weekday a.m.)

Table 3 - Intersection Performance – Existing Conditions

Study Intersections		AM Peak		PM Peak	
		V/C or Delay (sec.)	LOS	V/C or Delay (sec.)	LOS
1	Sepulveda Boulevard & Manhattan Beach Boulevard	1.017	F	1.038	F
2	Sepulveda Boulevard & 8th Street	0.784	C	0.705	C
3	Sepulveda Boulevard & 6th Street *	>50	F	>50	F
4	Sepulveda Boulevard & 2nd Street	0.831	D	0.776	C
5	Sepulveda Boulevard-PCH & Gould Avenue-Artesia Boulevard	1.030	F	0.888	D
6	Larsson Street & 8th Street *	9.2	A	9.2	A
7	Dianthus Street & 8th Street *	7.9	A	8.8	A
8	Larsson Street & 6th Street *	7.2	A	7.5	A

* Unsignalized Intersection

3. Project Traffic

This section defines the traffic that would be generated by the proposed Project in a three-step process including trip generation, trip distribution and trip assignment.

3.1 Project Trip Generation

Project Trip Generation

The Project trip generation estimates were based on trip rates defined by the Institute of Transportation Engineers (ITE) publication *Trip Generation (9th Edition)*. Trip rates for the specialty grocery store, incidental prepared food seating area, and bank uses were utilized to calculate the trip generation for the proposed Project uses.

The analysis of the specialty grocery store use is based on an earlier version of the Project site plan that included 27,900 square feet of buildable floor area, including a prepared food service seating area of 206 square feet. In the current plan, the indoor prepared food service seating area has been reduced to 145 square feet. In addition, a 503 square foot outdoor seating area would be provided to serve patrons of the food service use.

As discussed within the parking analysis in Section 10 of this report, the Project is proposing to incorporate no more than 28 seats within the indoor and outdoor seating areas. The traffic analysis, which is based on an earlier version of the proposed Project site plan, applies an input of 52 seats to the analysis of the prepared food use. Because this higher count produces a more conservative analysis, it has not been changed for purposes of the traffic impact analysis.

The proposed First Republic Bank tenant was conservatively analyzed using trip generation rates for bank uses. As currently proposed, this use will operate as a financial services and investment company, with only a small retail component. The actual trips generated by this use could be as much as 70 to 90 percent less than the numbers applied here for peak-hour trip activity, based on rates for general office or retail uses versus the more intense rates for bank uses.

The analysis of the financial services use is based on an earlier version of the Project site plan that included 7,000 square feet of floor area, including a service and mechanical room space of 200 square feet, which is not calculated as “buildable floor area” per City Code Section 10.04.030. The buildable floor area for this use has since been revised to be 6,684 square feet. The analysis presented herein therefore provides a conservative analysis, as the proposed buildable floor area for this use (6,684 square feet) is smaller than the analyzed project (7,000 square feet). The pad tenant was also conservatively analyzed as a walk-in bank use, but is currently anticipated to be a financial services/investment company.

The trip rates and the associated Project trip generation forecasts are provided in Table 4. The proposed Project would generate an approximate net total of 3,062 daily weekday trips including 151 trips during the a.m. peak hour and 152 trips during the p.m. peak hour.

The trip generation table includes internal trip capture rates, which provides for estimated trip reductions based on the portion of trips generated by a multi-use development that both begin and end within the development. These rates are defined by input of the trips generated by the applicable uses into methodology defined by the ITE Trip Generation Handbook. The importance of internal trip capture is that those trips satisfy a portion of the total development’s trip generation and they do so

without using the external road system. As a result, a multi-use development that generates a given number of total trips creates less demand on the external road system than single-use developments generating the same number of trips. The proposed project was calculated to have internal trip capture reductions at 15 percent for daily trips and 10 percent for p.m. peak hour trips for the supermarket floor area and prepared food seating areas, based on ITE methodology.

Pass-by credits for the proposed land uses were applied as a secondary trip reduction calculation, also defined per the ITE *Trip Generation Handbook*. These credits were taken for trips that currently use Sepulveda Boulevard, and are estimated to stop at the proposed Project site as part of those existing trips. These trips are removed from the overall trip generation calculations, but are added back as turning movements at the adjacent intersection of Sepulveda Boulevard and 8th Street. These trips would add to turning movements at that intersection.

Table 4 - Project Trip Generation

Land Use	ITE Code	Intensity	Average Weekday	AM Peak Hour			PM Peak Hour			
				In	Out	Total	In	Out	Total	
Trip Generation Rates										
Supermarket	850	1	k.s.f.	102.24	62%	38%	3.40	51%	49%	9.48
Bank [1]	911	1	k.s.f.	150.00	70%	30%	6.00	44%	56%	12.13
Fast-Food Restaurant w/o Drive-Through [2]	933	1	seat	42.12	60%	40%	3.57	64%	36%	2.13
Automobile Care Center [3]	942	1	k.s.f.	20.00	66%	34%	2.25	48%	52%	3.11
Proposed Project										
Supermarket [4]	850	27.694	k.s.f.	2,831	58	36	94	134	129	263
Internal trip capture (15% Daily & 10% PM)				-425	-	-	-	-13	-13	-26
pass-by trip credit (36%)				(866)	(21)	(13)	(34)	(44)	(42)	(85)
Supermarket Subtotal				1,540	37	23	60	77	75	152
Bank	911	7.000	k.s.f.	1,050	29	13	42	37	48	85
pass-by trip credit (20%)				(210)	(6)	(3)	(9)	(7)	(10)	(17)
Bank Subtotal				840	23	10	33	30	38	68
Fast-Food Restaurant w/o Drive-Through	933	52	seats	2,190	112	74	186	71	40	111
Internal trip capture (15% Daily & 10% PM)				-329	-	-	-	-7	-4	-11
pass-by trip credit (20% Daily & AM,43% PM)				(372)	(22)	(15)	(37)	(28)	(15)	(43)
High Turnover Sit-Down Restaurant Subtotal				1,489	90	59	149	36	21	57
Proposed Project Total				3,869	150	92	242	143	134	277
Existing Use To Be Removed										
Automobile Care Center	210	-40.349	k.s.f.	-807	-60	-31	-91	-60	-65	-125
Net New Project Trips										
Net New Project Trips				3,062	90	61	151	83	69	152

Source: ITE, 9th Edition, unless otherwise noted.

k.s.f = 1,000 square feet

[1] ITE does not have trip rates for the daily and am peak hour trips, thus the SANDAG trip rates were used.

[2] ITE does not have trip rates for the a.m. peak hour trips, thus rate was factored based on the gross floor area square footage rate.

[3] ITE does not have trip rates for the daily trips, thus the SANDAG trip rates were used.

[4] The ITE Manual treats specialty grocery stores as "Supermarket" uses, within that overall land use category. The Gelson's indoor prepared food seating area of 206 sq.ft. was excluded from the overall parking demand inputs for the supermarket.

3.2 Project Trip Distribution

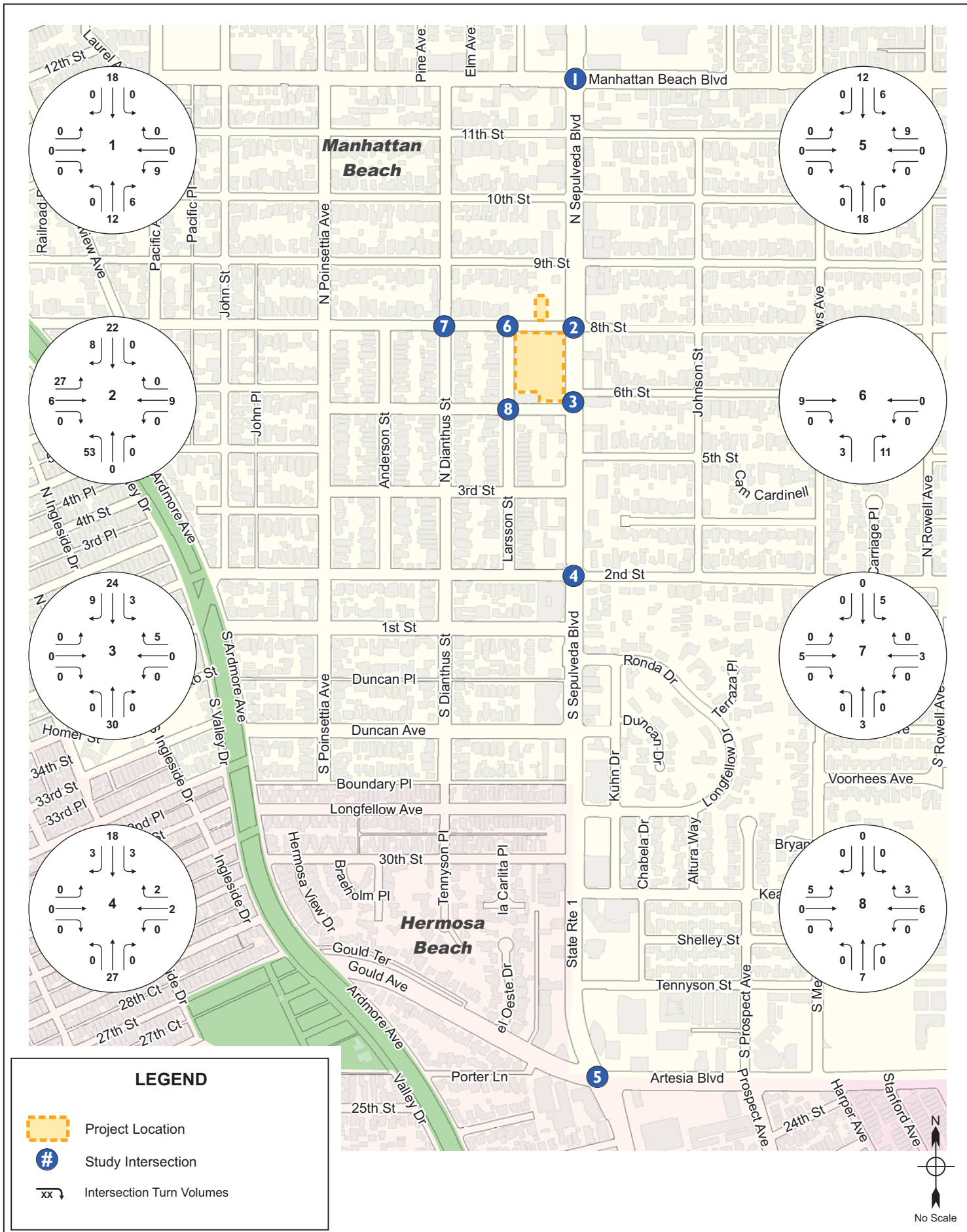
Trip distribution is the process of assigning the directions from which traffic will access a Project site. Trip distribution is dependent upon the land use characteristics of the Project, the local roadway network, and the general locations of other land uses to which Project trips would originate or terminate.

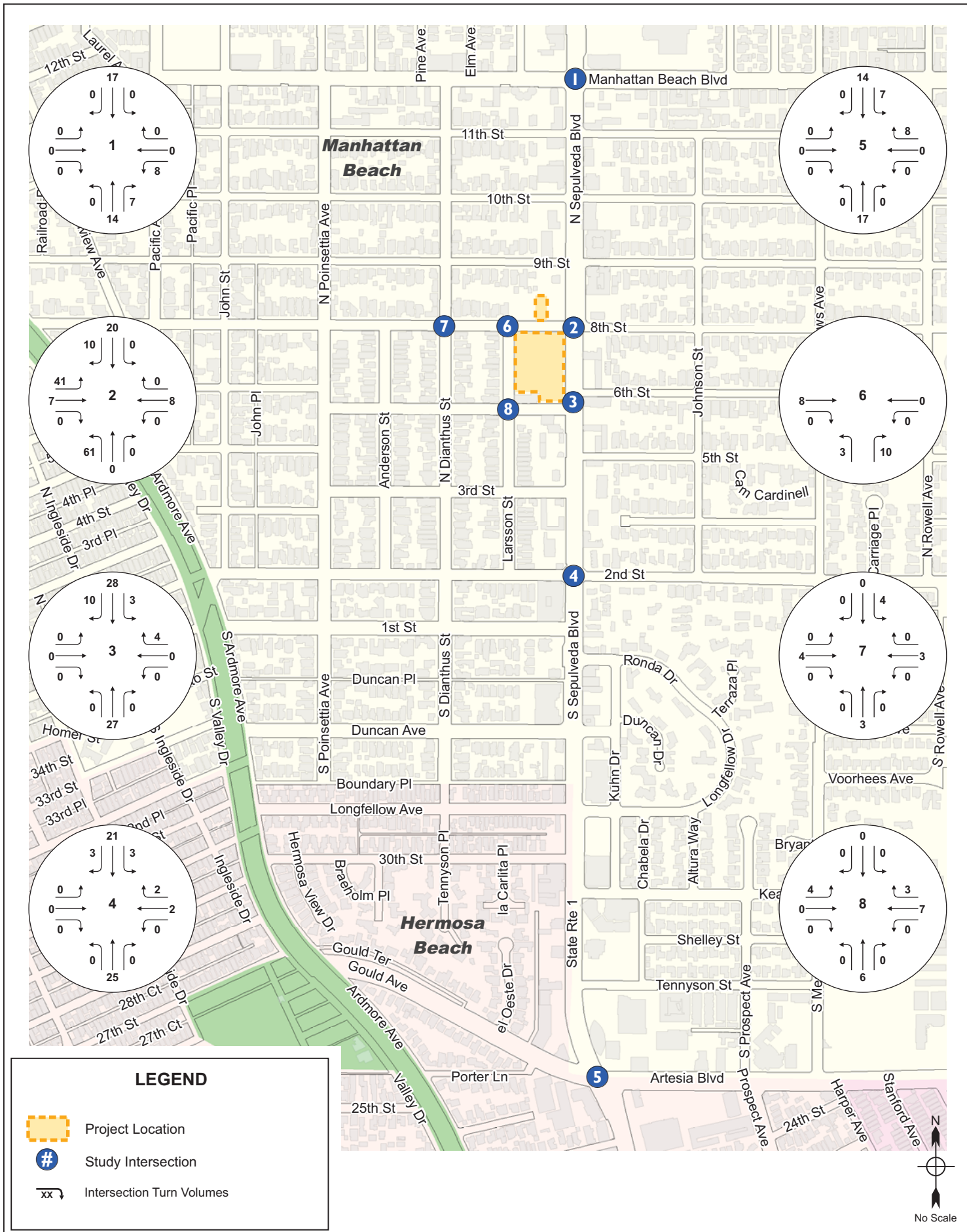
Pass-by trip credits were taken as noted above for the site uses in the trip generation totals. These represent trips that would stop at the site after Project development as a diversion from an existing trip traveling past the site. These trips were added back to the 8th Street/PCH intersection, as these trips would represent new turning movements at that location. The credit for these trips remained in the analysis for the other study intersections.

Figure 6 illustrates the Project trip distribution percentages at the study intersections that were used for the traffic impact analysis.

3.3 Project Trip Assignment

Based on the trip generation and distribution assumptions described above, Project traffic was assigned to the roadway system. Figures 7 and 8 illustrate the Project trips for the weekday a.m. and p.m. peak hours, respectively.





4. Existing with-Project Conditions

This section documents existing traffic conditions at the study intersections with the addition of Project-generated traffic. Traffic volumes for these conditions were derived by adding Project trips to the existing traffic volumes.

The existing with-Project traffic volumes for the weekday a.m. and p.m. peak hour are illustrated on Figures 9 and 10, respectively.

Table 5 summarizes the volume-to-capacity ratios for signalized intersections (values from 0.000 to 1.000), or delay in seconds per vehicle for unsignalized intersections, and the resulting V/C and LOS values at the study intersections for existing with-Project conditions. The existing with-Project traffic analysis worksheets for this scenario are provided in Appendix C of this report.

Five of the eight study intersections would continue to operate at LOS D or better during the weekday a.m. and p.m. peak hours. The three study intersections that currently operate, and will continue to operate, at LOS E or F during one or more study periods are as follows:

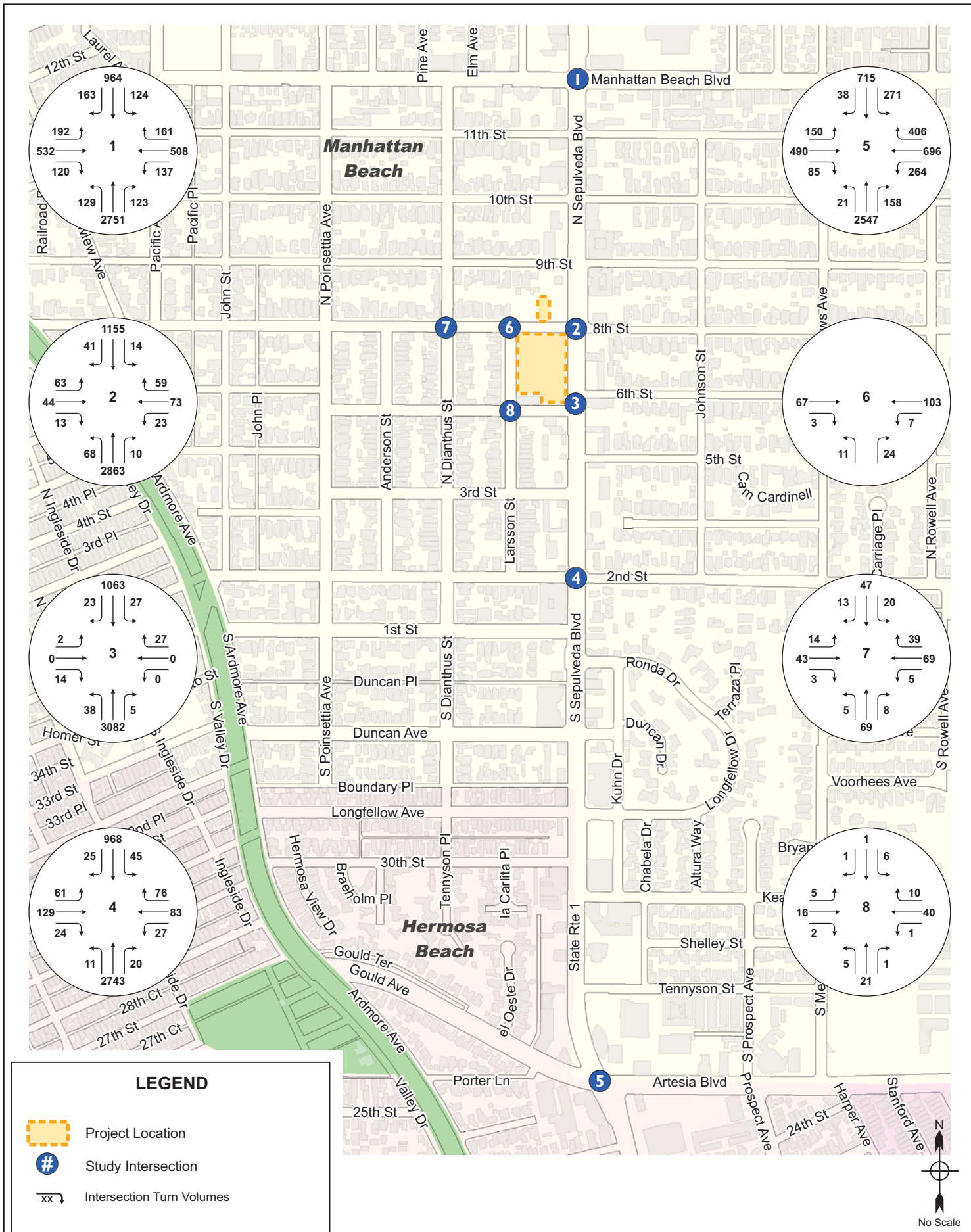
- Sepulveda Boulevard and Manhattan Beach Boulevard (weekday a.m. and p.m.)
- Sepulveda Boulevard and 6th Street (weekday a.m. and p.m.)
- Sepulveda Boulevard-PCH and Gould Avenue-Artesia Boulevard (weekday a.m.)

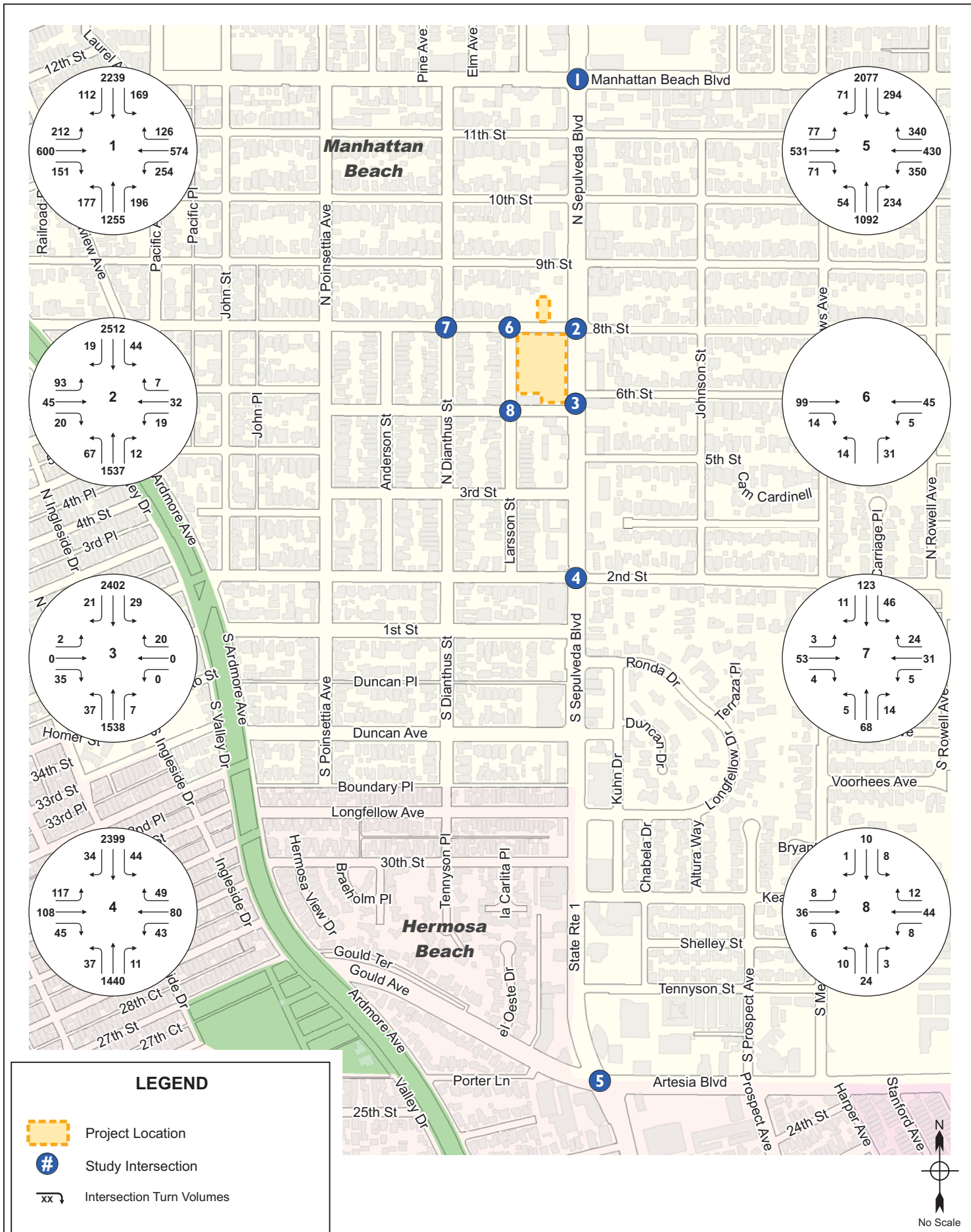
The determination of significant traffic impacts created by Project traffic is discussed in Section 7 of this report section.

Table 5 - Intersection Performance – Existing with-Project Conditions

Study Intersections		AM Peak		PM Peak	
		V/C or Delay (sec.)	LOS	V/C or Delay (sec.)	LOS
1	Sepulveda Boulevard & Manhattan Beach Boulevard	1.021	F	1.047	F
2	Sepulveda Boulevard & 8th Street	0.807	D	0.780	C
3	Sepulveda Boulevard & 6th Street *	>50	F	>50	F
4	Sepulveda Boulevard & 2nd Street	0.841	D	0.784	C
5	Sepulveda Boulevard-PCH & Gould Avenue-Artesia Boulevard	1.036	F	0.891	D
6	Larsson Street & 8th Street *	9.2	A	9.3	A
7	Dianthus Street & 8th Street *	7.9	A	8.9	A
8	Larsson Street & 6th Street *	7.3	A	7.6	A

* *Unsignalized Intersection*





5. Future (2017) without-Project Conditions

This section provides an analysis of future traffic conditions in the study area with area/related Project trips and background growth added, but without Project traffic. The year 2017 was selected for analysis of future conditions as the proposed Project is anticipated to be operational in 2017.

5.1 Ambient Growth

The future period forecast included an ambient growth rate to account for both regional population and employment growth outside of the study area. An annual growth rate of 1 percent was used for this purpose. Thus, a growth factor of 1 percent was applied to existing traffic counts to define the future 2017 cumulative base conditions.

The annual growth rate of 0.26 percent from Regional Statistical Area 18 (South Bay/LAX) in the 2010 Los Angeles County Congestion Management Program was reviewed. This annual growth factor is based on traffic growth from 2010 to 2020. The 1 percent annual growth rate was used in the traffic analysis to provide a conservative forecast of future traffic volumes in the study area.

5.2 Related Projects

In addition to the application of the ambient traffic growth rate, traffic from related/area projects (approved and pending developments) was also included as part of the year-2017 analysis. Twenty-three related projects were identified for inclusion in the traffic impact analysis. The locations of these 23 projects are illustrated on Figure 11. The figure illustrates the locations of the related projects and Appendix D summarizes the trip generation. Related project traffic was distributed to the surrounding street system in the study area for the weekday a.m. and p.m. peak hours.

The related project volumes figures for the weekday a.m. and p.m. peak hours are also provided in Appendix D.

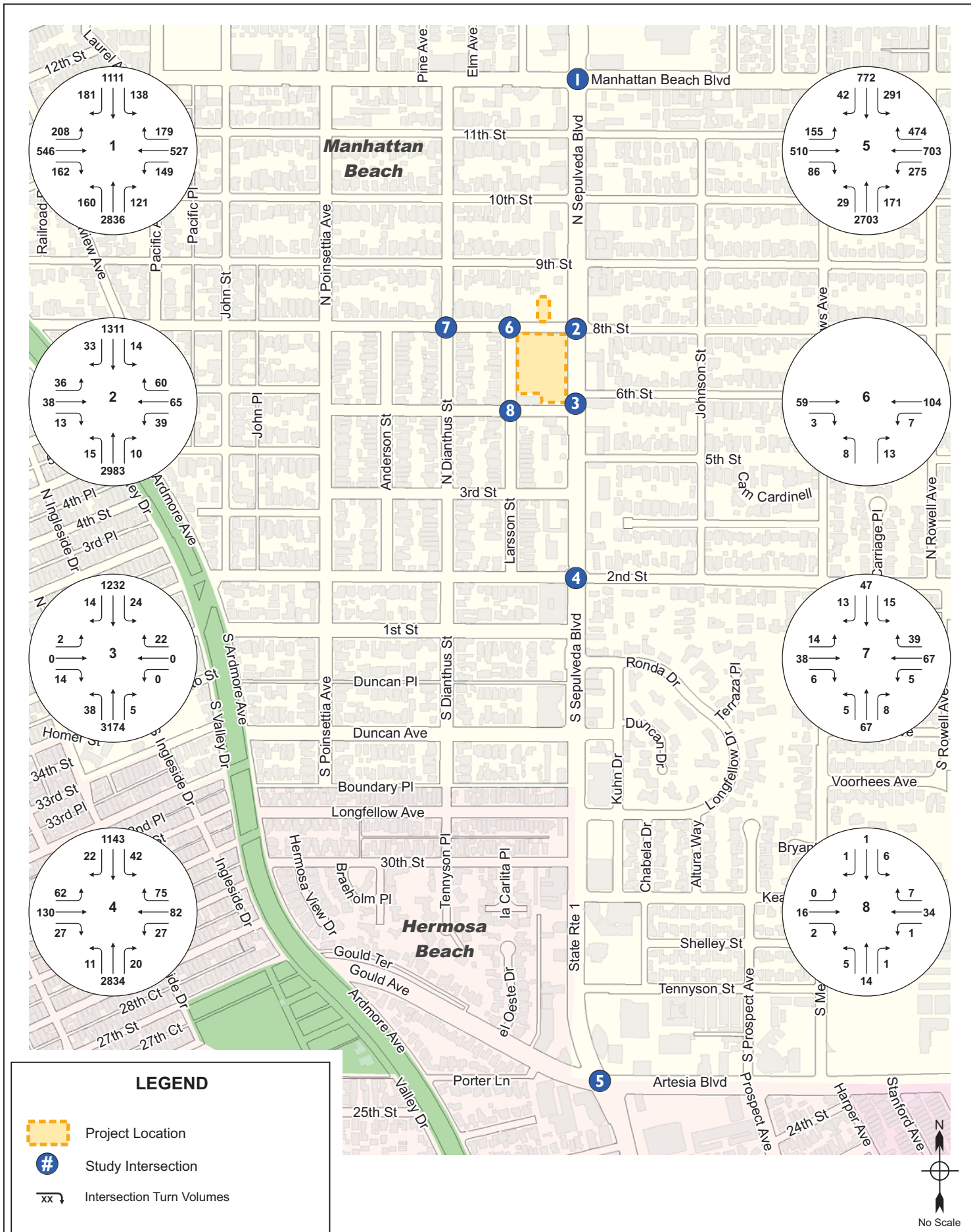
5.3 Future (2017) without-Project Intersection Levels of Service

The Future (2017) without-Project traffic volumes for the weekday a.m. and p.m. peak hour are illustrated on Figures 12 and 13, respectively.

