

*Appendix Q*  
*Traffic Study*



## *Appendices*

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# TRAFFIC IMPACT ANALYSIS



## CRUMMER SITE SUBDIVISION

City of Malibu, CA

*arch beach*

C O N S U L T I N G

December 7, 2012

# TRAFFIC IMPACT ANALYSIS

## CRUMMER SITE SUBDIVISION

City of Malibu, California

*Prepared by*



Project No. 12-005  
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## TABLE OF CONTENTS

<b>1.0</b>	<b>INTRODUCTION</b> .....	<b>1</b>
	Purpose and Objectives of the Traffic Study .....	1
	Site Location and Study Area .....	2
	Methodology .....	2
	Significance Criteria.....	4
	Traffic Analysis Scenarios .....	5
<b>2.0</b>	<b>PROJECT DESCRIPTION AND TRAFFIC GENERATION</b> .....	<b>7</b>
	Project Description .....	7
	Trip Distribution and Assignment .....	9
<b>3.0</b>	<b>EXISTING CONDITIONS ANALYSIS</b> .....	<b>12</b>
	Existing plus Project.....	14
<b>4.0</b>	<b>OPENING YEAR 2017 TRAFFIC CONDITIONS</b> .....	<b>18</b>
	Opening Year 2017 Baseline Condition.....	18
	Opening Year 2017 plus Project.....	27
<b>5.0</b>	<b>FUTURE YEAR 2030 TRAFFIC CONDITIONS</b> .....	<b>32</b>
	Future Year 2030 Baseline Condition .....	32
	Future Year 2030 plus Project.....	35
<b>6.0</b>	<b>PROJECT ACCESS, CIRCULATION AND PARKING</b> .....	<b>40</b>
	Project Access and Circulation.....	41
	Parking.....	41
<b>7.0</b>	<b>PROJECT ALTERNATIVE</b> .....	<b>44</b>
	Trip Generation .....	44
	Trip Distribution and Assignment .....	45
	Existing plus Project Alternative .....	45
	Opening Year 2017 plus Project Alternative.....	49
	Future Year 2030 plus Project Alternative .....	53
	Parking.....	57
<b>8.0</b>	<b>CONCLUSIONS AND MITIGATION MEASURES</b> .....	<b>58</b>
	Project Trip Generation .....	58
	Existing plus Project.....	58
	Opening Year 2017 plus Project.....	58
	Future Year 2030 plus Project.....	59
	Project Access, Circulation and Parking.....	60
	Project Alternative .....	60
<b>9.0</b>	<b>REFERENCES</b> .....	<b>62</b>

## LIST OF TABLES

Table A – Level of Service Definitions .....	2
Table B – Level of Service Descriptions.....	4
Table C – City of Malibu Significance Criteria .....	4
Table D – Weekday Project Trip Generation Estimates .....	9
Table E – Saturday Project Trip Generation Estimates .....	9
Table F – Existing Condition Intersection Level of Service Summary.....	13
Table G – Existing Condition Roadway Segment Level of Service Summary .....	13
Table H – Existing plus Project Intersection Level of Service Summary .....	17
Table I – Existing plus Project Roadway Segment Level of Service Summary .....	17
Table J – Cumulative Projects Weekday Trip Generation Estimates .....	19
Table K – Cumulative Projects Saturday Trip Generation Estimates .....	20
Table L – Opening Year 2017 Baseline Intersection Level of Service Summary .....	26
Table M – Opening Year 2017 Baseline Roadway Segment Level of Service Summary .....	26
Table N – Opening Year 2017 plus Project Intersection Level of Service Summary .....	30
Table O – Opening Year 2017 plus Project Roadway Segment Level of Service Summary .....	30
Table P – Future Year 2030 Baseline Intersection Level of Service Summary .....	35
Table Q – Future Year 2030 Baseline Roadway Segment Level of Service Summary.....	35
Table R – Future Year 2030 plus Project Intersection Level of Service Summary .....	39
Table S – Future Year 2030 plus Project Roadway Segment Level of Service Summary .....	39
Table T – Weekday Project Alternative Trip Generation Estimates .....	44
Table U – Saturday Project Alternative Trip Generation Estimates .....	45
Table V – Existing plus Project Alternative Intersection Level of Service Summary .....	48
Table W – Existing plus Project Roadway Segment Level of Service Summary .....	48
Table X – Opening Year 2017 plus Alternative Intersection Level of Service Summary.....	52
Table Y – Opening Year 2017 plus Alternative Roadway Segment Level of Service Summary .....	52
Table Z – Future Year 2030 plus Alternative Intersection Level of Service Summary .....	56
Table AA – Future Year 2030 plus Alternative Roadway Segment Level of Service Summary .....	56

## LIST OF FIGURES

Figure 1 – Project Site Location, Study Area and Intersection Controls and Geometrics.....	3
Figure 2 – Project Site Plan.....	8
Figure 3 – Project Weekday AM and PM Peak Hour Trip Distribution and Assignment .....	10
Figure 4 – Project Saturday Midday Peak Hour Trip Distribution and Assignment .....	11
Figure 5 – Existing Weekday AM and PM Peak Hour Traffic Volumes .....	15
Figure 6 – Existing Saturday Midday Peak Hour Traffic Volumes .....	16
Figure 7 – Cumulative Projects Location Map .....	21
Figure 8 – Cumulative Projects Weekday AM and PM Peak Hour Trip Assignment .....	22
Figure 9 – Cumulative Projects Saturday Midday Peak Hour Trip Assignment.....	23
Figure 10 – Opening Year 2017 Baseline Weekday AM and PM Peak Hour Traffic Volumes .....	24
Figure 11 – Opening Year 2017 Baseline Saturday Midday Peak Hour Traffic Volumes.....	25
Figure 12 – Opening Year 2017 plus Project Weekday AM and PM Peak Hour Traffic Volumes ....	28
Figure 13 – Opening Year 2017 plus Project Saturday Midday Peak Hour Traffic Volumes.....	29
Figure 14 – Future Year 2030 Baseline Weekday AM and PM Peak Hour Traffic Volumes.....	33
Figure 15 – Future Year 2030 Baseline Saturday Midday Peak Hour Traffic Volumes.....	34
Figure 16 – Future Year 2030 plus Project Weekday AM and PM Peak Hour Traffic Volumes .....	37
Figure 17 – Future Year 2030 plus Project Saturday Midday Peak Hour Traffic Volumes.....	38
Figure 18 – Project Alternative Weekday AM and PM Peak Hour Trip Distribution and Assignment.....	46
Figure 19 – Project Alternative Saturday Midday Peak Hour Trip Distribution and Assignment .....	47
Figure 20 – Opening Year 2017 plus Project Alternative Weekday AM and PM Peak Hour Traffic Volumes .....	50
Figure 21 – Opening Year 2017 plus Project Alternative Saturday Midday Peak Hour Traffic Volumes .....	51
Figure 22 – Future Year 2030 plus Project Alternative Weekday AM and PM Peak Hour Traffic Volumes .....	54
Figure 23 – Future Year 2030 plus Project Alternative Saturday Midday Peak Hour Traffic Volumes .....	55

## APPENDICES

- Appendix A – Raw Traffic Volume Count Sheets
- Appendix B – Intersection Level of Service Worksheets
- Appendix C – Roadway Segment Analysis Worksheet
- Appendix D – Cumulative Projects List and Trip Assignments

## 1.0 INTRODUCTION

The following presents the traffic impact analysis (TIA) prepared by Arch Beach Consulting for the proposed Crummer Site Subdivision (proposed project) located at the southeast corner of Malibu Canyon Road/Pacific Coast Highway – State Route 1 (PCH – SR 1), adjacent to the Michael Landon Community Center, in the City of Malibu (City).

The proposed project would allow for the development of five single family homes and a baseball field. The baseball field would be available for use by the public. As a project alternative, the baseball field could be developed as a public skate park. Access to the residential units would be provided by a private street that would intersect with Winter Mesa Drive. The southern leg of Malibu Canyon Road would terminate at Winter Mesa Drive. This private street would be equipped with a security gate and kiosk. Access to the baseball field or skate park would be provided from Winter Mesa Drive.

Per the *Guidelines for CMP Transportation Impact Analysis*, which is Appendix B of the *Los Angeles County Congestion Management Program (CMP)*, a traffic analysis shall address all CMP arterial monitoring intersections where the proposed project would add 50 or more trips during the weekday peak hour and any mainline freeway monitoring locations where the project would add 150 or more trips in either direction during the peak hour. The only CMP arterial roadway in the vicinity of the project site is PCH, which runs along the north edge of the project site. The proposed project would generate more than 50 peak hour trips to the intersection of Malibu Canyon Road/PCH. However, at all other CMP monitoring intersections, the proposed project would generate less than 50 peak hour trips; and, there are no freeways in the project area, therefore the proposed project would not add 150 or more trips to a freeway, and a CMP freeway analysis would not be required.

The following TIA has been prepared consistent with the requirements of the City of Malibu Public Works Department, the Los Angeles County CMP, and the California Environmental Quality Act (CEQA).

### ***Purpose and Objectives of the Traffic Study***

The purpose of this traffic study is to evaluate the traffic and circulation impacts of the proposed project. The study objectives of this traffic study include:

- Establish the existing baseline traffic conditions.
- Develop the projected future baseline conditions without the project by considering the cumulative effects of regional growth and traffic generated by other development projects in the study vicinity.
- Estimate the level of traffic that would be generated by the proposed development.
- Conduct a comparative analysis of traffic conditions with and without the project.
- Identify potential mitigation measures/roadway improvements.

The analysis is based on weekday morning (a.m.), weekday afternoon (p.m.), and Saturday midday peak hour traffic volumes on the roadways and intersections in the immediate project vicinity.

## Site Location and Study Area

Figure 1 illustrates the project site location, study area, and intersection traffic control and geometrics. Local access to the project site is provided by Malibu Canyon Road – Winter Mesa Drive and PCH. Also shown on Figure 1 are the study area intersections. The study area intersections are as follows:

1. Malibu Canyon Road/Pacific Coast Highway – State Route 1 (PCH – SR 1)
2. Malibu Canyon Road/Seaver Drive – Civic Center Way

## Methodology

### Intersections

The signalized study area intersections were analyzed using the Intersection Capacity Utilization (ICU) methodology for weekday and Saturday peak hour levels of service (LOS). The ICU method determines the volume-to-capacity (V/C) ratio on a critical lane basis and determines LOS associated with each critical V/C ratio at the signalized intersection.

### Roadway Segments

The study area roadway segments were analyzed using the *Highway Capacity Manual* (HCM) methodology as prescribed in the City's traffic study guidelines. The Highway Capacity Software (HCS) Multilane Highways module was used to calculate LOS values for each study area roadway segment. HCS calculates the density of the subject roadway segment in terms of passenger cars per lane per mile (pcplpm) and assigns a specific level of service (LOS A – F).

The degree of congestion at an intersection is described by the level of service, which ranges from LOS A to LOS F, with LOS A representing free-flow conditions with little delay and LOS F representing over-saturated traffic flow throughout the peak hour. A complete description of the meaning of level of service can be found in the Highway Research Board Special Report 209, *Highway Capacity Manual* (HCM 2000). Brief descriptions of the six levels of service for signalized intersections are shown in Table A.

**Table A – Level of Service Definitions**

Level of Service	V/C Ratio or ICU (signalized)	Control Delay in Seconds (unsignalized)
A	0.00 – 0.60	0.0 – 10.0 seconds
B	0.61 – 0.70	10.1 – 15.0 seconds
C	0.71 – 0.80	15.1 – 25.0 seconds
D	0.81 – 0.90	25.1 – 35.0 seconds
E	0.91 – 1.00	35.1 – 50.0 seconds
F	1.01 or greater	50.1 seconds or greater

Table B below provides detailed descriptions of each level of service.

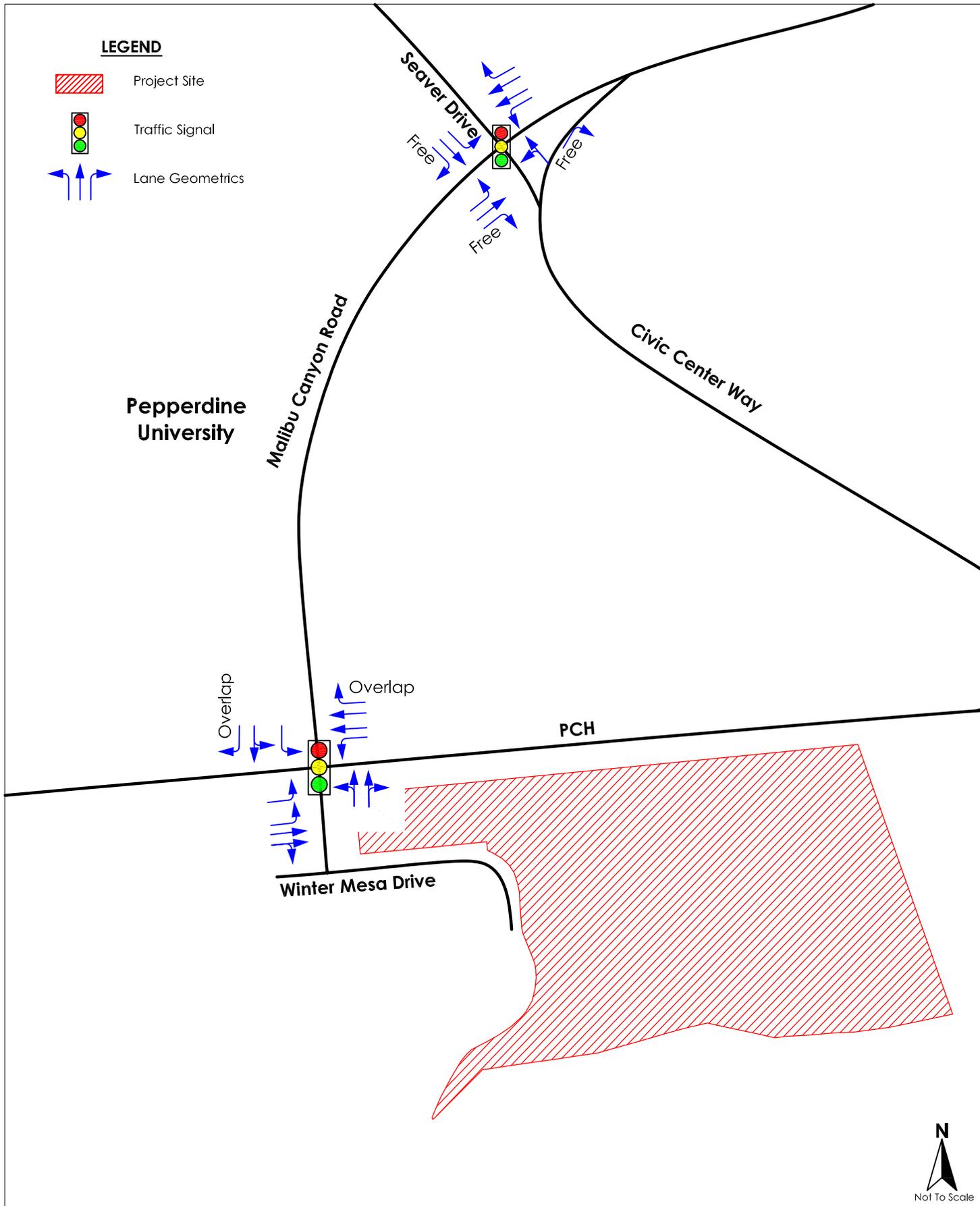


Figure 1  
Project Site Location, Study Area,  
and Geometrics

**Table B – Level of Service Descriptions**

LOS	Description
A	No approach phase is fully utilized by traffic, and no vehicle waits longer than one red indication. Typically, the approach appears quite open, turns are made easily, and nearly all drivers find freedom of operation.
B	This service level represents stable operation, where an occasional approach phase is fully utilized and a substantial number are nearing full use. Many drivers begin to feel restricted within platoons of vehicles.
C	This level still represents stable operating conditions. Occasionally drivers may have to wait through more than one red signal indication, and backups may develop behind turning vehicles. Most drivers feel somewhat restricted, but not objectionably so.
D	This level encompasses a zone of increasing restriction approaching instability at the intersection. Delays to approaching vehicles may be substantial during short peaks within the peak period; however, enough cycles with lower demand occur to permit periodic clearance of developing queues, thus preventing excessive backups.
E	Capacity occurs at the upper end of this service level. It represents the most vehicles that any particular intersection approach can accommodate. Full utilization of every signal cycle is seldom attained no matter how great the demand.
F	This level describes forced flow operations at low speeds, where volumes exceed capacity. These conditions usually result from queues of vehicles backing up from a restriction downstream. Speeds are reduced substantially, and stoppages may occur for short or long periods of time due to the congestion. In the extreme case, both speed and volume can drop to zero.

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington, D.C., 2000.

### ***Significance Criteria***

The City of Malibu has established specific thresholds for project related increases in the V/C of study intersections and roadways. Table C illustrates the V/C ratio increases that are considered to be significant impacts.

**Table C – City of Malibu Significance Criteria**

Level of Service (LOS)	Pre-Project V/C <sup>1</sup>	Project Related V/C increase
C	> 0.70 – 0.80	equal to or greater than 0.040
D	> 0.80 – 0.90	equal to or greater than 0.020
E, F	> 0.90 or more	equal to or greater than 0.010

## Regulatory Setting

The roadway network in the study area that would serve as an access system for the project site is within the jurisdiction of three public agencies: Caltrans, Los Angeles County, and the City of Malibu. These agencies are responsible for the operation and maintenance of the study area roadways. The implementation of any proposed mitigation measures regarding the roadway network would, therefore, be subject to approval by the responsible public agency. With regard to the roadways that were addressed in this analysis, PCH (SR 1) is a Caltrans facility, Malibu Canyon Road is partially a City of Malibu facility and partially a Los Angeles County facility, and Civic Center Way and Winter Mesa Drive are City of Malibu facilities. Any modifications to the operation of a roadway by the project applicant and/or a contractor would require the issuance of an encroachment permit by the responsible agency prior to the proposed action.

## Congestion Management Program Standards

According to the *Guidelines for CMP Transportation Impact Analysis*, which is Appendix B of the Los Angeles County *Congestion Management Program (CMP)*, a traffic analysis shall address all CMP arterial monitoring intersections where the proposed project would add 50 or more trips during the weekday peak hour and any mainline freeway monitoring locations where the project would add 150 or more trips in either direction during the peak hour. The only CMP arterial roadway in the vicinity of the project site is PCH (SR 1), which runs along the north edge of the project site.

As the intersection of Malibu Canyon Road/PCH is a CMP arterial monitoring location, this intersection was evaluated in the traffic impact analysis. According to the CMP criteria for determining a significant impact, a CMP intersection would be significantly impacted by a project if the project would result in an increase in the V/C ratio of 0.02 or greater at an intersection that is projected to operate at LOS F.

Other CMP intersections in the project vicinity are PCH at Decker Canyon Road, Kanan Dune Road, and Las Flores Canyon Road. Based on the assumed distribution of project-generated traffic, a maximum of 50 percent of the project traffic would travel through any of these intersections, which equates to less than 50 trips during the peak hours. As the resulting project trip assignment would be below the CMP threshold of 50 peak hour trips, a CMP traffic analysis was not required for these other arterial monitoring intersections. With regard to freeways, there are no freeways in the project area. The project would not, therefore, add 150 or more trips to a freeway and a CMP freeway analysis would not be required.

## Design Safety

The proposed project would use the same access and circulation features that are already in place at the project site, which were designed in conformance with the City of Malibu, Los Angeles County, and Caltrans standards. The project would require a new intersection on Winter Mesa Drive south of PCH, which would be designed in conformance with the City of Malibu's standards. This east leg (westbound approach) of this intersection would be a new primary access driveway for the proposed five single-family homes. This intersection would be stop-controlled with a stop sign on the westbound approach, giving right-of-way to the north-south movements on Winter Mesa Drive.

## Traffic Analysis Scenarios

This traffic study analyzed the following traffic scenarios:

## **Existing Condition**

Existing weekday peak hour traffic volumes were collected by the City on July 12, 2012 at both study area intersections. Saturday peak hour counts for both intersections were also collected by the City on July 14, 2012. The existing traffic scenario constitutes the environmental setting in accordance with the CEQA analysis at the time that the hearing body reviews the proposed project.

## **Existing plus Project Condition**

The Existing plus Project Condition traffic was developed by adding the proposed project traffic to the Existing Baseline Condition. This scenario is the basis for determining project-specific impacts and mitigation measures.

## **Opening Year 2017 Baseline Condition**

The proposed project is anticipated to be built and fully operational by year 2017. Opening year traffic in this scenario was forecast for 2017 by applying an ambient growth rate to the existing traffic volumes. In addition to the ambient growth rate, traffic from approved and pending projects (i.e. cumulative projects) in the project's vicinity has been added. Data for the cumulative projects (location and land use) were obtained from the City, and trip generation, distribution, and assignment estimates were determined for each cumulative project in the study area.

## **Opening Year 2017 plus Project Condition**

The Opening Year 2017 plus Project Condition traffic was developed by adding the proposed project traffic to the Opening Year Baseline Condition. This scenario is also the basis for determining project-specific impacts and mitigation measures.

## **Future Year 2030 Baseline Condition**

A General Plan buildout year of 2030 was analyzed in this TIA. Traffic for the Future Year 2030 Baseline condition was forecast by applying an ambient growth rate to the existing traffic volumes. In addition to the ambient growth rate, traffic from approved and pending projects (i.e. cumulative projects) in the project's vicinity has been added. Data for the cumulative projects (location and land use) were obtained from the City, and trip generation, distribution, and assignment estimates were determined for each cumulative project in the study area.

## **Future Year 2030 plus Project Condition**

The Future Year 2030 plus Project Condition traffic was developed by adding the proposed project traffic to the Future Year Baseline Condition. This scenario is also the basis for determining project-specific impacts and mitigation measures.