Table 6 summarizes the volume-to-capacity ratios for signalized intersections (values from 0.000 to 1.000), or delay in seconds per vehicle for unsignalized intersections, and the V/C and LOS values at the study intersections under this scenario. The Future (2017) without-Project traffic analysis worksheets are provided in Appendix E of this report.

Five of the eight study intersections are projected to operate at LOS D or better during the analyzed peak hours. The three study intersections that will currently operate, and continue to operate, at LOS E or F during one or more peak periods are as follows:

- Sepulveda Boulevard and Manhattan Beach Boulevard (weekday a.m. and p.m.)
- Sepulveda Boulevard and 6th Street (weekday a.m. and p.m.)
- Sepulveda Boulevard-PCH and Gould Avenue-Artesia Boulevard (weekday a.m. and p.m.)



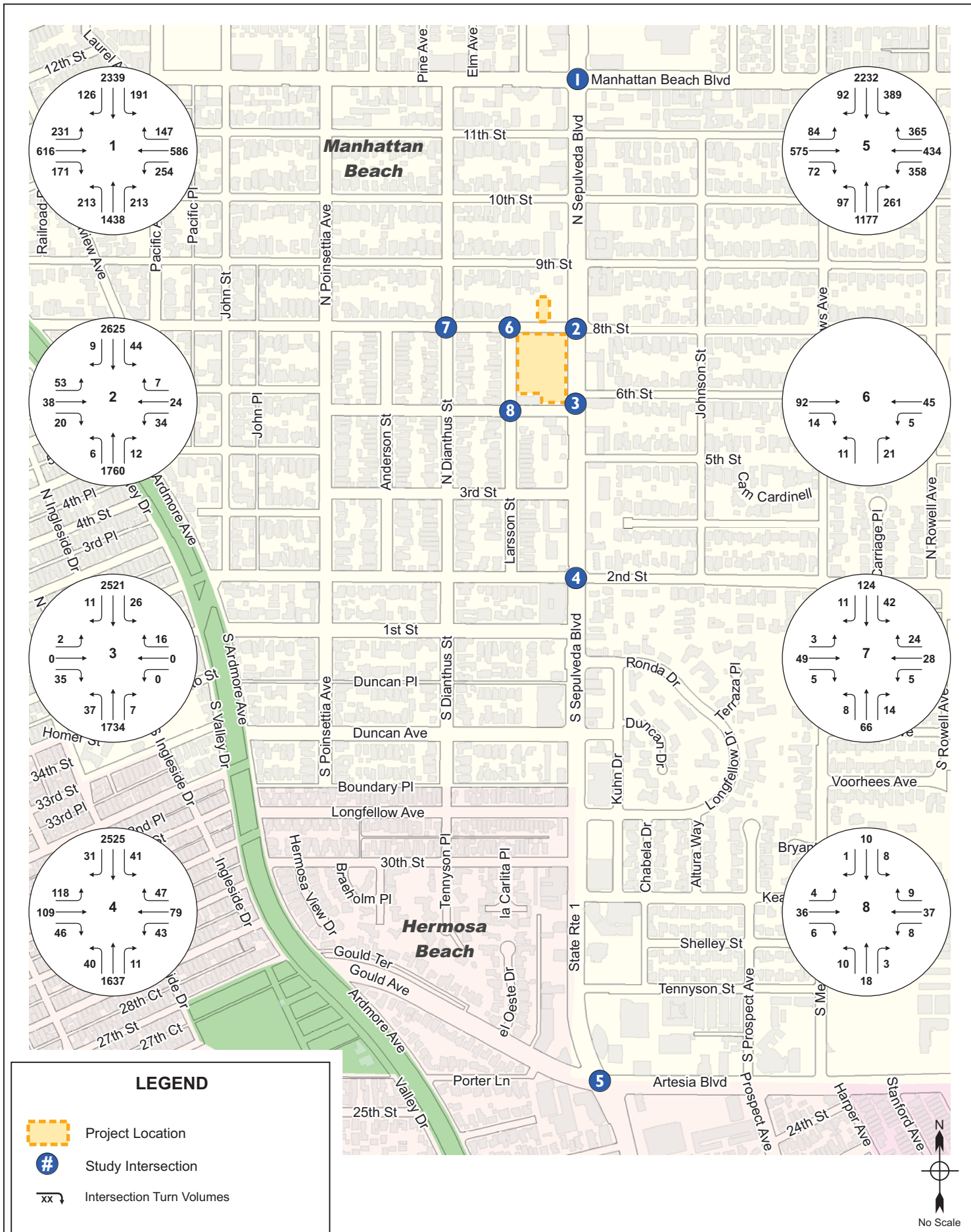


Table 6 - Intersection Performance – Future (2017) without-Project

Study Intersections		AM Peak		PM Peak	
		V/C or Delay (sec.)	LOS	V/C or Delay (sec.)	LOS
1	Sepulveda Boulevard & Manhattan Beach Boulevard	1.059	F	1.098	F
2	Sepulveda Boulevard & 8th Street	0.820	D	0.772	C
3	Sepulveda Boulevard & 6th Street *	>50	F	>50	F
4	Sepulveda Boulevard & 2nd Street	0.858	D	0.811	D
5	Sepulveda Boulevard-PCH & Gould Avenue-Artesia Boulevard	1.080	F	0.971	E
6	Larsson Street & 8th Street *	9.2	A	9.2	A
7	Dianthus Street & 8th Street *	7.9	A	8.8	A
8	Larsson Street & 6th Street *	7.2	A	7.5	A

* *Unsignalized Intersection*

6. Future (2017) with-Project Conditions

This section documents future traffic conditions at the study intersections with the addition of Project-generated traffic. Traffic volumes for these conditions were derived by adding Project trips to the Future (2017) without-Project scenario volumes.

The Future (2017) with-Project traffic volumes are illustrated on Figures 14 and 15 for the weekday a.m. and p.m. peak hours, respectively.

Table 7 summarizes the volume-to-capacity ratios for signalized intersections (values from 0.000 to 1.000), or delay in seconds per vehicle for unsignalized intersections, and the resulting V/C and LOS values at the study intersections for future with-Project traffic conditions. The Future (2017) with-Project traffic analysis worksheets are provided in Appendix F of this report.

Five of the eight study intersections are projected to operate at LOS D or better during the analyzed peak hours. The three study intersections that currently operate, and will continue to operate, at LOS E or F during one or more study periods are as follows:

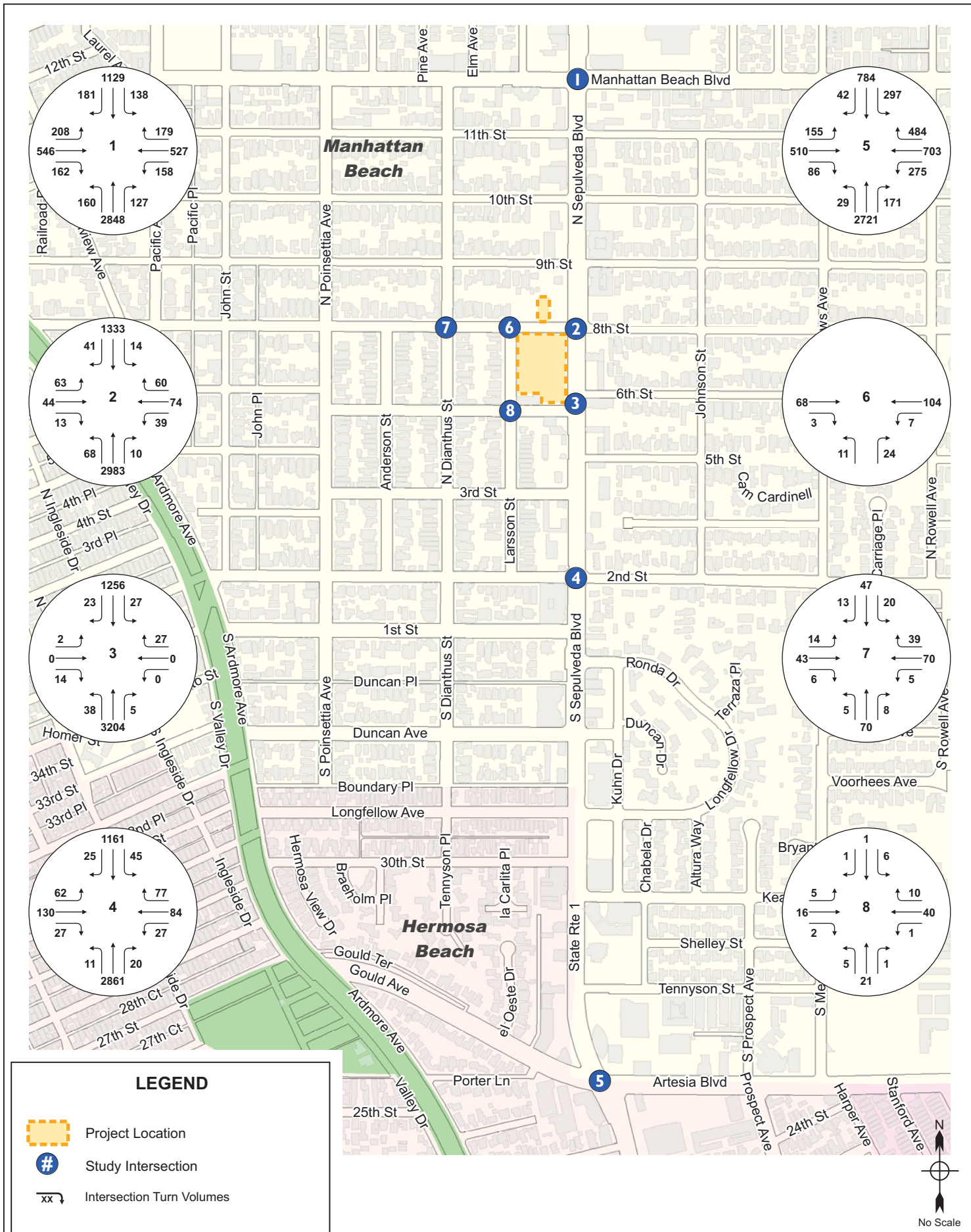
- Sepulveda Boulevard and Manhattan Beach Boulevard (weekday a.m. and p.m.)
- Sepulveda Boulevard and 6th Street (weekday a.m. and p.m.)
- Sepulveda Boulevard-PCH and Gould Avenue-Artesia Boulevard (weekday a.m. and p.m.)

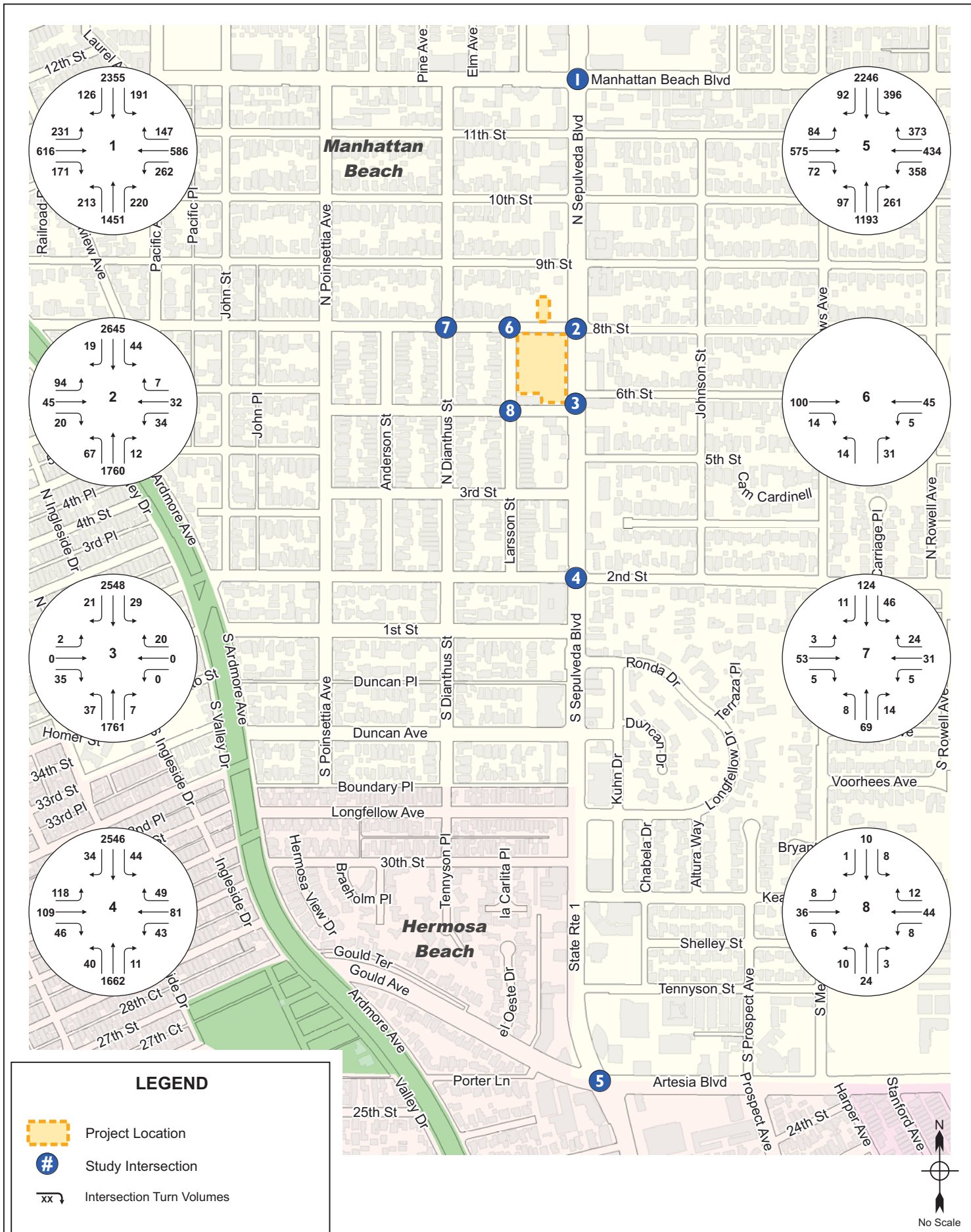
The determination of significant traffic impacts created by Project traffic is discussed in Section 7 of this report section.

Table 7 - Intersection Performance – Future (2017) with-Project

Study Intersections		AM Peak		PM Peak	
		V/C or Delay (sec.)	LOS	V/C or Delay (sec.)	LOS
1	Sepulveda Boulevard & Manhattan Beach Boulevard	1.063	F	1.106	F
2	Sepulveda Boulevard & 8th Street	0.842	D	0.818	D
3	Sepulveda Boulevard & 6th Street *	>50	F	>50	F
4	Sepulveda Boulevard & 2nd Street	0.868	D	0.818	D
5	Sepulveda Boulevard-PCH & Gould Avenue-Artesia Boulevard	1.086	F	0.974	E
6	Larsson Street & 8th Street *	9.2	A	9.3	A
7	Dianthus Street & 8th Street *	8.0	A	8.9	A
8	Larsson Street & 6th Street *	7.3	A	7.6	A

* Unsignalized Intersection





7. Project Traffic Impacts and Mitigation Measures

7.1 Determination of Traffic Impacts

Traffic impacts are identified if a proposed development will result in a significant change in traffic conditions at a study intersection. A significant impact is typically identified if Project-related traffic will cause service levels to deteriorate beyond a threshold limit specified by the overseeing agency.

The City of Manhattan Beach has established specific thresholds as defined in the *2010 Congestion Management Program for Los Angeles County*, published by the Los Angeles County Metropolitan Transportation Authority, for Project-related increases in the Intersection Capacity Utilization (ICU) values of signalized study intersections.

A significant impact occurs per City traffic impact thresholds when traffic generated by a project would increase the calculated v/c ratio by two percent when an intersection is operating at LOS F (greater than a 1.00 value for the volume to capacity or V/C ratio). Significant impacts are not defined for conditions at LOS E or better.

7.2 Project Traffic Impacts – Existing with-Project Conditions

Table 8 provides a summary of the Project impacts under existing conditions. Traffic impacts created by the proposed Project were determined by comparing the existing scenario conditions to the existing with-Project scenario conditions.

The proposed Project would not create any significant traffic impacts at the study intersections under existing with-Project conditions, during either the weekday a.m. or p.m. peak hour, as the addition of Project trips to the study intersections would not exceed the threshold defined by the City for significant impacts. The City threshold is based on an incremental change in study intersection operations within the LOS F range.

Project mitigation measures, therefore, are not recommended for existing conditions.

Table 8 - Determination of Project Impacts – Existing with-Project Conditions

Study Intersections		Peak Hour	Existing Conditions		Existing with Project		Change in V/C	Sig Impact?
			V/C or Delay (sec.)	LOS	V/C or Delay (sec.)	LOS		
1	Sepulveda Boulevard & Manhattan Beach Boulevard	AM	1.017	F	1.021	F	0.004	No
		PM	1.038	F	1.047	F	0.009	No
2	Sepulveda Boulevard & 8th Street	AM	0.784	C	0.807	D	0.023	No
		PM	0.705	C	0.780	C	0.075	No
3	Sepulveda Boulevard & 6th Street *	AM	>50	F	>50	F	0.011	No
		AM	0.767	n/a	0.778	n/a	n/a	n/a
		PM	>50	F	>50	F	0.008	No
		PM	0.643	n/a	0.651	n/a	n/a	n/a
4	Sepulveda Boulevard & 2nd Street	AM	0.831	D	0.841	D	0.010	No
		PM	0.776	C	0.784	C	0.008	No
5	Sepulveda Boulevard-PCH & Gould Avenue-Artesia Boulevard	AM	1.030	F	1.036	F	0.006	No
		PM	0.888	D	0.891	D	0.003	No
6	Larsson Street & 8th Street *	AM	9.2	A	9.2	A	0.009	No
		AM	0.182	n/a	0.191	n/a	n/a	n/a
		PM	9.2	A	9.3	A	0.013	No
		PM	0.189	n/a	0.202	n/a	n/a	n/a
7	Dianthus Street & 8th Street *	AM	7.9	A	7.9	A	0.007	No
		AM	0.236	n/a	0.243	n/a	n/a	n/a
		PM	8.8	A	8.9	A	0.004	No
		PM	0.251	n/a	0.255	n/a	n/a	n/a
8	Larsson Street & 6th Street *	AM	7.2	A	7.3	A	0.014	No
		AM	0.142	n/a	0.156	n/a	n/a	n/a
		PM	7.5	A	7.6	A	0.009	No
		PM	0.154	n/a	0.163	n/a	n/a	n/a

* Unsignalized Intersection

7.3 Project Traffic Impacts – Future (2017) with-Project Conditions

Table 9 provides a summary of the Project impacts under future conditions. Traffic impacts created by the Project were determined by comparing the Future (2017) without-Project scenario conditions to the Future (2017) with-Project scenario conditions.

The proposed Project would not create any significant traffic impacts at the study intersections under future with-Project conditions, during either the weekday a.m. or p.m. peak hour, as City-defined significant impact thresholds are not exceeded within LOS F operations. Project mitigation measures, therefore, are not recommended for future conditions.

Table 9 - Determination of Project Impacts – Future (2017) with-Project

Study Intersections		Peak Hour	Future (2017) without Project		Future (2017) with Project		Change in V/C	Sig Impact?
			V/C or Delay (sec.)	LOS	V/C or Delay (sec.)	LOS		
1	Sepulveda Boulevard & Manhattan Beach Boulevard	AM	1.059	F	1.063	F	0.004	No
		PM	1.098	F	1.106	F	0.008	No
2	Sepulveda Boulevard & 8th Street	AM	0.820	D	0.842	D	0.022	No
		PM	0.772	C	0.818	D	0.046	No
3	Sepulveda Boulevard & 6th Street *	AM	>50	F	>50	F	0.011	No
		AM	0.793	n/a	0.804	n/a	n/a	n/a
		PM	>50	F	>50	F	0.010	No
		PM	0.684	n/a	0.694	n/a	n/a	n/a
4	Sepulveda Boulevard & 2nd Street	AM	0.858	D	0.868	D	0.010	No
		PM	0.811	D	0.818	D	0.007	No
5	Sepulveda Boulevard-PCH & Gould Avenue-Artesia Boulevard	AM	1.080	F	1.086	F	0.006	No
		PM	0.971	E	0.974	E	0.003	No
6	Larsson Street & 8th Street *	AM	9.2	A	9.2	A	0.017	No
		AM	0.174	n/a	0.191	n/a	n/a	n/a
		PM	9.2	A	9.3	A	0.013	No
		PM	0.190	n/a	0.203	n/a	n/a	n/a
7	Dianthus Street & 8th Street *	AM	7.9	A	8.0	A	0.006	No
		AM	0.238	n/a	0.244	n/a	n/a	n/a
		PM	8.8	A	8.9	A	0.004	No
		PM	0.254	n/a	0.258	n/a	n/a	n/a
8	Larsson Street & 6th Street *	AM	7.2	A	7.3	A	0.013	No
		AM	0.143	n/a	0.156	n/a	n/a	n/a
		PM	7.5	A	7.6	A	0.015	No
		PM	0.159	n/a	0.174	n/a	n/a	n/a

* Unsignalized Intersection

8. Project Driveway Access

The proposed site will have one driveway on Sepulveda Boulevard and one driveway on 8th Street. The existing site has one driveway on Sepulveda Boulevard which will be relocated south of the existing driveway.

The proposed Project driveway on Sepulveda Boulevard at the Primary Project Site would provide right-turn ingress and egress movements. The Project driveway on this site at 8th Street would prohibit left-turn egress movements. The existing site driveway at this site on 6th Street will be closed.

Project Driveway Operations

Table 10 summarizes the delay, LOS, and queue values at the Primary Project Site driveways on 8th Street and Sepulveda Boulevard.

The driveway at 8th Street is projected to operate at LOS A under existing with-Project and future with-Project conditions. Average vehicle queues are calculated to be less than one vehicle each for westbound left-turn ingress (entering) movements from 8th Street.

The driveway at Sepulveda Boulevard is projected to operate at LOS B during the a.m. peak hour under existing with-Project and future with-Project conditions with average vehicle queues less than one vehicle for the eastbound egress (exiting) movement.

During the p.m. peak hour, the driveway at Sepulveda Boulevard is projected to operate at LOS E under existing with-Project and future with-Project condition. The average vehicle queue at the eastbound egress (exiting) movement would be approximately two vehicles.

The Project driveway LOS worksheets are provided in Appendix G.

Table 10 – Primary Project Site Driveway Operations

Scenario	Turning Movement/ Approach	WEEKDAY					
		AM PEAK HOUR			PM PEAK HOUR		
		Delay (sec.)	LOS	Queue (veh.)	Delay (sec.)	LOS	Queue (veh.)
8th Street and Project Driveway							
Existing With-Project	Westbound left-turn	7.5	A	0.1	7.5	A	0.1
Future With-Project	Westbound left-turn	7.5	A	0.1	7.5	A	0.1
Sepulveda Boulevard and Project Driveway							
Existing With-Project	Eastbound right-turn	13.0	B	0.2	37.2	E	1.1
Future With-Project	Eastbound right-turn	14.2	B	0.3	43.3	E	1.3

The busiest time for a specialty grocery store use is typically during the mid-day period on weekends. However, the overall traffic volumes during those periods are lower than the a.m. and p.m. peak periods during a weekday. The traffic impact study therefore evaluated the worst-case period for surrounding street traffic. Traffic counts and impact analysis were not conducted for weekend periods.

Conflicting peak-period traffic with the Project driveways on the surrounding roadways would be lower on the weekends than during weekdays. Therefore, this analysis examines the worst-case traffic conditions at the driveway locations.

9. Congestion Management Plan Conformance

This section demonstrates the ways in which this traffic study was prepared to be in conformance with the procedures mandated by the County of Los Angeles Congestion Management Program (CMP).

The CMP was created statewide because of Proposition 111 and was implemented locally by the Los Angeles County Metropolitan Transportation Authority (Metro). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potentially regional significance be analyzed. A specific system of arterial roadways plus all freeways comprises the CMP system. Per CMP Transportation Impact Analysis (TIA) Guidelines, a traffic impact analysis is conducted where:

- At CMP arterial monitoring intersections, including freeway on-ramps or off-ramps, where the proposed Project will add 50 or more vehicle trips during either a.m. or p.m. weekday peak hours.
- At CMP mainline freeway-monitoring locations, where the Project will add 150 or more trips, in either direction, during the either the a.m. or p.m. weekday peak hours.

Analysis of Monitoring Locations

The nearest CMP arterial monitoring intersections to the Project site are:

- Sepulveda Boulevard and Rosecrans Avenue (CMP Location 110), 1.3 miles from Project site.
- Pacific Coast Highway and Artesia Boulevard (CMP Location 22), 0.7 miles from Project site.

Based on the trip generation and distribution of the Project as shown on Figures 8 and 9, it is not expected that 50 or more new Project trips per hour would be added at these CMP intersections. Therefore, no further analysis of potential CMP impacts is required.

In addition, the proposed Project is expected to add less than 150 new trips per hour, in either direction, to any freeway segments based on the Project trip generation defined in Table 4. Therefore, no further analysis of CMP freeway monitoring stations is required.

Analysis of Transit Trips

Transit use is expected to be approximately seven percent of total trips, as the area land uses are commercial and the location of these uses is within a CMP transit corridor. This corridor is defined by mapping within the CMP that defines Sepulveda Boulevard as such a corridor.

Total vehicle trips calculated in the trip generation analysis was 151 trips during the a.m. peak hour and 152 trips during the p.m. peak hour. Transit trips are not included in the vehicle trip generation, so the total trips including transit and vehicles would be 162 trips in the a.m. peak hour and 163 trips in the p.m. peak hour.

Seven percent of these total trips would be 11 trips and in the a.m. peak hour and 11 trips in the p.m. peak hour. These are bi-directional trips (boardings and alightings). With the level of transit service present on Sepulveda Boulevard, it is not expected that these peak-hour transit trips would cause a significant impact to area transit services.

10. Parking Analysis

The following provides the parking analysis conducted to determine if the proposed on-site parking supply can accommodate the parking code requirements for the proposed Project.

10.1 Parking Analysis Methodology

The City of Manhattan Beach Municipal Code, Title 10 – Planning and Zoning Chapter 10.64.030 – Off-street Parking and Loading Regulations, establishes parking supply requirements for development projects in the City. Table 11A shows the code requirement for the proposed Project, if each land use operated on a stand-alone basis. The specialty grocery store floor area was reduced by the size of the indoor prepared food seating area of 206 square feet, in order to not double-count the demand between the general supermarket floor area and that seating area.

**Table 11A – City Parking Code Requirements for –
Project Uses on a Stand Alone Basis**

DESCRIPTION	SIZE	PARKING RATE ^[1]	STAND-ALONE SPACES REQUIRED
Specialty Grocery Store	27,694 sq.ft.	1 space per 200 SF	138
Food Service Seating - Indoor ^[2]	206 sq.ft.	1 space per 75 SF	3
Food Service Seating - Outdoor	503 sq.ft.	1 space per 75 SF	7
Bank ^[3]	6,800 sq.ft.	1 space per 300 SF	23
Total Code Parking Requirement			171

SF = square feet of floor area

[1] City of Manhattan Beach Municipal Code, Title 10 - Planning and Zoning, Chapter 10.64.030 - Off-Street Parking and Loading Regulations.

[2] The plan analyzed had 206 square feet of indoor seating area. In the current plan, the indoor seating area has been reduced to 145 square feet. In addition, a 503 square foot outdoor seating area would be provided to serve patrons of the food service use. The Municipal Code treats specialty grocery stores as "Food and Beverage Uses".

[3] The analysis of the financial services use is based on an earlier version of the Project site plan that included 7,000 square feet of floor area, including a service and mechanical room space of 200 square feet, which is not calculated as "buildable floor area" per City Code Section 10.04.030. The buildable floor area for this use has since been defined to be 6,684 square feet in the finalized site plan. The analysis presented herein therefore provides a conservative analysis, as the proposed buildable floor area for this use (6,684 square feet) is smaller than the analyzed project (7,000 square feet).

City Code parking requirement definitions for land uses assume that the proposed land uses on the site operate as standalone uses. This represents the peak parking demand throughout the day, and that the

total demand for the Project site may in fact be accommodated with less parking supply.

Accordingly, Municipal Code Section 10.64.040 allows for shared parking arrangements between uses:

“...a use permit may be approved for collective provision of parking on a site of five thousand (5,000) square feet or more that serves more than one (1) use or site and is located in a district in which parking for the uses served is a permitted or conditional use. A use permit for collective off-street parking may reduce the total number of spaces required by this chapter...”