## 2.0 PROJECT DESCRIPTION AND TRAFFIC GENERATION

The following section provides information on the permanent operation of the proposed project relative to the local and regional circulation network.

### *Project Description*

Figure 2 illustrates the site plan of the proposed project. The proposed Crummer Site Subdivision (proposed project) is located at the southeast corner of Malibu Canyon Road/PCH (SR 1), adjacent to the Michael Landon Community Center, in the Central Malibu area.

The proposed project would allow for the development of five single family homes and a baseball field. The baseball field would be available for use by the public. As a project alternative, the baseball field could be developed as a public skate park. Access to the residential units would be provided by a private street that would intersect with Winter Mesa Drive, which is a continuation of Malibu Canyon Road south of PCH. This private street would be equipped with a security gate and kiosk. Access to the baseball field or skate park would be provided from Winter Mesa Drive.

### **Project Traffic**

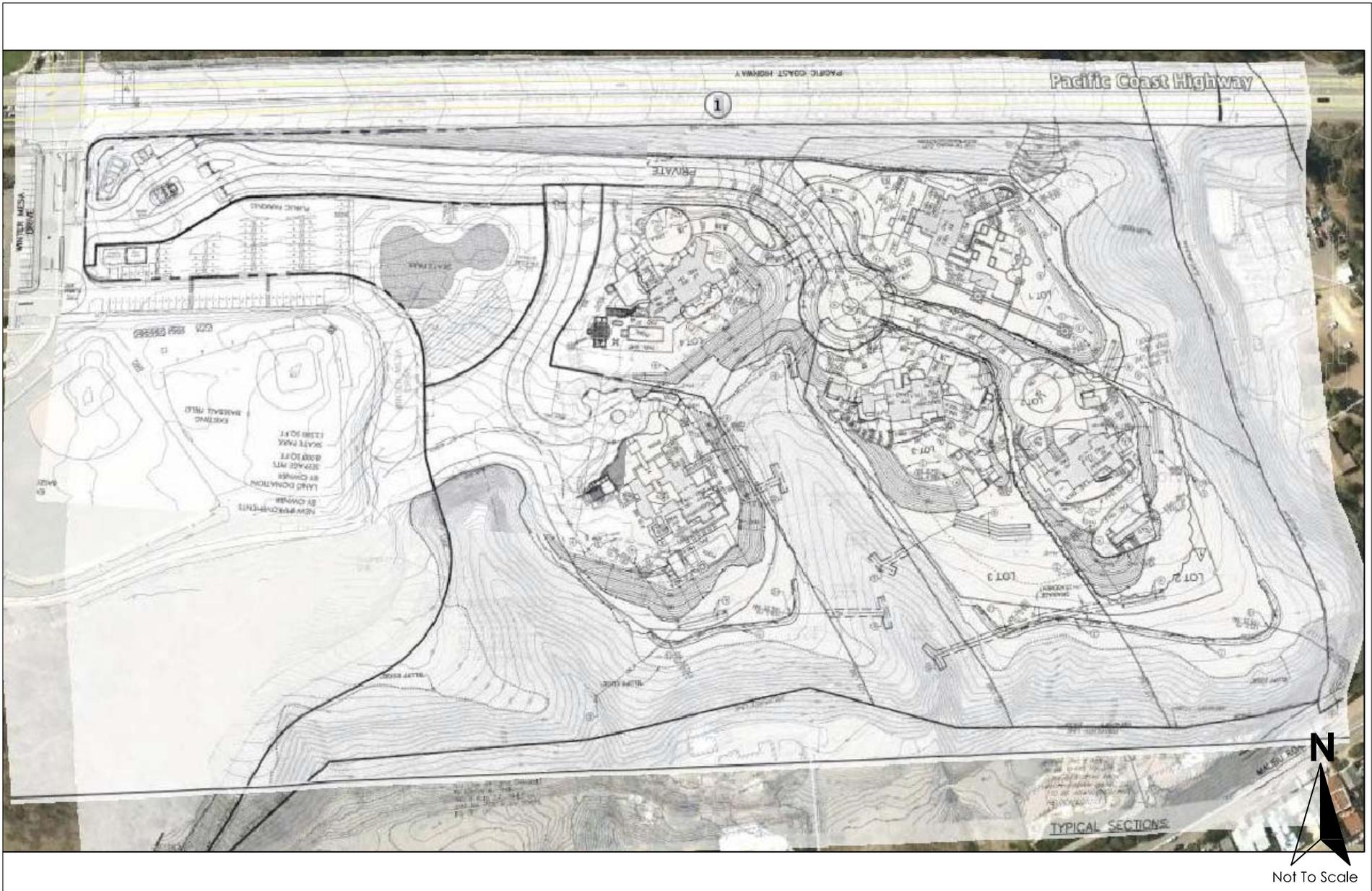
This section describes the trip generation, distribution, and assignment of the proposed project's traffic volumes on the study area transportation network facilities.

### **Trip Generation**

Weekday daily, a.m. and p.m. peak hour; and, Saturday daily and midday peak hour, trip generation estimates for the proposed project were developed using trip rates provided in the Institute of Transportation Engineers (ITE) *Trip Generation, 8<sup>th</sup> Edition*. There are no ITE trip rates for a baseball field recreational land use. Therefore, the trip generation estimates for the baseball field were determined using an "operational trip generation analysis" based on the assumptions outlined below. The patronage estimates for the baseball field were obtained from the City.

- Two (2) games per day on weekdays, and 10 games per day on Saturdays.
- Up to 14 players per team at a little league game.
- A game would generate an average of one vehicle per player.
- Two teams at 14 players per team would generate 28 vehicle trips (one-way).
- For weekdays and Saturdays, two additional trips (one-way) were assumed for officials and miscellaneous spectators.
- No games or practice during the weekday morning peak hour.
- For weekends only, 16 additional trips (one-way) were assumed for 32 additional spectators with a 2.0 average vehicle occupancy.
- Total weekday trip generation of 60 trips (30 inbound and 30 outbound per game).
- Total Saturday trip generation of 92 trips (46 inbound and 46 outbound per game).

Summaries of the trip generation rates and resulting vehicle trips for the proposed project are presented in Table D for the weekday and Table E for a Saturday.



Not To Scale

Source: PSOMAS, 2009.

Figure 2  
Project Site Plan

**Table D – Weekday Project Trip Generation Estimates**

Land Use	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<b>TRIP RATES</b>								
Single-Family Detached (ITE 210) <sup>1</sup>	per DU	9.57	0.19	0.56	0.75	0.64	0.37	1.01
Baseball Field <sup>2</sup>	per game	60	0	0	0	15	15	30
<b>TRIP GENERATION</b>								
Single-Family Detached	5 DUs	48	1	3	4	3	2	5
Baseball Field	2 games	120	0	0	0	30	30	60
<b>TOTAL TRIP GENERATION</b>		<b>168</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>33</b>	<b>32</b>	<b>65</b>

Notes: <sup>1</sup> Trip rates for Single-Family Detached homes are from Trip Generation, 8<sup>th</sup> Edition, Institute of Transportation Engineers, 2008. DU = dwelling unit

<sup>2</sup> Trip generation for Baseball Field based on operational data provided by City of Malibu staff.

According to the table, during the weekdays, the proposed project would generate approximately 168 daily trips, four (4) a.m. peak hour trips (one inbound and three outbound), and 65 p.m. peak hour trips (33 inbound and 32 outbound).

**Table E – Saturday Project Trip Generation Estimates**

Land Use	Size/Units	Daily	Midday Peak Hour		
			In	Out	Total
<b>TRIP RATES</b>					
Single-Family Detached (ITE 210) <sup>1</sup>	per DU	10.08	0.49	0.44	0.93
Baseball Field <sup>2</sup>	per game	92	4.60	4.60	9.20
<b>TRIP GENERATION</b>					
Single-Family Detached	5 DUs	50	3	2	5
Baseball Field	10 games	920	46	46	92
<b>TOTAL TRIP GENERATION</b>		<b>970</b>	<b>49</b>	<b>48</b>	<b>97</b>

Notes: <sup>1</sup> Trip rates for Single-Family Detached homes are from Trip Generation, 8<sup>th</sup> Edition, Institute of Transportation Engineers, 2008. DU = dwelling unit.

<sup>2</sup> Trip generation for Baseball Field based on operational data provided by City of Malibu staff.

According to the table, during Saturdays, the proposed project would generate approximately 970 daily trips, and 97 midday peak hour trips (49 inbound and 48 outbound).

### ***Trip Distribution and Assignment***

Local trip distribution percentages for the proposed project were provided by the City's Traffic Engineer and were based on observed peak hour travel patterns in the study area. The trip distribution percentages at each intersection were applied to the proposed project's weekday and Saturday peak hour trip generation estimates to calculate the project trip assignment (i.e., turn movement volumes that the project would generate at each study area intersection). Figures 3 and 4 illustrate the weekday and Saturday, respectively, trip distribution and assignment for the proposed project.

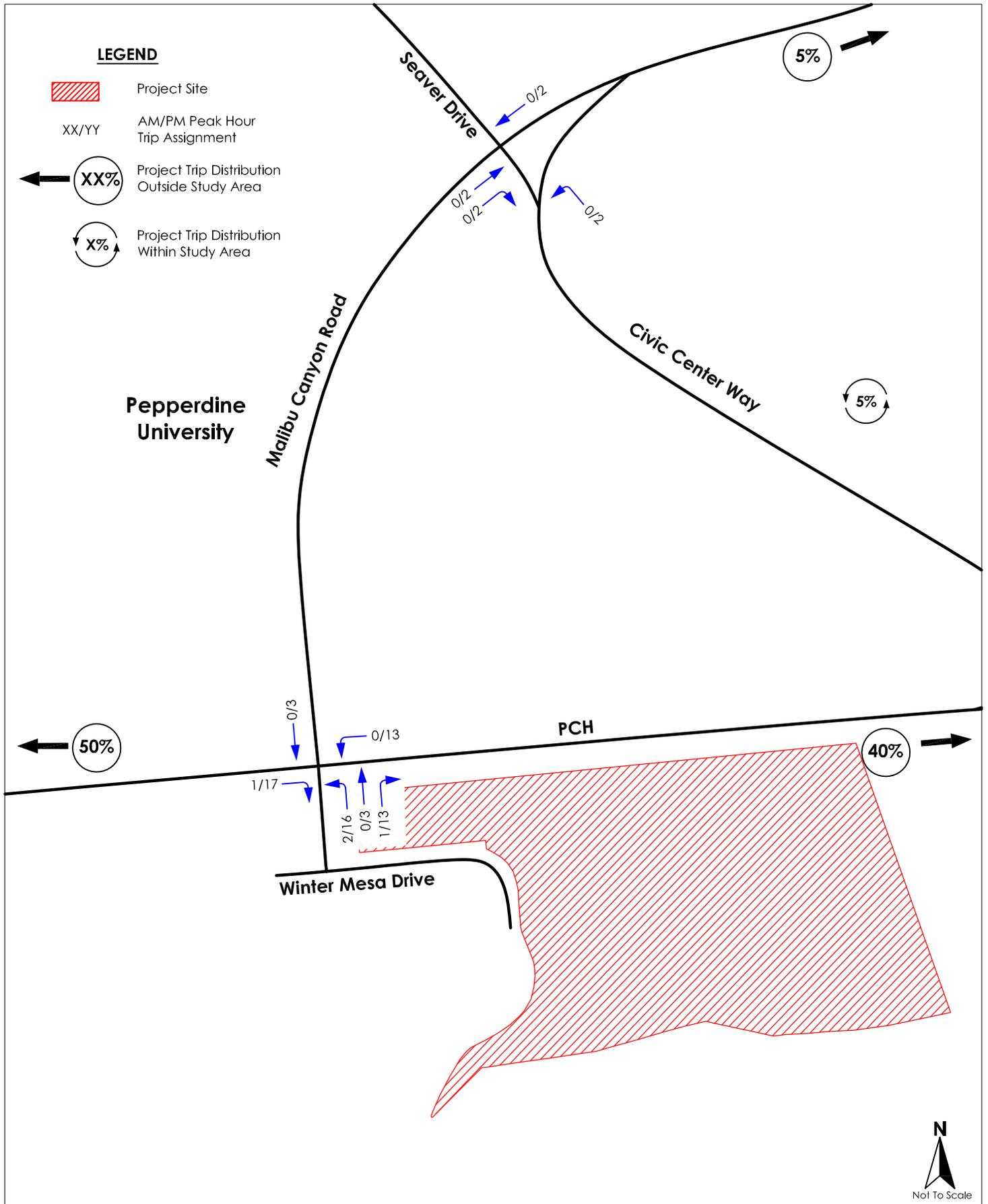


Figure 3  
Project Weekday AM and PM  
Peak Hour Trip Distribution and Assignment

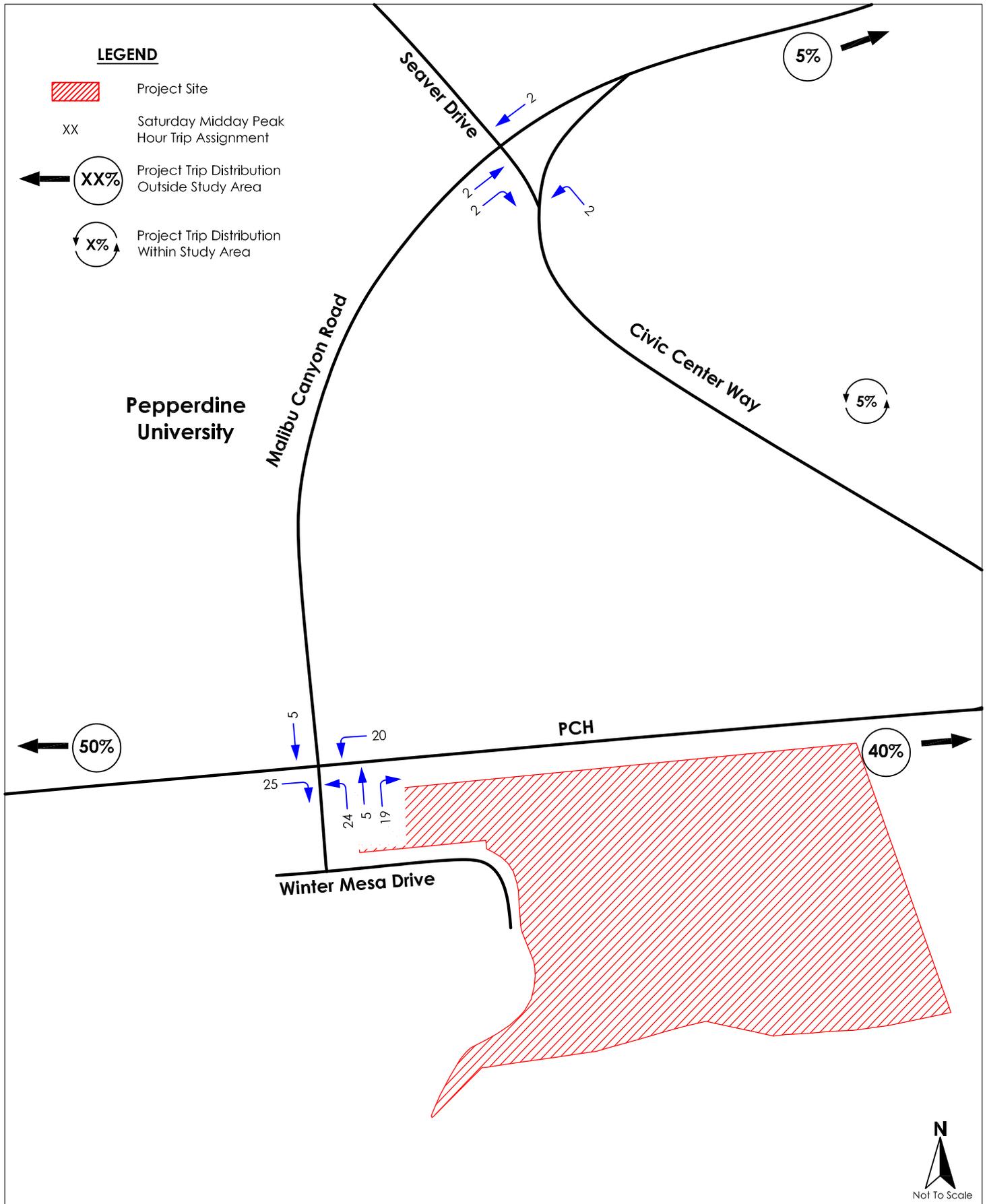


Figure 4  
Project Saturday Midday  
Peak Hour Trip Distribution and Assignment

### 3.0 EXISTING CONDITIONS ANALYSIS

The following section describes the existing traffic conditions in the project study area. Existing weekday peak hour traffic volumes were collected by the City on July 12, 2012 at both study area intersections. Saturday peak hour counts for both intersections were also collected by the City on July 14, 2012.

#### Roadways

The following describes the roadways in the study area:

##### Pacific Coast Highway

Pacific Coast Highway (PCH), or State Route 1 (SR 1), is a four lane east-west roadway that abuts the north side of the project site. It is designated as a Modified Major Arterial in the Circulation Element of the City of Malibu General Plan and as an Eligible Scenic Highway by Caltrans.

##### Malibu Canyon Road

Malibu Canyon Road is a north-south roadway that intersects with PCH at the northwest corner of the project site. It has four travel lanes between PCH and Civic Center Way and two travel lanes north of Civic Center Way. Malibu Canyon Road is classified as a Major Arterial in the Circulation Element.

##### Civic Center Way

Civic Center Way is a two lane east-west roadway that intersects with Malibu Canyon Road approximately one-quarter mile north of the project site. The continuation of Civic Center Way west of Malibu Canyon Road on the Pepperdine University campus is called Seaver Drive. Civic Center Way is classified as a Collector in the Circulation Element.

##### Winter Mesa Drive

Malibu Canyon Road terminates at its intersection with Winter Mesa Drive, south of PCH. Winter Mesa Drive is a two lane, east-west roadway that curves to the south and runs along the south and west edge of the proposed baseball field/skate park site. Access to the project site would be provided from Winter Mesa Drive.

#### Intersection Geometrics and Traffic Volumes

Figure 1 illustrates the existing traffic controls and lane geometrics at the study area intersections. Existing weekday peak hour traffic volumes were collected by the City on July 12, 2012 at both study area intersections. Saturday peak hour counts for both intersections were also collected by the City on July 14, 2012. The weekday traffic counts were taken between the hours of 7:00 and 9:00 a.m., and between 4:00 and 6:00 p.m. The weekend traffic counts were taken between the hours of 12:00 and 3:00 p.m. on a Saturday. The highest one-hour interval of traffic flow was then identified for each of the time periods to quantify the peak hour traffic volumes.

Figure 5 shows the existing weekday a.m. and p.m. peak hour traffic volumes at the study intersections, while Figure 6 shows the Saturday midday peak hour volumes. The raw traffic volume count sheets are provided in Appendix A.

## Levels of Service

### Intersections

Based on the analysis methodology described in Section 1.0, the existing weekday a.m. and p.m. peak hour, and Saturday midday peak hour traffic volumes were input into the *Traffix* LOS software to determine the existing intersection V/C ratios and resulting LOS values. Table F presents the results of the existing intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

**Table F – Existing Condition Intersection Level of Service Summary**

Intersection	Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		V/C	LOS	V/C	LOS	V/C	LOS
		1. Malibu Canyon Road/PCH	signal	0.785	C	0.738	C
2. Malibu Canyon Rd/Civic Center Way	signal	0.563	A	0.729	C	0.481	A

Note: LOS determined using ICU method.

Based on the existing LOS analysis, Malibu Canyon Road/PCH currently operates at LOS C in both weekday peak hours, and LOS D during the Saturday peak hour. Malibu Canyon Road/Civic Center Way currently operates at LOS A, C, and A during the weekday a.m. and p.m. peak hours, and Saturday midday peak hour, respectively.

### Roadway Segments

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table G presents the results of the existing roadway segment LOS analysis, while the LOS calculation sheets are provided in Appendix C.

**Table G – Existing Condition Roadway Segment Level of Service Summary**

Intersection	# lanes and median	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		pcplpm	LOS	pcplpm	LOS	pcplpm	LOS
		1. PCH, John Tyler Dr to Malibu Cyn Rd					
- eastbound	2D	9.6	A	13.7	B	13.9	B
- westbound	2D	8.1	A	13.2	B	16.6	B
2. PCH, Malibu Cyn Rd to Webb Way							
- eastbound	2D	17.3	B	13.7	B	14.9	B
- westbound	2D	7.5	A	14.5	B	14.4	B
3. Malibu Cyn Rd, PCH to Civic Center							
- northbound	2U	3.1	A	6.7	A	4.0	A
- southbound	2U	13.7	B	6.0	A	8.7	A

Note: LOS determined using HCM Multilane Highways Operations method.

# lanes and median: 2D = two lanes divided with median; and, 2U = two lanes undivided

pcplpm = Roadway segment density expressed in passenger cars per lane per mile.

Based on the existing LOS analysis, all three study area roadway segments currently operate with satisfactory LOS at LOS B or better during the weekday and Saturday peak hours.

### ***Existing plus Project***

Traffic generated by the proposed project was added to the Existing Baseline scenario and the project impacts on the circulation system were analyzed. This scenario would determine project-specific impacts and mitigation measures (if required).

### **Traffic Volumes**

The proposed project trip assignments for the weekday and Saturday peak hours, noted in Figures 3 and 4, respectively, were added to the Existing Baseline weekday and Saturday peak hour traffic volumes in Figures 5 and 6, respectively, which resulted in the Existing plus Project traffic volumes.

### **Levels of Service**

#### **Intersections**

Based on the analysis methodology described in Section 1.0, the Existing plus Project weekday and Saturday peak hour traffic volumes were input into the *Traffix* LOS software to determine the intersection ICU and LOS values. Table H presents the results of the Existing plus Project intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Based on the Existing plus Project LOS analysis, and the significance criteria of the City and Los Angeles County CMP (for Malibu Canyon Road/PCH), the proposed project would not create any significant impacts to the study area intersections as the project-added V/C increases are less than the City's and CMP's thresholds.