10.2 Shared Parking Analysis

The proposed Project includes multiple uses (specialty grocery store, food service, and bank), and would be located on a site zoned for commercial uses. As permitted under City Code and as has been done for recent commercial projects in the City, KOA conducted a shared parking analysis based on the methodology in *Shared Parking (2nd Edition)*, published by the Urban Land Institute (ULI), which is the City’s recommended methodology.

Weekday hourly parking accumulation percentages, as defined by *Shared Parking*, were applied to the parking demand associated with the Project’s commercial uses to determine the projected hourly parking demand. The Project parking demand was examined under two separate shared parking scenarios using ULI hourly demand rates, to get an understanding of what the realistic peak demand intensity would be:

- Use of total peak demand factors defined by the Institute of Transportation Engineers (ITE) source *Parking Generation*. This is an industry-accepted reference, and approved methodology of the City.
- Use of surveyed demand data from an existing Southern California Gelson’s store, as well as Municipal Code rates for the net increase over the survey site of the prepared food seating area, and the proposed bank/financial services use.

The shared parking analysis methodology defined by ULI is based on surveys of individual uses in multiple-use commercial centers located across the United States. The surveyed data provides for hourly intensity, expressed as the percentage of total demand, for each use, to determine how demand across multiple uses is combined within each hour across a typical weekday or weekend day. With this methodology, the balancing of parking demand generated by uses across the day can be estimated and analyzed – such as the Project bank use that peaks on weekdays from 9:00 a.m. to 5:00 p.m. and then tapers off, a pattern which would accommodate the incidental prepared food service use that begins to peak after 5:00 p.m., without the need for additional parking supply.

The shared parking demand analysis for the Project incorporated parking demand associated with all proposed site uses to determine if the proposed parking supply would be sufficient to accommodate the combined needs of the proposed uses. Hourly intensities were examined individually for the prepared food service seating areas, and the bank use. As the ULI *Shared Parking* document does not define hourly intensity rates for specialty grocery store uses, the values for a shopping center use were used to represent the variation in parking demand over the course of the day that would be associated with the specialty grocery store use.

The floor area of the specialty grocery store was based on the overall floor area of that use minus the

indoor incidental prepared food service seating area of 206 square feet (in order to not double count the demand generated by the two uses). Therefore, the input value was 27,694 square feet of specialty grocery store floor area.

The prepared food seating area analyzed here would provide a total of 28 seats. The trip generation totals for the traffic impact analysis used a more conservative total of 52 seats, based on an earlier version of the site plan. The 28-seat total is the planned capacity of the seating area.

The analysis of the specialty grocery store use is based on an earlier version of the Project site plan that included 27,900 square feet of buildable floor area, including a prepared food service seating area of 206 square feet. In the current plan, the indoor prepared food service seating area has been reduced to 145 square feet. In addition, a 503 square foot outdoor seating area would be provided to serve patrons of the food service use.

The analysis of the financial services use is based on an earlier version of the Project site plan that included 7,000 square feet of floor area, including a service and mechanical room space of 200 square feet, which is not calculated as “buildable floor area” per City Code Section 10.04.030. The buildable floor area for this use has since been revised to be 6,684 square feet. The analysis presented herein therefore provides a conservative analysis, as the proposed buildable floor area for this use (6,684 square feet) is smaller than the analyzed project (7,000 square feet). The pad tenant was also conservatively analyzed as a walk-in bank use, but is currently anticipated to be a financial services/investment company.

The incidental food service seating area reflected in the parking analysis includes the indoor seating area of 206 square feet, plus the outdoor seating area of 503 square feet, as required by City Code.

10.3 Shared Parking Analysis Results

ITE parking demand rates, based on surveys of land uses throughout the United States, are as follows:

- Specialty grocery store: 3.78 per 1,000 square feet on weekdays (1 space per 265 square feet), 3.92 per 1,000 square feet on weekends. (1 space per 255 square feet)
- Take-out Service: 0.35 per seat on weekdays and weekends.
- Bank: 4.00 per 1,000 square feet on weekdays (1 space per 250 square feet), 3.47 per 1,000 square feet on weekends. (1 space per 288 square feet)

Table IIB provides the inputs used for this parking analysis scenario, using parking generation rates as defined by ITE.

Table IIB – Parking Analysis Inputs for Standalone Uses – Using ITE Rates

DESCRIPTION	SIZE	PARKING DEMAND RATE ^[1]		STAND-ALONE SPACES REQUIRED, WEEKDAY	STAND-ALONE SPACES REQUIRED, WEEKEND
		Weekday	Weekend		
Specialty Grocery Store ^[2]	27,694 sq.ft.	3.78	3.92	105	109
Food Service Seats, Indoor/Outdoor	28 seats	0.35	0.35	10	10
Bank ^[3]	6,800 sq.ft.	4.00	3.47	27	24
Total Standalone Use Parking Requirement ^[4]				142	143

SF = square feet of floor area

[1] ITE Parking Generation (4th edition) rates, per 1,000 sq.ft., weekend and weekday. Supermarket rates are urban weekday and suburban weekend, due to limited data sets provided. Food service seating area demand calculated on a per-seat basis.

[2] The Gelson's indoor prepared food seating area of 206 sq.ft. was excluded from the overall parking demand inputs for the supermarket. The Municipal Code treats specialty grocery stores as "Supermarket" uses.

[3] The service and mechanical rooms, which do not specifically generate demand, were removed from the calculations for this use.

[4] This demand assumes that the parking demand of all uses peak at the same time, and does not account for variations in demand for the different uses during the course of a day. The separate shared parking analysis provided in Table IIC provides the shared parking conditions.

Table IIC provides a summary of the shared parking demand analysis for the Project land uses. The estimated weekday shared peak parking demand of 135 spaces would occur at 5:00 p.m. The estimated weekend shared peak parking demand of 131 spaces would occur at 2:00 p.m.

Table 11C – Shared Parking Analysis Results – Using ITE Rates

WEEKDAY SITE PARKING ACCUMULATION						
Time of Day	Specialty Grocery Store	Prepared Food Seating Area	Bank	Total Shared Demand	Parking Surplus/ (Deficit)	
					Site Supply = 135 spaces	w/Added Supply = 155 spaces
7:00	5	0	0	5	130	150
8:00	16	0	14	30	105	125
9:00	37	0	24	61	74	94
10:00	68	2	27	97	38	58
11:00	89	4	14	107	28	48
Noon	100	8	14	122	13	33
1:00PM	105	8	14	127	8	28
2:00	100	7	19	126	9	29
3:00	95	4	14	113	22	42
4:00	95	5	22	122	13	33
5:00	100	8	27	135 *	0	20
6:00	100	10	0	110	25	45
7:00	100	10	0	110	25	45
8:00	84	10	0	94	41	61
9:00	53	10	0	63	72	92
10:00	32	10	0	42	93	113

WEEKDAY PARKING ACCUMULATION PERCENTAGES [1]

Time of Day	Market	Prep Food Seat Area	Bank
7:00	5%	0%	0%
8:00	15%	0%	50%
9:00	35%	0%	90%
10:00	65%	15%	100%
11:00	85%	40%	50%
Noon	95%	75%	50%
1:00PM	100%	75%	50%
2:00	95%	65%	70%
3:00	90%	40%	50%
4:00	90%	50%	80%
5:00	95%	75%	100%
6:00	95%	95%	0%
7:00	95%	100%	0%
8:00	80%	100%	0%
9:00	50%	100%	0%
10:00	30%	95%	0%

WEEKEND SITE PARKING ACCUMULATION						
Time of Day	Specialty Grocery Store	Prepared Food Seating Area	Bank	Total Shared Demand	Parking Surplus/ (Deficit)	
					Site Supply = 135 spaces	w/Added Supply = 160 spaces
7:00	5	0	0	5	130	155
8:00	11	0	6	17	118	143
9:00	33	0	10	43	92	117
10:00	55	0	18	73	62	87
11:00	71	2	24	97	38	63
Noon	87	5	22	114	21	46
1:00PM	98	6	19	123	12	37
2:00	109	5	17	131 *	4	29
3:00	109	5	0	114	21	46
4:00	104	5	0	109	26	51
5:00	98	6	0	104	31	56
6:00	87	9	0	96	39	64
7:00	82	10	0	92	43	68
8:00	71	10	0	81	54	79
9:00	55	9	0	64	71	96
10:00	38	9	0	47	88	113

WEEKEND PARKING ACCUMULATION PERCENTAGES [1]

Time of Day	Market	Prep Food Seat Area	Bank
7:00	5%	0%	0%
8:00	10%	0%	25%
9:00	30%	0%	40%
10:00	50%	0%	75%
11:00	65%	15%	100%
Noon	80%	50%	90%
1:00PM	90%	55%	80%
2:00	100%	45%	70%
3:00	100%	45%	0%
4:00	95%	45%	0%
5:00	90%	60%	0%
6:00	80%	90%	0%
7:00	75%	95%	0%
8:00	65%	100%	0%
9:00	50%	90%	0%
10:00	35%	90%	0%

[1] Source: Tables 2-5 and 2-6 from Urban Land Institute *Shared Parking*, 2nd Edition

* Bank use percentage demand was extended past the noon hour, where ULI data ends, to the 2:00 p.m. hour based on the planned project bank hours. Demand is assumed to taper off each hour, from the 90 percent activity number defined by ITE for the noon hour.

The parking surplus/deficit calculations within Table IIC are based on the calculated demand and the 135 spaces provided at the Primary Project Site and the Auxiliary Employee Parking Site.

Additionally, the other employee parking supplies provided at nearby parking lots (including the spaces available on weekends at the nearby office building and at the parking lot on 10th Street) are also included in the “W/Added Supply” column in this table.

10.4 Shared Parking Demand Using Survey Data and City Code Requirements

In the second analysis scenario, parking demand for the specialty grocery store use was based upon operational data collected from a comparable specialty grocery store use. In order to define parking demand for this use, parking surveys were conducted at a comparable existing Gelson’s Market, located at 5877 Franklin Avenue, in the Hollywood neighborhood of Los Angeles.

This particular site was targeted for this survey to determine the parking demand for the proposed specialty grocery store use because it is similar in building size to the proposed Project, and has similar demographics to the Project study area. Accordingly, the data collected at this location provides an accurate representation of the expected parking demand associated with the proposed Project.

The survey site was monitored during peak periods by KOA, before the scheduling of the surveys, to determine if existing parking demand was using off-street and nearby on-street spaces. For both sites, it was determined that demand was contained within the off-street parking areas, and on-street parking use monitoring was not necessary. The demand surveys noted each vehicle as a customer or employee vehicle, based on the request to store management to require employees to post placards in the vehicles for the duration of the survey effort. Data on customer demand and on employee demand for parking spaces was therefore collected separately.

Parking counts were conducted on two weekdays and one Saturday. The data was collected on Saturday, May 16, 2015, Tuesday, May 19, 2015, and Wednesday, May 20, 2015. The parking counts are provided in Appendix H.

Because of slight differences in floor area between the survey site and the proposed Project, the measured parking demand at the survey site was adjusted to provide comparable parking demand based on sales floor area. The Hollywood site has a sales floor area that is slightly smaller than the floor area of the proposed Project.

Factors were applied to the surveyed parking data, to provide a scaled demand estimate for the proposed Project. The Hollywood site data was factored by a value of 1.030. This factor equates to percentage values, as a whole of the applicable proposed Project floor area. The data from the surveyed site was factored and then averaged together for each survey day.

The survey data indicated that the peak average weekday parking demand for the specialty grocery store use would be 3.81 vehicles per 1,000 square feet of floor area on a weekday and 4.22 vehicles per 1,000 square feet on a weekend day.

The Congestion Management Program (CMP) for Los Angeles County provides guidance on the percentages of trips likely to be taken on transit for general land uses types with specific intensities of nearby transit service. For commercial land uses within a one-quarter mile distance of CMP-designated transit routes, it is assumed that up to seven percent of trips would occur via public transit. This credit

was not applied to the trip generation analysis, because the customer and employee trips cannot be separated based on the applied methodology.

Local bus service through Manhattan Beach on Sepulveda Boulevard is a CMP transit route. Based on CMP guidance, up to seven percent of trips can be assumed to be by public transit for commercial projects. A conservative reduction factor of three percent for transit use was applied to the project parking demand.

The sales floor area size factor and the transit use factor effectively cancel each other out, and produce a net zero change in terms of demand from the survey data.

Table 12A provides the standalone parking demand calculations used for this parking analysis scenario, based on the combination of the survey data for the specialty grocery store use, and the City Code parking requirements for the food service and bank uses.

The prepared food seating areas were not calculated separately for this analysis, as there is no net change in seats for this type of use, versus that at the existing Hollywood location. Therefore, the survey data adequately captures all anticipated demand without the need to add parking demand for the seating areas to this data.

**Table 12A – Parking Analysis Inputs for Standalone Uses –
Using Survey Data and City Parking Code**

DESCRIPTION	SIZE	PARKING RATE ^[1]	ESTIMATED DEMAND (SPACES), WEEKDAY	ESTIMATED DEMAND (SPACES), WEEKEND
Specialty Grocery Store	27,694 sq.ft.	3.81 spaces weekday, 4.22 spaces weekend, per 1,000 SF	97	109
Bank ^[2]	6,800 sq.ft.	1 space per 300 SF	23	23
Total Parking Demand ^[3]			120	132

SF = square feet of floor area

[1] City of Manhattan Beach Municipal Code, Title 10 - Planning and Zoning, Chapter 10.64.030 - Off-Street Parking and Loading Regulations. Supermarket

[2] The service and mechanical rooms, which do not specifically generate demand, were removed from the calculations for this use.

[3] This demand assumes that the parking demand of all uses peak at the same time, and does not account for variations in demand for the different uses during the course of a day. The separate shared parking analysis in Table 12B provides the shared parking conditions.

Table 12B provides a summary of the shared parking demand analysis for the Project land use, providing the overall expected demand for the proposed Project under this methodology.

The estimated weekday shared peak parking demand of 115 spaces would occur at 4:00 p.m. The estimated weekend shared peak parking demand of 127 spaces would occur at 2:00 p.m.

**Table 12B – Shared Parking Analysis Results –
Using Survey Data for the Market and
City Parking Code for the Food Areas and Bank**

WEEKDAY SITE PARKING ACCUMULATION						WEEKDAY PARKING ACCUMULATION PERCENTAGES [1]		
Time of Day	Specialty Grocery Store	Bank	Total Shared Demand	Parking Surplus/ (Deficit)		Time of Day	Rest	Bank
				Site Supply = 135 spaces	w/Added Supply = 155 spaces			
7:00	44	0	44	91	111	7:00	0%	0%
8:00	53	11	64	71	91	8:00	0%	50%
9:00	58	20	78	57	77	9:00	0%	90%
10:00	65	23	88	47	67	10:00	15%	100%
11:00	82	11	93	42	62	11:00	40%	50%
Noon	90	11	101	34	54	Noon	75%	50%
1:00PM	90	11	101	34	54	1:00PM	75%	50%
2:00	87	16	103	32	52	2:00	65%	70%
3:00	95	11	106	29	49	3:00	40%	50%
4:00	97	18	115 *	20	40	4:00	50%	80%
5:00	81	23	104	31	51	5:00	75%	100%
6:00	84	0	84	51	71	6:00	95%	0%
7:00	79	0	79	56	76	7:00	100%	0%
8:00	75	0	75	60	80	8:00	100%	0%
9:00	62	0	62	73	93	9:00	100%	0%
10:00	64	0	64	71	91	10:00	95%	0%

WEEKEND SITE PARKING ACCUMULATION						WEEKEND PARKING ACCUMULATION PERCENTAGES [1]		
Time of Day	Specialty Grocery Store	Bank	Total Shared Demand	Parking Surplus/ (Deficit)		Time of Day	Rest	Bank
				Site Supply = 135 spaces	w/Added Supply = 160 spaces			
7:00	33	0	33	102	127	7:00	0%	0%
8:00	38	6	44	91	116	8:00	0%	25%
9:00	57	9	66	69	94	9:00	0%	40%
10:00	88	17	105	30	55	10:00	0%	75%
11:00	82	23	105	30	55	11:00	15%	100%
Noon	98	20	118	17	42	Noon	50%	90%
1:00PM	104	18	122	13	38	1:00PM	55%	80%
2:00	111	16	127 *	8	33	2:00	45%	70%
3:00	109	0	109	26	51	3:00	45%	0%
4:00	101	0	101	34	59	4:00	45%	0%
5:00	88	0	88	47	72	5:00	60%	0%
6:00	98	0	98	37	62	6:00	90%	0%
7:00	70	0	70	65	90	7:00	95%	0%
8:00	61	0	61	74	99	8:00	100%	0%
9:00	48	0	48	87	112	9:00	90%	0%
10:00	44	0	44	91	116	10:00	90%	0%

[1] Source: Tables 2-5 and 2-6 from Urban Land Institute Shared Parking, 2nd Edition

The parking surplus/deficit calculations within Table 12B are based on the calculated demand and the 135 spaces provided at the Primary Project Site and the Auxiliary Employee Parking Site.

Additionally, the other employee parking supplies provided at nearby parking lots (including the spaces available on weekends at the nearby office building and at the parking lot on 10th Street) are also included in the “W/Added Supply” column in this table.

10.5 Adequacy of Proposed Parking Supply

The highest estimated weekday shared peak parking demand would be 135 spaces at 5:00 p.m., and the highest estimated weekend shared peak parking demand would be 131 spaces.

The proposed Project parking supply would provide 119 vehicle stalls at the Primary Project Site, and 16 spaces at the Auxiliary Employee Parking Site on the north side of 8th Street. These two sites would therefore provide a minimum of 135 parking spaces at all times.

Although not required to address Project parking demands, the Project applicant has leased the following additional parking that may be used to accommodate extra employee parking:

- Five spaces have been leased by the Project applicant within an off-site office building parking lot on the south side of 6th Street across from the Primary Project Site site, and would be available to employees on weekends.
- 20 spaces have been leased by the Project applicant located on the west side of Sepulveda Boulevard at 10th Street, two blocks to the north of the site and would be available to employees.

The 135 parking spaces that would be permanently maintained for the Project at all times would be sufficient to meet the highest projected demand, according to the following analysis methodologies:

- Under the separate analysis applying national parking demand rates defined by ITE, the Project parking demand would peak at 135 vehicles on weekdays and 131 vehicles on weekends.
- Using Gelson’s site parking demand data and City Municipal Code data for the other site uses, the Project parking demand would peak at 115 vehicles on weekdays and 127 vehicles on weekends.

Under either analysis scenario (ITE rates, or City Code parking requirements and Gelson’s specific site survey data), the Project would provide parking that is more than adequate, based on the planned off-street parking space supply and a sharing of that supply across all site uses.

No parking impacts to nearby on-street parking areas would occur under typical conditions as set forth in this analysis.

10.6 Parking Management Plan

In order to ensure that: (i) the Primary Project Site maintains an adequate parking supply for customers and (ii) employees park in designated employee parking spaces so that demand does not negatively affect parking at adjacent properties or on-street parking areas, a Parking Management Plan has been included as part of the proposed Project. The elements of the Plan, defined below, provide management actions in the areas of employee parking location designations and designated actions by site management to control use of the various parking locations.

Employee Parking Location Designations

- As part of employee orientation, employees will be directed not to park on residential streets.
- Employees will be required to park in designated off-street areas. Management will provide written instructions to all employees identifying where parking is allowed.
- Site management will post and distribute employee parking assignments, and will update this set of assignments as needed based on personnel and shift changes.
- Employees will only park at the Primary Project Site after all off-site employee parking areas are full, and/or if they are assigned to that parking area.
- Employees, based on shift arrival times and parking demand at the Primary Project Site, will be assigned to employee parking areas in the following order:
 - The Auxiliary Employee Parking Site on the north side of 8th Street.
 - The 20-space lot on Sepulveda Boulevard at 10th Street.
 - On weekends, the five-space lot at the office building on 6th Street.

Control/Monitoring by Site Management

- Site management will require that all employees register their car make/color/license plate, so that a log of all employee vehicles by employee name and vehicle type is accessible by management at all times.
- Site management will randomly monitor vehicle parking demand at the Primary Project Site parking lot throughout the day.
- If management finds that parking demand is beginning to exceed or has exceeded supply on the Primary Project Site, additional effort will be made to inspect the off-site parking areas to determine if employees are using those areas to their designed capacities.
- If the off-site parking areas are not being used to capacity when the Primary Project Site parking lot is nearing or at capacity, management will make an effort to investigate where employees have parked for the day.
- Measures will be taken to assure that employees parked on the Primary Project Site who are not authorized to park there by management relocate their vehicles to available off-site employee parking areas, and appropriate disciplinary action will also be taken.

II. Analysis Summary and Conclusions

The following summarizes the study results, conclusions and recommendations:

Traffic Impact Study

- The analysis of the specialty grocery store use is based on an earlier version of the Project site plan that included 27,900 square feet of buildable floor area, including a prepared food service seating area of 206 square feet. In the current plan, the prepared food service seating area has been reduced to 145 square feet. In addition, a 503 square foot outdoor seating area would be provided to serve patrons of the food service use.
- The analysis of the financial services use is based on an earlier version of the Project site plan that included 7,000 square feet of floor area, including a service and mechanical room space of 200 square feet, which is not calculated as “buildable floor area” per City Code Section 10.04.030. The buildable floor area for this use has since been revised to be 6,684 square feet. The analysis presented herein therefore provides a conservative analysis, as the proposed buildable floor area for this use (6,684 square feet) is smaller than the analyzed project (7,000 square feet). The pad tenant was also conservatively analyzed as a walk-in bank use, but is currently anticipated to be a financial services/investment company.
- The actual trips generated by the financial services use could be as much as 70 to 90 percent less than the numbers applied here for peak-hour trip activity, based on rates for general office or retail uses versus the more intense rates for bank uses. Moreover, the bank includes 200 square feet of service and mechanical room space, resulting in a buildable floor area of 6,800 square feet, which was appropriately used for the parking analysis.
- The existing 40,349 square-foot automobile repair facility will be partially demolished under proposed Project. The proposed Project would redevelop the remainder of the existing facility into the smaller specialty grocery store building and would construct the new pad building.
- The proposed Project would generate a net total of approximately 3,062 daily weekday trips including 151 trips during the a.m. peak hour and 152 trips during the p.m. peak hour.
- Based on the applied City of Manhattan Beach significant traffic impact criteria and CEQA guidelines for traffic impacts, the proposed Project would not create any significant traffic impacts at the study intersections under existing with-Project and future with-Project conditions.
- The proposed Project is not anticipated to cause a significant traffic impact on any CMP arterial monitoring intersections and mainline freeway-monitoring locations.

Parking Impact Study

- The 135 parking spaces that would be permanently maintained for the Project at all times would be sufficient to meet the highest projected demand, according to the parking analysis.
- Under the analysis applying national parking demand rates defined by ITE, the Project parking demand would peak at 135 vehicles on weekdays and 131 vehicles on weekends.
- The proposed Project parking supply would provide 119 vehicle stalls at the Primary Project Site, and 16 spaces at the Auxiliary Employee Parking Site on the north side of 8th Street. These two site areas would therefore provide 135 off-street parking spaces available at all times.
- Additionally, and although not required to address Project parking demands, the Project applicant has leased the following additional parking that may be used to accommodate extra employee parking:
 - Five spaces have been leased by the Project applicant within an off-site office building parking lot on the south side of 6th Street across from the Primary Project Site, and would be available to employees on weekends.
 - 20 spaces have been leased by the Project applicant located on the west side of Sepulveda Boulevard at 10th Street, two blocks to the north of the site and would be available to employees.
- In order to manage the Primary Project Site parking supply adequately for customers, so that demand does not negatively affect parking at adjacent properties or on-street parking areas, a Parking Management Plan has been included as part of the proposed Project. The elements of the Plan provide management actions in the areas of employee parking location designations and designated actions by site management to control employee and main lot parking use.

APPENDIX A
Traffic Count Data

CITY TRAFFIC COUNTERS

626.991.7522

www.ctcounters.com

File Name : SepManhattan

Site Code : 00000000

Start Date : 3/12/2014

Page No : 1

Groups Printed- Unshifted

Start Time	Sepulveda Blvd Southbound			Manhattan Beach Blvd Westbound			Sepulveda Blvd Northbound			Manhattan Beach Blvd Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	12	146	25	20	50	27	23	625	11	31	53	17	1040
07:15 AM	11	157	30	23	115	38	21	642	18	29	64	26	1174
07:30 AM	13	169	28	29	72	38	22	772	20	28	64	21	1276
07:45 AM	25	186	27	27	136	46	24	720	24	43	109	28	1395
Total	61	658	110	99	373	149	90	2759	73	131	290	92	4885
08:00 AM	22	226	48	29	88	32	32	746	27	41	94	34	1419
08:15 AM	35	183	43	28	132	48	26	636	19	62	148	31	1391
08:30 AM	28	257	32	30	110	40	37	697	31	40	117	29	1448
08:45 AM	37	261	37	38	168	38	31	606	38	45	163	24	1486
Total	122	927	160	125	498	158	126	2685	115	188	522	118	5744
04:00 PM	38	444	39	45	136	42	54	302	47	55	169	42	1413
04:15 PM	46	557	40	58	127	40	43	334	38	68	117	48	1516
04:30 PM	48	473	34	40	144	39	57	291	37	53	164	42	1422
04:45 PM	26	533	40	56	154	38	43	288	31	75	127	54	1465
Total	158	2007	153	199	561	159	197	1215	153	251	577	186	5816
05:00 PM	52	514	34	65	164	26	50	291	51	41	152	50	1490
05:15 PM	30	574	16	53	107	31	44	326	62	51	138	30	1462
05:30 PM	47	499	28	56	153	32	48	311	42	53	163	44	1476
05:45 PM	37	591	32	67	139	35	32	289	30	63	135	24	1474
Total	166	2178	110	241	563	124	174	1217	185	208	588	148	5902
Grand Total	507	5770	533	664	1995	590	587	7876	526	778	1977	544	22347
Apprch %	7.4	84.7	7.8	20.4	61.4	18.2	6.5	87.6	5.9	23.6	59.9	16.5	
Total %	2.3	25.8	2.4	3	8.9	2.6	2.6	35.2	2.4	3.5	8.8	2.4	

CITY TRAFFIC COUNTERS

626.991.7522

www.ctcounters.com

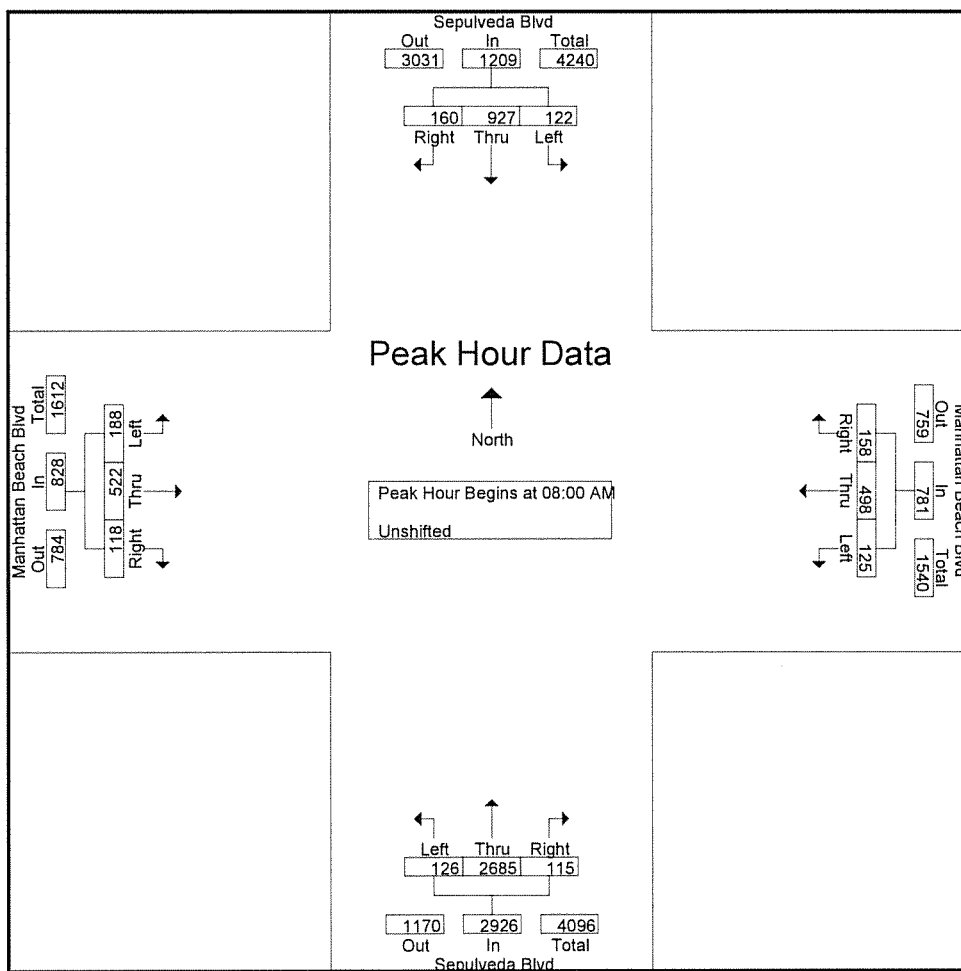
File Name : SepManhattan

Site Code : 00000000

Start Date : 3/12/2014

Page No : 2

Start Time	Sepulveda Blvd Southbound				Manhattan Beach Blvd Westbound				Sepulveda Blvd Northbound				Manhattan Beach Blvd Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	22	226	48	296	29	88	32	149	32	746	27	805	41	94	34	169	1419
08:15 AM	35	183	43	261	28	132	48	208	26	636	19	681	62	148	31	241	1391
08:30 AM	28	257	32	317	30	110	40	180	37	697	31	765	40	117	29	186	1448
08:45 AM	37	261	37	335	38	168	38	244	31	606	38	675	45	163	24	232	1486
Total Volume	122	927	160	1209	125	498	158	781	126	2685	115	2926	188	522	118	828	5744
% App. Total	10.1	76.7	13.2		16	63.8	20.2		4.3	91.8	3.9		22.7	63	14.3		
PHF	.824	.888	.833	.902	.822	.741	.823	.800	.851	.900	.757	.909	.758	.801	.868	.859	.966



CITY TRAFFIC COUNTERS

626.991.7522

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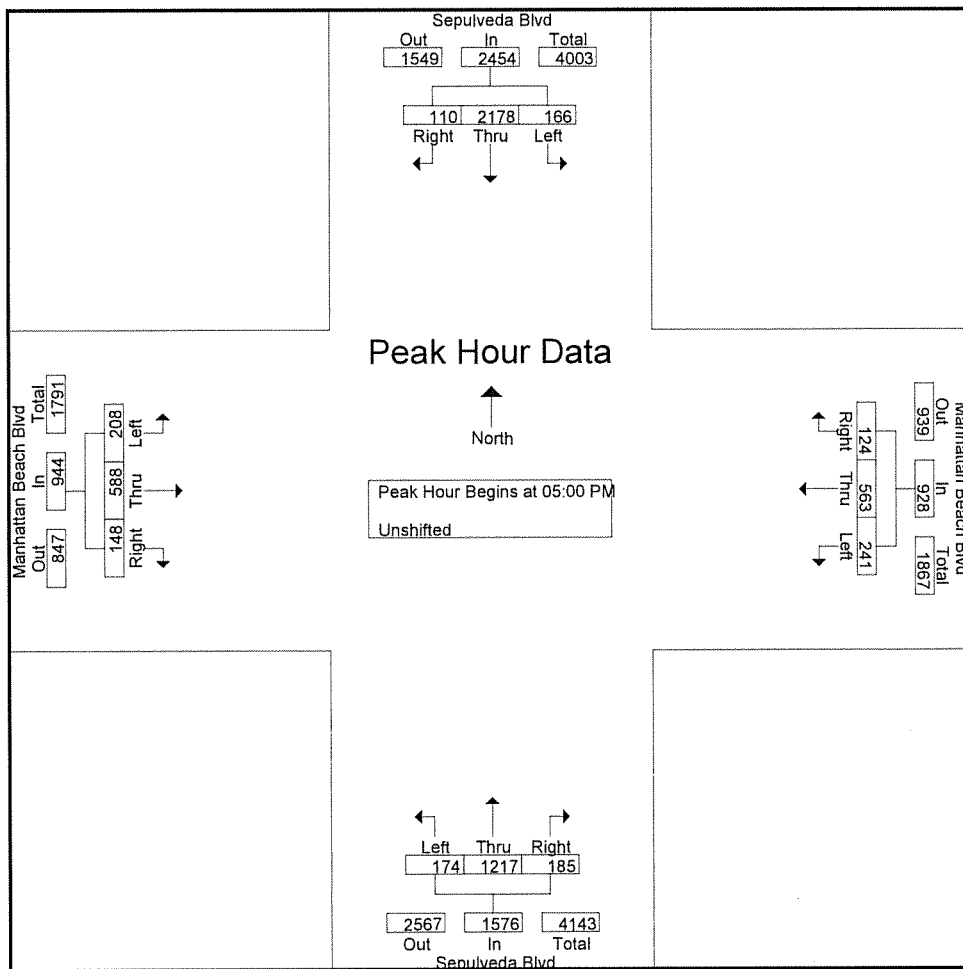
File Name : SepManhattan

Site Code : 00000000

Start Date : 3/12/2014

Page No : 3

Start Time	Sepulveda Blvd Southbound				Manhattan Beach Blvd Westbound				Sepulveda Blvd Northbound				Manhattan Beach Blvd Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	52	514	34	600	65	164	26	255	50	291	51	392	41	152	50	243	1490
05:15 PM	30	574	16	620	53	107	31	191	44	326	62	432	51	138	30	219	1462
05:30 PM	47	499	28	574	56	153	32	241	48	311	42	401	53	163	44	260	1476
05:45 PM	37	591	32	660	67	139	35	241	32	289	30	351	63	135	24	222	1474
Total Volume	166	2178	110	2454	241	563	124	928	174	1217	185	1576	208	588	148	944	5902
% App. Total	6.8	88.8	4.5		26	60.7	13.4		11	77.2	11.7		22	62.3	15.7		
PHF	.798	.921	.809	.930	.899	.858	.886	.910	.870	.933	.746	.912	.825	.902	.740	.908	.990



CITY TRAFFIC COUNTERS

626.991.7522

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File Name : Sepulveda8th

Site Code : 00000000

Start Date : 3/12/2014

Page No : 1

Groups Printed- Unshifted

Start Time	Sepulveda Blvd Southbound			8th St Westbound			Sepulveda Blvd Northbound			8th St Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	1	155	3	1	6	19	0	673	0	2	2	0	862
07:15 AM	0	177	5	6	1	7	2	745	0	5	1	2	951
07:30 AM	3	199	4	12	0	10	2	820	0	8	0	1	1059
07:45 AM	1	234	6	8	11	17	2	770	1	9	4	3	1066
Total	5	765	18	27	18	53	6	3008	1	24	7	6	3938
08:00 AM	3	220	7	7	16	8	7	769	2	3	3	2	1047
08:15 AM	3	218	9	4	15	14	1	659	3	7	2	4	939
08:30 AM	3	319	6	8	9	14	1	712	3	6	19	4	1104
08:45 AM	5	354	10	4	23	22	6	667	2	19	13	3	1128
Total	14	1111	32	23	63	58	15	2807	10	35	37	13	4218
04:00 PM	14	523	7	6	5	2	3	402	6	5	6	3	982
04:15 PM	16	534	4	4	6	0	3	397	8	10	5	7	994
04:30 PM	15	574	5	7	5	0	7	337	4	10	12	6	982
04:45 PM	7	587	2	4	6	4	3	366	2	10	11	9	1011
Total	52	2218	18	21	22	6	16	1502	20	35	34	25	3969
05:00 PM	13	660	1	3	4	0	1	409	3	12	7	2	1115
05:15 PM	12	548	5	9	10	2	2	397	3	14	13	6	1021
05:30 PM	11	648	1	3	4	1	0	335	4	15	6	3	1031
05:45 PM	21	573	2	7	3	2	0	360	6	5	14	6	999
Total	57	2429	9	22	21	5	3	1501	16	46	40	17	4166
Grand Total	128	6523	77	93	124	122	40	8818	47	140	118	61	16291
Apprch %	1.9	97	1.1	27.4	36.6	36	0.4	99	0.5	43.9	37	19.1	
Total %	0.8	40	0.5	0.6	0.8	0.7	0.2	54.1	0.3	0.9	0.7	0.4	

CITY TRAFFIC COUNTERS

626.991.7522

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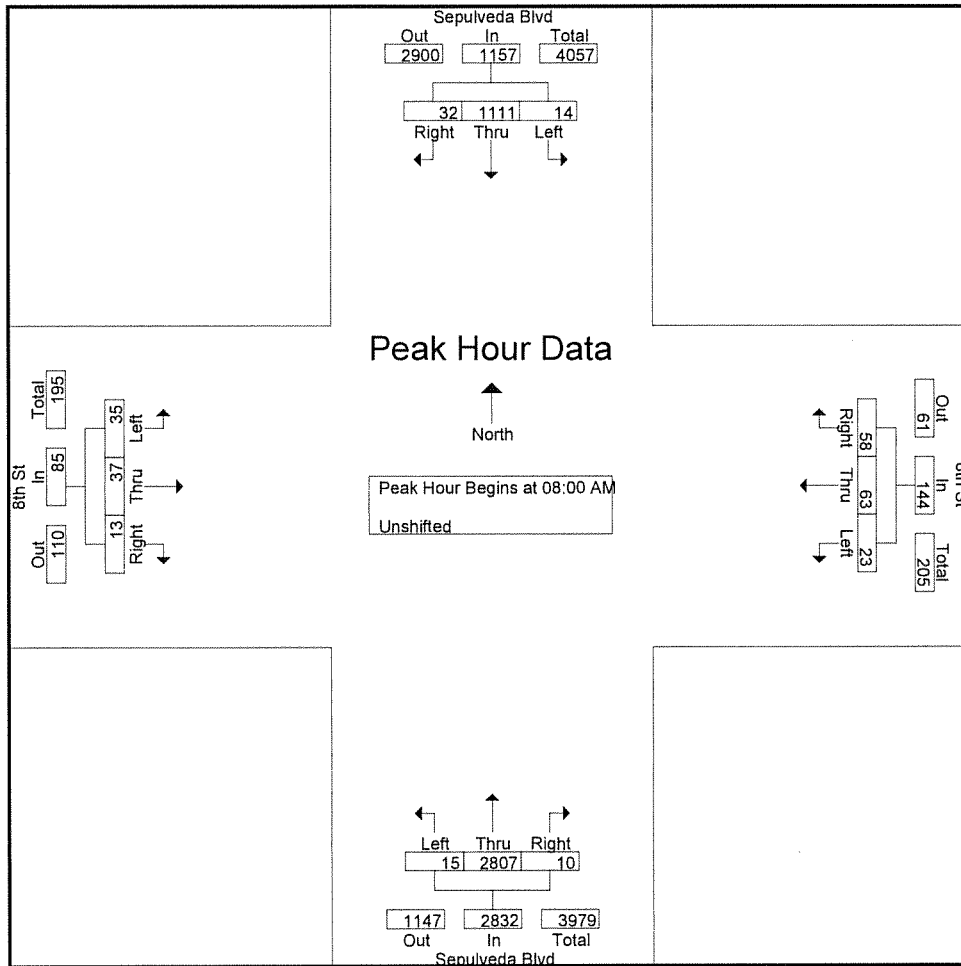
File Name : Sepulveda8th

Site Code : 00000000

Start Date : 3/12/2014

Page No : 2

Start Time	Sepulveda Blvd Southbound				8th St Westbound				Sepulveda Blvd Northbound				8th St Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	3	220	7	230	7	16	8	31	7	769	2	778	3	3	2	8	1047
08:15 AM	3	218	9	230	4	15	14	33	1	659	3	663	7	2	4	13	939
08:30 AM	3	319	6	328	8	9	14	31	1	712	3	716	6	19	4	29	1104
08:45 AM	5	354	10	369	4	23	22	49	6	667	2	675	19	13	3	35	1128
Total Volume	14	1111	32	1157	23	63	58	144	15	2807	10	2832	35	37	13	85	4218
% App. Total	1.2	96	2.8		16	43.8	40.3		0.5	99.1	0.4		41.2	43.5	15.3		
PHF	.700	.785	.800	.784	.719	.685	.659	.735	.536	.913	.833	.910	.461	.487	.813	.607	.935



CITY TRAFFIC COUNTERS

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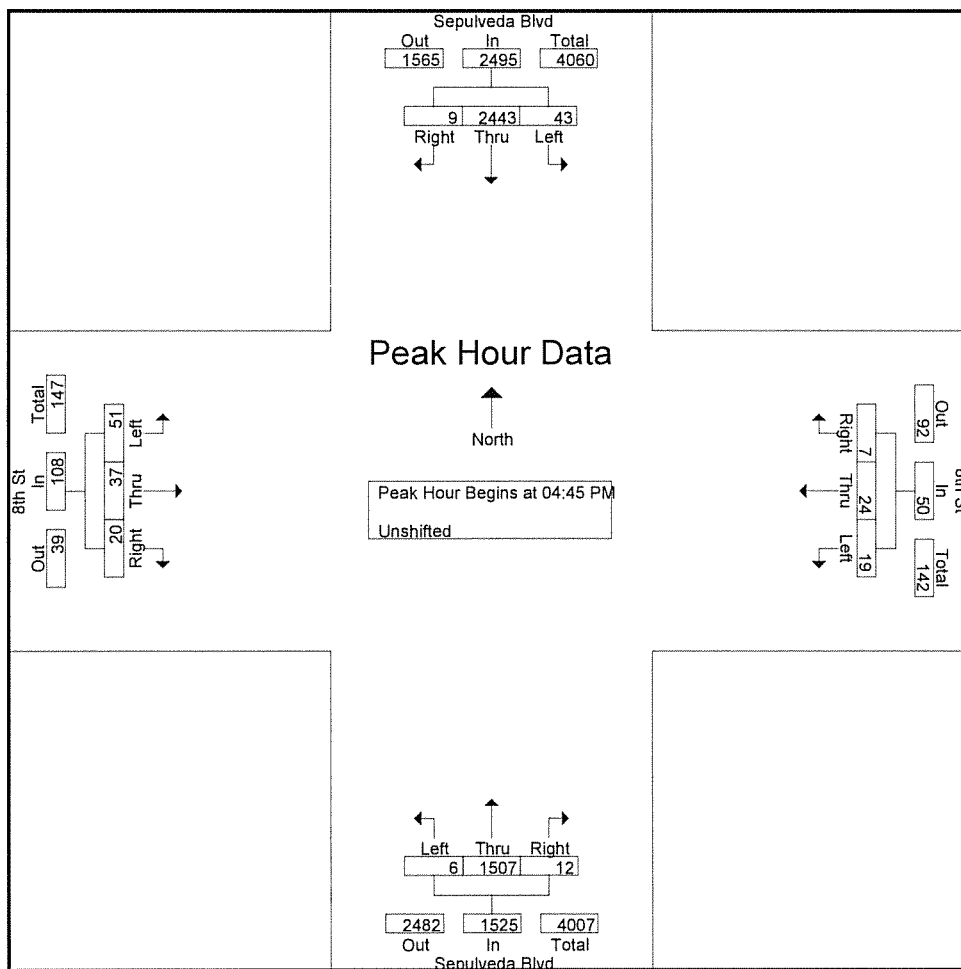
File Name : Sepulveda8th

Site Code : 00000000

Start Date : 3/12/2014

Page No : 3

Start Time	Sepulveda Blvd Southbound				8th St Westbound				Sepulveda Blvd Northbound				8th St Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	7	587	2	596	4	6	4	14	3	366	2	371	10	11	9	30	1011
05:00 PM	13	660	1	674	3	4	0	7	1	409	3	413	12	7	2	21	1115
05:15 PM	12	548	5	565	9	10	2	21	2	397	3	402	14	13	6	33	1021
05:30 PM	11	648	1	660	3	4	1	8	0	335	4	339	15	6	3	24	1031
Total Volume	43	2443	9	2495	19	24	7	50	6	1507	12	1525	51	37	20	108	4178
% App. Total	1.7	97.9	0.4		38	48	14		0.4	98.8	0.8		47.2	34.3	18.5		
PHF	.827	.925	.450	.925	.528	.600	.438	.595	.500	.921	.750	.923	.850	.712	.556	.818	.937



ITM Peak Hour Summary

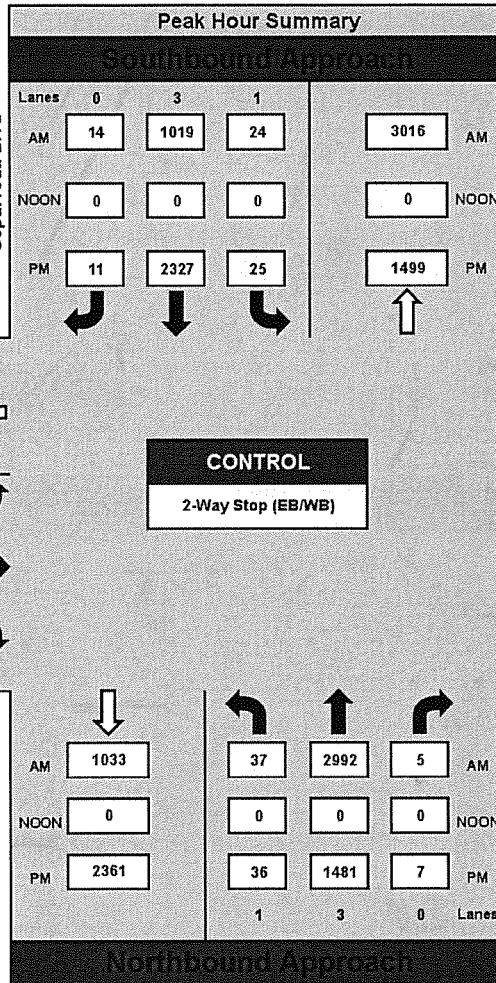


National Data & Surveying Services

Sepulveda Blvd and 6th St, Manhattan Beach

Date: 12/10/2014
Day: Wednesday

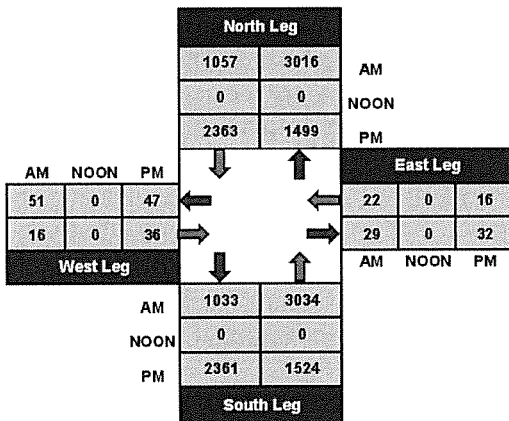
Project #: 14-5834-001
City: Manhattan Beach



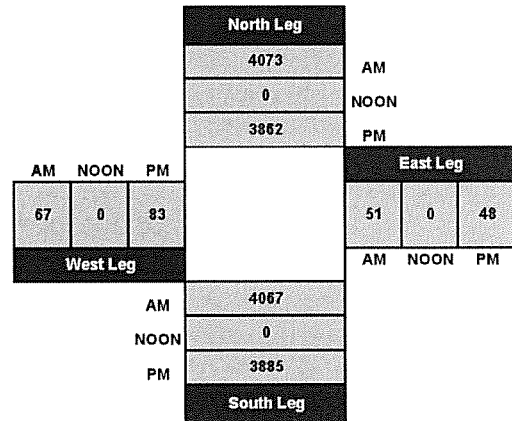
AM Peak Hour	730 AM
NOON Peak Hour	
PM Peak Hour	500 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5834-001

Day: Wednesday

City: Manhattan Beach

Date: 12/10/2014

NS/EW Streets:	AM												TOTAL
	Sepulveda Blvd			Sepulveda Blvd			6th St			6th St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	
7:00 AM	4	699	1	3	195	1	1	0	1	0	0	4	909
7:15 AM	8	708	1	6	207	1	2	0	3	0	0	3	939
7:30 AM	12	789	3	5	225	5	0	0	7	0	0	2	1048
7:45 AM	6	734	0	5	244	3	2	0	2	0	0	5	1001
8:00 AM	9	768	0	7	274	4	0	0	1	0	0	8	1071
8:15 AM	10	701	2	7	276	2	0	0	4	0	0	7	1009
8:30 AM	9	681	6	5	274	4	1	0	5	0	0	9	994
8:45 AM	12	577	7	4	266	4	0	0	7	0	0	4	881

UTURNS			
NB	SB	EB	WB
0	0		
0	0		
1	0		
1	0		
2	0		
1	2		
1	1		
2	0		

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	70	5657	20	42	1961	24	6	0	30	0	0	42	7852
APPROACH %'s :	1.22%	98.43%	0.35%	2.07%	96.74%	1.18%	16.67%	0.00%	83.33%	0.00%	0.00%	100.00%	

NB	SB	EB	WB
8	3	0	0

PEAK HR START TIME :	730 AM												TOTAL
PEAK HR VOL :	37	2992	5	24	1019	14	2	0	14	0	0	22	4129
PEAK HR FACTOR :	0.943			0.927			0.571			0.688			0.964

CONTROL : 2-Way Stop (EB/WB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5834-001

Day: Wednesday

City: Manhattan Beach

Date: 12/10/2014

NS/EW Streets:	PM												TOTAL
	Sepulveda Blvd			Sepulveda Blvd			6th St			6th St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL 1	NT 3	NR 0	SL 1	ST 3	SR 0	EL 0	ET 1	ER 0	WL 0	WT 1	WR 0	
4:00 PM	8	356	4	5	597	2	0	0	16	0	1	6	995
4:15 PM	16	392	0	4	532	2	1	1	12	0	0	3	963
4:30 PM	10	343	3	8	623	3	0	0	11	0	0	7	1008
4:45 PM	17	346	5	3	507	3	0	0	10	1	0	4	896
5:00 PM	8	382	2	4	592	1	0	0	9	0	0	3	1001
5:15 PM	11	349	0	6	542	3	1	0	5	0	0	2	919
5:30 PM	5	362	3	9	620	2	0	0	9	0	0	7	1017
5:45 PM	12	388	2	6	573	5	1	0	11	0	0	4	1002

UTURNS			
NB	SB	EB	WB
1	0		
1	1		
2	1		
9	0		
1	0		
2	0		
3	2		
1	1		

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	87	2918	19	45	4586	21	3	1	83	1	1	36	7801
APPROACH %'s :	2.88%	96.49%	0.63%	0.97%	98.58%	0.45%	3.45%	1.15%	95.40%	2.63%	2.63%	94.74%	

NB	SB	EB	WB
20	5	0	0

PEAK HR START TIME :	500 PM												TOTAL
PEAK HR VOL :	36	1481	7	25	2327	11	2	0	34	0	0	16	3939
PEAK HR FACTOR :	0.948			0.936			0.750			0.571			0.968

CONTROL : 2-Way Stop (EB/WB)

CITY TRAFFIC COUNTERS

626.991.7522

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File Name : Sepulveda2nd

Site Code : 00000000

Start Date : 3/12/2014

Page No : 1

Groups Printed- Unshifted

Start Time	Sepulveda Blvd Southbound			2nd St Westbound			Sepulveda Blvd Northbound			2nd St Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	16	134	6	4	6	6	2	590	2	7	2	0	775
07:15 AM	4	172	3	0	5	6	3	727	2	9	1	2	934
07:30 AM	5	169	9	4	9	10	0	781	3	15	5	3	1013
07:45 AM	5	177	12	3	16	11	5	745	3	13	15	4	1009
Total	30	652	30	11	36	33	10	2843	10	44	23	9	3731
08:00 AM	12	221	9	1	20	15	2	745	1	15	20	2	1063
08:15 AM	7	190	9	8	16	23	2	656	4	10	18	12	955
08:30 AM	7	260	4	6	13	14	3	649	5	24	39	2	1026
08:45 AM	15	260	0	11	30	21	4	613	10	11	49	8	1032
Total	41	931	22	26	79	73	11	2663	20	60	126	24	4076
04:00 PM	8	519	15	5	13	14	7	324	3	32	16	4	960
04:15 PM	6	541	6	4	12	10	6	351	7	14	17	9	983
04:30 PM	8	545	13	2	16	8	7	314	4	28	11	12	968
04:45 PM	4	545	8	7	10	8	9	326	8	21	16	15	977
Total	26	2150	42	18	51	40	29	1315	22	95	60	40	3888
05:00 PM	16	590	8	10	18	11	7	355	4	48	23	13	1103
05:15 PM	12	551	7	12	16	7	13	368	4	29	28	8	1055
05:30 PM	7	563	7	7	22	12	8	321	0	17	26	17	1007
05:45 PM	5	627	8	13	20	16	8	343	3	21	29	6	1099
Total	40	2331	30	42	76	46	36	1387	11	115	106	44	4264
Grand Total	137	6064	124	97	242	192	86	8208	63	314	315	117	15959
Apprch %	2.2	95.9	2	18.3	45.6	36.2	1	98.2	0.8	42.1	42.2	15.7	
Total %	0.9	38	0.8	0.6	1.5	1.2	0.5	51.4	0.4	2	2	0.7	

CITY TRAFFIC COUNTERS

626.991.7522

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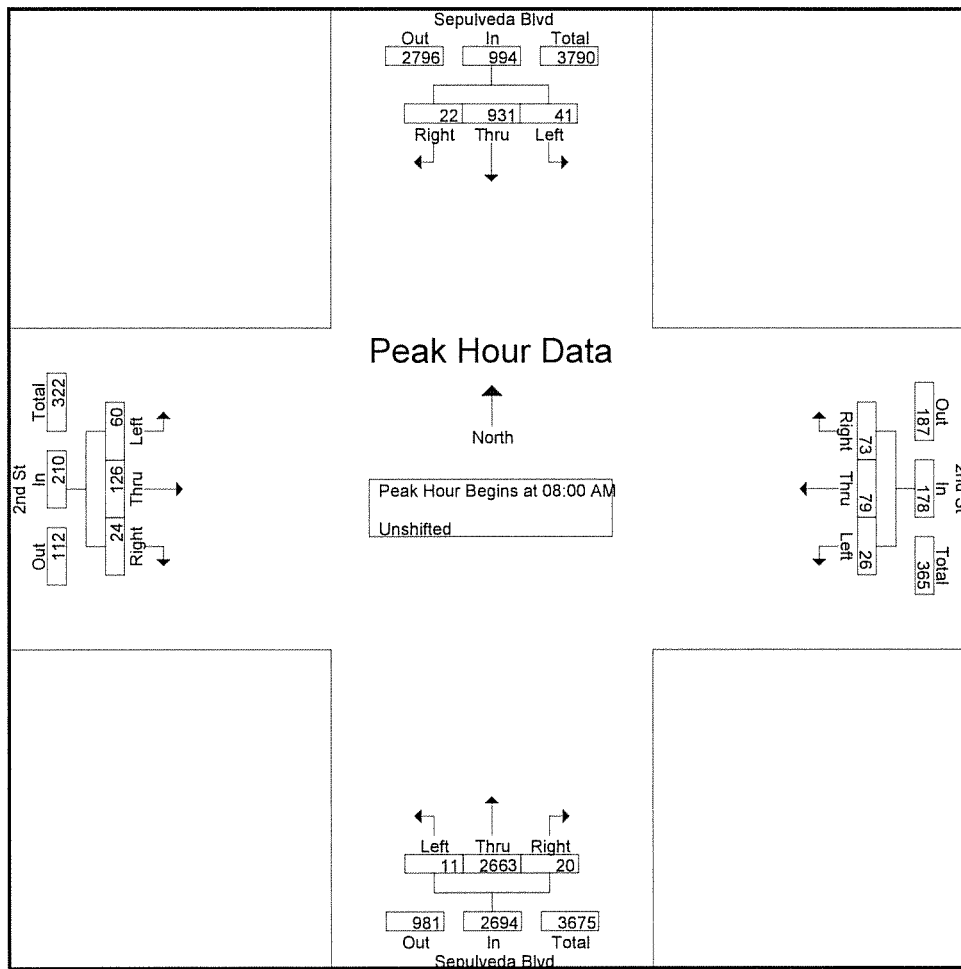
File Name : Sepulveda2nd

Site Code : 00000000

Start Date : 3/12/2014

Page No : 2

Start Time	Sepulveda Blvd Southbound				2nd St Westbound				Sepulveda Blvd Northbound				2nd St Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	12	221	9	242	1	20	15	36	2	745	1	748	15	20	2	37	1063
08:15 AM	7	190	9	206	8	16	23	47	2	656	4	662	10	18	12	40	955
08:30 AM	7	260	4	271	6	13	14	33	3	649	5	657	24	39	2	65	1026
08:45 AM	15	260	0	275	11	30	21	62	4	613	10	627	11	49	8	68	1032
Total Volume	41	931	22	994	26	79	73	178	11	2663	20	2694	60	126	24	210	4076
% App. Total	4.1	93.7	2.2		14.6	44.4	4.1		0.4	98.8	0.7		28.6	60	11.4		
PHF	.683	.895	.611	.904	.591	.658	.793	.718	.688	.894	.500	.900	.625	.643	.500	.772	.959