#### **Roadway Segments**

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table I presents the results of the Existing plus Project roadway segment LOS analysis, while the LOS calculation sheets are provided in Appendix C.

Based on the Existing plus Project LOS analysis, the proposed project would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project-added traffic.

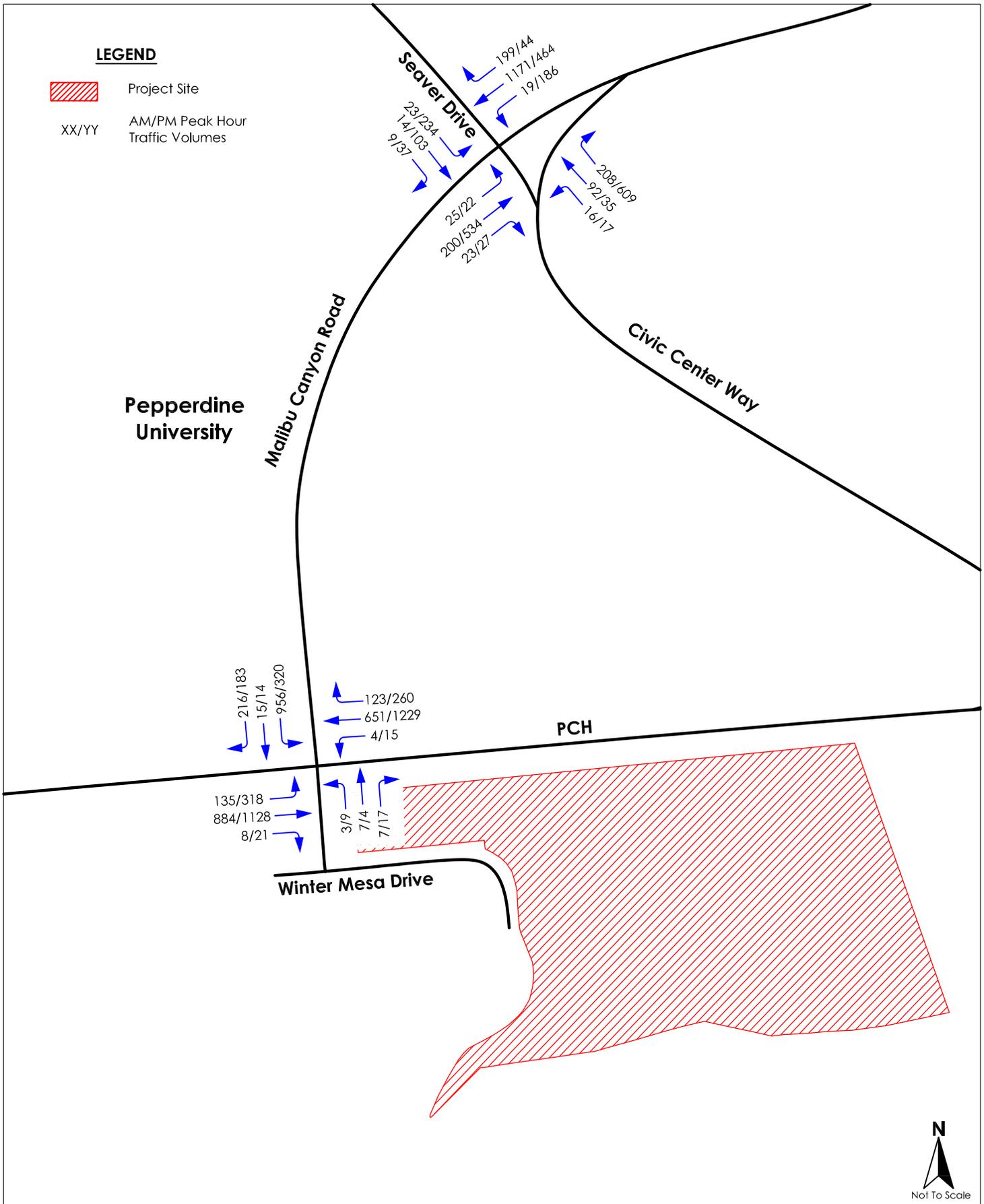


Figure 5  
Existing Weekday AM and PM  
Peak Hour Traffic Volumes

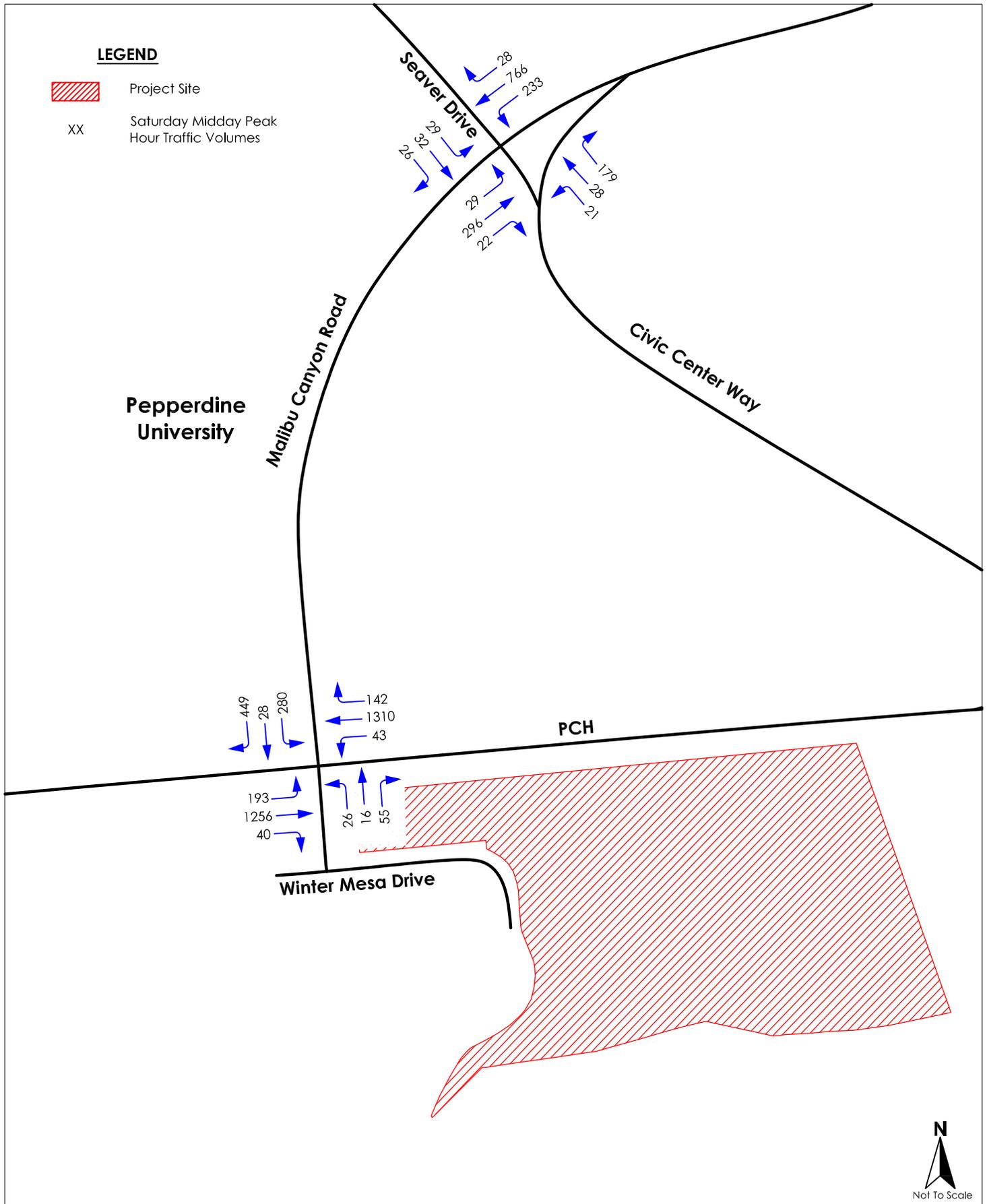


Figure 6  
Existing Saturday Midday  
Peak Hour Traffic Volumes

**Table H – Existing plus Project Intersection Level of Service Summary**

Intersection	Existing Baseline						Existing plus Project						V/C Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr				
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM	Midday
1. Malibu Canyon Rd/PCH	0.785	C	0.738	C	0.824	D	0.786	C	0.747	C	0.836	D	+0.001	+0.009	+0.012
2. Malibu Cyn Rd/Civic Cntr Way	0.563	A	0.729	C	0.481	A	0.563	A	0.731	C	0.484	A	0.000	+0.002	+0.003

**Table I – Existing plus Project Roadway Segment Level of Service Summary**

Intersection	Existing Baseline						Existing plus Project						Density Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr				
	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	AM	PM	Midday
1. PCH, John Tyler Dr to Malibu Cyn Rd															
- eastbound	9.6	A	13.7	B	13.9	B	9.6	A	13.8	B	14.1	B	0.0	+0.1	+0.2
- westbound	8.1	A	13.2	B	16.6	B	8.1	A	13.4	B	16.9	B	0.0	+0.2	+0.3
2. PCH, Malibu Cyn Rd to Webb Way															
- eastbound	17.3	B	13.7	B	14.9	B	17.3	B	13.8	B	15.1	B	0.0	+0.1	+0.2
- westbound	7.5	A	14.5	B	14.4	B	7.5	A	14.7	B	14.6	B	0.0	+0.2	+0.2
3. Malibu Cyn Rd, PCH to Civic Center															
- northbound	3.1	A	6.7	A	4.0	A	3.1	A	6.8	A	4.1	A	0.0	+0.1	+0.1
- southbound	13.7	B	6.0	A	8.7	A	13.7	B	6.0	A	8.8	A	0.0	0.0	+0.1

## 4.0 OPENING YEAR 2017 TRAFFIC CONDITIONS

This section describes the future traffic conditions related to the following traffic scenarios:

- Opening Year 2017 Baseline
- Opening Year 2017 plus Project

### *Opening Year 2017 Baseline Condition*

This scenario is comprised of existing traffic conditions, plus ambient traffic growth (2012 to 2017), plus traffic from cumulative (approved and/or pending) developments in the study area. These cumulative projects are located in the project study area, and have not yet been constructed, but have been approved or are pending approval, through a discretionary action or building permit issuance.

### **Traffic Controls and Intersection Geometrics**

Per the City, there no improvements planned for the study area roadways and intersections in their current *Capital Improvement Program*. Therefore, the existing intersection traffic controls and geometrics were assumed for those intersections in the 2017 level of service analysis.

### **Traffic Volumes**

The Opening Year 2017 baseline traffic in this scenario was forecast by applying an ambient growth rate of 1.5 percent per year over five years to the existing traffic volumes at both study area intersections. This growth rate was provided by City staff.

In addition, traffic from cumulative (approved and/or pending) developments in the study area was added to this scenario. These cumulative projects are located in the project study area, and have not yet been constructed, but have been approved or are pending approval, through a discretionary action or building permit issuance. Tables J and K present the list of cumulative projects in the study area, as well as their estimated trip generation for the weekday and Saturday peak hours, respectively. According to the tables, the cumulative projects would have a total weekday trip generation of 12,517 daily trips, 536 a.m. peak hour trips (355 inbound and 181 outbound), and 1,100 p.m. peak hour trips (535 inbound and 566 outbound). The total Saturday trip generation for the cumulative projects is 14,945 daily trips, and 1,428 midday peak hour trips (756 inbound and 672 outbound). Figure 7 shows the locations of the cumulative projects. Figures 8 and 9 illustrate the cumulative projects' total trip assignment at the study area intersections for the weekday and Saturday peak hours, respectively. The list of cumulative projects currently being processed in the City, and their trip assignments, are located in Appendix D.

The ambient growth rate and trips from cumulative projects were applied to the existing traffic volumes to derive the Opening Year 2017 Baseline traffic volumes. Figures 10 and 11 illustrate the resulting Opening Year 2017 Baseline weekday a.m. and p.m. peak hour, and Saturday midday peak hour traffic volumes, respectively.

Table J - Crummer Site Cumulative Projects Weekday AM and PM Peak Hour Trip Generation Estimates

Land Use	Size <sup>1</sup>	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<b>TRIP RATES<sup>2</sup></b>								
- Single-Family Detached Housing (210)	per DU	9.57	0.19	0.56	0.75	0.64	0.37	1.01
- Residential Condominium/Townhouse (230)	per DU	5.81	0.07	0.37	0.44	0.35	0.17	0.52
- Shopping Center (820)	per TSF	<i>ITE</i>	<i>ITE equation</i>			<i>ITE equation</i>		
- General Office Building (710)	per TSF	11.01	1.36	0.19	1.55	0.25	1.24	1.49
- Junior/Community College (540)	per student	1.20	0.10	0.02	0.12	0.08	0.04	0.12
- Recreational Community Center (495)	per TSF	22.88	0.99	0.63	1.62	0.54	0.91	1.45
- Quality Restaurant (931)	per TSF	89.95	0.41	0.41	0.81	5.02	2.47	7.49
<b>TRIP GENERATION</b>								
<b>1. 5905 and 5909 Latigo Canyon Road</b>								
Single-Family Detached Housing	2 Dus	19	0	1	2	1	1	2
<b>Total</b>		<b>19</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>2. Towing Subdivision</b>								
Single-Family Detached Housing	4 DUs	38	1	2	3	3	1	4
<b>Total</b>		<b>38</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>4</b>
<b>3. Rancho Malibu Hotel</b>								
<i>trip generation per April 2012 TIA prepared by Overland Consultants</i>		2,182	63	44	107	101	84	185
<b>Total</b>		<b>2,182</b>	<b>63</b>	<b>44</b>	<b>107</b>	<b>101</b>	<b>84</b>	<b>185</b>
<b>4. La Paz Shopping Center</b>								
Shopping Center	77.110 TSF	5,735	81	52	132	262	273	534
General Office	34.948 TSF	385	48	7	54	9	43	52
Junior/Community College	20.000 TSF	458	20	13	32	11	18	29
- <i>pass-by for Shopping Center (42%)<sup>2</sup></i>		-2,414	-34	-22	-56	-110	-115	-225
<b>Total</b>		<b>4,164</b>	<b>114</b>	<b>49</b>	<b>163</b>	<b>171</b>	<b>219</b>	<b>391</b>
<b>5. Whole Foods Shopping Center</b>								
<i>trip generation per May 2011 TIA prepared by Overland Consultants</i>		2,296	61	42	103	79	77	156
<b>Total</b>		<b>2,296</b>	<b>61</b>	<b>42</b>	<b>103</b>	<b>79</b>	<b>77</b>	<b>156</b>
<b>6. Santa Monica College</b>								
Junior/Community College	200 students	240	20	4	24	15	9	24
<b>Total</b>		<b>240</b>	<b>20</b>	<b>4</b>	<b>24</b>	<b>15</b>	<b>9</b>	<b>24</b>
<b>7. Malibu Sycamore Village</b>								
Shopping Center	30.000 TSF	3,105	46	30	76	139	145	284
General Office	30.000 TSF	330	41	6	47	8	37	45
- <i>pass-by for Shopping Center (55%)<sup>2</sup></i>		-1,719	-26	-16	-42	-77	-80	-157
<b>Total</b>		<b>1,717</b>	<b>62</b>	<b>19</b>	<b>80</b>	<b>70</b>	<b>102</b>	<b>171</b>
<b>8. Pierview Restaurant</b>								
Quality Restaurant	7.100 TSF	639	3	3	6	36	18	53
<b>Total</b>		<b>639</b>	<b>3</b>	<b>3</b>	<b>6</b>	<b>36</b>	<b>18</b>	<b>53</b>
<b>9. Windsail Restaurant</b>								
Quality Restaurant	5.904 TSF	531	2	2	5	30	15	44
<b>Total</b>		<b>531</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>30</b>	<b>15</b>	<b>44</b>
<b>10. Hajian Office</b>								
General Office	9.685 TSF	107	13	2	15	2	12	14
<b>Total</b>		<b>107</b>	<b>13</b>	<b>2</b>	<b>15</b>	<b>2</b>	<b>12</b>	<b>14</b>
<b>11. 22959 PCH Office</b>								
Shopping Center	4.517 TSF	907	15	10	25	39	41	80
General Office	2.630 TSF	29	4	0	4	1	3	4
- <i>pass-by for Shopping Center (55%)<sup>3</sup></i>		-502	-8	-5	-14	-22	-23	-44
<b>Total</b>		<b>434</b>	<b>10</b>	<b>5</b>	<b>15</b>	<b>18</b>	<b>21</b>	<b>40</b>
<b>12. 22729 PCH Office</b>								
General Office	2.499 TSF	28	3	0	4	1	3	4
<b>Total</b>		<b>28</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>3</b>	<b>4</b>
<b>13. Carbon Condominiums</b>								
Residential Condominium/Townhouse	8 DUs	46	1	3	4	3	1	4
<b>Total</b>		<b>46</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>1</b>	<b>4</b>
<b>14. 22301, 22303, 22305 and 22309 PCH</b>								
Single-Family Detached Housing	4 DUs	38	1	2	3	3	1	4
<b>Total</b>		<b>38</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>4</b>
<b>15. 21997 and 22003 PCH</b>								
Single-Family Detached Housing	2 DUs	19	0	1	2	1	1	2
<b>Total</b>		<b>19</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>16. 20624 and 20630 PCH</b>								
Single-Family Detached Housing	2 DUs	19	0	1	2	1	1	2
<b>Total</b>		<b>19</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>TOTAL CUMULATIVE PROJECTS TRIP GENERATION</b>		<b>12,517</b>	<b>355</b>	<b>181</b>	<b>536</b>	<b>535</b>	<b>566</b>	<b>1,100</b>

Note: Trip rates based on Institute of Transportation Engineers (ITE) *Trip Generation, 8th Edition, 2008* and *Trip Generation Handbook, 2004*.

<sup>1</sup> TSF = Thousand Square Feet

<sup>2</sup> Pass By Trip Reduction percentage based logarithmic equation for Shopping Center land use in *ITE Trip Generation Handbook, 2004*.

<sup>3</sup> Pass By Trip Reduction percentage for 4.417 TSF Shopping Center was calculated to be 96%. To be conservative, 55% was assumed.

Table K - Crummer Site Cumulative Projects Saturday Midday Peak Hour Trip Generation Estimates

Land Use	Size <sup>1</sup>	Daily	Midday Peak Hour		
			In	Out	Total
<b>TRIP RATES<sup>2</sup></b>					
- Single-Family Detached Housing (210)	per DU	10.08	0.49	0.44	0.93
- Residential Condominium/Townhouse (230)	per DU	5.67	0.25	0.22	0.47
- Shopping Center (820)	per TSF	<i>ITE</i>	<i>ITE equation</i>		
- General Office Building (710)	per TSF	2.37	0.22	0.19	0.41
- Junior/Community College (540)	per student	0.42	0.03	0.02	0.05
- Recreational Community Center (495)	per TSF	9.10	0.58	0.49	1.07
- Quality Restaurant (931)	per TSF	94.36	6.38	4.44	10.82
<b>TRIP GENERATION</b>					
<b>1. 5905 and 5909 Latigo Canyon Road</b>					
Single-Family Detached Housing	2 Dus	20	1	1	2
<b>Total</b>		<b>20</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>2. Towing Subdivision</b>					
Single-Family Detached Housing	4 DUs	40	2	2	4
<b>Total</b>		<b>40</b>	<b>2</b>	<b>2</b>	<b>4</b>
<b>3. Rancho Malibu Hotel</b>					
<i>trip generation per April 2012 TIA prepared by Overland Consultants</i>		2,120	112	97	209
<b>Total</b>		<b>2,120</b>	<b>112</b>	<b>97</b>	<b>209</b>
<b>4. La Paz Shopping Center</b>					
Shopping Center	77,110 TSF	7,844	376	347	724
General Office	34,948 TSF	83	8	7	14
Junior/Community College	20,000 TSF	182	12	10	21
- pass-by for Shopping Center (37%) <sup>2</sup>		-2,906	-139	-129	-268
<b>Total</b>		<b>5,203</b>	<b>256</b>	<b>235</b>	<b>491</b>
<b>5. Whole Foods Shopping Center</b>					
<i>trip generation per May 2011 TIA prepared by Overland Consultants</i>		2,528	117	111	228
<b>Total</b>		<b>2,528</b>	<b>117</b>	<b>111</b>	<b>228</b>
<b>6. Santa Monica College</b>					
Junior/Community College	200 students	84	6	4	10
<b>Total</b>		<b>84</b>	<b>6</b>	<b>4</b>	<b>10</b>
<b>7. Malibu Sycamore Village</b>					
Shopping Center	30,000 TSF	4,328	204	188	392
General Office	30,000 TSF	71	7	6	12
- pass-by for Shopping Center (38%) <sup>2</sup>		-1,644	-77	-71	-149
<b>Total</b>		<b>2,755</b>	<b>133</b>	<b>122</b>	<b>255</b>
<b>8. Pierview Restaurant</b>					
Quality Restaurant	7,100 TSF	670	45	31	77
<b>Total</b>		<b>670</b>	<b>45</b>	<b>31</b>	<b>77</b>
<b>9. Windsail Restaurant</b>					
Quality Restaurant	5,904 TSF	557	38	26	64
<b>Total</b>		<b>557</b>	<b>38</b>	<b>26</b>	<b>64</b>
<b>10. Hajian Office</b>					
General Office	9,685 TSF	23	2	2	4
<b>Total</b>		<b>23</b>	<b>2</b>	<b>2</b>	<b>4</b>
<b>11. 22959 PCH Office</b>					
Shopping Center	4,517 TSF	1,313	60	55	114
General Office	2,630 TSF	6	1	0	1
- pass-by for Shopping Center (38%) <sup>2</sup>		-505	-23	-21	-44
<b>Total</b>		<b>814</b>	<b>37</b>	<b>34</b>	<b>71</b>
<b>12. 22729 PCH Office</b>					
General Office	2,499 TSF	6	1	0	1
<b>Total</b>		<b>6</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b>13. Carbon Condominiums</b>					
Residential Condominium/Townhouse	8 DUs	45	2	2	4
<b>Total</b>		<b>45</b>	<b>2</b>	<b>2</b>	<b>4</b>
<b>14. 22301, 22303, 22305 and 22309 PCH</b>					
Single-Family Detached Housing	4 DUs	40	2	2	4
<b>Total</b>		<b>40</b>	<b>2</b>	<b>2</b>	<b>4</b>
<b>15. 21997 and 22003 PCH</b>					
Single-Family Detached Housing	2 DUs	20	1	1	2
<b>Total</b>		<b>20</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>16. 20624 and 20630 PCH</b>					
Single-Family Detached Housing	2 DUs	20	1	1	2
<b>Total</b>		<b>20</b>	<b>1</b>	<b>1</b>	<b>2</b>
<b>TOTAL CUMULATIVE PROJECTS TRIP GENERATION</b>		<b>14,945</b>	<b>756</b>	<b>672</b>	<b>1,428</b>

Note: Trip rates based on Institute of Transportation Engineers (ITE) *Trip Generation, 8th Edition, 2008* and *Trip Generation Handbook, 2004*.