CITY TRAFFIC COUNTERS

626.991.7522

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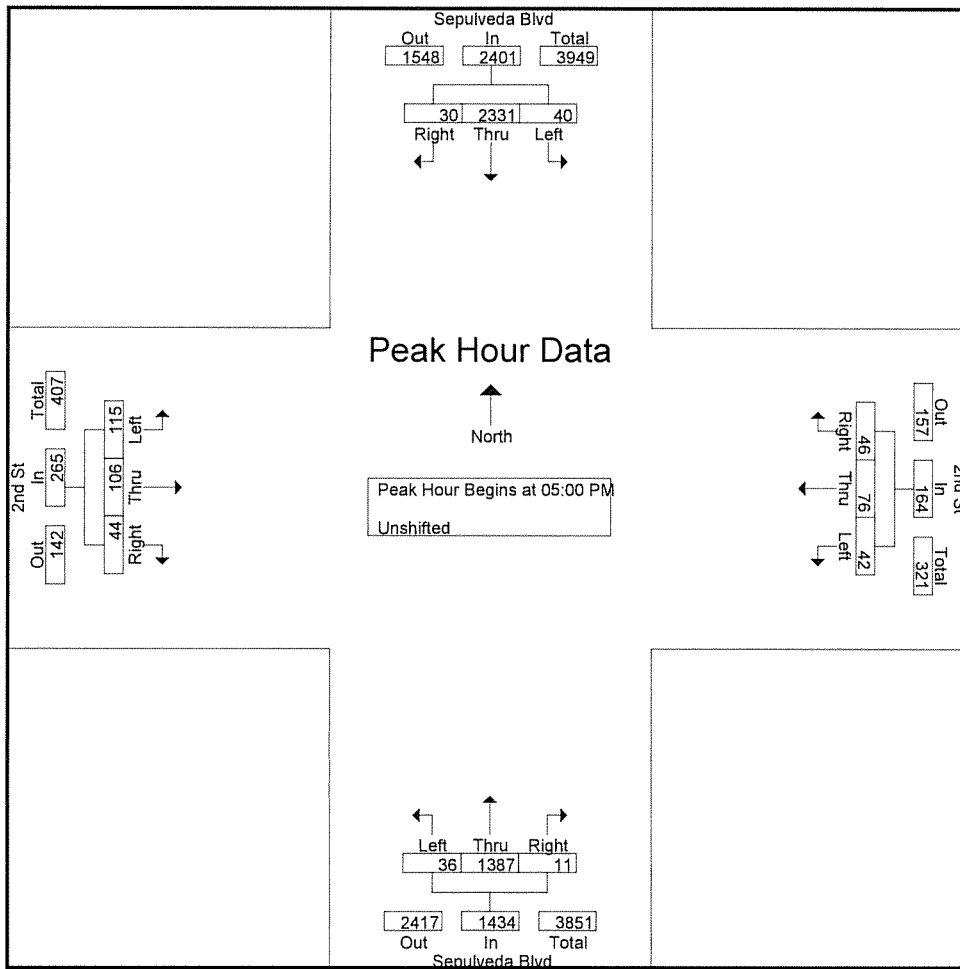
File Name : Sepulveda2nd

Site Code : 00000000

Start Date : 3/12/2014

Page No : 3

Start Time	Sepulveda Blvd Southbound				2nd St Westbound				Sepulveda Blvd Northbound				2nd St Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	16	590	8	614	10	18	11	39	7	355	4	366	48	23	13	84	1103
05:15 PM	12	551	7	570	12	16	7	35	13	368	4	385	29	28	8	65	1055
05:30 PM	7	563	7	577	7	22	12	41	8	321	0	329	17	26	17	60	1007
05:45 PM	5	627	8	640	13	20	16	49	8	343	3	354	21	29	6	56	1099
Total Volume	40	2331	30	2401	42	76	46	164	36	1387	11	1434	115	106	44	265	4264
% App. Total	1.7	97.1	1.2		25.6	46.3	28		2.5	96.7	0.8		43.4	40	16.6		
PHF	.625	.929	.938	.938	.808	.864	.719	.837	.692	.942	.688	.931	.599	.914	.647	.789	.966



CITY TRAFFIC COUNTERS

626.991.7522

www.ctcounters.com

File Name : artesiapchgould

Site Code : 00000000

Start Date : 3/13/2014

Page No : 1

Groups Printed- Unshifted

Start Time	Pacific Coast Hwy Southbound			Artesia Blvd Westbound			Pacific Coast Hwy Northbound			Gould Ave Eastbound			Int. Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:00 AM	32	113	7	41	102	83	1	573	37	36	60	4	1089
07:15 AM	13	170	11	23	102	99	5	580	33	35	73	10	1154
07:30 AM	46	155	5	30	148	106	2	639	37	42	99	9	1318
07:45 AM	60	154	5	50	217	125	4	620	42	51	125	13	1466
Total	151	592	28	144	569	413	12	2412	149	164	357	36	5027
08:00 AM	71	162	14	70	176	119	5	642	31	45	108	24	1467
08:15 AM	59	172	7	69	146	90	8	612	34	23	124	32	1376
08:30 AM	70	201	11	70	143	55	4	605	48	28	123	14	1372
08:45 AM	64	220	9	72	169	49	11	594	45	18	117	20	1388
Total	264	755	41	281	634	313	28	2453	158	114	472	90	5603
04:00 PM	91	426	19	77	82	70	21	273	66	17	103	14	1259
04:15 PM	95	459	13	80	102	106	8	255	61	19	103	18	1319
04:30 PM	81	461	12	88	98	112	11	249	60	22	114	20	1328
04:45 PM	77	529	16	95	80	108	15	272	55	18	120	17	1402
Total	344	1875	60	340	362	396	55	1049	242	76	440	69	5308
05:00 PM	74	471	14	86	114	83	15	253	56	21	161	22	1370
05:15 PM	73	518	25	88	101	69	10	273	63	21	109	12	1362
05:30 PM	57	505	15	74	127	65	13	256	55	15	131	19	1332
05:45 PM	55	533	11	74	102	37	11	250	65	20	102	20	1280
Total	259	2027	65	322	444	254	49	1032	239	77	503	73	5344
Grand Total	1018	5249	194	1087	2009	1376	144	6946	788	431	1772	268	21282
Apprch %	15.8	81.2	3	24.3	44.9	30.8	1.8	88.2	10	17.4	71.7	10.8	
Total %	4.8	24.7	0.9	5.1	9.4	6.5	0.7	32.6	3.7	2	8.3	1.3	

CITY TRAFFIC COUNTERS

626.991.7522

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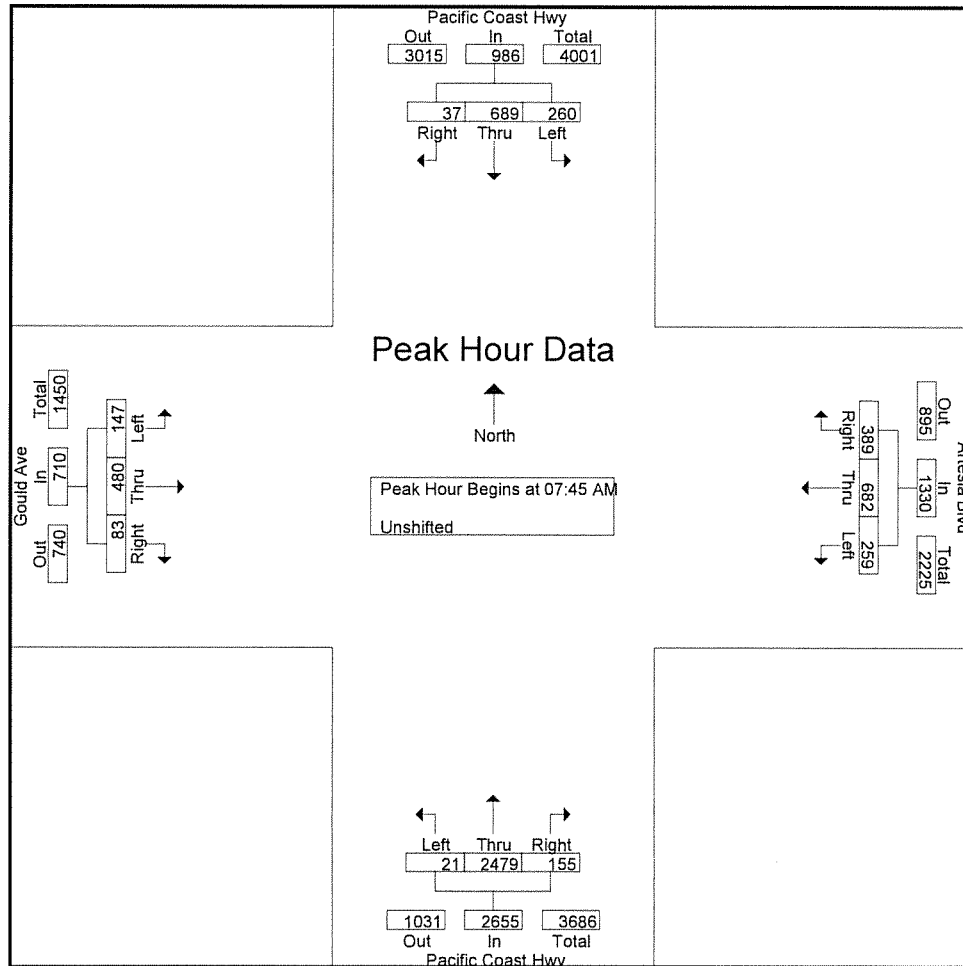
File Name : artesiapchgould

Site Code : 00000000

Start Date : 3/13/2014

Page No : 2

Start Time	Pacific Coast Hwy Southbound				Artesia Blvd Westbound				Pacific Coast Hwy Northbound				Gould Ave Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	60	154	5	219	50	217	125	392	4	620	42	666	51	125	13	189	1466
08:00 AM	71	162	14	247	70	176	119	365	5	642	31	678	45	108	24	177	1467
08:15 AM	59	172	7	238	69	146	90	305	8	612	34	654	23	124	32	179	1376
08:30 AM	70	201	11	282	70	143	55	268	4	605	48	657	28	123	14	165	1372
Total Volume	260	689	37	986	259	682	389	1330	21	2479	155	2655	147	480	83	710	5681
% App. Total	26.4	69.9	3.8		19.5	51.3	29.2		0.8	93.4	5.8		20.7	67.6	11.7		
PHF	.915	.857	.661	.874	.925	.786	.778	.848	.656	.965	.807	.979	.721	.960	.648	.939	.968



CITY TRAFFIC COUNTERS

626.991.7522

www.ctcounters.com

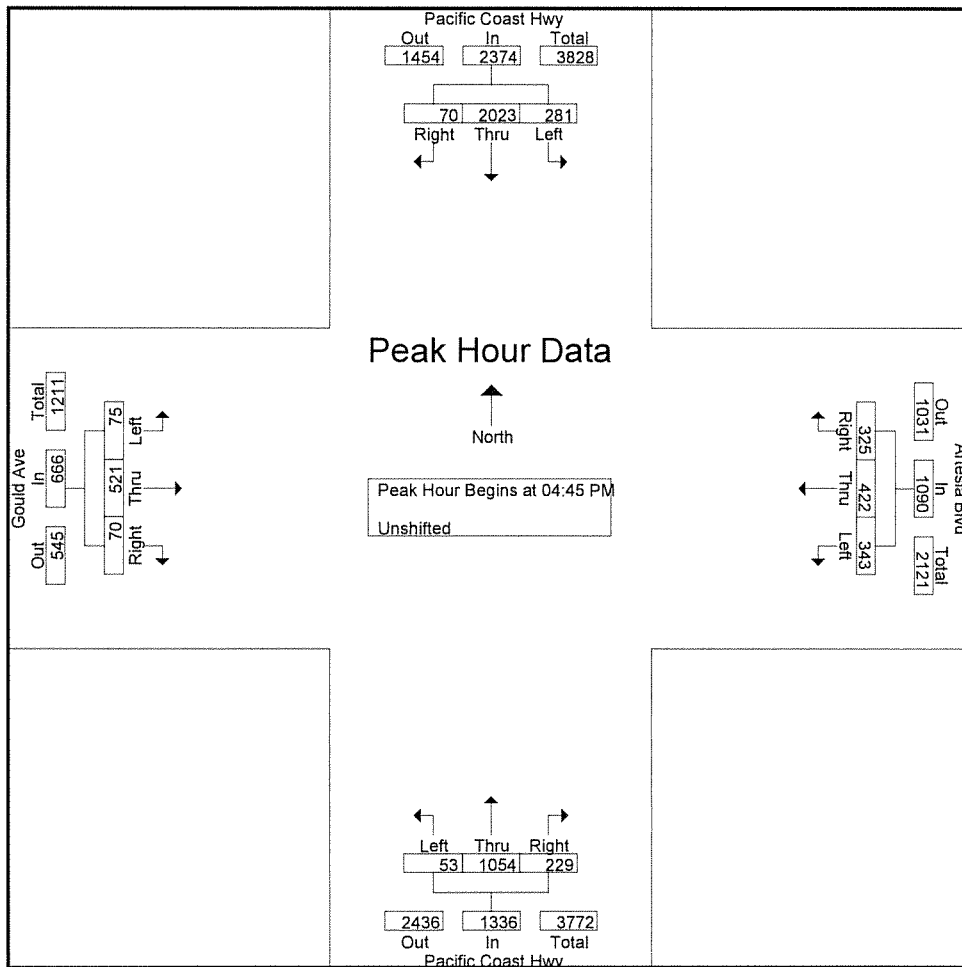
File Name : artesiapch Gould

Site Code : 00000000

Start Date : 3/13/2014

Page No : 3

Start Time	Pacific Coast Hwy Southbound				Artesia Blvd Westbound				Pacific Coast Hwy Northbound				Gould Ave Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	77	529	16	622	95	80	108	283	15	272	55	342	18	120	17	155	1402
05:00 PM	74	471	14	559	86	114	83	283	15	253	56	324	21	161	22	204	1370
05:15 PM	73	518	25	616	88	101	69	258	10	273	63	346	21	109	12	142	1362
05:30 PM	57	505	15	577	74	127	65	266	13	256	55	324	15	131	19	165	1332
Total Volume	281	2023	70	2374	343	422	325	1090	53	1054	229	1336	75	521	70	666	5466
% App. Total	11.8	85.2	2.9		31.5	38.7	29.8		4	78.9	17.1		11.3	78.2	10.5		
PHF	.912	.956	.700	.954	.903	.831	.752	.963	.883	.965	.909	.965	.893	.809	.795	.816	.975



ITM Peak Hour Summary

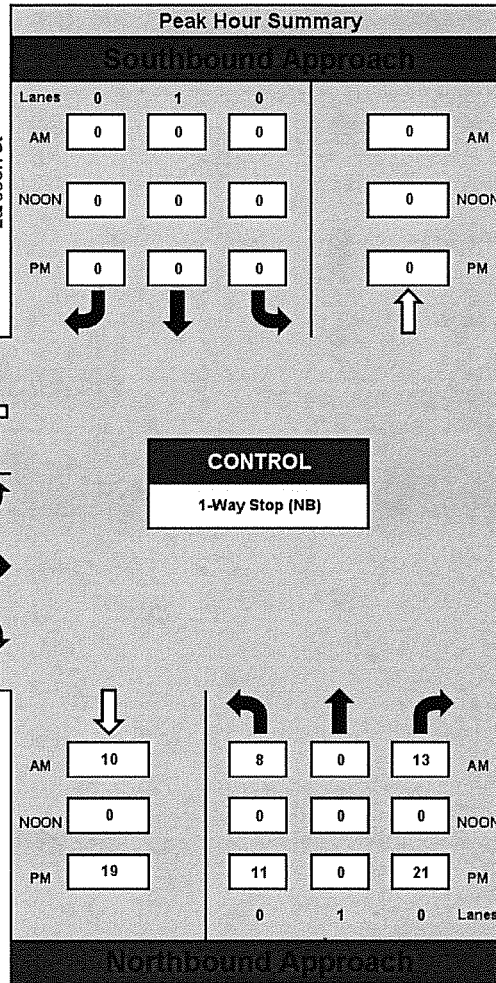


Prepared by:
National Data & Surveying Services

Larsson St and 8th St, Manhattan Beach

Date: 12/10/2014
Day: Wednesday

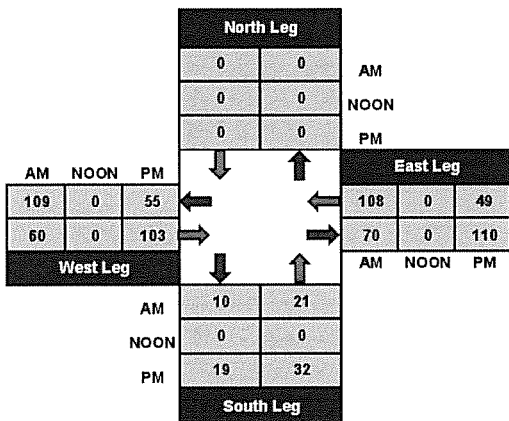
Project #: 14-5834-002
City: Manhattan Beach



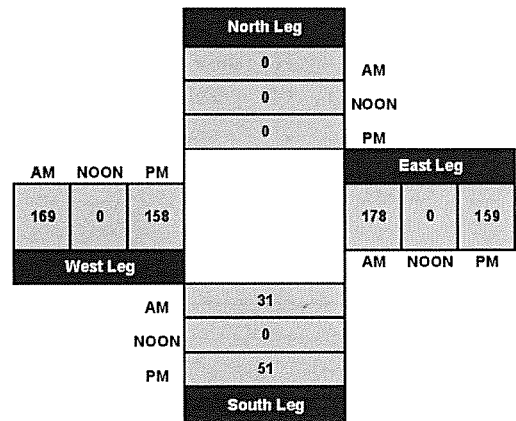
AM Peak Hour	800 AM
NOON Peak Hour	
PM Peak Hour	415 PM

Count Periods	Start	End
AM	7:00 AM	9:00 AM
NOON		
PM	4:00 PM	6:00 PM

Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5834-002

Day: Wednesday

City: Manhattan Beach

Date: 12/10/2014

PM

NS/EW Streets:	Larsson St			Larsson St			8th St			8th St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	
4:00 PM	2	0	5	0	0	0	0	19	6	0	8	0	40
4:15 PM	4	0	4	0	0	0	0	21	5	2	14	0	50
4:30 PM	2	0	3	0	0	0	0	31	4	1	7	0	48
4:45 PM	5	0	5	0	0	0	0	14	3	1	13	0	41
5:00 PM	0	0	9	0	0	0	0	23	2	1	10	0	45
5:15 PM	3	0	5	0	0	0	0	18	1	2	9	0	38
5:30 PM	2	0	2	0	0	0	0	18	1	1	11	0	35
5:45 PM	0	0	1	0	0	0	1	20	2	0	8	0	32
TOTAL VOLUMES :	18	0	34	0	0	0	1	164	24	8	80	0	329
APPROACH %'s :	34.62%	0.00%	65.38%	#DIV/0!	#DIV/0!	#DIV/0!	0.53%	86.77%	12.70%	9.09%	90.91%	0.00%	
PEAK HR START TIME :	415 PM												TOTAL
PEAK HR VOL :	11	0	21	0	0	0	0	89	14	5	44	0	184
PEAK HR FACTOR :	0.800			0.000			0.736			0.766			0.920

CONTROL : 1-Way Stop (NB)

ITM Peak Hour Summary

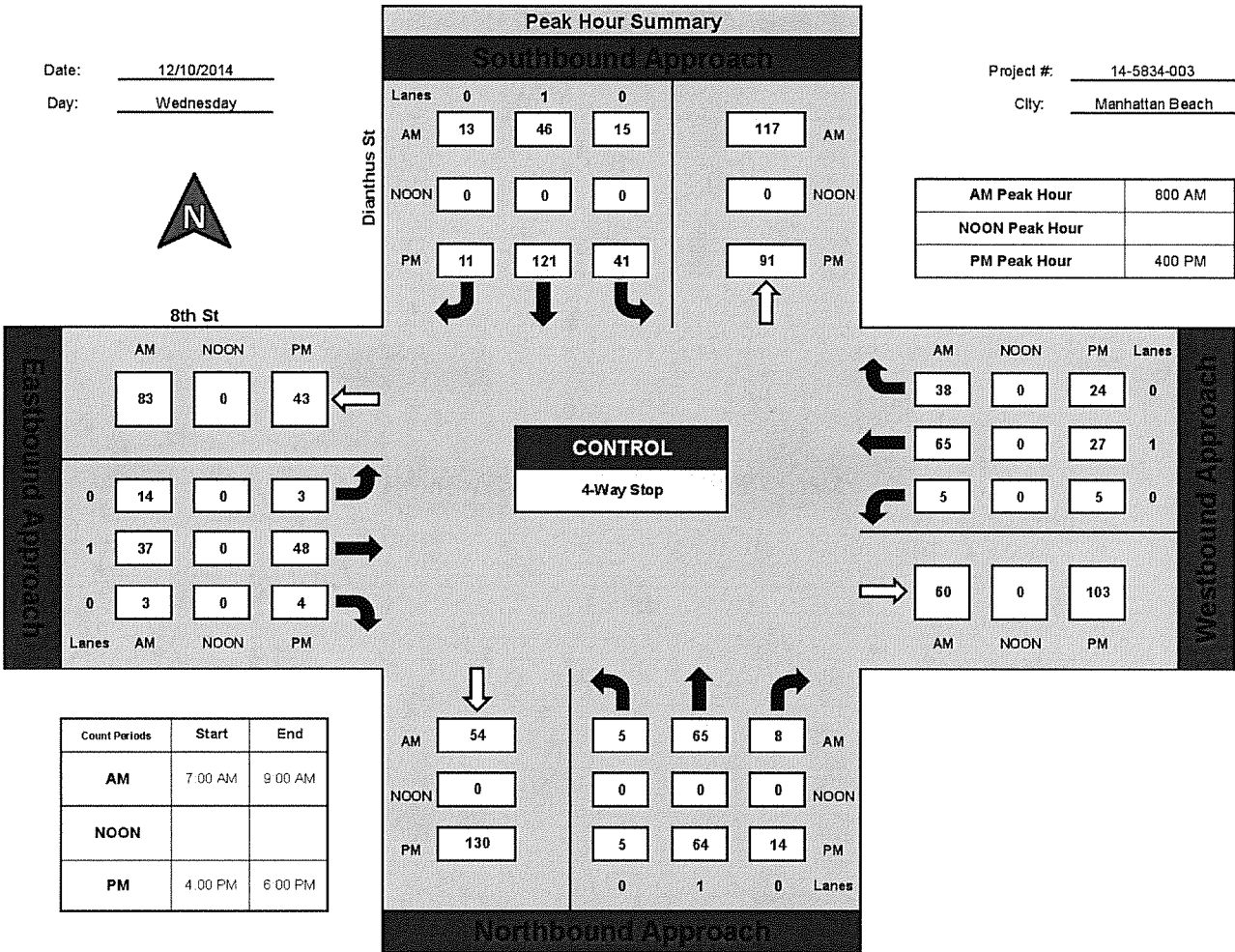
Prepared by:
NDS

National Data & Surveying Services

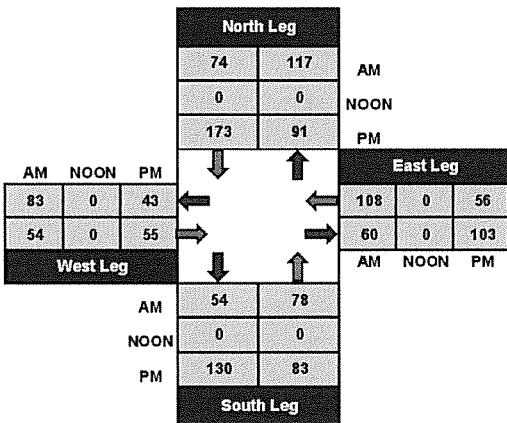
Dianthus St and 8th St, Manhattan Beach

Date: 12/10/2014
Day: Wednesday

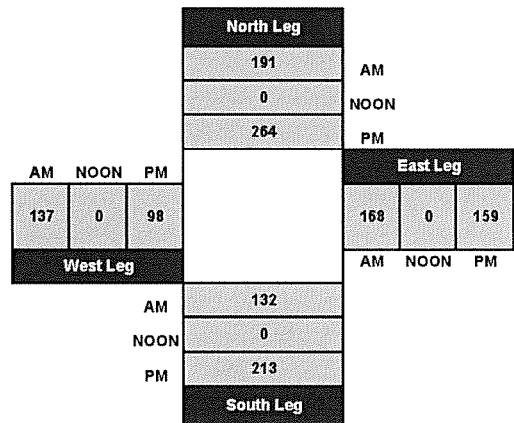
Project #: 14-5834-003
City: Manhattan Beach



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5834-003

Day: Wednesday

City: Manhattan Beach

Date: 12/10/2014

		AM												
NS/EW Streets:	Dianthus St			Dianthus St			8th St			8th St				
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND				
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL	
	0	1	0	0	1	0	0	1	0	0	1	0		
7:00 AM	1	5	2	2	6	2	3	2	3	0	7	1	34	
7:15 AM	2	1	0	1	10	6	0	5	0	0	10	2	37	
7:30 AM	0	5	1	0	12	2	2	6	0	1	10	4	43	
7:45 AM	0	14	1	0	9	4	2	7	0	1	12	5	55	
8:00 AM	1	18	3	4	12	4	5	7	1	1	15	8	79	
8:15 AM	2	15	2	3	12	5	3	7	0	1	16	3	69	
8:30 AM	1	19	1	2	11	1	1	17	2	1	15	10	81	
8:45 AM	1	13	2	6	11	3	5	6	0	2	19	17	85	
TOTAL VOLUMES :	8	90	12	18	83	27	21	57	6	7	104	50	483	
APPROACH %'s :	7.27%	81.82%	10.91%	14.06%	64.84%	21.09%	25.00%	67.86%	7.14%	4.35%	64.60%	31.06%		
PEAK HR START TIME :	800 AM												TOTAL	
PEAK HR VOL :	5	65	8	15	46	13	14	37	3	5	65	38	314	
PEAK HR FACTOR :	0.886			0.925			0.675			0.711			0.924	

CONTROL : 4-Way Stop

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5834-003

Day: Wednesday

City: Manhattan Beach

Date: 12/10/2014

PM

NS/EW Streets:	Dianthus St			Dianthus St			8th St			8th St			TOTAL
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
	0	1	0	0	1	0	0	1	0	0	1	0	
4:00 PM	1	22	7	7	43	2	1	10	1	1	6	4	105
4:15 PM	2	12	2	11	21	6	1	14	0	0	10	7	86
4:30 PM	1	17	4	18	38	1	0	12	2	2	2	6	103
4:45 PM	1	13	1	5	19	2	1	12	1	2	9	7	73
5:00 PM	3	14	4	7	33	0	3	15	1	0	4	6	90
5:15 PM	1	9	0	4	26	4	2	14	1	0	3	9	73
5:30 PM	1	10	0	8	17	1	4	10	0	2	9	3	65
5:45 PM	3	9	4	13	24	2	1	8	4	1	5	1	75
TOTAL VOLUMES :	13	106	22	73	221	18	13	95	10	8	48	43	670
APPROACH %'s :	9.22%	75.18%	15.60%	23.40%	70.83%	5.77%	11.02%	80.51%	8.47%	8.08%	48.48%	43.43%	
PEAK HR START TIME :	400 PM												TOTAL
PEAK HR VOL :	5	64	14	41	121	11	3	48	4	5	27	24	367
PEAK HR FACTOR :	0.692			0.759			0.917			0.778			0.874

CONTROL : 4-Way Stop

ITM Peak Hour Summary

Prepared by:



National Data & Surveying Services

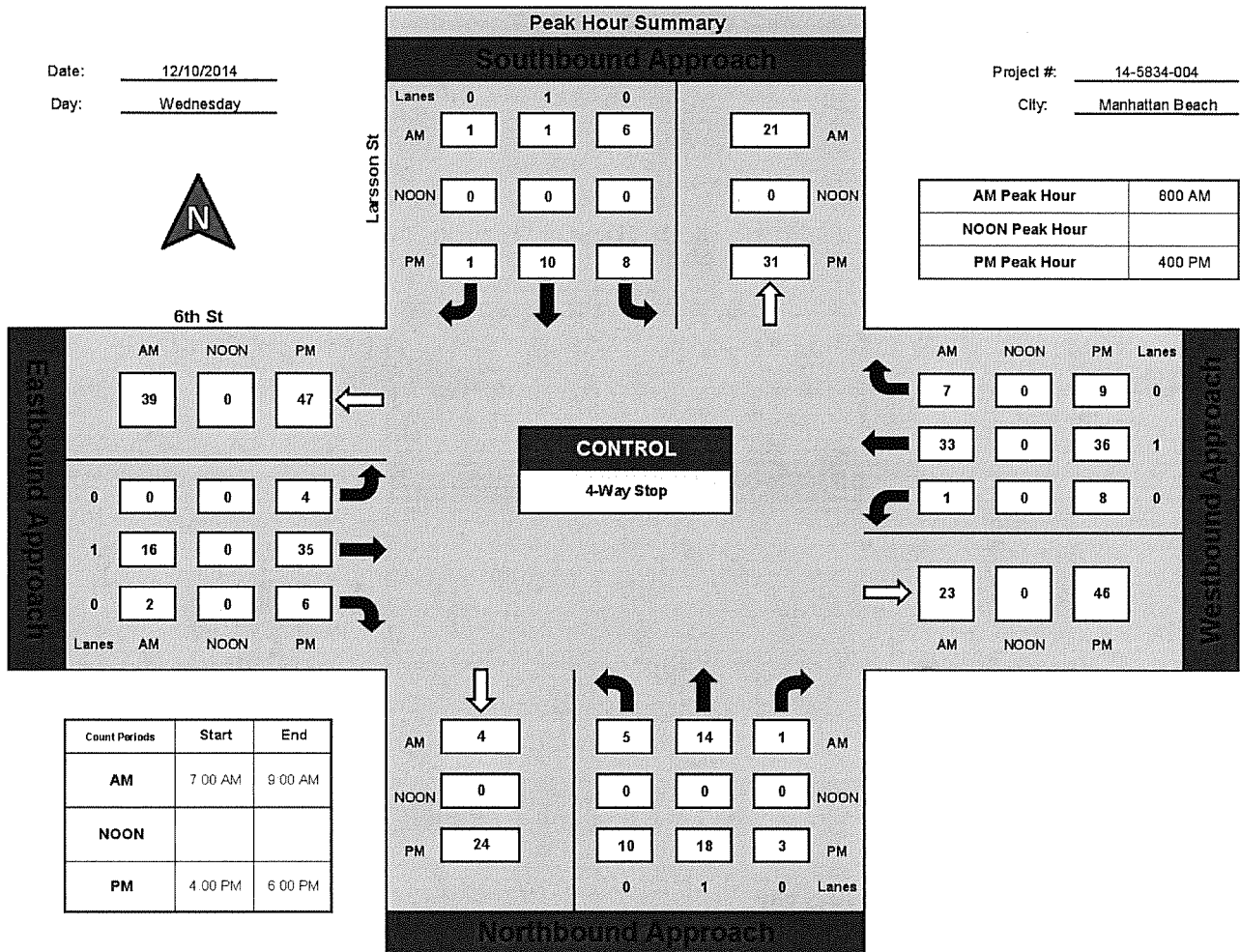
Larsson St and 6th St, Manhattan Beach

Date: 12/10/2014

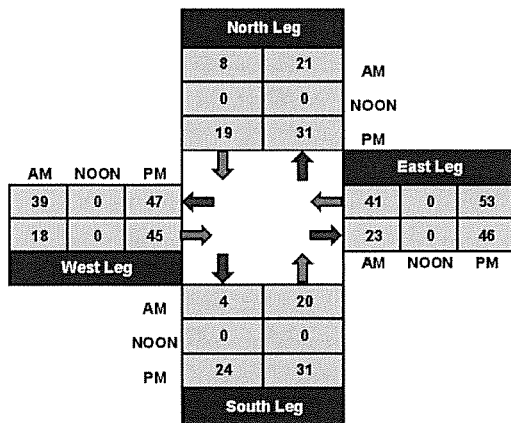
Day: Wednesday

Project #: 14-5834-004

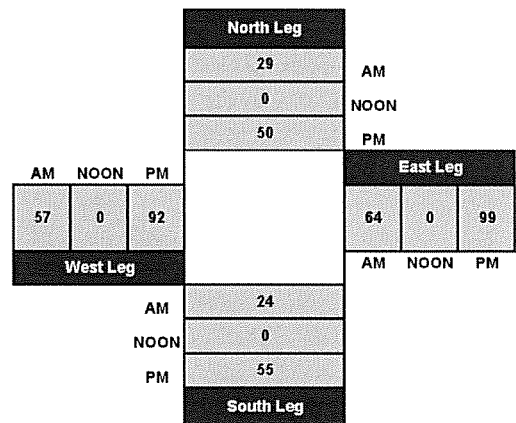
City: Manhattan Beach



Total Ins & Outs



Total Volume Per Leg



Intersection Turning Movement

Prepared by:

National Data & Surveying Services

Project ID: 14-5834-004

Day: Wednesday

City: Manhattan Beach

Date: 12/10/2014

NS/EW Streets:	AM												TOTAL
	Larsson St			Larsson St			6th St			6th St			
	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	
7:00 AM	1	0	1	1	1	0	0	0	0	1	4	0	9
7:15 AM	0	1	2	0	0	0	0	5	1	1	3	2	15
7:30 AM	1	3	1	1	0	0	0	7	1	0	10	4	28
7:45 AM	3	2	0	1	1	0	1	2	1	0	7	1	19
8:00 AM	2	0	0	0	0	0	0	1	0	1	7	2	13
8:15 AM	2	5	0	1	0	0	0	6	0	0	7	1	22
8:30 AM	0	6	1	2	0	1	0	5	2	0	8	2	27
8:45 AM	1	3	0	3	1	0	0	4	0	0	11	2	25

UTURNS			
NB	SB	EB	WB
			0
			1
			0
			0
			0
			0
			0
			27
			25

	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
TOTAL VOLUMES :	10	20	5	9	3	1	1	30	5	3	57	14	158
APPROACH %'s :	28.57%	57.14%	14.29%	69.23%	23.08%	7.69%	2.78%	83.33%	13.89%	4.05%	77.03%	18.92%	

NB	SB	EB	WB
0	0	0	1

PEAK HR START TIME :	800 AM												TOTAL
PEAK HR VOL :	5	14	1	6	1	1	0	16	2	1	33	7	87
PEAK HR FACTOR :	0.714			0.500			0.643			0.788			0.806

CONTROL : 4-Way Stop

APPENDIX B
Existing LOS Worksheets

801 N. Sepulveda Blvd
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Sepulveda Bl & Manhattan Beach Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 1.017
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Sepulveda Bl, Manhattan Beach Bl), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Include, Ovlt), Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, and Crit Moves.

801 N. Sepulveda Blvd
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Sepulveda Bl & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.784
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: C

Table with columns for Street Name (Sepulveda Bl, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Sepulveda Bl & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.767
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 60 Level Of Service: C

Table with columns for Street Name (Sepulveda Bl, 6th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

801 N. Sepulveda Blvd
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Sepulveda Bl & 2nd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.831
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 74 Level Of Service: D

Table with columns for Street Name (Sepulveda Bl, 2nd St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted, Include), Rights, Min. Green, Y+R, and Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with columns for Vol/Sat and Crit Moves.

801 N. Sepulveda Blvd
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Sepulveda Bl-PCH & Artesia Bl-Gould Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.030
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Street Name: Sepulveda Bl-PCH Artesia Bl-Gould Ave
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected
Rights: Include Include Include Ovl
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 3 0 1 2 0 1 1 0 1 0 1 1 0 2 0 2 0 1

Volume Module:
Base Vol: 21 2529 158 265 703 38 150 490 85 264 696 397
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 21 2529 158 265 703 38 150 490 85 264 696 397
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 21 2529 158 265 703 38 150 490 85 264 696 397
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 21 2529 158 265 703 38 150 490 85 264 696 397
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 21 2529 158 265 703 38 150 490 85 264 696 397
OvlAdjVol: 250

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 0.90 1.00 1.00 1.00 1.00 1.00 0.90 1.00 1.00
Lanes: 1.00 3.00 1.00 2.00 1.90 0.10 1.00 1.70 0.30 2.00 2.00 1.00
Final Sat.: 1600 4800 1600 2880 3036 164 1600 2727 473 2880 3200 1600

Capacity Analysis Module:
Vol/Sat: 0.01 0.53 0.10 0.09 0.23 0.23 0.09 0.18 0.18 0.09 0.22 0.25
OvlAdjV/S: 0.16
Crit Moves: **** **** **** ****

801 N. Sepulveda Blvd
Existing Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Larsson St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.182
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Street Name: Larsson St 8th St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 0 0 0 0 0 1 0 0 1 0 0 0

Volume Module:
Base Vol: 8 0 13 0 0 0 0 58 3 7 103 0
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 8 0 13 0 0 0 0 58 3 7 103 0
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 8 0 13 0 0 0 0 58 3 7 103 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 8 0 13 0 0 0 0 58 3 7 103 0
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 8 0 13 0 0 0 0 58 3 7 103 0

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.38 0.00 0.62 0.00 0.00 0.00 0.00 0.95 0.05 0.06 0.94 0.00
Final Sat.: 610 0 990 0 0 0 0 1521 79 102 1498 0

Capacity Analysis Module:
Vol/Sat: 0.01 0.00 0.01 0.00 0.00 0.00 0.00 0.04 0.04 0.00 0.07 0.00
Crit Moves: **** **** ****

801 N. Sepulveda Blvd
Existing Conditions
AM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Dianthus St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.236
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level of Service: A

Street Name: Dianthus St 8th St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0

Volume Module:
Base Vol: 5 66 8 15 47 13 14 38 3 5 66 39
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 5 66 8 15 47 13 14 38 3 5 66 39
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 5 66 8 15 47 13 14 38 3 5 66 39
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 5 66 8 15 47 13 14 38 3 5 66 39
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 5 66 8 15 47 13 14 38 3 5 66 39

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.06 0.84 0.10 0.20 0.63 0.17 0.25 0.70 0.05 0.05 0.60 0.35
Final Sat.: 101 1337 162 320 1003 277 407 1105 87 73 960 567

Capacity Analysis Module:
Vol/Sat: 0.00 0.05 0.05 0.01 0.05 0.05 0.01 0.03 0.03 0.00 0.07 0.07
Crit Moves: ****

801 N. Sepulveda Blvd
Existing Conditions
AM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Larsson St & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.142
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level of Service: A

Street Name: Larsson St 6th St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 1 0 0 1 0 0 1 0 0

Volume Module:
Base Vol: 5 14 1 6 1 1 0 16 2 1 34 7
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 5 14 1 6 1 1 0 16 2 1 34 7
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 5 14 1 6 1 1 0 16 2 1 34 7
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 5 14 1 6 1 1 0 16 2 1 34 7
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 5 14 1 6 1 1 0 16 2 1 34 7

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.25 0.70 0.05 1.00 0.50 0.50 0.00 0.89 0.11 0.02 0.81 0.17
Final Sat.: 400 1120 80 1600 800 800 0 1422 178 38 1295 267

Capacity Analysis Module:
Vol/Sat: 0.00 0.01 0.01 0.00 0.00 0.00 0.00 0.01 0.01 0.00 0.03 0.03
Crit Moves: ****

Intersection												
Int Delay, s/veh	2.8											

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	0	14	0	0	22	38	3052	5	24	1039	14
Future Vol, veh/h	2	0	14	0	0	22	38	3052	5	24	1039	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	80
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	15	0	0	23	40	3179	5	25	1082	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2483	4396	541	3852	4393	1592	1082	0	0	3184	0	0
Stage 1	1132	1132	-	3261	3261	-	-	-	-	-	-	-
Stage 2	1351	3264	-	591	1132	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	22	2	485	2	2	82	640	-	-	30	-	-
Stage 1	211	276	-	4	22	-	-	-	-	-	-	-
Stage 2	144	22	-	446	276	-	-	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	5	0	485	1	0	82	640	-	-	30	-	-
Mov Cap-2 Maneuver	5	0	-	1	0	-	-	-	-	-	-	-
Stage 1	198	46	-	4	21	-	-	-	-	-	-	-
Stage 2	97	21	-	72	46	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	165.8	65.1	0.1	6.8
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	640	-	-	37	82	30	-	-
HCM Lane V/C Ratio	0.062	-	-	0.45	0.279	0.833	-	-
HCM Control Delay (s)	11	-	-	165.8	65.1	302.9	-	-
HCM Lane LOS	B	-	-	F	F	F	-	-
HCM 95th %tile Q(veh)	0.2	-	-	1.5	1	2.8	-	-

Intersection

Int Delay, s/veh 1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	58	3	7	103	8	13
Future Vol, veh/h	58	3	7	103	8	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	71	4	9	126	10	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	74
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1526
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1526
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	891	-	-	1526	-
HCM Lane V/C Ratio	0.029	-	-	0.006	-
HCM Control Delay (s)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection												
Intersection Delay, s/veh	7.9											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	14	38	3	0	5	66	39	0	5	66	8
Future Vol, veh/h	0	14	38	3	0	5	66	39	0	5	66	8
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	41	3	0	5	72	42	0	5	72	9
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0
Approach												
	EB				WB				NB			
Opposing Approach	WB				EB				SB			
Opposing Lanes	1				1				1			
Conflicting Approach Left	SB				NB				EB			
Conflicting Lanes Left	1				1				1			
Conflicting Approach Right	NB				SB				WB			
Conflicting Lanes Right	1				1				1			
HCM Control Delay	7.8				7.9				7.9			
HCM LOS	A				A				A			
Lane												
	NBLn1	EBLn1	WBLn1	SBLn1								
Vol Left, %	6%	25%	5%	20%								
Vol Thru, %	84%	69%	60%	63%								
Vol Right, %	10%	5%	35%	17%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	79	55	110	75								
LT Vol	5	14	5	15								
Through Vol	66	38	66	47								
RT Vol	8	3	39	13								
Lane Flow Rate	86	60	120	82								
Geometry Grp	1	1	1	1								
Degree of Util (X)	0.104	0.074	0.139	0.099								
Departure Headway (Hd)	4.374	4.459	4.178	4.364								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	822	806	861	823								
Service Time	2.389	2.473	2.189	2.377								
HCM Lane V/C Ratio	0.105	0.074	0.139	0.1								
HCM Control Delay	7.9	7.8	7.9	7.9								
HCM Lane LOS	A	A	A	A								
HCM 95th-tile Q	0.3	0.2	0.5	0.3								

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	15	47	13
Future Vol, veh/h	0	15	47	13
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	16	51	14
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.9		
HCM LOS		A		
Lane				

Intersection												
Intersection Delay, s/veh	7.2											
Intersection LOS	A											
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	0	16	2	0	1	34	7	0	5	14	1
Future Vol, veh/h	0	0	16	2	0	1	34	7	0	5	14	1
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	20	2	0	1	42	9	0	6	17	1
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0
Approach				EB	WB	NB						
Opposing Approach				WB	EB	SB						
Opposing Lanes				1	1	1						
Conflicting Approach Left				SB	NB	EB						
Conflicting Lanes Left				1	1	1						
Conflicting Approach Right				NB	SB	WB						
Conflicting Lanes Right				1	1	1						
HCM Control Delay				7.1	7.2	7.2						
HCM LOS				A	A	A						
Lane	NBLn1	EBLn1	WBLn1	SBLn1								
Vol Left, %	25%	0%	2%	75%								
Vol Thru, %	70%	89%	81%	12%								
Vol Right, %	5%	11%	17%	12%								
Sign Control	Stop	Stop	Stop	Stop								
Traffic Vol by Lane	20	18	42	8								
LT Vol	5	0	1	6								
Through Vol	14	16	34	1								
RT Vol	1	2	7	1								
Lane Flow Rate	25	22	52	10								
Geometry Grp	1	1	1	1								
Degree of Util (X)	0.028	0.024	0.056	0.011								
Departure Headway (Hd)	4.091	3.967	3.916	4.157								
Convergence, Y/N	Yes	Yes	Yes	Yes								
Cap	874	902	916	860								
Service Time	2.119	1.991	1.935	2.189								
HCM Lane V/C Ratio	0.029	0.024	0.057	0.012								
HCM Control Delay	7.2	7.1	7.2	7.2								
HCM Lane LOS	A	A	A	A								
HCM 95th-tile Q	0.1	0.1	0.2	0								

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	6	1	1
Future Vol, veh/h	0	6	1	1
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	1	1
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.2		
HCM LOS		A		
Lane				

801 N. Sepulveda Blvd
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #1 Sepulveda Bl & Manhattan Beach Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 1.038
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Sepulveda Bl, Manhattan Beach Bl), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume, and OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves.

801 N. Sepulveda Blvd
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #2 Sepulveda Bl & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.705
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 51 Level Of Service: C

Table with columns for Street Name (Sepulveda Bl, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume, and OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #3 Sepulveda Bl & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.643
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 44 Level Of Service: B

Street Name: Sepulveda Bl 6th St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 1 0 0 0 1 0 0 0 1

Volume Module:
Base Vol: 37 1511 7 26 2374 11 2 0 35 0 0 16
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 37 1511 7 26 2374 11 2 0 35 0 0 16
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 37 1511 7 26 2374 11 2 0 35 0 0 16
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 37 1511 7 26 2374 11 2 0 35 0 0 16
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 37 1511 7 26 2374 11 2 0 35 0 0 16

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.99 0.01 1.00 2.99 0.01 0.05 0.00 0.95 0.00 0.00 1.00
Final Sat.: 1600 3185 15 1600 4778 22 86 0 1514 0 0 1600

Capacity Analysis Module:
Vol/Sat: 0.02 0.47 0.47 0.02 0.50 0.50 0.00 0.00 0.02 0.00 0.00 0.01
Crit Moves: ****

801 N. Sepulveda Blvd
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #4 Sepulveda Bl & 2nd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.776
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: C

Street Name: Sepulveda Bl 2nd St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Protected Protected Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 1 0 1 1 0 1 0 2 1 0 1 0 0 1 0

Volume Module:
Base Vol: 37 1415 11 41 2378 31 117 108 45 43 78 47
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 37 1415 11 41 2378 31 117 108 45 43 78 47
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 37 1415 11 41 2378 31 117 108 45 43 78 47
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 37 1415 11 41 2378 31 117 108 45 43 78 47
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 37 1415 11 41 2378 31 117 108 45 43 78 47

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 1.00 1.98 0.02 1.00 2.96 0.04 1.00 0.71 0.29 1.00 0.62 0.38
Final Sat.: 1600 3175 25 1600 4738 62 1600 1129 471 1600 998 602

Capacity Analysis Module:
Vol/Sat: 0.02 0.45 0.45 0.03 0.50 0.50 0.07 0.10 0.10 0.03 0.08 0.08
Crit Moves: ****

801 N. Sepulveda Blvd
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #5 Sepulveda Bl-PCH & Artesia Bl-Gould Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.888
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 94 Level Of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Sepulveda Bl-PCH and Artesia Bl-Gould Ave.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume, OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, Crit Moves.

801 N. Sepulveda Blvd
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #6 Larsson St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.189
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Larsson St and 8th St.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Volume.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #7 Dianthus St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.251
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Street Name: Dianthus St 8th St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0

Volume Module:
Base Vol: 5 65 14 42 123 11 3 49 4 5 28 24
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 5 65 14 42 123 11 3 49 4 5 28 24
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 5 65 14 42 123 11 3 49 4 5 28 24
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 5 65 14 42 123 11 3 49 4 5 28 24
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 5 65 14 42 123 11 3 49 4 5 28 24

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.06 0.77 0.17 0.24 0.70 0.06 0.05 0.88 0.07 0.09 0.49 0.42
Final Sat.: 95 1238 267 382 1118 100 86 1400 114 140 786 674

Capacity Analysis Module:
Vol/Sat: 0.00 0.05 0.05 0.03 0.11 0.11 0.00 0.04 0.04 0.00 0.04 0.04
Crit Moves: ****

801 N. Sepulveda Blvd
Existing Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Base Volume Alternative)

Intersection #8 Larsson St & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.154
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Street Name: Larsson St 6th St
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R
Control: Permitted Permitted Permitted Permitted
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0

Volume Module:
Base Vol: 10 18 3 8 10 1 4 36 6 8 37 9
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 10 18 3 8 10 1 4 36 6 8 37 9
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Volume: 10 18 3 8 10 1 4 36 6 8 37 9
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 10 18 3 8 10 1 4 36 6 8 37 9
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume: 10 18 3 8 10 1 4 36 6 8 37 9

Saturation Flow Module:
Sat/Lane: 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600 1600
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.32 0.58 0.10 0.42 0.53 0.05 0.09 0.78 0.13 0.15 0.68 0.17
Final Sat.: 516 929 155 674 842 84 139 1252 209 237 1096 267

Capacity Analysis Module:
Vol/Sat: 0.01 0.02 0.02 0.01 0.01 0.01 0.00 0.03 0.03 0.01 0.03 0.03
Crit Moves: ****

Intersection

Int Delay, s/veh 3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	0	35	0	0	16	37	1511	7	26	2374	11
Future Vol, veh/h	2	0	35	0	0	16	37	1511	7	26	2374	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	36	0	0	16	38	1558	7	27	2447	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3362	4148	1229	2671	4150	782	2459	0	0	1565	0	0
Stage 1	2507	2507	-	1638	1638	-	-	-	-	-	-	-
Stage 2	855	1641	-	1033	2512	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	7.14	6.99	6.54	6.94	5.34	-	-	4.14	-	-
Critical Hdwy Stg 1	7.34	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.92	3.67	4.02	3.32	3.12	-	-	2.22	-	-
Pot Cap-1 Maneuver	5	2	146	16	2	337	73	-	-	418	-	-
Stage 1	16	56	-	103	157	-	-	-	-	-	-	-
Stage 2	311	156	-	229	56	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	3	1	146	7	1	337	73	-	-	418	-	-
Mov Cap-2 Maneuver	3	1	-	7	1	-	-	-	-	-	-	-
Stage 1	8	52	-	49	75	-	-	-	-	-	-	-
Stage 2	142	75	-	161	52	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	269.5	16.2	2.4	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	73	-	-	41	337	418	-	-
HCM Lane V/C Ratio	0.523	-	-	0.93	0.049	0.064	-	-
HCM Control Delay (s)	99	-	-	269.5	16.2	14.2	-	-
HCM Lane LOS	F	-	-	F	C	B	-	-
HCM 95th %tile Q(veh)	2.2	-	-	3.6	0.2	0.2	-	-

Intersection

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	91	14	5	45	11	21
Future Vol, veh/h	91	14	5	45	11	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	99	15	5	49	12	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	114
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1475
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1475
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	900	-	-	1475	-
HCM Lane V/C Ratio	0.039	-	-	0.004	-
HCM Control Delay (s)	9.2	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	49	4	0	5	28	24	0	5	65	14
Future Vol, veh/h	0	3	49	4	0	5	28	24	0	5	65	14
Peak Hour Factor	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	56	5	0	6	32	28	0	6	75	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.1	7.9	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	5%	9%	24%
Vol Thru, %	77%	88%	49%	70%
Vol Right, %	17%	7%	42%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	84	56	57	176
LT Vol	5	3	5	42
Through Vol	65	49	28	123
RT Vol	14	4	24	11
Lane Flow Rate	97	64	66	202
Geometry Grp	1	1	1	1
Degree of Util (X)	0.117	0.083	0.081	0.245
Departure Headway (Hd)	4.367	4.65	4.448	4.352
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	823	771	806	827
Service Time	2.385	2.674	2.472	2.368
HCM Lane V/C Ratio	0.118	0.083	0.082	0.244
HCM Control Delay	8	8.1	7.9	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3	1

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	42	123	11
Future Vol, veh/h	0	42	123	11
Peak Hour Factor	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	48	141	13
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		8.8		
HCM LOS		A		
Lane				

Intersection

Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	4	36	6	0	8	37	9	0	10	18	3
Future Vol, veh/h	0	4	36	6	0	8	37	9	0	10	18	3
Peak Hour Factor	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	47	8	0	11	49	12	0	13	24	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.4	7.4	7.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	9%	15%	42%
Vol Thru, %	58%	78%	69%	53%
Vol Right, %	10%	13%	17%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	46	54	19
LT Vol	10	4	8	8
Through Vol	18	36	37	10
RT Vol	3	6	9	1
Lane Flow Rate	41	61	71	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.047	0.068	0.079	0.029
Departure Headway (Hd)	4.187	4.04	4.023	4.246
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	848	881	885	835
Service Time	2.251	2.09	2.071	2.314
HCM Lane V/C Ratio	0.048	0.069	0.08	0.03
HCM Control Delay	7.5	7.4	7.4	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.3	0.1

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	8	10	1
Future Vol, veh/h	0	8	10	1
Peak Hour Factor	0.92	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	13	1
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.4		
HCM LOS		A		
Lane				

APPENDIX C
Existing With-Project LOS Worksheets

801 N. Sepulveda Blvd
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Sepulveda Bl & Manhattan Beach Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 1.021
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Sepulveda Bl, Manhattan Beach Bl), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat values.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Sepulveda Bl & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.807
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 68 Level Of Service: D

Table with columns for Street Name (Sepulveda Bl, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, SHIFTS, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and Saturation Flow Module data.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, and other metrics.

801 N. Sepulveda Blvd
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Bl & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.778
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: C

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Sepulveda Bl and 6th St.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Sepulveda Bl & 2nd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.841
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 77 Level Of Service: D

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Sepulveda Bl and 2nd St.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Sepulveda Bl-PCH & Artesia Bl-Gould Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.036
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Sepulveda Bl-PCH, Artesia Bl-Gould Ave), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing traffic volume and adjustment factors (Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol).

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Larsson St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.191
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with columns for Street Name (Larsson St, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing traffic volume and adjustment factors (Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume).

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Dianthus St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.243
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Table with columns for Street Name (Dianthus St, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Larsson St & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.156
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with columns for Street Name (Larsson St, 6th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

Intersection

Int Delay, s/veh 4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	0	14	0	0	27	38	3082	5	27	1063	23
Future Vol, veh/h	2	0	14	0	0	27	38	3082	5	27	1063	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	80
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	15	0	0	28	40	3210	5	28	1107	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2527	4459	554	3902	4456	1608	1107	0	0	3216	0	0
Stage 1	1164	1164	-	3292	3292	-	-	-	-	-	-	-
Stage 2	1363	3295	-	610	1164	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	20	1	476	2	1	80	626	-	-	29	-	-
Stage 1	202	267	-	4	21	-	-	-	-	-	-	-
Stage 2	141	21	-	435	267	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 2	0	476	0	0	80	626	-	-	29	-	-
Mov Cap-2 Maneuver	~ 2	0	-	0	0	-	-	-	-	-	-	-
Stage 1	189	9	-	4	20	-	-	-	-	-	-	-
Stage 2	86	20	-	15	9	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 564.3	72.6	0.1	8.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	626	-	-	16	80	29	-
HCM Lane V/C Ratio	0.063	-	-	1.042	0.352	0.97	-
HCM Control Delay (s)	11.1	-	-	\$ 564.3	72.6	\$ 355.2	-
HCM Lane LOS	B	-	-	F	F	F	-
HCM 95th %tile Q(veh)	0.2	-	-	2.5	1.3	3.2	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	67	3	7	103	11	24
Future Vol, veh/h	67	3	7	103	11	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	82	4	9	126	13	29

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	85
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1512
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1512
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	894	-	-	1512	-
HCM Lane V/C Ratio	0.048	-	-	0.006	-
HCM Control Delay (s)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	14	43	3	0	5	69	39	0	5	69	8
Future Vol, veh/h	0	14	43	3	0	5	69	39	0	5	69	8
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	47	3	0	5	75	42	0	5	75	9
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.9	7.9	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	23%	4%	25%
Vol Thru, %	84%	72%	61%	59%
Vol Right, %	10%	5%	35%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	82	60	113	80
LT Vol	5	14	5	20
Through Vol	69	43	69	47
RT Vol	8	3	39	13
Lane Flow Rate	89	65	123	87
Geometry Grp	1	1	1	1
Degree of Util (X)	0.109	0.081	0.144	0.106
Departure Headway (Hd)	4.406	4.484	4.211	4.408
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	816	801	854	816
Service Time	2.42	2.499	2.224	2.422
HCM Lane V/C Ratio	0.109	0.081	0.144	0.107
HCM Control Delay	8	7.9	7.9	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.5	0.4

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	20	47	13
Future Vol, veh/h	0	20	47	13
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	22	51	14
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.9		
HCM LOS		A		
Lane				

Intersection

Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	5	16	2	0	1	40	10	0	5	21	1
Future Vol, veh/h	0	5	16	2	0	1	40	10	0	5	21	1
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	20	2	0	1	49	12	0	6	26	1
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	22%	2%	75%
Vol Thru, %	78%	70%	78%	12%
Vol Right, %	4%	9%	20%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	23	51	8
LT Vol	5	5	1	6
Through Vol	21	16	40	1
RT Vol	1	2	10	1
Lane Flow Rate	33	28	63	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.032	0.069	0.012
Departure Headway (Hd)	4.114	4.049	3.918	4.193
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	867	882	914	849
Service Time	2.156	2.082	1.945	2.239
HCM Lane V/C Ratio	0.038	0.032	0.069	0.012
HCM Control Delay	7.3	7.2	7.2	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	6	1	1
Future Vol, veh/h	0	6	1	1
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	1	1
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.3		
HCM LOS		A		
Lane				

801 N. Sepulveda Blvd
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Sepulveda Bl & Manhattan Beach Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 1.047
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Sepulveda Bl, Manhattan Beach Bl), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Sepulveda Bl & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.780
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 62 Level Of Service: C

Table with columns for Street Name (Sepulveda Bl, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, SHIFTS, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and Saturation Flow Module.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, and a row of asterisks.

801 N. Sepulveda Blvd
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Bl & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.651
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 45 Level Of Service: B

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Sepulveda Bl and 6th St.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves for Capacity Analysis Module.

801 N. Sepulveda Blvd
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Sepulveda Bl & 2nd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.784
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: C

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Sepulveda Bl and 2nd St.

Table with columns: Volume Module, Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Table with columns: Sat/Lane, Adjustment, Lanes, Final Sat. for Saturation Flow Module.

Table with columns: Vol/Sat, Crit Moves for Capacity Analysis Module.