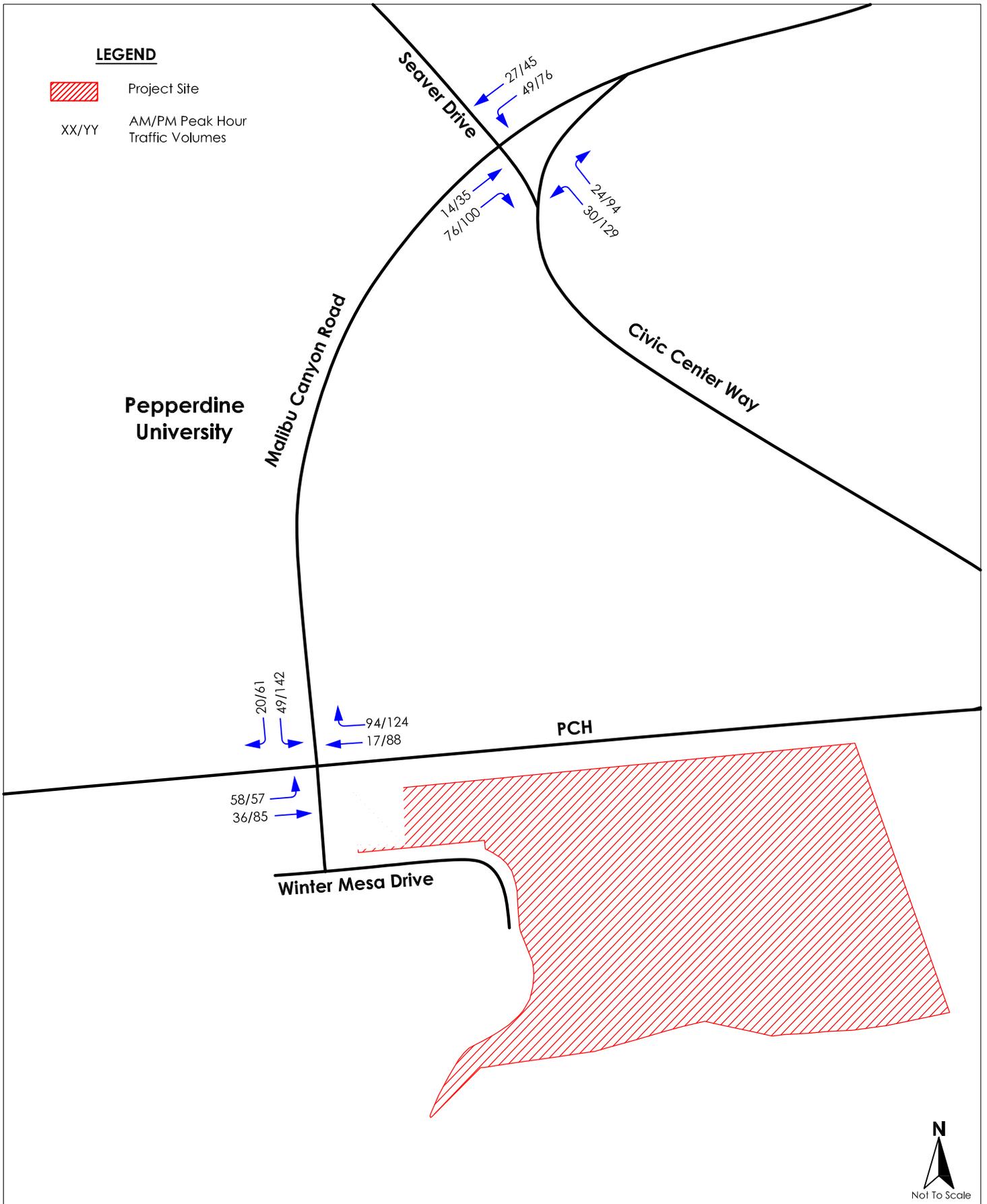
<sup>1</sup> TSF = Thousand Square Feet

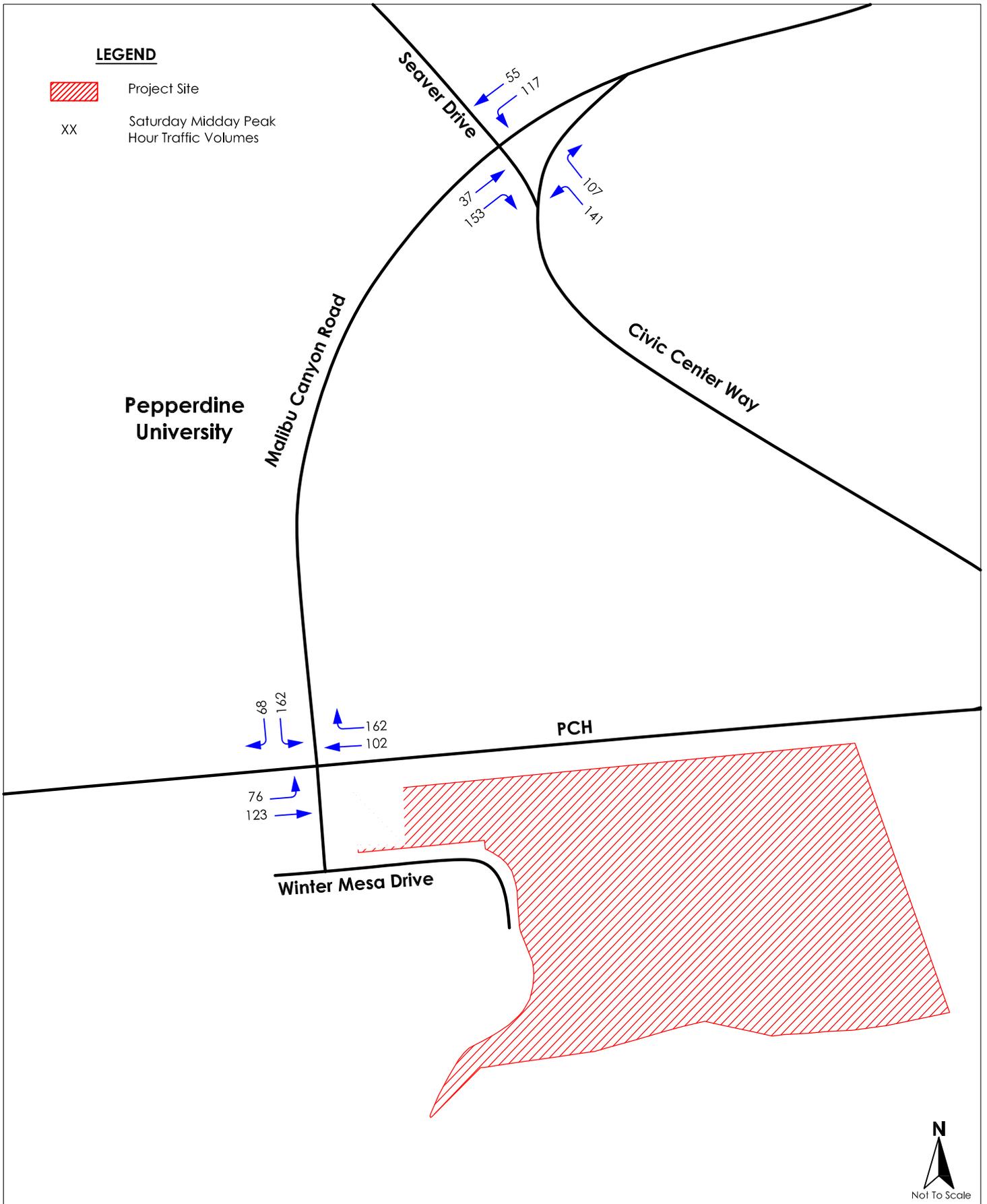
<sup>2</sup> Pass By Trip Reduction percentage based logarithmic equation for Shopping Center land use in ITE *Trip Generation Handbook, 2004*.



Map Source: Google Maps, November 2012.

Figure 7  
Cumulative Projects  
Location Map





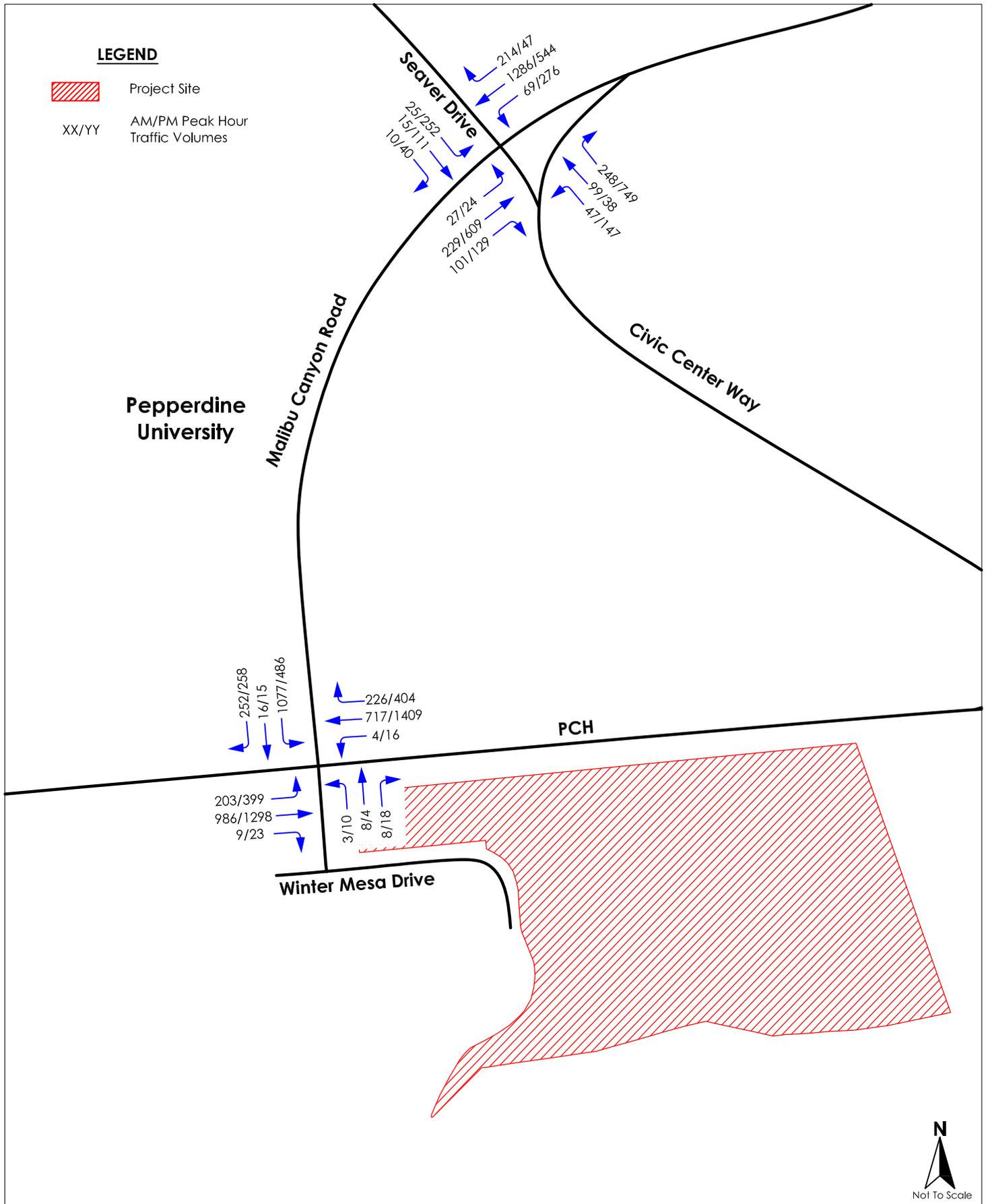
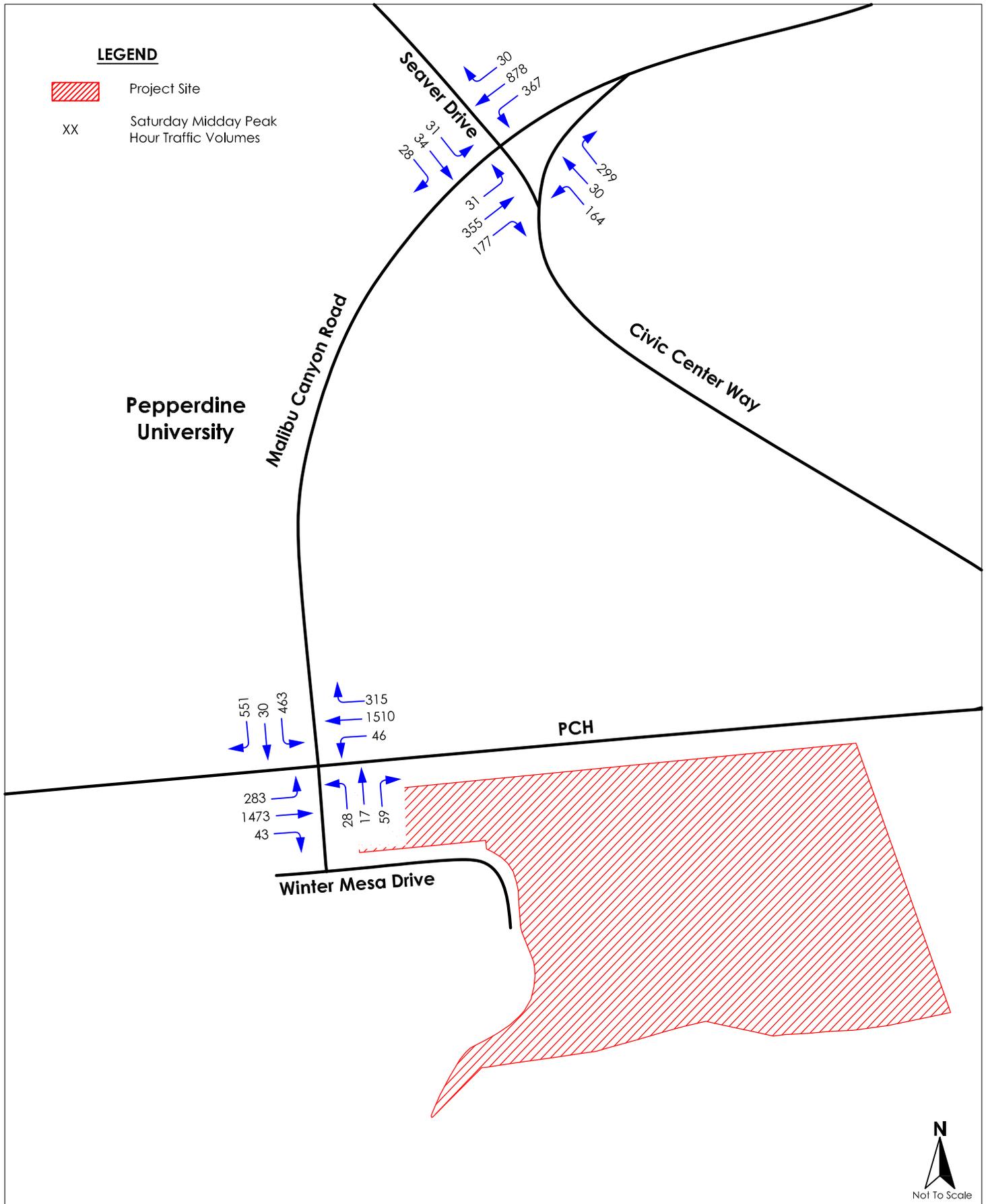


Figure 10  
Opening Year 2017 Baseline AM and PM  
Peak Hour Traffic Volumes



## Levels of Service

### Intersections

The Opening Year 2017 Baseline weekday a.m. and p.m. peak hour, and Saturday midday peak hour traffic volumes were input into the *Traffix* LOS software to determine the ICU and resulting LOS values. Table L presents the results of the Opening Year 2017 Baseline intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

**Table L – Opening Year 2017 Baseline Intersection Level of Service Summary**

Intersection	Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		V/C	LOS	V/C	LOS	V/C	LOS
		1. Malibu Canyon Road/PCH	signal	0.868	D	0.879	D
2. Malibu Canyon Rd/Civic Center Way	signal	0.625	B	0.926	E	0.694	B

Note: LOS determined using ICU method.

Based on the Opening Year 2017 Baseline LOS analysis, Malibu Canyon Road/PCH is forecast to operate at LOS E during the Saturday midday peak hour. Malibu Canyon Road/Civic Center Way is forecast to operate at LOS E during the weekday p.m. peak hour.

### Roadway Segments

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table M presents the results of the Opening Year 2017 Baseline roadway segment LOS analysis, while the LOS calculation sheets are provided in Appendix C.

**Table M – Opening Year 2017 Baseline Roadway Segment Level of Service Summary**

Intersection	# lanes and median	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		pcplpm	LOS	pcplpm	LOS	pcplpm	LOS
		1. PCH, John Tyler Dr to Malibu Cyn Rd					
- eastbound	2D	11.2	B	16.0	B	16.8	B
- westbound	2D	9.1	A	15.6	B	19.5	C
2. PCH, Malibu Cyn Rd to Webb Way							
- eastbound	2D	19.4	C	16.9	B	18.7	C
- westbound	2D	9.2	A	17.7	B	18.1	C
3. Malibu Cyn Rd, PCH to Civic Center							
- northbound	2U	5.0	A	9.3	A	7.1	A
- southbound	2U	15.5	B	8.8	A	12.1	B

Note: LOS determined using HCM Multilane Highways Operations method.

# lanes and median: 2D = two lanes divided with median; and, 2U = two lanes undivided

pcplpm = Roadway segment density expressed in passenger cars per lane per mile.

Based on the existing LOS analysis, all three study area roadway segments are forecast to operate with satisfactory LOS at LOS C or better during the weekday and Saturday peak hours.

### ***Opening Year 2017 plus Project***

Traffic generated by the proposed project was added to the Opening Year 2017 Baseline scenario and the project impacts on the circulation system were analyzed. This scenario would determine project-specific impacts and mitigation measures (if required).

### **Traffic Volumes**

The proposed project trip assignments for the weekday and Saturday peak hours, noted in Figures 3 and 4, respectively, were added to the Opening Year 2017 Baseline weekday and Saturday peak hour traffic volumes in Figures 10 and 11, respectively, which resulted in the Opening Year 2017 plus Project traffic volumes. Figures 12 and 13 illustrate the Opening Year 2017 plus Project weekday and Saturday peak hour traffic volumes, respectively.

### **Levels of Service**

#### **Intersections**

Based on the analysis methodology described in Section 1.0, the Opening Year 2017 plus Project weekday and Saturday peak hour traffic volumes were input into the *Traffix* LOS software to determine the intersection ICU and LOS values. Table N presents the results of the Opening Year 2017 plus Project intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Based on the Opening Year 2017 plus Project LOS analysis, and the significance criteria of the City, the proposed project would create a significant impact at Malibu Canyon Road/PCH as this intersection is forecast to continue to operate at LOS E (0.965 V/C) and the proposed project would increase the intersection's V/C by 0.012 V/C (i.e.,  $\geq 0.010$  V/C threshold at LOS E or F). The following mitigation measure would be required:

**Mitigation Measure T-1:** Prior to obtaining a Certificate of Occupancy, the Project Applicant(s) shall construct the following improvements:

#### **Malibu Canyon Road/PCH**

- Re-stripe the existing southbound through plus left-turn lane to a through plus left- and right-turn lane.
- Either modify the existing traffic signal to remove the right-turn overlap phase to a standard right-turn-on-red (RTOR) permissive phase resulting in LOS E at 0.928 V/C OR;
- Keep right turn overlap phase for existing #2 (outside) dedicated right-turn lane resulting in LOS E at 0.902 V/C.
- The project volume contribution to this intersection is 9.1 percent of new traffic volumes (Opening Year 2017 plus Project traffic minus Existing traffic).
- A general cost estimate for a signal modification and re-striping would be approximately \$35,000 - \$50,000.

Implementation of Mitigation Measure T-1 above would mitigate the significant traffic impact of the proposed project.

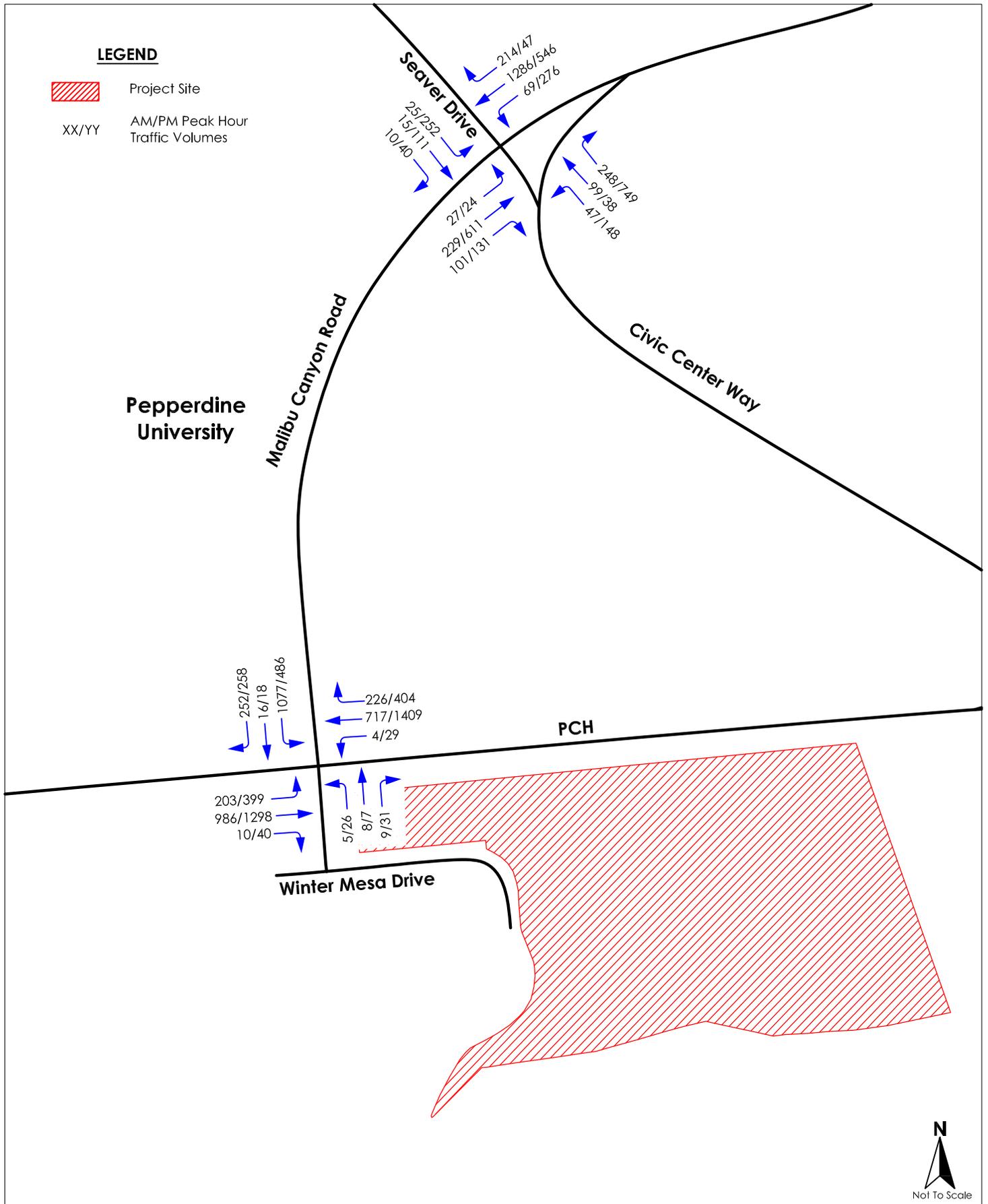


Figure 12  
Opening Year 2017 plus Project AM and PM  
Peak Hour Traffic Volumes

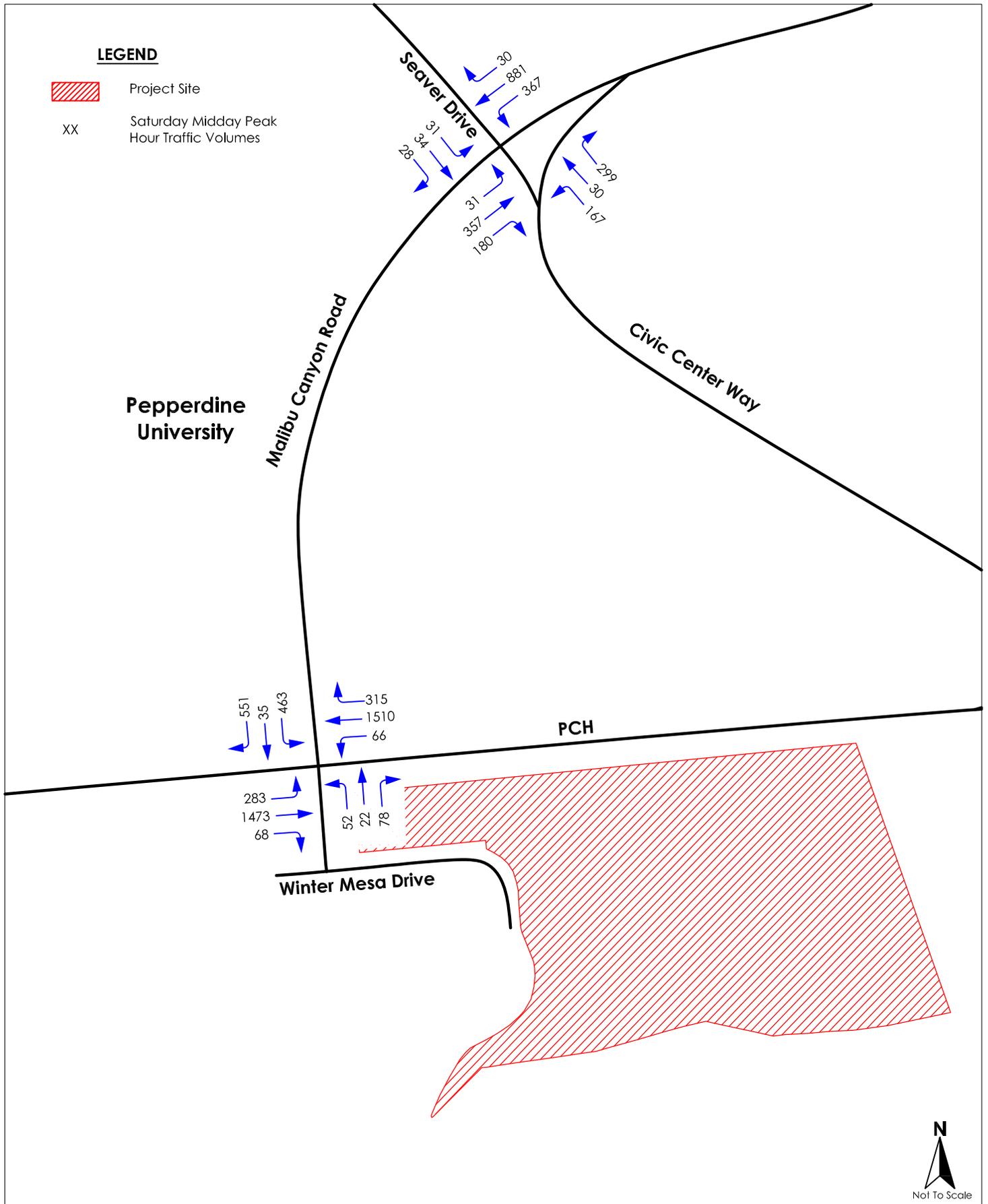


Table N – Opening Year 2017 plus Project Intersection Level of Service Summary

Intersection	Opening Year 2017 Baseline						Opening Year 2017 plus Project						V/C Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM	PM	Midday
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS			
1. Malibu Canyon Rd/PCH	0.868	D	0.879	D	0.953	E	0.869	D	0.888	D	<b>0.965</b>	<b>E</b>	+0.001	+0.009	<b>+0.012</b>
2. Malibu Cyn Rd/Civic Cntr Way	0.625	B	0.926	E	0.694	B	0.625	B	0.928	E	0.697	B	0.000	+0.002	+0.003

Table O – Opening Year 2017 plus Project Roadway Segment Level of Service Summary

Intersection	Opening Year 2017 Baseline						Opening Year 2017 plus Project						Density Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM	PM	Midday
	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS			
1. PCH, John Tyler Dr to Malibu Cyn Rd															
- eastbound	11.2	B	16.0	B	16.8	B	11.2	B	16.2	B	17.0	B	0.0	+0.2	+0.2
- westbound	9.1	A	15.6	B	19.5	C	9.1	A	15.8	B	19.7	C	0.0	+0.2	+0.2
2. PCH, Malibu Cyn Rd to Webb Way															
- eastbound	19.4	C	16.9	B	18.7	C	19.4	C	17.0	B	18.8	C	0.0	+0.1	+0.1
- westbound	9.2	A	17.7	B	18.1	C	9.2	A	17.8	B	18.3	C	0.0	+0.1	+0.2
3. Malibu Cyn Rd, PCH to Civic Center															
- northbound	5.0	A	9.3	A	7.1	A	5.0	A	9.4	A	7.1	A	0.0	+0.1	0.0
- southbound	15.5	B	8.8	A	12.1	B	15.5	B	8.8	A	12.1	B	0.0	0.0	0.0

The proposed project would not create any significant impacts to the other study area intersections as the project-added V/C increases are less than the City's thresholds.

### **Roadway Segments**

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table O presents the results of the Opening Year 2017 plus Project roadway segment LOS analysis, while the LOS calculation sheets are provided in Appendix C.

Based on the Opening Year 2017 plus Project LOS analysis, the proposed project would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project-added traffic.

## 5.0 FUTURE YEAR 2030 TRAFFIC CONDITIONS

This section describes the future traffic conditions related to the following traffic scenarios:

- Future Year 2030 Baseline
- Future Year 2030 plus Project

### *Future Year 2030 Baseline Condition*

This General Plan buildout scenario is comprised of existing traffic conditions, plus ambient traffic growth (2012 to 2030), plus traffic from cumulative (approved and/or pending) developments in the study area. These cumulative projects are located in the project study area, and have not yet been constructed, but have been approved or are pending approval, through a discretionary action or building permit issuance.

### **Traffic Controls and Intersection Geometrics**

Per the City, there no improvements planned for the study area roadways and intersections in their current *Capital Improvement Program*. Therefore, the existing intersection traffic controls and geometrics were assumed for those intersections in the 2030 level of service analysis.

### **Traffic Volumes**

The Future Year 2030 baseline traffic in this scenario was forecast by applying an ambient growth rate of 0.48 percent per year over 18 years (2030 – 2012) to the existing traffic volumes at both study area intersections. This growth rate was provided by City staff. In addition, traffic from cumulative (approved and/or pending) developments in the study area was added to this scenario. These cumulative projects are listed in Table J above, and Figure 7 (above) shows the locations of the cumulative projects. The ambient growth rate and trips from cumulative projects were applied to the existing traffic volumes to derive the Future Year 2030 Baseline traffic volumes. Figures 14 and 15 illustrate the resulting Future Year 2030 Baseline weekday a.m. and p.m. peak hour, and Saturday midday peak hour traffic volumes, respectively.

### **Levels of Service**

#### **Intersections**

The Future Year 2030 Baseline weekday a.m. and p.m. peak hour, and Saturday midday peak hour traffic volumes were input into the *Traffix* LOS software to determine the ICU and resulting LOS values. Table P presents the results of the Future Year 2030 Baseline intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

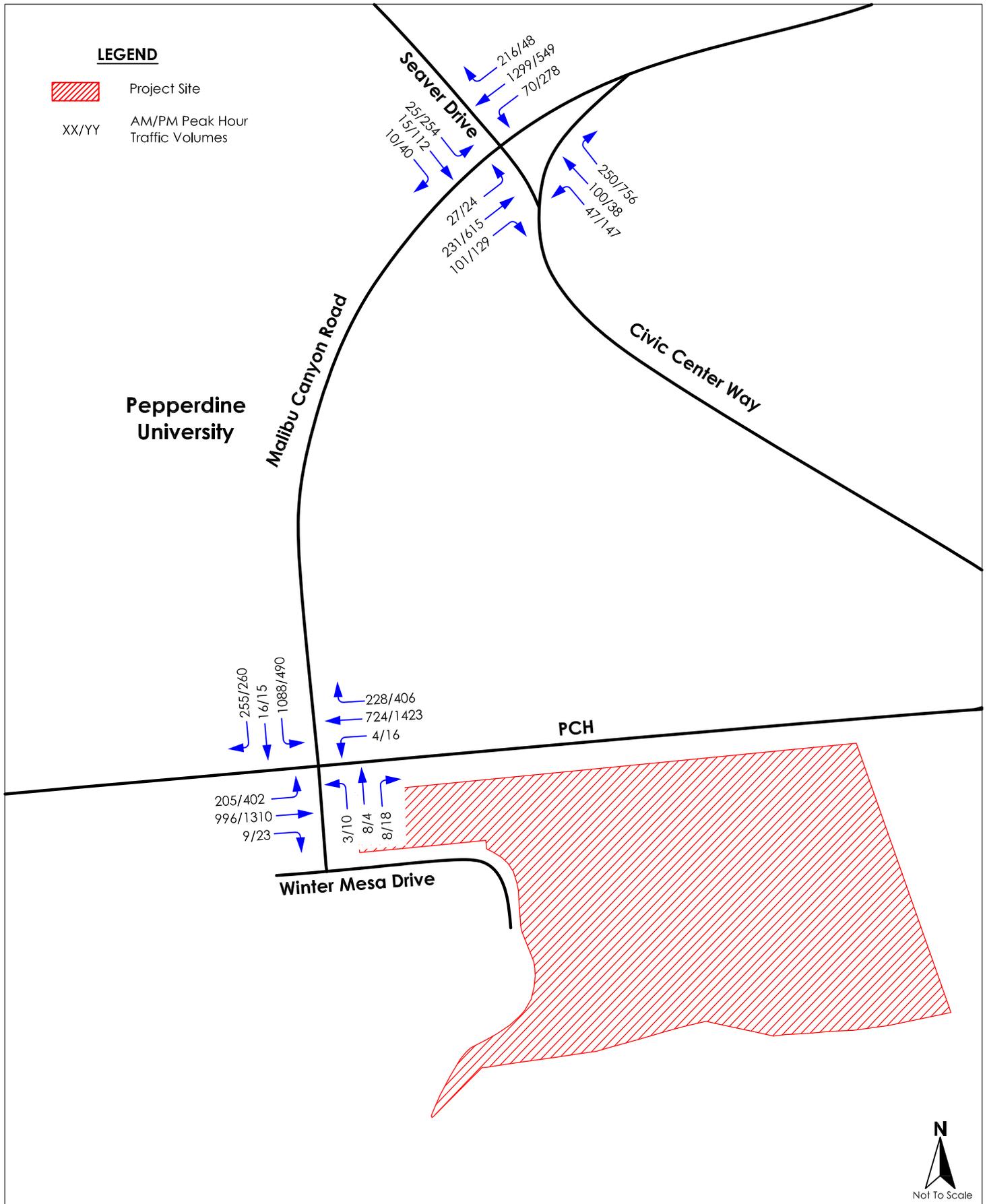


Figure 14  
Future 2030 Baseline Weekday  
AM and PM Peak Hour Traffic Volumes

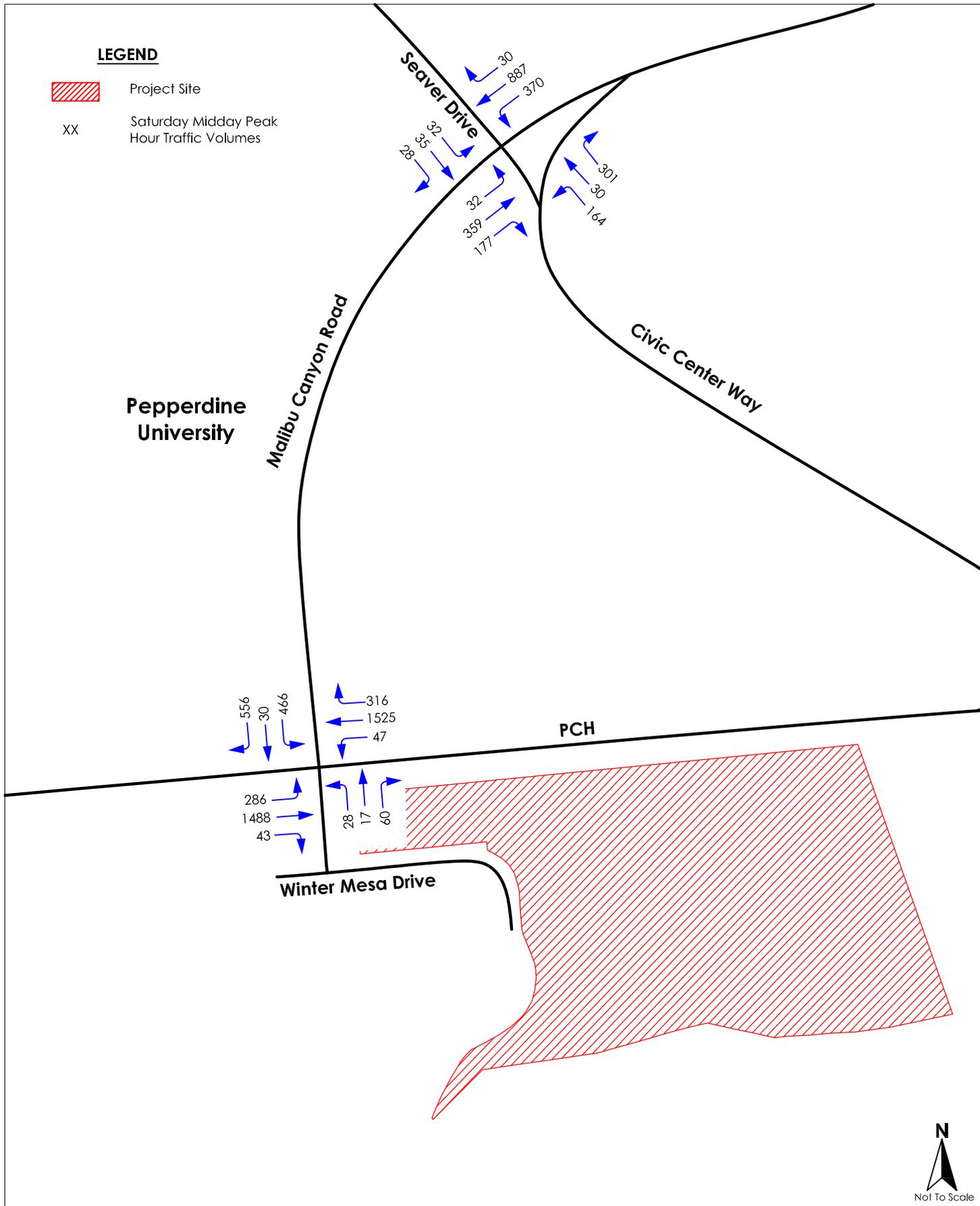


Figure 15  
Future 2030 Baseline Saturday  
Midday Peak Hour Traffic Volumes

**Table P – Future Year 2030 Baseline Intersection Level of Service Summary**

Intersection	Control	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		V/C	LOS	V/C	LOS	V/C	LOS
1. Malibu Canyon Road/PCH	signal	0.876	D	0.886	D	0.961	E
2. Malibu Canyon Rd/Civic Center Way	signal	0.631	B	0.933	E	0.699	B

Note: LOS determined using ICU method.

Based on the Future Year 2030 Baseline LOS analysis, Malibu Canyon Road/PCH is forecast to continue to operate at LOS E during the Saturday midday peak hour. Malibu Canyon Road/Civic Center Way is forecast to continue to operate at LOS E during the weekday p.m. peak hour.

### Roadway Segments

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table Q presents the results of the Future Year 2030 Baseline roadway segment LOS analysis, while the LOS calculation sheets are provided in Appendix C.

**Table Q – Future Year 2030 Baseline Roadway Segment Level of Service Summary**

Intersection	# lanes and median	Weekday AM Peak Hour		Weekday PM Peak Hour		Saturday Midday Peak Hour	
		pcplpm	LOS	pcplpm	LOS	pcplpm	LOS
1. PCH, John Tyler Dr to Malibu Cyn Rd							
- eastbound	2D	11.2	B	16.0	B	16.8	B
- westbound	2D	9.1	A	15.6	B	19.5	C
2. PCH, Malibu Cyn Rd to Webb Way							
- eastbound	2D	19.4	C	16.9	B	18.7	C
- westbound	2D	9.2	A	17.7	B	18.1	C
3. Malibu Cyn Rd, PCH to Civic Center							
- northbound	2U	5.0	A	9.3	A	7.1	A
- southbound	2U	15.5	B	8.8	A	12.1	B

Note: LOS determined using HCM Multilane Highways Operations method.

# lanes and median: 2D = two lanes divided with median; and, 2U = two lanes undivided

pcplpm = Roadway segment density expressed in passenger cars per lane per mile.

Based on the existing LOS analysis, all three study area roadway segments are forecast to operate with satisfactory LOS at LOS C or better during the weekday and Saturday peak hours.

### ***Future Year 2030 plus Project***

Traffic generated by the proposed project was added to the Future Year 2030 Baseline scenario and the project impacts on the circulation system were analyzed. This scenario would determine project-specific impacts and mitigation measures (if required).

## Traffic Volumes

The proposed project trip assignments for the weekday and Saturday peak hours, noted in Figures 3 and 4, respectively, were added to the Future Year 2030 Baseline weekday and Saturday peak hour traffic volumes in Figures 14 and 15, respectively, which resulted in the Future Opening Year 2017 plus Project traffic volumes. Figures 16 and 17 illustrate the Future Year 2030 plus Project weekday and Saturday peak hour traffic volumes, respectively.