801 N. Sepulveda Blvd
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Sepulveda Bl-PCH & Artesia Bl-Gould Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.891
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 96 Level Of Service: D

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Sepulveda Bl-PCH and Artesia Bl-Gould Ave.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Larsson St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.202
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Larsson St and 8th St.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Dianthus St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.255
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Table with columns for Street Name (Dianthus St, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Existing + Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Larsson St & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.163
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with columns for Street Name (Larsson St, 6th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

Intersection

Int Delay, s/veh 3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	0	35	0	0	20	37	1538	7	29	2402	21
Future Vol, veh/h	2	0	35	0	0	20	37	1538	7	29	2402	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	36	0	0	21	38	1586	7	30	2476	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3416	4216	1249	2715	4223	796	2498	0	0	1593	0	0
Stage 1	2547	2547	-	1665	1665	-	-	-	-	-	-	-
Stage 2	869	1669	-	1050	2558	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	7.14	6.99	6.54	6.94	5.34	-	-	4.14	-	-
Critical Hdwy Stg 1	7.34	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.92	3.67	4.02	3.32	3.12	-	-	2.22	-	-
Pot Cap-1 Maneuver	5	2	141	15	2	330	69	-	-	408	-	-
Stage 1	15	54	-	99	152	-	-	-	-	-	-	-
Stage 2	305	151	-	224	53	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	3	1	141	6	1	330	69	-	-	408	-	-
Mov Cap-2 Maneuver	3	1	-	6	1	-	-	-	-	-	-	-
Stage 1	7	50	-	44	68	-	-	-	-	-	-	-
Stage 2	128	68	-	154	49	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	281.4	16.6	2.5	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	69	-	-	40	330	408	-
HCM Lane V/C Ratio	0.553	-	-	0.954	0.062	0.073	-
HCM Control Delay (s)	108.6	-	-	281.4	16.6	14.5	-
HCM Lane LOS	F	-	-	F	C	B	-
HCM 95th %tile Q(veh)	2.3	-	-	3.7	0.2	0.2	-

Intersection

Int Delay, s/veh 2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	99	14	5	45	14	31
Future Vol, veh/h	99	14	5	45	14	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	108	15	5	49	15	34

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	123
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1464
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1464
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	894	-	-	1464	-
HCM Lane V/C Ratio	0.055	-	-	0.004	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection															
Intersection Delay, s/veh	8.4														
Intersection LOS	A														
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR			
Traffic Vol, veh/h	0	3	53	4	0	5	31	24	0	5	68	14			
Future Vol, veh/h	0	3	53	4	0	5	31	24	0	5	68	14			
Peak Hour Factor	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87			
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2			
Mvmt Flow	0	3	61	5	0	6	36	28	0	6	78	16			
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0			
Approach															
	EB							WB							NB
Opposing Approach	WB							EB							SB
Opposing Lanes	1							1							1
Conflicting Approach Left	SB							NB							EB
Conflicting Lanes Left	1							1							1
Conflicting Approach Right	NB							SB							WB
Conflicting Lanes Right	1							1							1
HCM Control Delay	8.2							7.9							8
HCM LOS	A							A							A
Lane															
	NBLn1	EBLn1	WBLn1	SBLn1											
Vol Left, %	6%	5%	8%	26%											
Vol Thru, %	78%	88%	52%	68%											
Vol Right, %	16%	7%	40%	6%											
Sign Control	Stop	Stop	Stop	Stop											
Traffic Vol by Lane	87	60	60	180											
LT Vol	5	3	5	46											
Through Vol	68	53	31	123											
RT Vol	14	4	24	11											
Lane Flow Rate	100	69	69	207											
Geometry Grp	1	1	1	1											
Degree of Util (X)	0.122	0.09	0.086	0.252											
Departure Headway (Hd)	4.397	4.679	4.488	4.381											
Convergence, Y/N	Yes	Yes	Yes	Yes											
Cap	816	766	799	821											
Service Time	2.419	2.704	2.513	2.4											
HCM Lane V/C Ratio	0.123	0.09	0.086	0.252											
HCM Control Delay	8	8.2	7.9	8.9											
HCM Lane LOS	A	A	A	A											
HCM 95th-tile Q	0.4	0.3	0.3	1											

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	46	123	11
Future Vol, veh/h	0	46	123	11
Peak Hour Factor	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	53	141	13
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		8.9		
HCM LOS		A		
Lane				

Intersection

Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	8	36	6	0	8	44	12	0	10	24	3
Future Vol, veh/h	0	8	36	6	0	8	44	12	0	10	24	3
Peak Hour Factor	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	47	8	0	11	58	16	0	13	32	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.5	7.5	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	16%	12%	42%
Vol Thru, %	65%	72%	69%	53%
Vol Right, %	8%	12%	19%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	50	64	19
LT Vol	10	8	8	8
Through Vol	24	36	44	10
RT Vol	3	6	12	1
Lane Flow Rate	49	66	84	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.075	0.094	0.03
Departure Headway (Hd)	4.217	4.085	4.023	4.283
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	870	883	825
Service Time	2.293	2.145	2.081	2.365
HCM Lane V/C Ratio	0.058	0.076	0.095	0.03
HCM Control Delay	7.6	7.5	7.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.3	0.1

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	8	10	1
Future Vol, veh/h	0	8	10	1
Peak Hour Factor	0.92	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	13	1
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.5		
HCM LOS		A		
Lane				

APPENDIX D
Related Project Trip Generation and Assignment

#	Project Name	Location	Land Use	ITE Code	Intensity	Units	Weekday						
							Daily Total	AM Peak Hour			PM Peak Hour		
								In	Out	Total	In	Out	Total
City of Manhattan Beach													
M1	Manhattan Village Shopping Center	3200-3600 S. Sepulveda Bl.	Shopping Center	[a]	617.000	K.S.F. Gross Area	715	29	19	48	97	79	176
M2	Chalk Preschool	1114 22nd St.	Preschool	[b]	119	students	170	45	42	87	30	35	65
M3	Retail and Office Project	213 Manhattan Beach Bl.	Retail	820	3.500	K.S.F. Gross Area	149	2	1	3	6	7	13
			Office	710	3.427	K.S.F. Gross Area	38	4	1	5	1	4	5
			Total						187	6	2	8	7
M4	Rite Aid Store	1100 Manhattan Beach Bl.	Retail	820	13.000	K.S.F. Gross Area	555	7	5	12	23	25	48
M5	Medical Office Building	1000 N. Sepulveda Bl.	Medical Office	720	22.970	K.S.F. Gross Area	833	43	12	55	23	59	82
			Pharmacy	880	0.665	K.S.F. Gross Area	60	1	1	2	3	3	6
			Coffee Shop	936	1.715	K.S.F. Gross Area	1,860	95	91	186	35	35	70
			Existing Restaurant	932	(5.400)	K.S.F. Gross Area	(687)	(32)	(26)	(58)	(32)	(21)	(53)
Total						2,066	107	78	185	29	76	105	
M6	General Office Building	865 Manhattan Beach Bl.	Office	710	15.000	K.S.F. Gross Area	165	20	3	23	4	18	22
			Deli	936	0.700	K.S.F. Gross Area	340	21	21	42	5	4	9
			Total						505	41	24	65	9
M7	Office Building	1101 Aviation Bl.	Medical Office	720	5.000	K.S.F. Gross Area	181	9	3	12	5	13	18
M8	Sketchers Office Building Addition	330 S. Sepulveda Bl.	Office	710	20.328	K.S.F. Gross Area	224	28	4	32	5	25	30
M9	Sketchers Office Building	305 S. Sepulveda Bl.	Office	710	37.174	K.S.F. Gross Area	410	51	7	58	9	46	55
M10	Remax Medical Office Conversion	400 S. Sepulveda Bl.	Medical Office	720	40.000	K.S.F. Gross Area	1,445	76	20	96	40	103	143
			Existing Office	710	40.000	K.S.F. Gross Area	(441)	(55)	(7)	(62)	(10)	(50)	(60)
			Total						1,004	21	13	34	30
M11	Office Building	1800 Manhattan Beach Bl.	Office	710	3.000	K.S.F. Gross Area	33	4	1	5	1	3	4
			Existing Apartment	220	(3)	Dwelling Units	(20)	0	(2)	(2)	(1)	(1)	(2)
			Total						13	4	-1	3	0
M12	Office Building	2205 Sepulveda Bl.	Office	710	4.700	K.S.F. Gross Area	52	6	1	7	1	6	7
			Existing Hair Salon	918	(1.040)	K.S.F. Gross Area	-	(1)	0	(1)	0	(2)	(2)
			Total						52	5	1	6	1
M13	Mixed Use Building	1762 Manhattan Beach Bl.	Medical Office	720	1.800	K.S.F. Gross Area	65	3	1	4	2	4	6
			Apartment	220	1	Dwelling Units	7	0	1	1	1	0	1
			Total						72	3	2	5	3
M14	Residential Condo Building	757 Manhattan Beach Bl.	Condominium	230	5	Dwelling Units	29	0	2	2	2	1	3
			Existing Apartment	220	(8)	Dwelling Units	(53)	(1)	(3)	(4)	(3)	(2)	(5)
			Total						(24)	(1)	(1)	(2)	(1)
City of Manhattan Beach Total							6,130	355	198	553	247	394	641

#	Project Name	Location	Land Use	ITE Code	Intensity	Units	Weekday						
							Daily Total	AM Peak Hour			PM Peak Hour		
								In	Out	Total	In	Out	Total
City of El Segundo													
E1	The Pointe at Plaza El Segundo	820-850 S. Sepulveda Bl.	Shopping Center	[c]	124.308	K.S.F. Gross Area	3,781	135	73	208	177	166	343
City of El Segundo Total							3,781	135	73	208	177	166	343
City of Hermosa Beach													
H1	E&B Oil	555 6th St.	Industrial	110	1.3	acres	67	8	2	10	2	7	9
H2	Clash Hotel	1429 Hermosa Ave.	Hotel	310	30	rooms	245	9	7	16	9	9	18
H3	Office Building	2101 Pacific Coast Hwy.	Office	710	10.124	K.S.F. Gross Area	112	14	2	16	3	12	15
H4	Office Building	906 Hermosa Ave.	Office	710	8.780	K.S.F. Gross Area	97	12	2	14	2	11	13
H5	Office Building	824 1st St.	Office	710	3.000	K.S.F. Gross Area	33	4	1	5	1	3	4
H6	Mermaid Project	The Strand/Pier Ave.	Hotel	310	120	rooms	980	38	26	64	37	35	72
			Restaurant	931	7.500	K.S.F. Gross Area	675	3	3	6	38	18	56
			Retail	820	7.500	K.S.F. Gross Area	320	4	3	7	13	15	28
			Existing Restaurant	931	(9.250)	K.S.F. Gross Area	(832)	(4)	(3)	(7)	(46)	(23)	(69)
			Existing Retail	820	(13.500)	K.S.F. Gross Area	(576)	(8)	(5)	(13)	(24)	(26)	(50)
Total							567	33	24	57	18	19	37
H7	Shopping Center	2420 Pacific Coast Hwy.	Retail	820	100.000	K.S.F. Gross Area	4,270	60	36	96	178	193	371
			Restaurant	931	3.000	K.S.F. Gross Area	270	1	1	2	15	7	22
			Office	710	9.000	K.S.F. Gross Area	99	12	2	14	2	11	13
Total							4,639	73	39	112	195	211	406
H8	Sketchers Design Center	2851-3125 Pacific Coast Hwy.	Design Center & Offices	[d]	133.339	K.S.F. Gross Area	1,128	189	14	203	35	185	220
City of Hermosa Beach Total							6,888	342	91	433	265	457	722

Trip Generation Source: Institute of Transportation Engineers (ITE) "Trip Generation - 9th Edition", except where noted.

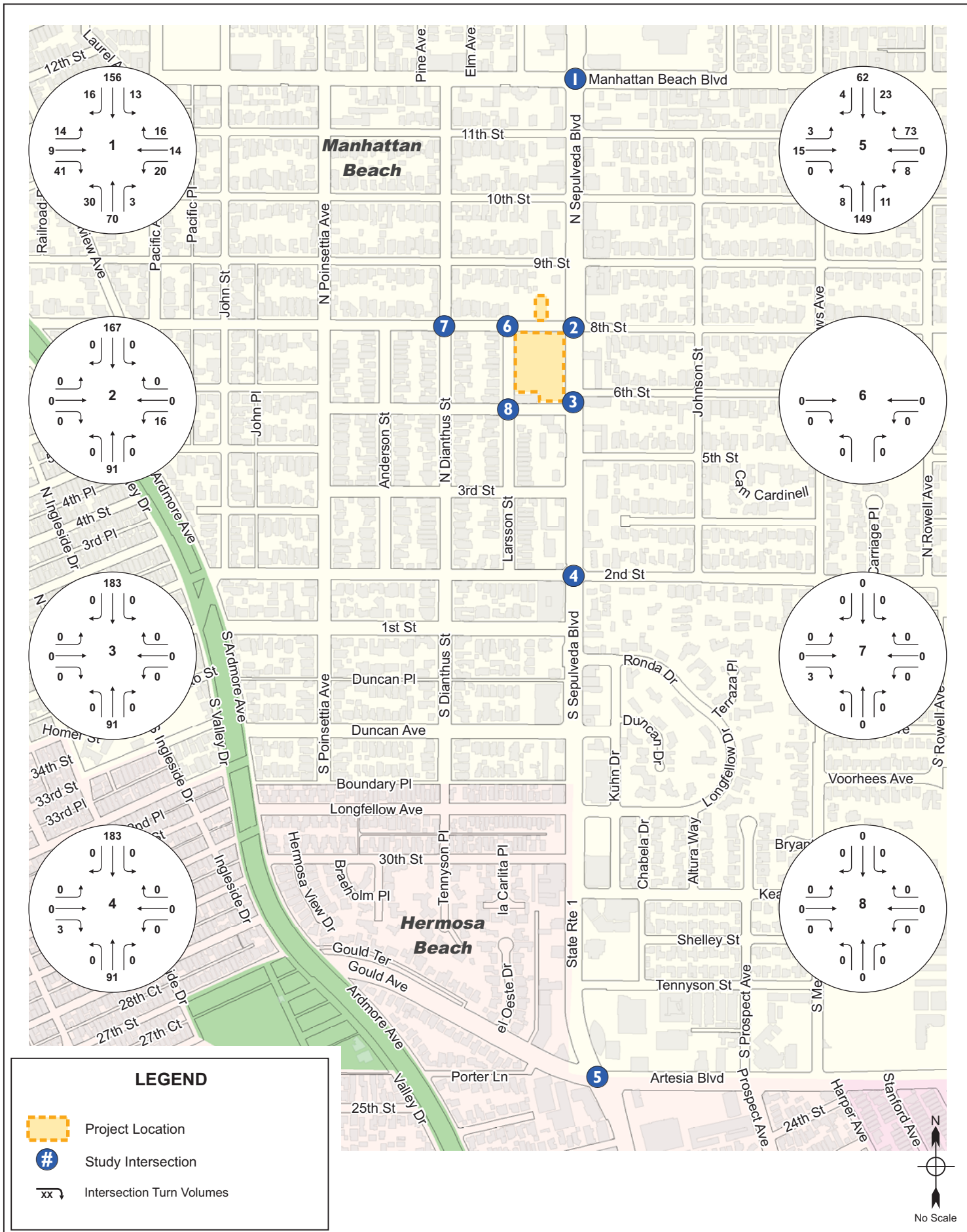
[a] Source: "Traffic Study for the Manhattan Village Shopping Center Project", prepared by Gibson Transportation Consultants, May 2012. Phases 1 and 2 were approved.

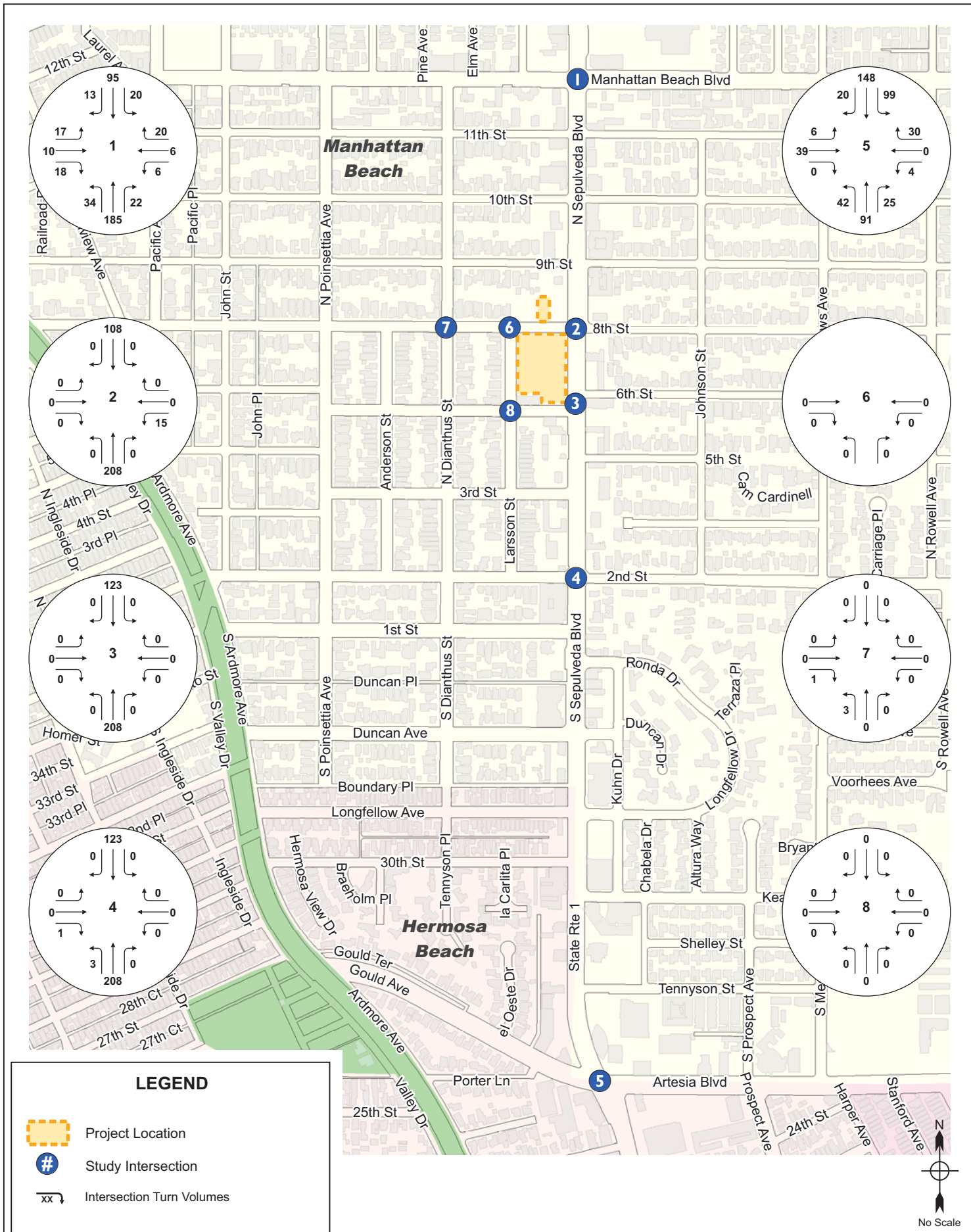
[b] Source: "Traffic Impact Study, Chalk Pre-School Manhattan Beach Project", prepared by LLG Engineers, July 10, 2014.

[c] Source: "Trip Generation Addendum - The Point at Plaza El Segundo", prepared by Fehr & Peers, July 23, 2014.

[d] Source: "Traffic Impact Study, Sketchers Design Center Project", prepared by LLG Engineers, October 27, 2014.

16,799 832 362 1,194 689 1,017 1,706





APPENDIX E
Future (2017) Without-Project LOS Worksheets

801 N. Sepulveda Blvd
Future without Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Sepulveda Bl & Manhattan Beach Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 1.059
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Sepulveda Bl, Manhattan Beach Bl), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat values.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves.

801 N. Sepulveda Blvd
Future without Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Sepulveda Bl & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.820
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: D

Table with columns for Street Name (Sepulveda Bl, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, SHIFTS, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and Saturation Flow Module data.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, and other metrics.

801 N. Sepulveda Blvd
Future without Project Conditions
AM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Bl & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.793
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 65 Level of Service: C

Table with columns for Street Name (Sepulveda Bl, 6th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Future without Project Conditions
AM Peak Hour

Level of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Sepulveda Bl & 2nd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.858
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 82 Level of Service: D

Table with columns for Street Name (Sepulveda Bl, 2nd St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Future without Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Sepulveda Bl-PCH & Artesia Bl-Gould Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.080
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Sepulveda Bl-PCH and Artesia Bl-Gould Ave.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

801 N. Sepulveda Blvd
Future without Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Larsson St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.174
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Larsson St and 8th St.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Future without Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Dianthus St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.238
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Table with columns for Street Name (Dianthus St, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Future without Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Larsson St & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.143
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with columns for Street Name (Larsson St, 6th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

Intersection

Int Delay, s/veh 7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	0	14	0	0	22	38	3174	5	24	1232	14
Future Vol, veh/h	2	0	14	0	0	22	38	3174	5	24	1232	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	80
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	15	0	0	23	40	3306	5	25	1283	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2735	4724	642	4080	4721	1656	1283	0	0	3311	0	0
Stage 1	1333	1333	-	3388	3388	-	-	-	-	-	-	-
Stage 2	1402	3391	-	692	1333	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	14	1	417	2	1	74	537	-	-	26	-	-
Stage 1	159	221	-	3	19	-	-	-	-	-	-	-
Stage 2	134	19	-	389	221	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 1	0	417	0	0	74	537	-	-	26	-	-
Mov Cap-2 Maneuver	~ 1	0	-	0	0	-	-	-	-	-	-	-
Stage 1	147	8	-	3	18	-	-	-	-	-	-	-
Stage 2	86	18	-	14	8	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 1392.5	74.1	0.1	7.2
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	537	-	-	8 74	26	-	-
HCM Lane V/C Ratio	0.074	-	-	2.083 0.31	0.962	-	-
HCM Control Delay (s)	12.2	-	-	\$ 1392.5 74.1\$	379.7	-	-
HCM Lane LOS	B	-	-	F F	F	-	-
HCM 95th %tile Q(veh)	0.2	-	-	3.1 1.1	3	-	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	59	3	7	104	8	13
Future Vol, veh/h	59	3	7	104	8	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	72	4	9	127	10	16

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	76
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1523
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1523
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	1523	-
HCM Lane V/C Ratio	0.029	-	-	0.006	-
HCM Control Delay (s)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	14	38	6	0	5	67	39	0	5	67	8
Future Vol, veh/h	0	14	38	6	0	5	67	39	0	5	67	8
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	41	7	0	5	73	42	0	5	73	9
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.8	7.9	7.9
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	24%	5%	20%
Vol Thru, %	84%	66%	60%	63%
Vol Right, %	10%	10%	35%	17%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	80	58	111	75
LT Vol	5	14	5	15
Through Vol	67	38	67	47
RT Vol	8	6	39	13
Lane Flow Rate	87	63	121	82
Geometry Grp	1	1	1	1
Degree of Util (X)	0.106	0.078	0.14	0.099
Departure Headway (Hd)	4.383	4.43	4.184	4.373
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	820	811	859	822
Service Time	2.399	2.445	2.199	2.389
HCM Lane V/C Ratio	0.106	0.078	0.141	0.1
HCM Control Delay	7.9	7.8	7.9	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.5	0.3

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	15	47	13
Future Vol, veh/h	0	15	47	13
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	16	51	14
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.9		
HCM LOS		A		
Lane				

Intersection

Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	0	16	2	0	1	34	7	0	5	14	1
Future Vol, veh/h	0	0	16	2	0	1	34	7	0	5	14	1
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	20	2	0	1	42	9	0	6	17	1
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.1	7.2	7.2
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	25%	0%	2%	75%
Vol Thru, %	70%	89%	81%	12%
Vol Right, %	5%	11%	17%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	18	42	8
LT Vol	5	0	1	6
Through Vol	14	16	34	1
RT Vol	1	2	7	1
Lane Flow Rate	25	22	52	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.028	0.024	0.056	0.011
Departure Headway (Hd)	4.091	3.967	3.916	4.157
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	874	902	916	860
Service Time	2.119	1.991	1.935	2.189
HCM Lane V/C Ratio	0.029	0.024	0.057	0.012
HCM Control Delay	7.2	7.1	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0

Intersection

Intersection Delay, s/veh
 Intersection LOS

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	6	1	1
Future Vol, veh/h	0	6	1	1
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	1	1
Number of Lanes	0	0	1	0

Approach SB

Opposing Approach	NB
Opposing Lanes	1
Conflicting Approach Left	WB
Conflicting Lanes Left	1
Conflicting Approach Right	EB
Conflicting Lanes Right	1
HCM Control Delay	7.2
HCM LOS	A

Lane

801 N. Sepulveda Blvd
Future without Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Sepulveda Bl & Manhattan Beach Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 1.098
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Sepulveda Bl, Manhattan Beach Bl), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat values.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves.

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Future without Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Sepulveda Bl & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.772
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 61 Level Of Service: C

Table with columns for Street Name (Sepulveda Bl, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, SHIFTS, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and Saturation Flow Module data.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat values.

Capacity Analysis Module table showing Vol/Sat, Crit Moves, and other metrics.

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Future without Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Bl & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.684
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 48 Level Of Service: B

Table with columns for Street Name (Sepulveda Bl, 6th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic volume metrics (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for various approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for various approaches.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for various approaches.

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Future without Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Sepulveda Bl & 2nd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.811
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 69 Level Of Service: D

Table with columns for Street Name (Sepulveda Bl, 2nd St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected), Rights (Include), and various traffic volume metrics (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for various approaches.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for various approaches.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for various approaches.

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Future without Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Sepulveda Bl-PCH & Artesia Bl-Gould Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.971
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 155 Level Of Service: E

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Sepulveda Bl-PCH and Artesia Bl-Gould Ave.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

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Future without Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Larsson St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.190
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Larsson St and 8th St.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

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Future without Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Dianthus St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.254
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Table with columns for Street Name (Dianthus St, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, and traffic volume metrics (Min. Green, Y+R, Lanes).

Volume Module table showing traffic volume and adjustment factors (Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) for various movements.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different movements.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for various movements.

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Future without Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Larsson St & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.159
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with columns for Street Name (Larsson St, 6th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, and traffic volume metrics (Min. Green, Y+R, Lanes).

Volume Module table showing traffic volume and adjustment factors (Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume) for various movements.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. values for different movements.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for various movements.

Intersection

Int Delay, s/veh 10.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	0	35	0	0	16	37	1734	7	26	2521	11
Future Vol, veh/h	2	0	35	0	0	16	37	1734	7	26	2521	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	36	0	0	16	38	1788	7	27	2599	11

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3628	4529	1305	2961	4532	897	2610	0	0	1795	0	0
Stage 1	2658	2658	-	1868	1868	-	-	-	-	-	-	-
Stage 2	970	1871	-	1093	2664	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	7.14	6.99	6.54	6.94	5.34	-	-	4.14	-	-
Critical Hdwy Stg 1	7.34	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.92	3.67	4.02	3.32	3.12	-	-	2.22	-	-
Pot Cap-1 Maneuver	3	1	129	10	1	283	61	-	-	340	-	-
Stage 1	13	47	-	74	120	-	-	-	-	-	-	-
Stage 2	265	120	-	210	47	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 1	0	129	3	0	283	61	-	-	340	-	-
Mov Cap-2 Maneuver	~ 1	0	-	3	0	-	-	-	-	-	-	-
Stage 1	5	43	-	28	45	-	-	-	-	-	-	-
Stage 2	94	45	-	139	43	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 1123.1	18.5	2.8	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	61	-	-	16	283	340	-
HCM Lane V/C Ratio	0.625	-	-	2.384	0.058	0.079	-
HCM Control Delay (s)	133.7	-	-	\$ 1123.1	18.5	16.5	-
HCM Lane LOS	F	-	-	F	C	C	-
HCM 95th %tile Q(veh)	2.6	-	-	5.4	0.2	0.3	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	92	14	5	45	11	21
Future Vol, veh/h	92	14	5	45	11	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	100	15	5	49	12	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	115
Stage 1	-	-	108
Stage 2	-	-	60
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	1474	822
Stage 1	-	-	916
Stage 2	-	-	963
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1474	820
Mov Cap-2 Maneuver	-	-	820
Stage 1	-	-	916
Stage 2	-	-	960

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	899	-	-	1474	-
HCM Lane V/C Ratio	0.039	-	-	0.004	-
HCM Control Delay (s)	9.2	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection

Intersection Delay, s/veh	8.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	49	5	0	5	28	24	0	8	66	14
Future Vol, veh/h	0	3	49	5	0	5	28	24	0	8	66	14
Peak Hour Factor	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	56	6	0	6	32	28	0	9	76	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.1	7.9	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	5%	9%	24%
Vol Thru, %	75%	86%	49%	70%
Vol Right, %	16%	9%	42%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	88	57	57	177
LT Vol	8	3	5	42
Through Vol	66	49	28	124
RT Vol	14	5	24	11
Lane Flow Rate	101	66	66	203
Geometry Grp	1	1	1	1
Degree of Util (X)	0.123	0.085	0.081	0.246
Departure Headway (Hd)	4.382	4.655	4.464	4.36
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	819	770	803	826
Service Time	2.401	2.677	2.487	2.377
HCM Lane V/C Ratio	0.123	0.086	0.082	0.246
HCM Control Delay	8	8.1	7.9	8.8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3	1

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	42	124	11
Future Vol, veh/h	0	42	124	11
Peak Hour Factor	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	48	143	13
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		8.8		
HCM LOS		A		
Lane				

Intersection

Intersection Delay, s/veh	7.4
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	4	36	6	0	8	37	9	0	10	18	3
Future Vol, veh/h	0	4	36	6	0	8	37	9	0	10	18	3
Peak Hour Factor	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	5	47	8	0	11	49	12	0	13	24	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.4	7.4	7.5
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	32%	9%	15%	42%
Vol Thru, %	58%	78%	69%	53%
Vol Right, %	10%	13%	17%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	31	46	54	19
LT Vol	10	4	8	8
Through Vol	18	36	37	10
RT Vol	3	6	9	1
Lane Flow Rate	41	61	71	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.047	0.068	0.079	0.029
Departure Headway (Hd)	4.187	4.04	4.023	4.246
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	848	881	885	835
Service Time	2.251	2.09	2.071	2.314
HCM Lane V/C Ratio	0.048	0.069	0.08	0.03
HCM Control Delay	7.5	7.4	7.4	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.3	0.1

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	8	10	1
Future Vol, veh/h	0	8	10	1
Peak Hour Factor	0.92	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	13	1
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.4		
HCM LOS		A		
Lane				

APPENDIX F
Future (2017) With-Project LOS Worksheets

801 N. Sepulveda Blvd
Future With Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Sepulveda Bl & Manhattan Beach Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 1.063
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Sepulveda Bl, Manhattan Beach Bl), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves.

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Future With Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Sepulveda Bl & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.842
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 78 Level Of Service: D

Table with columns for Street Name (Sepulveda Bl, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, SHIFTS, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves.

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Future With Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Bl & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.804
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 68 Level Of Service: D

Table with columns for Street Name (Sepulveda Bl, 6th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted), Rights (Include), and various traffic volume metrics.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each approach.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for each approach.

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Future With Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Sepulveda Bl & 2nd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.868
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 86 Level Of Service: D

Table with columns for Street Name (Sepulveda Bl, 2nd St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), and various traffic volume metrics.

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Volume for each approach.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each approach.

Capacity Analysis Module table showing Vol/Sat and Crit Moves for each approach.

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Future With Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Sepulveda Bl-PCH & Artesia Bl-Gould Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 1.086
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Sepulveda Bl-PCH and Artesia Bl-Gould Ave.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

801 N. Sepulveda Blvd
Future With Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Larsson St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.191
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes for Larsson St and 8th St.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Future With Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Dianthus St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.244
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 23 Level Of Service: A

Table with columns for Street Name (Dianthus St, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Future With Project Conditions
AM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Larsson St & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.156
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 21 Level Of Service: A

Table with columns for Street Name (Larsson St, 6th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Permitted, Include), Rights, Min. Green, Y+R, Lanes.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

Intersection

Int Delay, s/veh 3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	0	14	0	0	27	38	3204	5	27	1256	23
Future Vol, veh/h	2	0	14	0	0	27	38	3204	5	27	1256	23
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	80
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	15	0	0	28	40	3338	5	28	1308	24

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2779	4787	654	4129	4784	1671	1308	0	0	3343	0	0
Stage 1	1365	1365	-	3419	3419	-	-	-	-	-	-	-
Stage 2	1414	3422	-	710	1365	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	6.94	6.99	6.54	7.14	4.14	-	-	5.34	-	-
Critical Hdwy Stg 1	6.54	5.54	-	7.34	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.74	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.32	3.67	4.02	3.92	2.22	-	-	3.12	-	-
Pot Cap-1 Maneuver	13	1	409	1	1	73	525	-	-	~ 25	-	-
Stage 1	152	214	-	3	18	-	-	-	-	-	-	-
Stage 2	131	18	-	379	214	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	8	1	409	1	1	73	525	-	-	~ 25	-	-
Mov Cap-2 Maneuver	8	1	-	1	1	-	-	-	-	-	-	-
Stage 1	140	214	-	3	17	-	-	-	-	-	-	-
Stage 2	74	17	-	365	214	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	94.5	82.4	0.1	9.3
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	525	-	-	56	73	~ 25	-
HCM Lane V/C Ratio	0.075	-	-	0.298	0.385	1.125	-
HCM Control Delay (s)	12.4	-	-	94.5	82.4	448.6	-
HCM Lane LOS	B	-	-	F	F	F	-
HCM 95th %tile Q(veh)	0.2	-	-	1	1.5	3.4	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	68	3	7	104	11	24
Future Vol, veh/h	68	3	7	104	11	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	4	9	127	13	29

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	87
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1509
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1509
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	892	-	-	1509	-
HCM Lane V/C Ratio	0.048	-	-	0.006	-
HCM Control Delay (s)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection

Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	14	43	6	0	5	70	39	0	5	70	8
Future Vol, veh/h	0	14	43	6	0	5	70	39	0	5	70	8
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
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	47	7	0	5	76	42	0	5	76	9
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.9	8	8
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	6%	22%	4%	25%
Vol Thru, %	84%	68%	61%	59%
Vol Right, %	10%	10%	34%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	83	63	114	80
LT Vol	5	14	5	20
Through Vol	70	43	70	47
RT Vol	8	6	39	13
Lane Flow Rate	90	68	124	87
Geometry Grp	1	1	1	1
Degree of Util (X)	0.111	0.085	0.145	0.107
Departure Headway (Hd)	4.415	4.459	4.219	4.416
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	814	805	851	813
Service Time	2.432	2.477	2.236	2.434
HCM Lane V/C Ratio	0.111	0.084	0.146	0.107
HCM Control Delay	8	7.9	8	8
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.5	0.4

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	20	47	13
Future Vol, veh/h	0	20	47	13
Peak Hour Factor	0.92	0.92	0.92	0.92
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	22	51	14
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		8		
HCM LOS		A		
Lane				

Intersection

Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	5	16	2	0	1	40	10	0	5	21	1
Future Vol, veh/h	0	5	16	2	0	1	40	10	0	5	21	1
Peak Hour Factor	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	6	20	2	0	1	49	12	0	6	26	1
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.2	7.2	7.3
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	22%	2%	75%
Vol Thru, %	78%	70%	78%	12%
Vol Right, %	4%	9%	20%	12%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	27	23	51	8
LT Vol	5	5	1	6
Through Vol	21	16	40	1
RT Vol	1	2	10	1
Lane Flow Rate	33	28	63	10
Geometry Grp	1	1	1	1
Degree of Util (X)	0.038	0.032	0.069	0.012
Departure Headway (Hd)	4.114	4.049	3.918	4.193
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	867	882	914	849
Service Time	2.156	2.082	1.945	2.239
HCM Lane V/C Ratio	0.038	0.032	0.069	0.012
HCM Control Delay	7.3	7.2	7.2	7.3
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	6	1	1
Future Vol, veh/h	0	6	1	1
Peak Hour Factor	0.92	0.81	0.81	0.81
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	7	1	1
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.3		
HCM LOS		A		
Lane				

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Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #1 Sepulveda Bl & Manhattan Beach Bl

Cycle (sec): 100 Critical Vol./Cap.(X): 1.106
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 180 Level Of Service: F

Table with columns for Street Name (Sepulveda Bl, Manhattan Beach Bl), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include, Ovl), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, and OvlAdjVol.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, OvlAdjV/S, and Crit Moves.

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Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #2 Sepulveda Bl & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.818
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: D

Table with columns for Street Name (Sepulveda Bl, 8th St), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Protected, Permitted), Rights (Include), and traffic volume data (Min. Green, Y+R, Lanes).

Volume Module table showing Base Vol, Growth Adj, Initial Bse, Added Vol, SHIFTS, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table showing Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #3 Sepulveda Bl & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.694
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Sepulveda Bl and 6th St.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves.

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Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #4 Sepulveda Bl & 2nd St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.818
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 71 Level Of Service: D

Table with columns: Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Sepulveda Bl and 2nd St.

Volume Module table with columns: Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns: Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns: Vol/Sat, Crit Moves.

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Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #5 Sepulveda Bl-PCH & Artesia Bl-Gould Ave

Cycle (sec): 100 Critical Vol./Cap.(X): 0.974
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 158 Level Of Service: E

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Sepulveda Bl-PCH and Artesia Bl-Gould Ave.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume, OvlAdjVol.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, OvlAdjV/S, Crit Moves.

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Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #6 Larsson St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.203
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Larsson St and 8th St.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #7 Dianthus St & 8th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.258
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 24 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Dianthus St and 8th St.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

801 N. Sepulveda Blvd
Future With Project Conditions
PM Peak Hour

Level Of Service Computation Report

ICU 1(Loss as Cycle Length %) Method (Future Volume Alternative)

Intersection #8 Larsson St & 6th St

Cycle (sec): 100 Critical Vol./Cap.(X): 0.174
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 22 Level Of Service: A

Table with columns for Street Name, Approach, Movement, Control, Rights, Min. Green, Y+R, Lanes. Rows for Larsson St and 6th St.

Volume Module table with columns for Base Vol, Growth Adj, Initial Bse, Added Vol, PasserByVol, Initial Fut, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, FinalVolume.

Saturation Flow Module table with columns for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with columns for Vol/Sat, Crit Moves.

Intersection

Int Delay, s/veh 10.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	2	0	35	0	0	20	37	1761	7	29	2548	21
Future Vol, veh/h	2	0	35	0	0	20	37	1761	7	29	2548	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	55	-	-	80	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	0	36	0	0	21	38	1815	7	30	2627	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	3681	4596	1324	3006	4603	911	2648	0	0	1823	0	0
Stage 1	2697	2697	-	1895	1895	-	-	-	-	-	-	-
Stage 2	984	1899	-	1111	2708	-	-	-	-	-	-	-
Critical Hdwy	6.99	6.54	7.14	6.99	6.54	6.94	5.34	-	-	4.14	-	-
Critical Hdwy Stg 1	7.34	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.74	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.67	4.02	3.92	3.67	4.02	3.32	3.12	-	-	2.22	-	-
Pot Cap-1 Maneuver	3	1	126	9	1	277	58	-	-	332	-	-
Stage 1	12	45	-	71	117	-	-	-	-	-	-	-
Stage 2	260	116	-	205	44	-	-	-	-	-	-	-
Platoon blocked, %												
Mov Cap-1 Maneuver	~ 1	0	126	3	0	277	58	-	-	332	-	-
Mov Cap-2 Maneuver	~ 1	0	-	3	0	-	-	-	-	-	-	-
Stage 1	4	41	-	24	40	-	-	-	-	-	-	-
Stage 2	83	40	-	133	40	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	\$ 1123.1	19	3	0.2
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	58	-	-	16	277	332	-
HCM Lane V/C Ratio	0.658	-	-	2.384	0.074	0.09	-
HCM Control Delay (s)	145.9	-	-	\$ 1123.1	19	16.9	-
HCM Lane LOS	F	-	-	F	C	C	-
HCM 95th %tile Q(veh)	2.7	-	-	5.4	0.2	0.3	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection

Int Delay, s/veh 2.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	100	14	5	45	14	31
Future Vol, veh/h	100	14	5	45	14	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	109	15	5	49	15	34

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	124
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1463
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1463
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	893	-	-	1463	-
HCM Lane V/C Ratio	0.055	-	-	0.004	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection

Intersection Delay, s/veh	8.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	3	53	5	0	5	31	24	0	8	69	14
Future Vol, veh/h	0	3	53	5	0	5	31	24	0	8	69	14
Peak Hour Factor	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	3	61	6	0	6	36	28	0	9	79	16
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	8.2	8	8.1
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	9%	5%	8%	25%
Vol Thru, %	76%	87%	52%	69%
Vol Right, %	15%	8%	40%	6%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	61	60	181
LT Vol	8	3	5	46
Through Vol	69	53	31	124
RT Vol	14	5	24	11
Lane Flow Rate	105	70	69	208
Geometry Grp	1	1	1	1
Degree of Util (X)	0.128	0.091	0.086	0.254
Departure Headway (Hd)	4.411	4.685	4.504	4.388
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	814	766	796	820
Service Time	2.434	2.709	2.529	2.407
HCM Lane V/C Ratio	0.129	0.091	0.087	0.254
HCM Control Delay	8.1	8.2	8	8.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.4	0.3	0.3	1

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	46	124	11
Future Vol, veh/h	0	46	124	11
Peak Hour Factor	0.92	0.87	0.87	0.87
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	53	143	13
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		8.9		
HCM LOS		A		
Lane				

Intersection

Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	8	36	6	0	8	44	12	0	10	24	3
Future Vol, veh/h	0	8	36	6	0	8	44	12	0	10	24	3
Peak Hour Factor	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76	0.92	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	11	47	8	0	11	58	16	0	13	32	4
Number of Lanes	0	0	1	0	0	0	1	0	0	0	1	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	1	1	1
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	1	1	1
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	1	1	1
HCM Control Delay	7.5	7.5	7.6
HCM LOS	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	27%	16%	12%	42%
Vol Thru, %	65%	72%	69%	53%
Vol Right, %	8%	12%	19%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	37	50	64	19
LT Vol	10	8	8	8
Through Vol	24	36	44	10
RT Vol	3	6	12	1
Lane Flow Rate	49	66	84	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.057	0.075	0.094	0.03
Departure Headway (Hd)	4.217	4.085	4.023	4.283
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	839	870	883	825
Service Time	2.293	2.145	2.081	2.365
HCM Lane V/C Ratio	0.058	0.076	0.095	0.03
HCM Control Delay	7.6	7.5	7.5	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0.3	0.1

Intersection				
Intersection Delay, s/veh				
Intersection LOS				
Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	8	10	1
Future Vol, veh/h	0	8	10	1
Peak Hour Factor	0.92	0.76	0.76	0.76
Heavy Vehicles, %	2	2	2	2
Mvmt Flow	0	11	13	1
Number of Lanes	0	0	1	0
Approach		SB		
Opposing Approach		NB		
Opposing Lanes		1		
Conflicting Approach Left		WB		
Conflicting Lanes Left		1		
Conflicting Approach Right		EB		
Conflicting Lanes Right		1		
HCM Control Delay		7.5		
HCM LOS		A		
Lane				

APPENDIX G
Project Driveway LOS Worksheets

Intersection

Int Delay, s/veh 2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	87	20	49	112	0	24
Future Vol, veh/h	87	20	49	112	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	87	20	49	112	0	24

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	107
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1497
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1497
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	965	-	-	1497	-
HCM Lane V/C Ratio	0.025	-	-	0.033	-
HCM Control Delay (s)	8.8	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	0	37	0	3110	1078	22
Future Vol, veh/h	0	37	0	3110	1078	22
Conflicting Peds, #/hr	0	0	0	0	0	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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	0	3110	1078	22

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2333	550	1100 0
Stage 1	1089	-	- -
Stage 2	1244	-	- -
Critical Hdwy	6.29	6.94	4.14 -
Critical Hdwy Stg 1	5.84	-	- -
Critical Hdwy Stg 2	6.04	-	- -
Follow-up Hdwy	3.67	3.32	2.22 -
Pot Cap-1 Maneuver	44	479	630 -
Stage 1	278	-	- -
Stage 2	215	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	44	479	630 -
Mov Cap-2 Maneuver	44	-	- -
Stage 1	278	-	- -
Stage 2	215	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	13.1	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	630	-	479	-	-
HCM Lane V/C Ratio	-	-	0.077	-	-
HCM Control Delay (s)	0	-	13.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	110	19	44	40	0	28
Future Vol, veh/h	110	19	44	40	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	110	19	44	40	0	28

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	129
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1469
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1469
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.9	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	937	-	-	1469	-
HCM Lane V/C Ratio	0.03	-	-	0.03	-
HCM Control Delay (s)	9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	0	41	0	1560	2410	20
Future Vol, veh/h	0	41	0	1560	2410	20
Conflicting Peds, #/hr	0	0	0	0	0	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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	0	1560	2410	20

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	3200	1215	2430 0
Stage 1	2420	-	- -
Stage 2	780	-	- -
Critical Hdwy	6.29	7.14	5.34 -
Critical Hdwy Stg 1	6.64	-	- -
Critical Hdwy Stg 2	5.84	-	- -
Follow-up Hdwy	3.67	3.92	3.12 -
Pot Cap-1 Maneuver	12	149	75 -
Stage 1	30	-	- -
Stage 2	401	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	12	149	75 -
Mov Cap-2 Maneuver	12	-	- -
Stage 1	30	-	- -
Stage 2	401	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	38.1	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	75	-	149	-	-
HCM Lane V/C Ratio	-	-	0.275	-	-
HCM Control Delay (s)	0	-	38.1	-	-
HCM Lane LOS	A	-	E	-	-
HCM 95th %tile Q(veh)	0	-	1.1	-	-

Intersection

Int Delay, s/veh 2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	88	20	49	113	0	24
Future Vol, veh/h	88	20	49	113	0	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	88	20	49	113	0	24

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	108
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1495
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1495
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	963	-	-	1495	-
HCM Lane V/C Ratio	0.025	-	-	0.033	-
HCM Control Delay (s)	8.8	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection

Int Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	0	37	0	3232	1272	22
Future Vol, veh/h	0	37	0	3232	1272	22
Conflicting Peds, #/hr	0	0	0	0	0	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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	0	3232	1272	22

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	2576	647	1294 0
Stage 1	1283	-	- -
Stage 2	1293	-	- -
Critical Hdwy	6.29	6.94	4.14 -
Critical Hdwy Stg 1	5.84	-	- -
Critical Hdwy Stg 2	6.04	-	- -
Follow-up Hdwy	3.67	3.32	2.22 -
Pot Cap-1 Maneuver	31	414	531 -
Stage 1	219	-	- -
Stage 2	202	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	31	414	531 -
Mov Cap-2 Maneuver	31	-	- -
Stage 1	219	-	- -
Stage 2	202	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	14.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	531	-	414	-	-
HCM Lane V/C Ratio	-	-	0.089	-	-
HCM Control Delay (s)	0	-	14.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection

Int Delay, s/veh 2.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Traffic Vol, veh/h	111	19	44	40	0	28
Future Vol, veh/h	111	19	44	40	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	111	19	44	40	0	28

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	130
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	1468
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1468
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.9	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	936	-	-	1468	-
HCM Lane V/C Ratio	0.03	-	-	0.03	-
HCM Control Delay (s)	9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Traffic Vol, veh/h	0	41	0	1783	2557	20
Future Vol, veh/h	0	41	0	1783	2557	20
Conflicting Peds, #/hr	0	0	0	0	0	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	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	41	0	1783	2557	20

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	3459	1289	2577 0
Stage 1	2567	-	- -
Stage 2	892	-	- -
Critical Hdwy	6.29	7.14	5.34 -
Critical Hdwy Stg 1	6.64	-	- -
Critical Hdwy Stg 2	5.84	-	- -
Follow-up Hdwy	3.67	3.92	3.12 -
Pot Cap-1 Maneuver	8	133	63 -
Stage 1	24	-	- -
Stage 2	351	-	- -
Platoon blocked, %			- -
Mov Cap-1 Maneuver	8	133	63 -
Mov Cap-2 Maneuver	8	-	- -
Stage 1	24	-	- -
Stage 2	351	-	- -

Approach	EB	NB	SB
HCM Control Delay, s	43.7	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	63	-	133	-	-
HCM Lane V/C Ratio	-	-	0.308	-	-
HCM Control Delay (s)	0	-	43.7	-	-
HCM Lane LOS	A	-	E	-	-
HCM 95th %tile Q(veh)	0	-	1.2	-	-

APPENDIX H
Gelson's Parking Surveys Summary

SITE SURVEYS - DATA INPUTS AND FACTORING SUMMARY

Transit Reduction:
0.97

Transit Reduction:
0.97

Site Size Factor:
1.03

Site Size Factor:
1.03

Time of Day
7:00
8:00
9:00
10:00
11:00
Noon
1:00PM
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00

Survey DAY 1 - Tuesday		
Hollywood/ Franklin Survey	On-Site/ Leaving Vehs	Factored Total
48	1	47
56	5	51
60	4	56
66	6	60
87	4	83
103	3	100
96	3	93
95	3	92
95	6	89
101	2	99
80	4	76
94	4	90
84	4	80
75	2	73
69	4	65
60	0	60

Survey DAY 2 - Wed		
Hollywood/ Franklin Survey	On-Site/ Leaving Vehs	Factored Total
43	1	42
58	3	55
63	2	61
75	4	71
86	5	81
88	8	80
92	5	87
88	5	83
105	4	101
100	5	95
90	3	87
81	3	78
84	6	78
84	6	78
63	3	60
69	0	69

Transit Reduction:
0.97

Site Size Factor:
1.03

Time of Day
7:00
8:00
9:00
10:00
11:00
Noon
1:00PM
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00

Survey DAY 3 - Sat		
Hollywood/ Franklin Survey	On-Site/ Leaving Vehs	Factored Total
33	0	33
38	0	38
58	0	57
88	0	88
83	1	82
107	9	98
106	2	104
111	0	111
109	0	109
110	9	101
94	6	88
101	3	98
73	3	70
62	1	61
48	0	48
44	0	44

Gelson's Market Parking Study

Location: 5877 Franklin Ave
City: Los Angeles

Day: Tuesday
Date: 05/19/15

TIME	REGULAR		HANDICAPPED		Motorcycle	Illegal	TOTAL
	Customer	Employee	Customer	Employee			
Spaces	112		5		1		118
7:00 AM	28	19	0	0	0	1	48
7:30 AM	25	22	0	0	0	0	47
8:00 AM	34	21	0	0	0	1	56
8:30 AM	30	23	0	0	0	0	53
9:00 AM	33	27	0	0	0	0	60
9:30 AM	26	28	1	0	0	0	55
10:00 AM	33	30	3	0	0	0	66
10:30 AM	31	30	1	0	0	0	62
11:00 AM	50	34	3	0	0	0	87
11:30 AM	41	35	4	0	0	0	80
12:00 PM	63	35	3	0	1	1	103
12:30 PM	55	34	1	0	0	0	90
1:00 PM	58	35	3	0	0	0	96
1:30 PM	43	34	4	0	0	0	81
2:00 PM	57	34	3	0	1	0	95
2:30 PM	58	35	0	0	1	0	94
3:00 PM	61	31	3	0	0	0	95
3:30 PM	56	36	1	0	0	0	93
4:00 PM	54	35	3	0	0	0	92
4:30 PM	65	34	2	0	0	0	101
5:00 PM	49	29	2	0	0	0	80
5:30 PM	47	29	3	0	0	0	79
6:00 PM	64	29	1	0	0	0	94
6:30 PM	46	26	0	0	0	0	72
7:00 PM	43	28	1	0	0	0	72
7:30 PM	60	24	0	0	0	0	84
8:00 PM	52	23	0	0	0	0	75
8:30 PM	43	24	1	0	0	0	68
9:00 PM	48	21	0	0	0	0	69
9:30 PM	37	22	2	0	0	0	61
10:00 PM	37	23	0	0	0	0	60

Hourly Data Consolidated

48	7:00 AM
56	8:00 AM
60	9:00 AM
66	10:00 AM
87	11:00 AM
103	12:00 PM
96	1:00 PM
95	2:00 PM
95	3:00 PM
101	4:00 PM
80	5:00 PM
94	6:00 PM
84	7:00 PM
75	8:00 PM
69	9:00 PM
60	10:00 PM

Observation Study

Location: 5877 Franklin Ave

City: Los Angeles

Day: Tuesday

Date: 05/19/15

Time	Vehicles that Park On-Site & Leave
7:00 AM	1
7:30 AM	0
8:00 AM	0
8:30 AM	5
9:00 AM	2
9:30 AM	4
10:00 AM	0
10:30 AM	6
11:00 AM	4
11:30 AM	4
12:00 PM	3
12:30 PM	0
1:00 PM	3
1:30 PM	1
2:00 PM	3
2:30 PM	2
3:00 PM	6
3:30 PM	2
4:00 PM	2
4:30 PM	2
5:00 PM	3
5:30 PM	4
6:00 PM	2
6:30 PM	4
7:00 PM	2
7:30 PM	4
8:00 PM	1
8:30 PM	2
9:00 PM	4
9:30 PM	3
10:00 PM	0
TOTAL	79

Gelson's Market Parking Study

Location: 5877 Franklin Ave
City: Los Angeles

Day: Wednesday
Date: 05/20/15

TIME	REGULAR		HANDICAPPED		Motorcycle	Illegal	TOTAL
	Customer	Employee	Customer	Employee			
Spaces	112		5		1		118
7:00 AM	13	21	0	0	0	0	34
7:30 AM	18	25	0	0	0	0	43
8:00 AM	22	27	2	0	0	0	51
8:30 AM	27	29	1	0	0	1	58
9:00 AM	21	33	1	0	0	1	56
9:30 AM	29	33	0	0	0	1	63
10:00 AM	40	34	1	0	0	0	75
10:30 AM	43	32	0	0	0	0	75
11:00 AM	47	34	3	0	0	0	84
11:30 AM	45	40	1	0	0	0	86
12:00 PM	46	39	2	0	0	0	87
12:30 PM	51	34	3	0	0	0	88
1:00 PM	53	35	3	0	1	0	92
1:30 PM	43	34	0	0	0	1	78
2:00 PM	46	32	0	0	0	2	80
2:30 PM	54	32	2	0	0	0	88
3:00 PM	67	25	2	0	0	0	94
3:30 PM	75	29	1	0	0	0	105
4:00 PM	64	33	3	0	0	0	100
4:30 PM	48	34	2	0	0	0	84
5:00 PM	47	30	2	0	0	0	79
5:30 PM	56	29	5	0	0	0	90
6:00 PM	52	27	2	0	0	0	81
6:30 PM	40	24	2	0	0	0	66
7:00 PM	63	19	1	0	0	0	83
7:30 PM	65	18	1	0	0	0	84
8:00 PM	63	21	0	0	0	0	84
8:30 PM	56	19	1	0	0	0	76
9:00 PM	46	17	0	0	0	0	63
9:30 PM	43	19	0	0	0	0	62
10:00 PM	49	20	0	0	0	0	69

Hourly Data Consolidated

43	7:00 AM
58	8:00 AM
63	9:00 AM
75	10:00 AM
86	11:00 AM
88	12:00 PM
92	1:00 PM
88	2:00 PM
105	3:00 PM
100	4:00 PM
90	5:00 PM
81	6:00 PM
84	7:00 PM
84	8:00 PM
63	9:00 PM
69	10:00 PM

Observation Study

Location: 5877 Franklin Ave

City: Los Angeles

Day: Wednesday

Date: 05/20/15

Time	Vehicles that Park On-Site & Leave
7:00 AM	0
7:30 AM	1
8:00 AM	2
8:30 AM	3
9:00 AM	0
9:30 AM	2
10:00 AM	4
10:30 AM	4
11:00 AM	2
11:30 AM	5
12:00 PM	8
12:30 PM	4
1:00 PM	5
1:30 PM	3
2:00 PM	5
2:30 PM	4
3:00 PM	4
3:30 PM	4
4:00 PM	5
4:30 PM	1
5:00 PM	3
5:30 PM	2
6:00 PM	2
6:30 PM	3
7:00 PM	6
7:30 PM	4
8:00 PM	6
8:30 PM	4
9:00 PM	2
9:30 PM	3
10:00 PM	0
TOTAL	101

Gelson's Market Parking Study

Location: 5877 Franklin Ave
City: Los Angeles

Day: Saturday
Date: 05/16/15

TIME	REGULAR		HANDICAPPED		Motorcycle	Illegal	TOTAL
	Customer	Employee	Customer	Employee			
Spaces	112		5		1		118
7:00 AM	19	14	0	0	0	0	33
7:30 AM	17	15	0	0	0	0	32
8:00 AM	18	20	0	0	0	0	38
8:30 AM	11	27	0	0	0	0	38
9:00 AM	24	29	0	0	0	0	53
9:30 AM	26	31	1	0	0	0	58
10:00 AM	36	37	0	0	1	0	74
10:30 AM	47	38	2	0	1	0	88
11:00 AM	46	36	0	0	1	0	83
11:30 AM	39	34	3	0	1	0	77
12:00 PM	57	36	4	0	1	1	99
12:30 PM	67	37	1	0	1	1	107
1:00 PM	65	37	1	0	1	1	105
1:30 PM	66	35	2	0	1	2	106
2:00 PM	69	37	4	0	1	0	111
2:30 PM	67	38	0	0	1	0	106
3:00 PM	57	40	3	0	1	0	101
3:30 PM	73	32	2	0	1	1	109
4:00 PM	76	30	2	0	1	1	110
4:30 PM	59	26	4	0	1	1	91
5:00 PM	65	23	2	0	1	1	92
5:30 PM	66	24	2	0	1	1	94
6:00 PM	74	22	4	0	1	0	101
6:30 PM	53	23	0	0	1	0	77
7:00 PM	50	22	0	0	1	0	73
7:30 PM	39	15	0	0	0	0	54
8:00 PM	47	14	1	0	0	0	62
8:30 PM	42	14	0	0	0	0	56
9:00 PM	36	12	0	0	0	0	48
9:30 PM	35	12	0	0	0	0	47
10:00 PM	34	10	0	0	0	0	44

Hourly Data Consolidated

33	7:00 AM
38	8:00 AM
58	9:00 AM
88	10:00 AM
83	11:00 AM
107	12:00 PM
106	1:00 PM
111	2:00 PM
109	3:00 PM
110	4:00 PM
94	5:00 PM
101	6:00 PM
73	7:00 PM
62	8:00 PM
48	9:00 PM
44	10:00 PM

Prepared by National Data & Surveying Services

Observation Study

Location: 5877 Franklin Ave

City: Los Angeles

Day: Saturday

Date: 05/16/15

Time	Vehicles that Park On-Site & Leave
7:00 AM	0
7:30 AM	0
8:00 AM	0
8:30 AM	0
9:00 AM	0
9:30 AM	0
10:00 AM	0
10:30 AM	0
11:00 AM	1
11:30 AM	0
12:00 PM	9
12:30 PM	2
1:00 PM	2
1:30 PM	1
2:00 PM	0
2:30 PM	0
3:00 PM	0
3:30 PM	0
4:00 PM	2
4:30 PM	9
5:00 PM	6
5:30 PM	3
6:00 PM	2
6:30 PM	3
7:00 PM	1
7:30 PM	3
8:00 PM	1
8:30 PM	1
9:00 PM	0
9:30 PM	0
10:00 PM	0
TOTAL	46