## Levels of Service

### Intersections

Based on the analysis methodology described in Section 1.0, the Future Year 2030 plus Project weekday and Saturday peak hour traffic volumes were input into the *Traffix* LOS software to determine the intersection ICU and LOS values. Table R presents the results of the Future Year 2030 plus Project intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Based on the Future Year 2030 plus Project LOS analysis, and the significance criteria of the City, the proposed project would create a significant impact at Malibu Canyon Road/PCH as this intersection is forecast to continue to operate at LOS E (0.973 V/C) and the proposed project would increase the intersection's V/C by 0.012 V/C (i.e.,  $\geq 0.010$  V/C threshold at LOS E or F). The following mitigation measure would be required:

**Mitigation Measure T-2:** Prior to obtaining a Certificate of Occupancy, the Project Applicant(s) shall construct the following improvements:

#### Malibu Canyon Road/PCH

- Re-stripe the existing southbound through plus left-turn lane to a through plus left- and right-turn lane.
- Either modify the existing traffic signal to remove the right-turn overlap phase to a standard right-turn-on-red (RTOR) permissive phase resulting in LOS E at 0.935 V/C OR;
- Keep right turn overlap phase for existing #2 (outside) dedicated right-turn lane resulting in LOS E at 0.909 V/C.
- The project volume contribution to this intersection is 8.8 percent of new traffic volumes (Future Year 2030 plus Project traffic minus Existing traffic).
- A general cost estimate for a signal modification and re-striping would be approximately \$35,000 - \$50,000.

Implementation of Mitigation Measure T-2 above would mitigate the significant traffic impact of the proposed project.

The proposed project would not create any significant impacts to the other study area intersections as the project-added V/C increases are less than the City's thresholds.

### Roadway Segments

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table S presents the results of the Future Year 2030 plus Project roadway segment LOS analysis, while the LOS calculation sheets are provided in Appendix C.

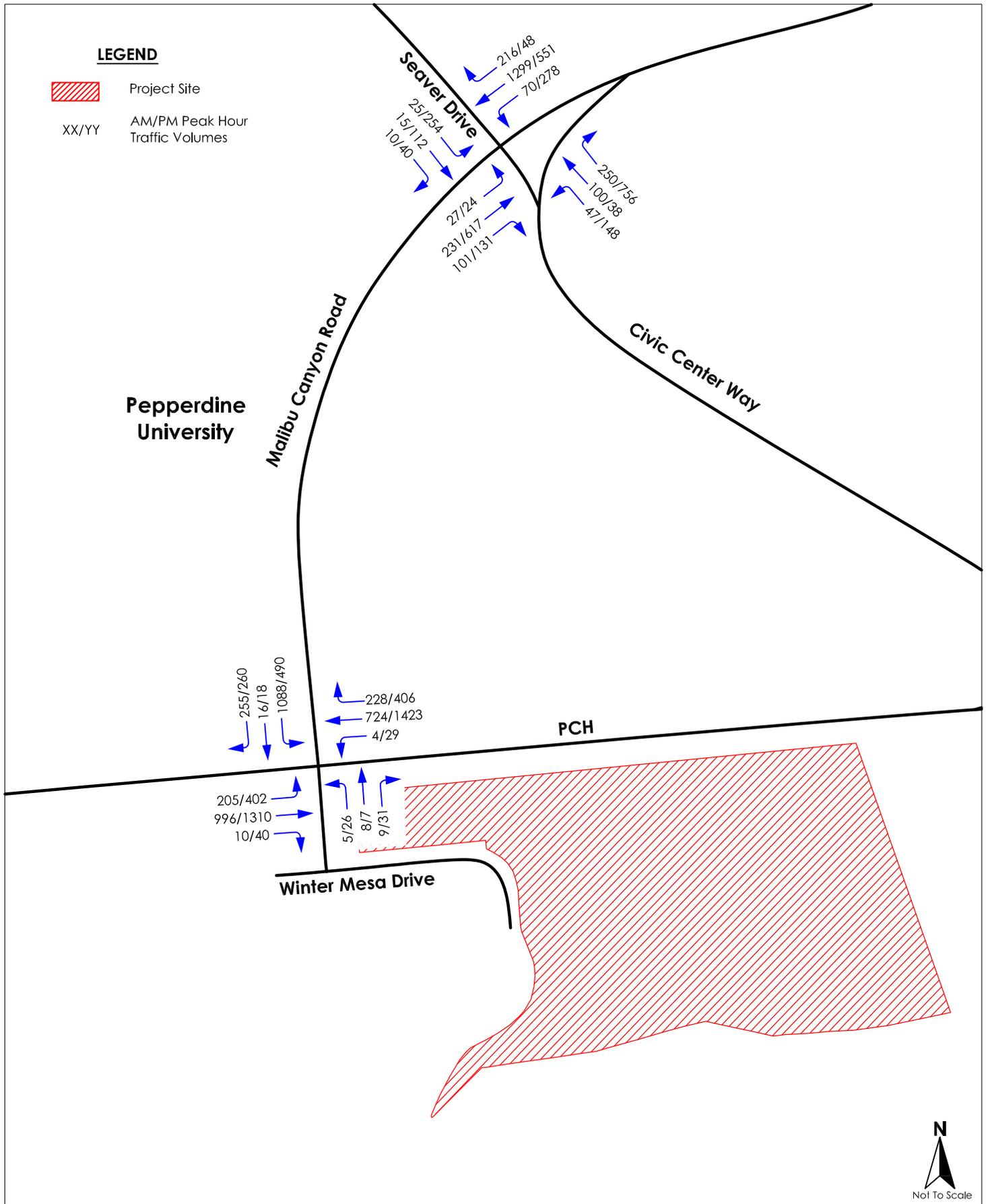


Figure 16  
Future 2030 plus Project Weekday  
AM and PM Peak Hour Traffic Volumes

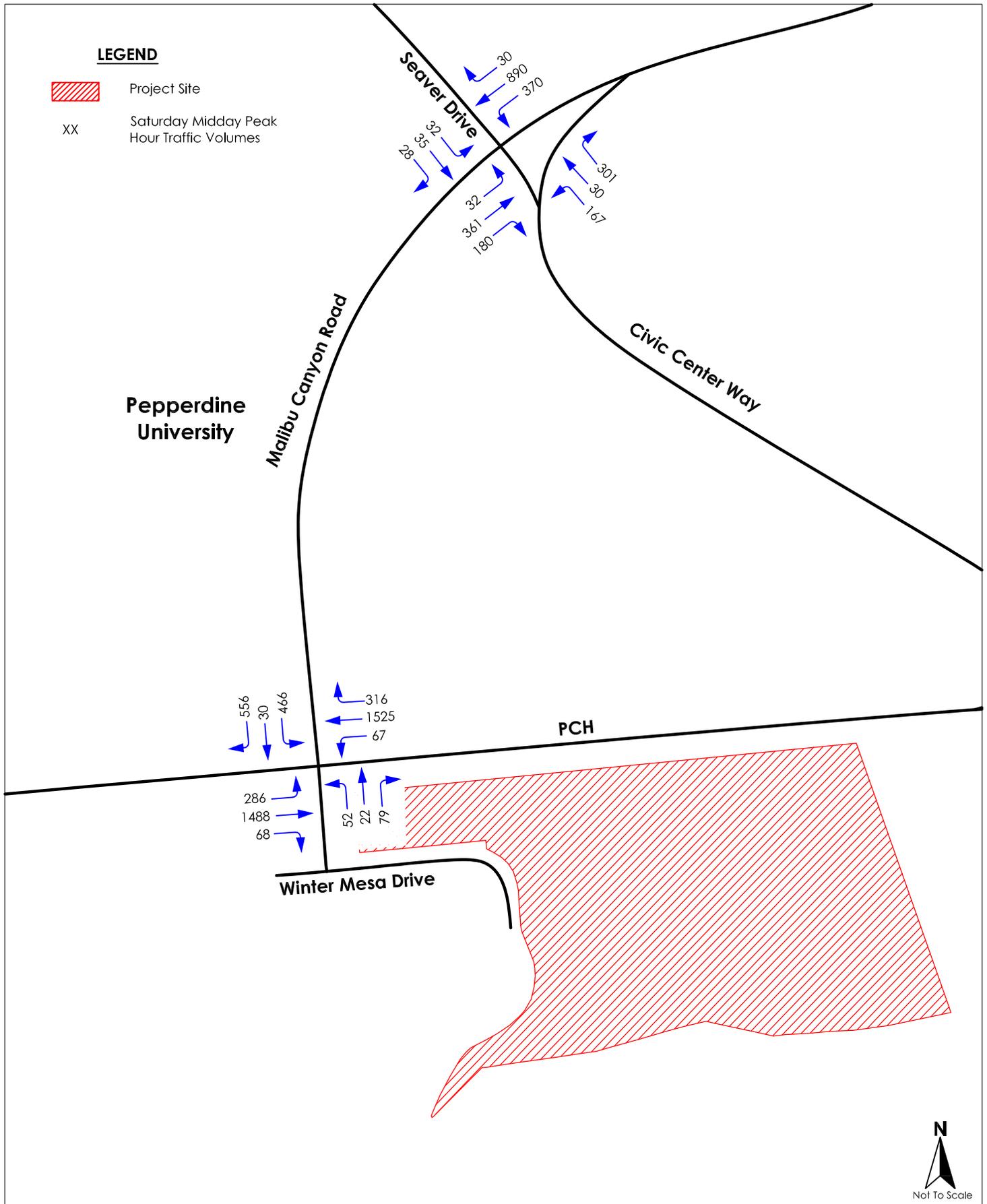


Figure 17  
Future 2030 plus Project Saturday  
Midday Peak Hour Traffic Volumes

Table R – Future Year 2030 plus Project Intersection Level of Service Summary

Intersection	Future Year 2030 Baseline						Future Year 2030 plus Project						V/C Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM	PM	Midday
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS			
1. Malibu Canyon Rd/PCH	0.876	D	0.886	D	0.961	E	0.877	D	0.895	D	<b>0.973</b>	<b>E</b>	+0.001	+0.009	<b>+0.012</b>
2. Malibu Cyn Rd/Civic Cntr Way	0.631	B	0.933	E	0.699	B	0.631	B	0.935	E	0.702	C	0.000	+0.002	+0.003

Table S – Future Year 2030 plus Project Roadway Segment Level of Service Summary

Intersection	Future Year 2030 Baseline						Future Year 2030 plus Project						Density Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM	PM	Midday
	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS			
1. PCH, John Tyler Dr to Malibu Cyn Rd															
- eastbound	11.3	B	16.2	B	16.9	B	11.3	B	16.3	B	17.2	B	0.0	+0.1	+0.3
- westbound	9.1	A	15.8	B	19.6	C	9.2	A	15.9	B	19.9	C	+0.1	+0.1	+0.3
2. PCH, Malibu Cyn Rd to Webb Way															
- eastbound	19.6	C	17.0	B	18.8	C	19.6	C	17.1	B	19.0	C	0.0	+0.1	+0.2
- westbound	9.2	A	17.8	B	18.2	C	9.2	A	18.0	B	18.4	C	0.0	+0.2	+0.2
3. Malibu Cyn Rd, PCH to Civic Center															
- northbound	5.1	A	9.4	A	7.1	A	5.1	A	9.4	A	7.2	A	0.0	0.0	+0.1
- southbound	15.7	B	8.8	A	12.1	B	15.7	B	8.9	A	12.1	B	0.0	+0.1	0.0

Based on the Future Year 2030 plus Project LOS analysis, the proposed project would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project-added traffic.

## 6.0 PROJECT ACCESS, CIRCULATION AND PARKING

The following section discusses the proposed project's access and circulation characteristics. If required, mitigation measures will be proposed to mitigate impacts to less than significant levels.

### *Project Access and Circulation*

The proposed project would use the same access and circulation features that are already in place at the project site, which were designed in conformance with the City of Malibu, Los Angeles County, and Caltrans standards. The project would require a new intersection on Winter Mesa Drive south of PCH, which would be designed in conformance with City standards. The project would not, therefore, result in any sharp curves or dangerous intersections.

As the proposed residential units and recreation facilities are essentially an expansion or intensification of existing uses in the site vicinity, the proposed uses would be compatible. The proposed project would not, therefore, substantially increase hazards due to a design feature or incompatible uses and no impacts would occur as a result of the project.

### *Parking*

Parking for the proposed residential units would be provided in the driveways and garages and along the private access road that serves the five residential units. Parking for the baseball field (or for the skate park alternative) would be provided in a new parking lot that is proposed to be constructed between the new baseball field and Winter Mesa Drive.

As currently proposed, the new parking lot would have 94 parking stalls (90 standard stalls and four handicapped spaces). In conjunction with the development of the project, the existing east-west segment of Winter Mesa Drive and the north-south segment of Winter Mesa Drive that ends in a cul-de-sac would be eliminated. Parallel parking is currently accommodated along both sides of Winter Mesa Drive and an estimated 40 cars can be parked at this location. The estimate of 40 existing parallel parking spaces was calculated by dividing the length of the available parking area (875 linear feet) by an average length of 22 feet per parking space ( $875 \div 22 = 40$  vehicles).

The existing parking lot at Malibu Bluffs Park contains 81 spaces. In addition to the 40 vehicles that can be parked along both sides of Winter Mesa Drive, a total of 121 existing parking spaces are available. With implementation of the proposed project, the space for 40 vehicles along both sides of Winter Mesa Drive would be eliminated and a new 94 space parking lot would be constructed on the project site. Therefore, the total number of parking spaces to serve the existing Malibu Bluffs Park and the proposed baseball field would be 175 spaces (81 existing spaces plus 94 proposed spaces). For the proposed baseball field, the net increase in the overall number of available parking spaces would be 54 spaces, as 40 spaces (of the new 94 space parking lot) would be re-dedicated to existing park and baseball fields at Malibu Bluffs Park.

### **Weekday Peak Parking Demand**

The projected weekday peak parking demand for the proposed baseball field would be 30 vehicles per game, which is based on the assumptions outlined previously in *Section 2.0 Project Description and Traffic Generation*. If the scheduling of the games is closely spaced, the parking demand could be as high as 60 vehicles during the interval when the participants of a game arrive at the site while the participants of a preceding game have not yet departed. The peak weekday parking demand for the baseball field (assuming 60 vehicles) would not be totally accommodated by the proposed 54 (net) additional parking stalls; however, the deficiency of

six spaces would not constitute a significant parking impact because the demand of 60 vehicles represents a worst-case scenario where all 30 vehicles associated with a completed game would overlap with all 30 vehicles associated with the next game. The six vehicles would likely be waiting in the drive aisles of the parking lot for spaces to become available as people from the previous games leave the baseball field, or would parking along Malibu Canyon Road and walk to the baseball field. As this worst-case scenario would occur infrequently and would have a short duration (10 to 15 minutes), the deficiency of six spaces would not constitute a significant parking impact.

## **Saturday Peak Parking Demand**

The projected Saturday peak parking demand for the proposed baseball field would be 46 vehicles per game, which is based on the assumptions outlined previously in *Section 2.0 Project Description and Traffic Generation*. If the scheduling of the games is closely spaced, the parking demand could be as high as 92 vehicles during the interval when the participants of a game arrive at the site while the participants of a preceding game have not yet departed. The peak Saturday parking demand for the baseball field (assuming 92 vehicles) would also not be accommodated by the proposed 54 (net) additional parking stalls. This deficiency of 38 spaces may constitute a significant parking impact, however, it assumes a worst-case scenario where all 46 vehicles associated with a completed game would overlap with all 46 vehicles associated with the next game. The 38 vehicles would likely be waiting in the drive aisles of the parking lot for spaces to become available as people from the previous games leave the baseball field, or would park along Malibu Canyon Road and walk to the baseball field. As this worst-case scenario would occur infrequently and would have a short duration (10 to 15 minutes).

The conclusion of the parking analysis is that the proposed project with the baseball field would not result in a significant impact during typical weekday operations because the proposed increase in the number of parking spaces (54 net spaces) would accommodate the anticipated parking demand of 30 vehicles during a baseball game and would only be six spaces deficient of accommodating the worst-case parking demand of 60 vehicles (when all of the vehicles from two consecutive games were to be on site at the same time). During typical Saturday operations, the proposed project would not result in a significant impact because the proposed increase in the number of parking spaces (54 net spaces) would accommodate the anticipated parking demand of 46 vehicles during a baseball game. However, assuming worst-case conditions, when all of the vehicles from two consecutive games were to be on site at the same time (92 vehicles), there would be a deficiency of 38 spaces on site.

## **Malibu Bluffs Park Parking Demand**

According to staff at the City of Malibu, up to 250 people use the existing Malibu Bluffs Park at any given time, which results in a parking demand of 125 vehicles. This parking demand can be accommodated by the 121 existing parking spaces at the park (in the existing lot, and on both sides of Winter Mesa Drive), plus existing on-street parking along Malibu Canyon Road across PCH. However, during special events or during times when the patronage at the park is particularly heavy, the parking demands cannot be accommodated on site and vehicles are parked along both sides of Malibu Canyon Road, on empty parcels of land, at Webster Elementary School, and on the Crummer property. The proposed project would result in a significant parking impact during these times of peak park usage because it would eliminate the use of the Crummer property for overflow parking and it would generate additional parking demand during baseball games. With the proposed baseball field, a peak demand of 217 spaces could occur under maximum usage of the Malibu Bluffs Park and the new (third)

baseball field (125 existing spaces plus 92 proposed spaces). This would result in an overall park parking shortfall of 42 spaces (217 spaces minus 175 spaces).

The impacts would not be particularly problematic on days when Malibu Bluffs Park operates at typical conditions because the deficiency of six parking spaces would have a short duration and could be accommodated at other locations within the park. The increase in parking demand associated with the baseball field would, however, aggravate a situation that is already impacted during special events at the park and during times of peak park utilization.

The significant parking impacts associated with the baseball field could be accommodated by incorporating the following mitigation measure.

**Mitigation Measure T-3:** Prior to obtaining a Certificate of Occupancy, the Project Applicant and/or City Parks and Recreation Department shall prepare and implement a Parking Management Plan that would preclude the use of the proposed baseball field during special events and/or other times when it is anticipated that the existing Malibu Bluffs Park would operate at over-capacity conditions relative to parking demand. In addition, the Parking Management Plan will require the Project Applicant and/or City Parks and Recreation Department to schedule baseball games with at least a half-hour to 45 minute interval between games so that the parking demand of two consecutive games would not overlap. To accommodate this longer interval between games, less than 10 games per day would be required.

Implementation of Mitigation Measure T-3 above would mitigate the potential worst-case parking impacts of the proposed baseball field component of the proposed project. With implementation of measure T-3, the parking demand of the new baseball field would be 46 spaces. Added with the demand of the existing Malibu Bluffs Park, the overall parking demand for the park uses would be 171 spaces (125 spaces plus 46 spaces). Therefore, all park-related uses can be accommodated within the existing and new parking lots containing a total of 175 spaces.

## 7.0 PROJECT ALTERNATIVE

The following section discusses the proposed project's Project Alternative, the replacement of the baseball field with a skate park. The proposed five single-family detached homes would remain.

### *Trip Generation*

Weekday daily, a.m. and p.m. peak hour; and, Saturday daily and midday peak hour, trip generation estimates for the proposed project were developed using trip rates provided in the Institute of Transportation Engineers (ITE) *Trip Generation, 8<sup>th</sup> Edition*. There are no ITE trip rates for a skate park recreational land use. Therefore, the trip generation estimates for the skate park were determined using an "operational trip generation analysis" based on the assumptions outlined below. The patronage estimates for the skate park were obtained from the City.

- 30 people per day on weekdays, 60 people per day on weekends.
- 10 people during the afternoon peak hour on weekdays, 20 people during the peak hour on weekends, and negligible usage during the weekday morning peak hour.
- One vehicle for every two participants.
- Five vehicles arriving, five vehicles departing during the weekday peak hours.
- 10 vehicles arriving, 10 vehicles departing during the weekend mid-day peak hour.

Summaries of the trip generation rates and resulting vehicle trips for the proposed project are presented in Table T for the weekday and Table U for a Saturday.

**Table T – Weekday Project Alternative Trip Generation Estimates**

Land Use	Size/Units	Daily	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
<b>TRIP RATES</b>								
Single-Family Detached (ITE 210) <sup>1</sup>	per DU	9.57	0.19	0.56	0.75	0.64	0.37	1.01
Skate Park <sup>2</sup>	per park	30	0	0	0	5	5	10
<b>TRIP GENERATION</b>								
Single-Family Detached	5 DUs	48	1	3	4	3	2	5
Skate Park	1 park	30	0	0	0	5	5	10
<b>TOTAL TRIP GENERATION</b>		<b>78</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>8</b>	<b>7</b>	<b>15</b>

Notes: <sup>1</sup> Trip rates for Single-Family Detached homes are from Trip Generation, 8<sup>th</sup> Edition, Institute of Transportation Engineers, 2008.  
DU = dwelling unit

<sup>2</sup> Trip generation for Skate Park based on operational data provided by City of Malibu staff.

According to the table, during the weekdays, the project alternative would generate approximately 78 daily trips, four (4) a.m. peak hour trips (one inbound and three outbound), and 15 p.m. peak hour trips (eight inbound and seven outbound).

**Table U – Saturday Project Alternative Trip Generation Estimates**

Land Use	Size/Units	Daily	Midday Peak Hour		
			In	Out	Total
<b>TRIP RATES</b>					
Single-Family Detached (ITE 210) <sup>1</sup>	per DU	10.08	0.49	0.44	0.93
Skate Park <sup>2</sup>	per park	60	10	10	20
<b>TRIP GENERATION</b>					
Single-Family Detached	5 DUs	50	3	2	5
Skate Park	per park	60	10	10	20
<b>TOTAL TRIP GENERATION</b>		<b>110</b>	<b>13</b>	<b>12</b>	<b>25</b>

Notes: <sup>1</sup> Trip rates for Single-Family Detached homes are from *Trip Generation, 8<sup>th</sup> Edition*, Institute of Transportation Engineers, 2008. DU = dwelling unit.

<sup>2</sup> Trip generation for Skate Park based on operational data provided by City of Malibu staff.

According to the table, during Saturdays, the project alternative would generate approximately 110 daily trips, and 25 midday peak hour trips (13 inbound and 12 outbound).

### ***Trip Distribution and Assignment***

Local trip distribution percentages for the project alternative were provided by the City's Traffic Engineer and were based on observed peak hour travel patterns in the study area. The trip distribution percentages at each intersection were applied to the project alternative's weekday and Saturday peak hour trip generation estimates to calculate the project trip assignment (i.e., turn movement volumes that the project would generate at each study area intersection). Figures 18 and 19 illustrate the weekday and Saturday, respectively, trip distribution and assignment for the project alternative.

### ***Existing plus Project Alternative***

Traffic generated by the project alternative was added to the Existing Baseline scenario and the project alternative impacts on the circulation system were analyzed. This scenario would determine project (alternative)-specific impacts and mitigation measures (if required).

### **Traffic Volumes**

The project alternative trip assignments for the weekday and Saturday peak hours, noted in Figures 18 and 19, respectively, were added to the Existing Baseline weekday and Saturday peak hour traffic volumes in Figures 5 and 6, respectively, which resulted in the Existing plus Project Alternative traffic volumes.

### **Levels of Service**

#### **Intersections**

Based on the analysis methodology described in Section 1.0, the Existing plus Project Alternative weekday and Saturday peak hour traffic volumes were input into the *Traffix* LOS software to determine the intersection ICU and LOS values. Table V presents the results of the Existing plus Project Alternative intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

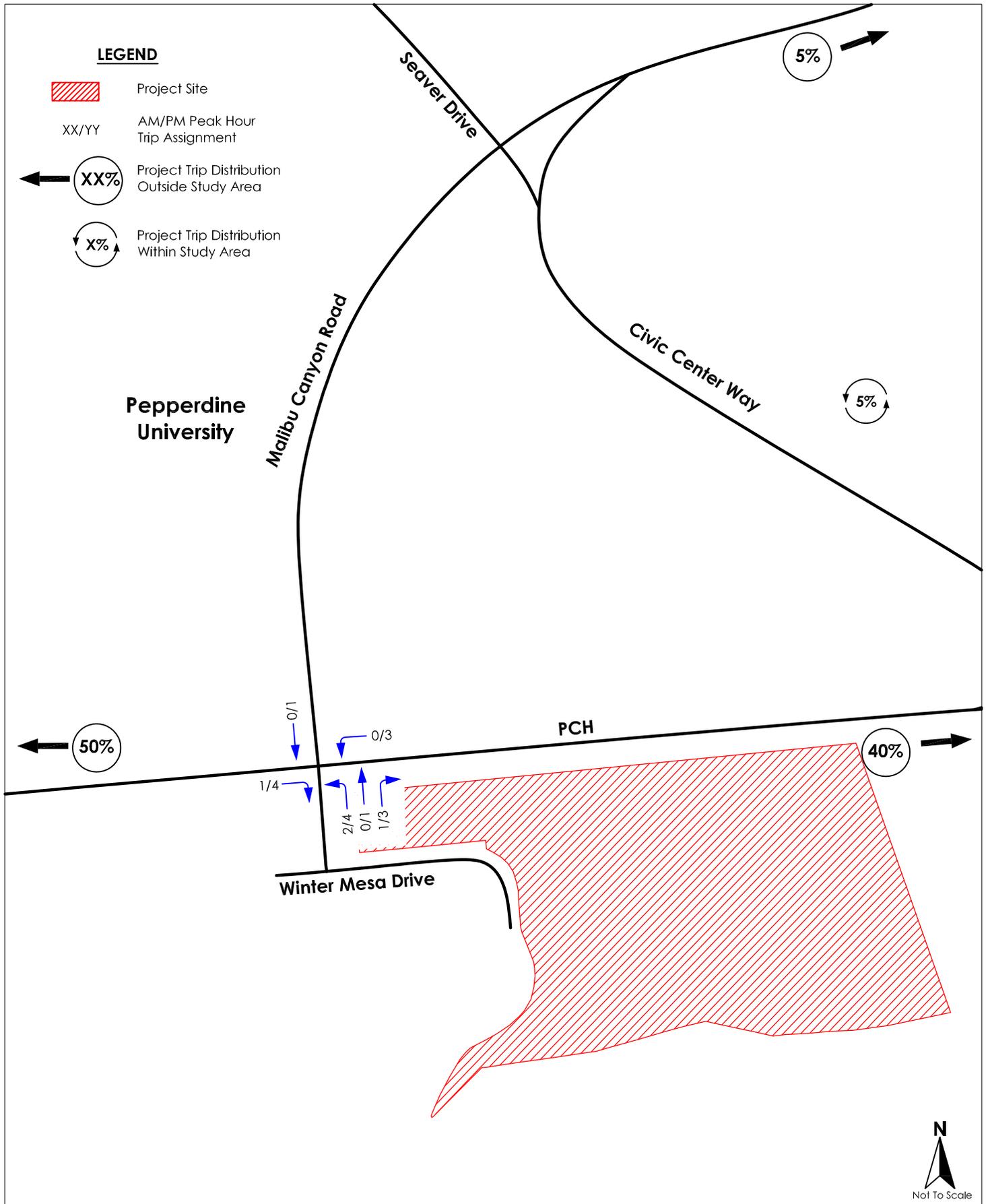


Figure 18  
Project Alternative Weekday AM and PM  
Peak Hour Trip Distribution and Assignment

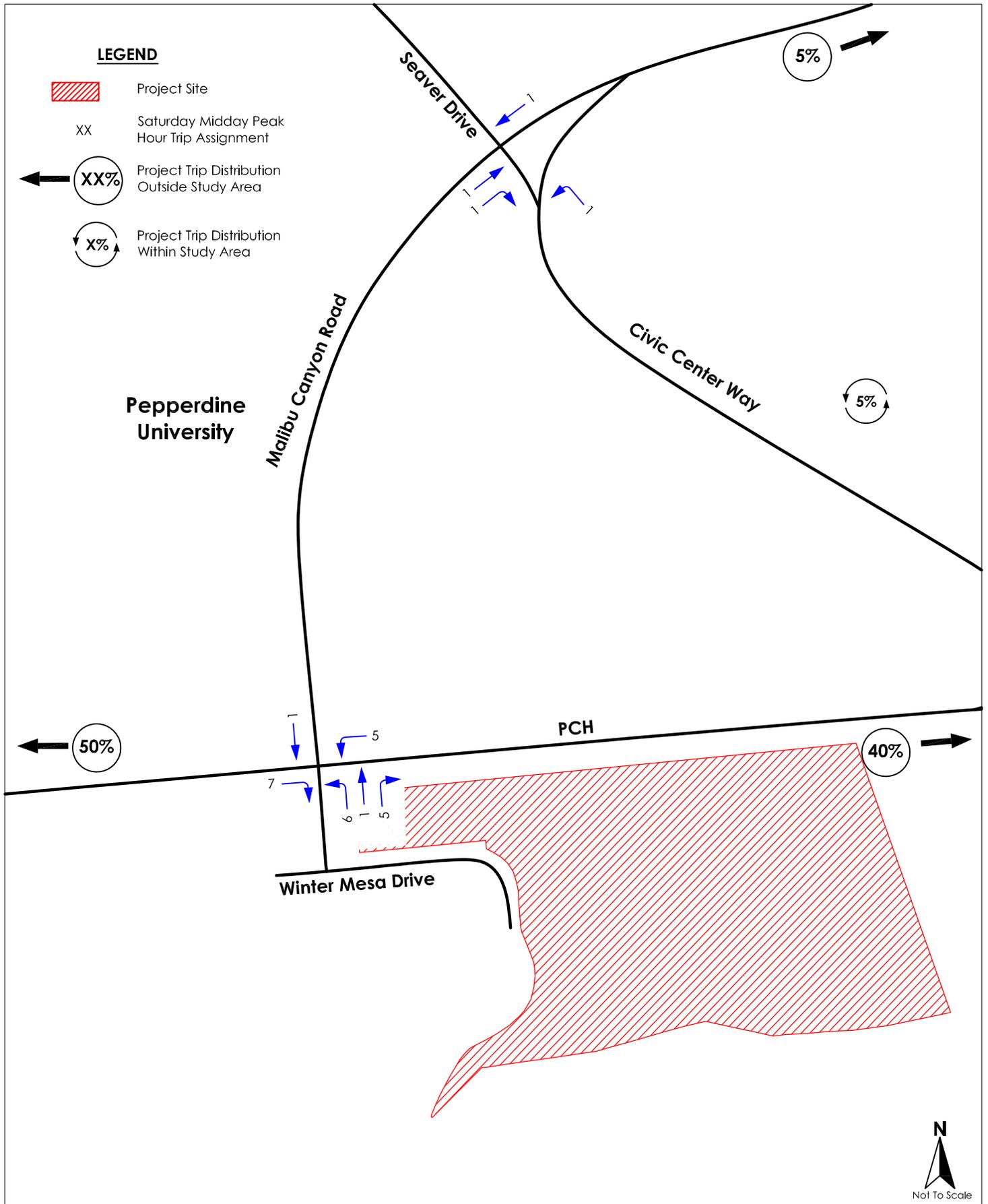


Figure 19  
Project Alternative Saturday Midday  
Peak Hour Trip Distribution and Assignment

**Table V – Existing plus Alternative Intersection Level of Service Summary**

Intersection	Existing Baseline						Existing plus Alternative						V/C Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr				
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM	Midday
1. Malibu Canyon Rd/PCH	0.785	C	0.738	C	0.824	D	0.786	C	0.740	C	0.827	D	+0.001	+0.002	+0.003
2. Malibu Cyn Rd/Civic Cntr Way	0.563	A	0.729	C	0.481	A	0.563	A	0.729	C	0.483	A	0.000	0.000	+0.002

**Table W – Existing plus Alternative Roadway Segment Level of Service Summary**

Intersection	Existing Baseline						Existing plus Alternative						Density Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr				
	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	AM	PM	Midday
1. PCH, John Tyler Dr to Malibu Cyn Rd															
- eastbound	9.6	A	13.7	B	13.9	B	9.6	A	13.7	B	13.9	B	0.0	0.0	0.0
- westbound	8.1	A	13.2	B	16.6	B	8.1	A	13.3	B	16.7	B	0.0	+0.1	+0.1
2. PCH, Malibu Cyn Rd to Webb Way															
- eastbound	17.3	B	13.7	B	14.9	B	17.3	B	13.7	B	14.9	B	0.0	0.0	0.0
- westbound	7.5	A	14.5	B	14.4	B	7.5	A	14.6	B	14.5	B	0.0	+0.1	+0.1
3. Malibu Cyn Rd, PCH to Civic Center															
- northbound	3.1	A	6.7	A	4.0	A	3.1	A	6.7	A	4.1	A	0.0	0.0	+0.1
- southbound	13.7	B	6.0	A	8.7	A	13.7	B	6.0	A	8.8	A	0.0	0.0	+0.1

Based on the Existing plus Alternative LOS analysis, and the significance criteria of the City and Los Angeles County CMP (for Malibu Canyon Road/PCH), the proposed project would not create any significant impacts to the study area intersections as the project-added V/C increases are less than the City's and CMP's thresholds.

### **Roadway Segments**

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table W presents the results of the Existing plus Alternative roadway segment LOS analysis, while the LOS calculation sheets are provided in Appendix C.

Based on the Existing plus Alternative LOS analysis, the proposed project would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project (alternative)-added traffic.

## ***Opening Year 2017 plus Project Alternative***

### **Traffic Volumes**

The project alternative trip assignments for the weekday and Saturday peak hours, noted in Figures 18 and 19, respectively, were added to the Opening Year 2017 Baseline weekday and Saturday peak hour traffic volumes in Figures 10 and 11, respectively, which resulted in the Opening Year 2017 plus Project Alternative traffic volumes. Figures 20 and 21 illustrate the Opening Year 2017 plus Project Alternative weekday and Saturday peak hour traffic volumes, respectively.

### **Levels of Service**

#### **Intersections**

Based on the analysis methodology described in Section 1.0, the Opening Year 2017 plus Alternative weekday and Saturday peak hour traffic volumes were input into the *Traffix* LOS software to determine the intersection ICU and LOS values. Table X presents the results of the Opening Year 2017 plus Alternative intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Based on the Opening Year 2017 plus Alternative LOS analysis, and the significance criteria of the City and Los Angeles County CMP (for Malibu Canyon Road/PCH), the proposed project would not create any significant impacts to the study area intersections as the project-added V/C increases are less than the City's and CMP's thresholds.

#### **Roadway Segments**

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table Y presents the results of the Opening Year 2017 plus Alternative roadway segment LOS analysis, while the LOS calculation sheets are provided in Appendix C.

Based on the Opening Year 2017 plus Alternative LOS analysis, the proposed project would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project (alternative)-added traffic.

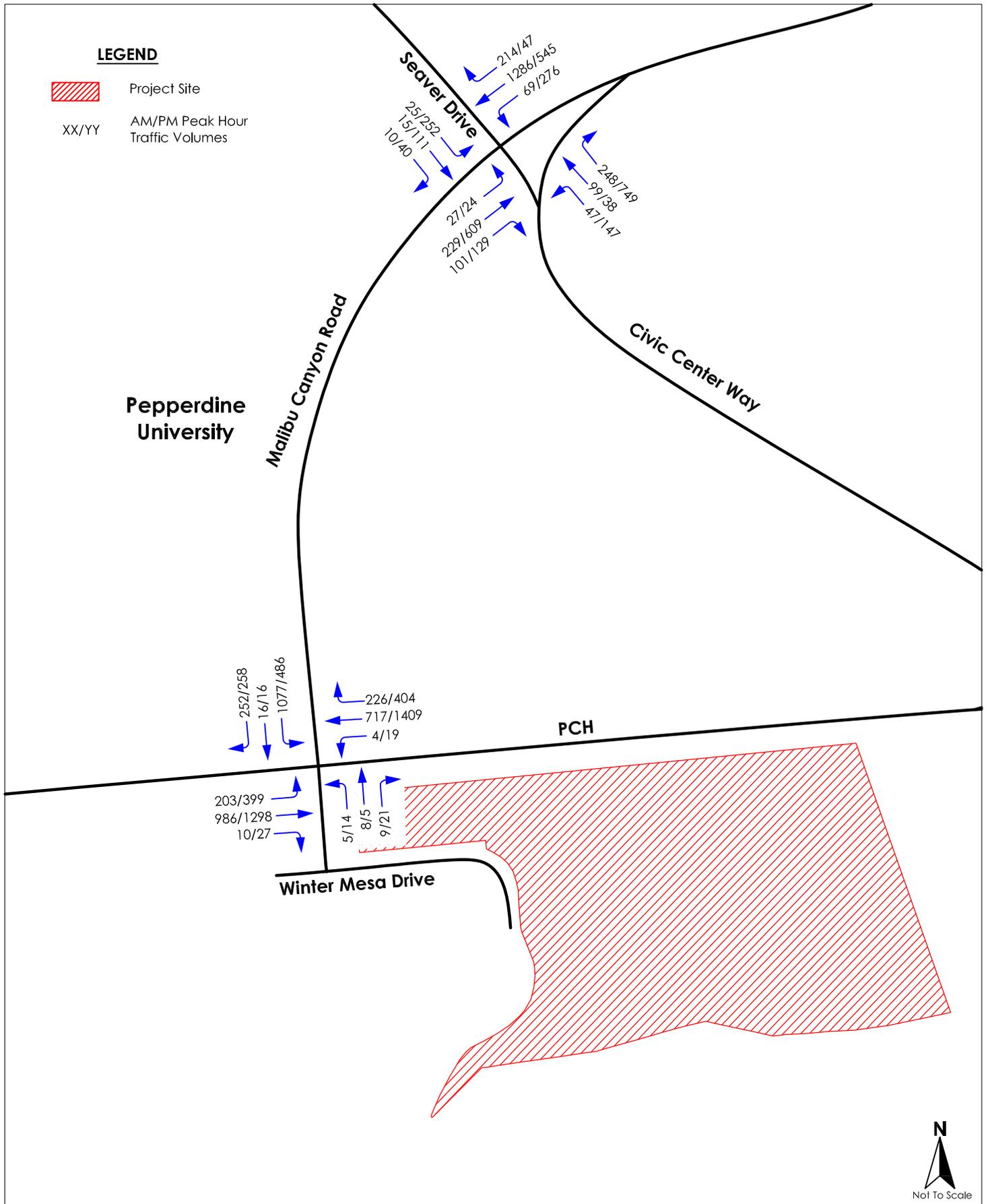


Figure 20  
Opening Year 2017 plus Project Alternative  
AM and PM Peak Hour Traffic Volumes

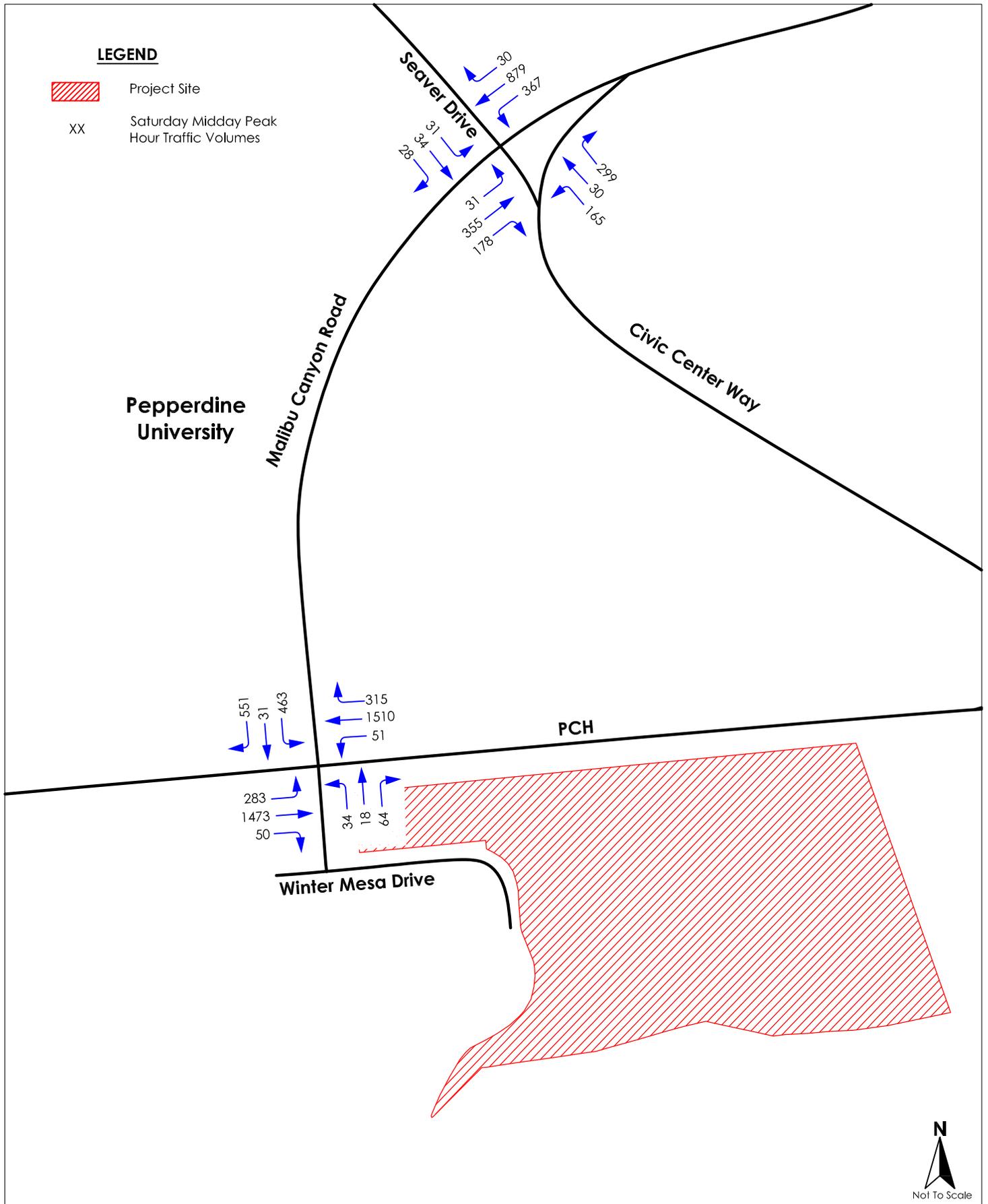


Figure 21  
Opening Year 2017 plus Project Alternative  
Saturday Midday Peak Hour Traffic Volumes

**Table X – Opening Year 2017 plus Alternative Intersection Level of Service Summary**

Intersection	Opening Year 2017 Baseline						Opening Year 2017 plus Project						V/C Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr				
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM	Midday
1. Malibu Canyon Rd/PCH	0.868	D	0.879	D	0.953	E	0.869	D	0.881	D	0.956	E	+0.001	+0.002	+0.003
2. Malibu Cyn Rd/Civic Cntr Way	0.625	B	0.926	E	0.694	B	0.625	B	0.926	E	0.695	B	0.000	0.000	+0.001

**Table Y – Opening Year 2017 plus Alternative Roadway Segment Level of Service Summary**

Intersection	Opening Year 2017 Baseline						Opening Year 2017 plus Alternative						Density Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr				
	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	AM	PM	Midday
1. PCH, John Tyler Dr to Malibu Cyn Rd															
- eastbound	11.2	B	16.0	B	16.8	B	11.2	B	16.1	B	16.8	B	0.0	+0.1	0.0
- westbound	9.1	A	15.6	B	19.5	C	9.1	A	15.7	B	19.5	C	0.0	+0.1	0.0
2. PCH, Malibu Cyn Rd to Webb Way															
- eastbound	19.4	C	16.9	B	18.7	C	19.4	C	16.9	B	18.7	C	0.0	0.0	0.0
- westbound	9.2	A	17.7	B	18.1	C	9.2	A	17.7	B	18.1	C	0.0	0.0	0.0
3. Malibu Cyn Rd, PCH to Civic Center															
- northbound	5.0	A	9.3	A	7.1	A	5.0	A	9.3	A	7.1	A	0.0	0.0	0.0
- southbound	15.5	B	8.8	A	12.1	B	15.5	B	8.8	A	12.1	B	0.0	0.0	0.0

## ***Future Year 2030 plus Project Alternative***

### **Traffic Volumes**

The project alternative trip assignments for the weekday and Saturday peak hours, noted in Figures 18 and 19, respectively, were added to the Future Year 2030 Baseline weekday and Saturday peak hour traffic volumes in Figures 14 and 15, respectively, which resulted in the Future Year 2030 plus Project Alternative traffic volumes. Figures 22 and 23 illustrate the Opening Year 2017 plus Project Alternative weekday and Saturday peak hour traffic volumes, respectively.

### **Levels of Service**

#### **Intersections**

Based on the analysis methodology described in Section 1.0, the Future Year 2030 plus Alternative weekday and Saturday peak hour traffic volumes were input into the *Traffix* LOS software to determine the intersection ICU and LOS values. Table Z presents the results of the Future Year 2030 plus Alternative intersection LOS analysis, while the LOS calculation sheets are provided in Appendix B.

Based on the Future Year 2030 plus Alternative LOS analysis, and the significance criteria of the City and Los Angeles County CMP (for Malibu Canyon Road/PCH), the proposed project would not create any significant impacts to the study area intersections as the project-added V/C increases are less than the City's and CMP's thresholds.

#### **Roadway Segments**

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table AA presents the results of the Future Year 2030 plus Alternative roadway segment LOS analysis, while the LOS calculation sheets are provided in Appendix C.

Based on the Future Year 2030 plus Alternative LOS analysis, the proposed project would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project (alternative)-added traffic.

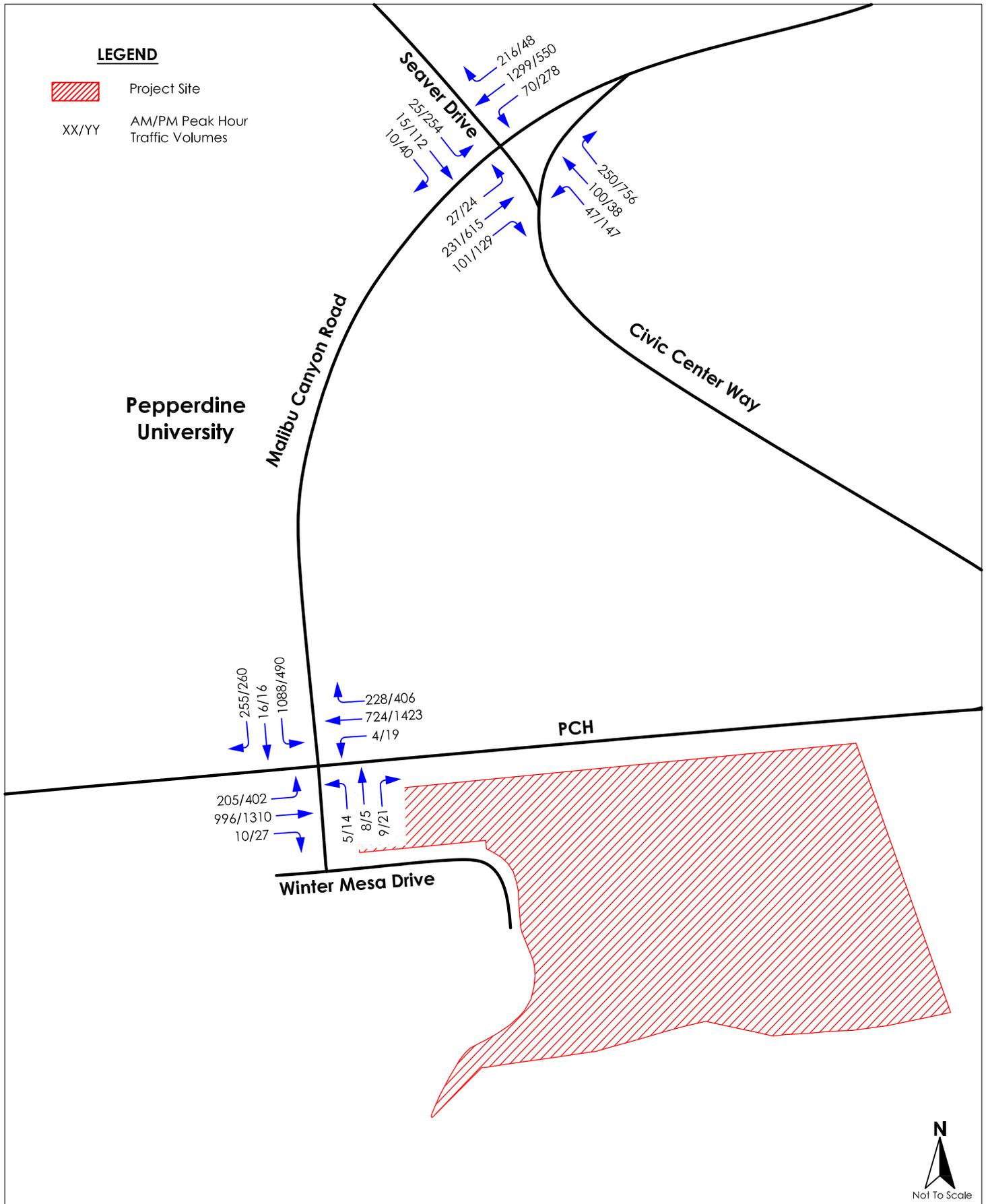


Figure 22  
Future 2030 plus Project Alternative Weekday  
AM and PM Peak Hour Traffic Volumes

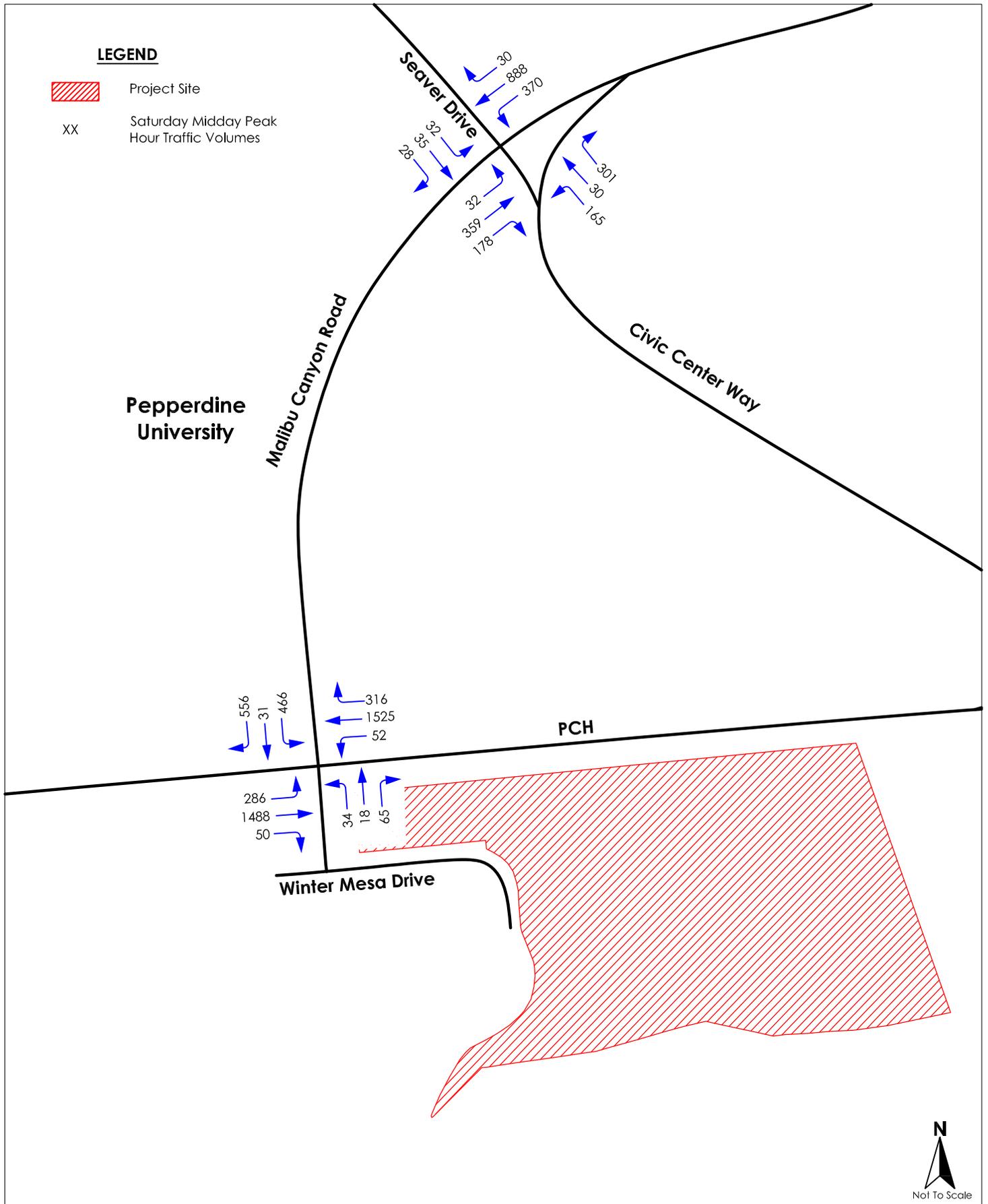


Figure 23  
Future 2030 plus Project Alternative Saturday  
Midday Peak Hour Traffic Volumes

**Table Z – Future Year 2030 plus Alternative Intersection Level of Service Summary**

Intersection	Future Year 2030 Baseline						Future Year 2030 plus Alternative						V/C Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr				
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM	Midday
1. Malibu Canyon Rd/PCH	0.876	D	0.886	D	0.961	E	0.877	D	0.888	D	0.964	E	+0.001	+0.002	+0.003
2. Malibu Cyn Rd/Civic Cntr Way	0.631	B	0.933	E	0.699	B	0.631	B	0.933	E	0.699	B	0.000	0.000	0.000

**Table AA – Future Year 2030 plus Alternative Roadway Segment Level of Service Summary**

Intersection	Future Year 2030 Baseline						Future Year 2030 plus Alternative						Density Increase		
	AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr		AM Peak Hour		PM Peak Hour		Saturday Midday Pk Hr				
	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	AM	PM	Midday
1. PCH, John Tyler Dr to Malibu Cyn Rd - eastbound - westbound	11.3	B	16.2	B	16.9	B	11.3	B	16.3	B	17.2	B	0.0	+0.1	+0.3
	9.1	A	15.8	B	19.6	C	9.2	A	15.9	B	19.9	C	+0.1	+0.1	+0.3
2. PCH, Malibu Cyn Rd to Webb Way - eastbound - westbound	19.6	C	17.0	B	18.8	C	19.6	C	17.0	B	18.9	C	0.0	0.0	+0.1
	9.2	A	17.8	B	18.2	C	9.2	A	17.9	B	18.3	C	0.0	+0.1	+0.1
3. Malibu Cyn Rd, PCH to Civic Center - northbound - southbound	5.1	A	9.4	A	7.1	A	5.1	A	9.4	A	7.1	A	0.0	0.0	0.0
	15.7	B	8.8	A	12.1	B	15.7	B	8.8	A	12.2	B	0.0	0.0	+0.1

## ***Parking***

Parking for the proposed residential units would be provided in the driveways and garages and along the private access road that serves the five residential units. Parking for the skate park alternative would be provided in a new parking lot that is proposed to be constructed between the new skate park and Winter Mesa Drive.

As currently proposed, the new parking lot would have 94 parking stalls (90 standard stalls and four handicapped spaces). In conjunction with the development of the project alternative, the existing east-west segment of Winter Mesa Drive and the north-south segment of Winter Mesa Drive that ends in a cul-de-sac would be eliminated. Parallel parking is currently accommodated along both sides of Winter Mesa Drive and an estimated 40 cars can be parked at this location. As 94 parking spaces would be provided in the proposed parking lot and as 40 existing parallel spaces would be eliminated, the net increase in the overall number of parking spaces would be 54 spaces. The estimate of 40 existing parallel parking spaces was calculated by dividing the length of the available parking area (875 linear feet) by an average length of 22 feet per parking space ( $875 \div 22 = 40$  vehicles).

The projected parking demand for the skate park would be 10 vehicles, which is based on the assumption that up to 20 people would be using the skate park at any given time and that the average vehicle occupancy would be two persons per vehicle. The parking demand for the skate park alternative (10 vehicles) would be accommodated by the proposed 54 additional parking stalls.

The parking impacts of the skate park alternative would be less than significant because the proposed increase in the number of parking spaces (54 spaces) would accommodate the anticipated parking demand of the skate park (10 vehicles).

## 8.0 CONCLUSIONS AND MITIGATION MEASURES

The following section provides recommended mitigation measures for the significantly impacted transportation facilities (if any) noted above in Sections 4.0 – Opening Year 2017, 5.0 – Project Access and Circulation.

### *Project Trip Generation*

The proposed project, five single-family homes and a baseball field would generate approximately 168 daily trips, four (4) a.m. peak hour trips (one inbound and three outbound), and 65 p.m. peak hour trips (33 inbound and 32 outbound) during the week. During a Saturday, the proposed project would generate approximately 970 daily trips, and 97 midday peak hour trips (49 inbound and 48 outbound).

### *Existing plus Project*

#### **Intersections**

Based on the Existing plus Project LOS analysis, and the significance criteria of the City and Los Angeles County CMP (for Malibu Canyon Road/PCH), the proposed project would not create any significant impacts to the study area intersections as the project-added V/C increases are less than the City's and CMP's thresholds.

#### **Roadway Segments**

Based on the Existing plus Project LOS analysis, the proposed project would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project (alternative)-added traffic.

### *Opening Year 2017 plus Project*

#### **Intersections**

Based on the Opening Year 2017 plus Project LOS analysis, and the significance criteria of the City, the proposed project would create a significant impact at Malibu Canyon Road/PCH as this intersection is forecast to continue to operate at LOS E (0.965 V/C) and the proposed project would increase the intersection's V/C by 0.012 V/C (i.e.,  $\geq 0.010$  V/C threshold at LOS E or F). The following mitigation measure would be required:

**Mitigation Measure T-1:** Prior to obtaining a Certificate of Occupancy, the Project Applicant(s) shall construct the following improvements:

#### **Malibu Canyon Road/PCH**

- Re-stripe the existing southbound through plus left-turn lane to a through plus left- and right-turn lane.
- Either modify the existing traffic signal to remove the right-turn overlap phase to a standard right-turn-on-red (RTOR) permissive phase resulting in LOS E at 0.928 V/C OR;
- Keep right turn overlap phase for existing #2 (outside) dedicated right-turn lane resulting in LOS E at 0.902 V/C.

- The project volume contribution to this intersection is 9.1 percent of new traffic volumes (Opening Year 2017 plus Project traffic minus Existing traffic).
- A general cost estimate for a signal modification and re-striping would be approximately \$35,000 - \$50,000.

Implementation of Mitigation Measure T-1 above would mitigate the significant traffic impact of the proposed project.

The proposed project would not create any significant impacts to the other study area intersections as the project-added V/C increases are less than the City's thresholds.

## Roadway Segments

Based on the Opening Year 2017 plus Project LOS analysis, the proposed project would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project (alternative)-added traffic.

## *Future Year 2030 plus Project*

### Intersections

Based on the Future Year 2030 plus Project LOS analysis, and the significance criteria of the City, the proposed project would create a significant impact at Malibu Canyon Road/PCH as this intersection is forecast to continue to operate at LOS E (0.973 V/C) and the proposed project would increase the intersection's V/C by 0.012 V/C (i.e.,  $\geq 0.010$  V/C threshold at LOS E or F). The following mitigation measure would be required:

**Mitigation Measure T-2:** Prior to obtaining a Certificate of Occupancy, the Project Applicant(s) shall construct the following improvements:

#### **Malibu Canyon Road/PCH**

- Re-stripe the existing southbound through plus left-turn lane to a through plus left- and right-turn lane.
- Either modify the existing traffic signal to remove the right-turn overlap phase to a standard right-turn-on-red (RTOR) permissive phase resulting in LOS E at 0.935 V/C OR;
- Keep right turn overlap phase for existing #2 (outside) dedicated right-turn lane resulting in LOS E at 0.909 V/C.
- The project volume contribution to this intersection is 8.8 percent of new traffic volumes (Future Year 2030 plus Project traffic minus Existing traffic).
- A general cost estimate for a signal modification and re-striping would be approximately \$35,000 - \$50,000.

Implementation of Mitigation Measure T-2 above would mitigate the significant traffic impact of the proposed project.

The proposed project would not create any significant impacts to the other study area intersections as the project-added V/C increases are less than the City's thresholds.

## Roadway Segments

Based on the Future Year 2030 plus Project LOS analysis, the proposed project would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project (alternative)-added traffic.

## *Project Access, Circulation and Parking*

The conclusion of the parking analysis is that the proposed project with the baseball field would not result in a significant impact during typical weekday operations because the proposed increase in the number of parking spaces (54 spaces) would accommodate the anticipated parking demand of 30 vehicles during a baseball game and would only be six spaces deficient of accommodating the worst-case parking demand of 60 vehicles (when all of the vehicles from two consecutive games were to be on site at the same time). During typical Saturday operations, the proposed project would not result in a significant impact because the proposed increase in the number of parking spaces (54 spaces) would accommodate the anticipated parking demand of 46 vehicles during a baseball game. However, assuming worst-case conditions, when all of the vehicles from two consecutive games were to be on site at the same time (92 vehicles), there would be a deficiency of 38 spaces on site.

In addition, the proposed project would result in a significant parking impact during times of peak park usage at Malibu Bluffs Park because it would eliminate the use of the Crummer property for overflow parking and it would generate additional parking demand during baseball games.

The significant parking impacts associated with the baseball field could be accommodated by incorporating the following mitigation measure.

**Mitigation Measure T-3:** Prior to obtaining a Certificate of Occupancy, the Project Applicant and/or City Parks and Recreation Department shall prepare and implement a Parking Management Plan that would preclude the use of the proposed baseball field during special events and/or other times when it is anticipated that the existing Malibu Bluffs Park would operate at over-capacity conditions relative to parking demand. In addition, the Parking Management Plan will require the Project Applicant and/or City Parks and Recreation Department to schedule baseball games with at least a half-hour to 45 minute interval between games so that the parking demand of two consecutive games would not overlap. To accommodate this longer interval between games, less than 10 games per day would be required.

Implementation of Mitigation Measure T-3 above would mitigate the potential worst-case parking impacts of the proposed baseball field component of the proposed project.

## *Project Alternative*

### Trip Generation

The project alternative, the development of five single-family homes and a skate park, would generate approximately 78 daily trips, four (4) a.m. peak hour trips (one inbound and three outbound), and 15 p.m. peak hour trips (eight inbound and seven outbound) during the weekdays. During Saturdays, the project alternative would generate approximately 110 daily trips, and 25 midday peak hour trips (13 inbound and 12 outbound).

## Existing plus Alternative

### Intersections

Based on the Existing plus Alternative LOS analysis, and the significance criteria of the City and Los Angeles County CMP (for Malibu Canyon Road/PCH), the proposed project would not create any significant impacts to the study area intersections as the project-added V/C increases are less than the City's and CMP's thresholds.

### Roadway Segments

Based on the Existing plus Alternative LOS analysis, the proposed project alternative would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project (alternative)-added traffic.

## Opening Year 2017 plus Alternative

### Intersections

Based on the Opening Year 2017 plus Alternative LOS analysis, and the significance criteria of the City and Los Angeles County CMP (for Malibu Canyon Road/PCH), the proposed project would not create any significant impacts to the study area intersections as the project-added V/C increases are less than the City's and CMP's thresholds.

### Roadway Segments

Based on the Opening Year 2017 plus Alternative LOS analysis, the proposed project alternative would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project (alternative)-added traffic.

## Future Year 2030 plus Alternative

### Intersections

Based on the Future Year 2030 plus Alternative LOS analysis, and the significance criteria of the City and Los Angeles County CMP (for Malibu Canyon Road/PCH), the proposed project would not create any significant impacts to the study area intersections as the project-added V/C increases are less than the City's and CMP's thresholds.

### Roadway Segments

Based on the Future Year 2030 plus Alternative LOS analysis, the proposed project alternative would not create any significant impacts to the study area roadway segments as the roadway segments are forecast to operate at LOS C or better with project (alternative)-added traffic.

## Parking

The projected parking demand for the skate park would be 10 vehicles, which is based on the assumption that up to 20 people would be using the skate park at any given time and that the average vehicle occupancy would be two persons per vehicle. The parking demand for the skate park alternative (10 vehicles) would be accommodated by the proposed 54 additional parking stalls.

The parking impacts of the skate park alternative would be less than significant because the proposed increase in the number of parking spaces (54 spaces) would accommodate the anticipated parking demand of the skate park (10 vehicles).

## 9.0 REFERENCES

City of Malibu, *Cumulative Projects Listing*, Updated August 1, 2012.

Garland Associates, *Traffic Impact Analysis for the Proposed Crummer Site Subdivision*, October 2008.

Garland Associates, *Traffic Impact Analysis for the Proposed Crummer Site Subdivision*, revised March 2009.

Institute of Transportation Engineers, *Trip Generation*, 8<sup>th</sup> Edition, 2008.

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Los Angeles County Metropolitan Transportation Authority (MTA), *Guidelines for CMP Transportation Impact Analysis*, Appendix B of the Los Angeles County *Congestion Management Program (CMP)*, 2004.

Overland Traffic Consultants, Inc., *Traffic Impact Analysis Neighborhood Shopping Center*, May 2011.

Overland Traffic Consultants, Inc., *Traffic Impact Analysis Resort Hotel Development*, April 2012.

Transportation Research Board, *Highway Capacity Manual*, Special Report No. 209, Washington, D.C., 2000.

## APPENDIX A

### Raw Traffic Volume Count Sheets

# ITM Peak Hour Summary

Prepared by:

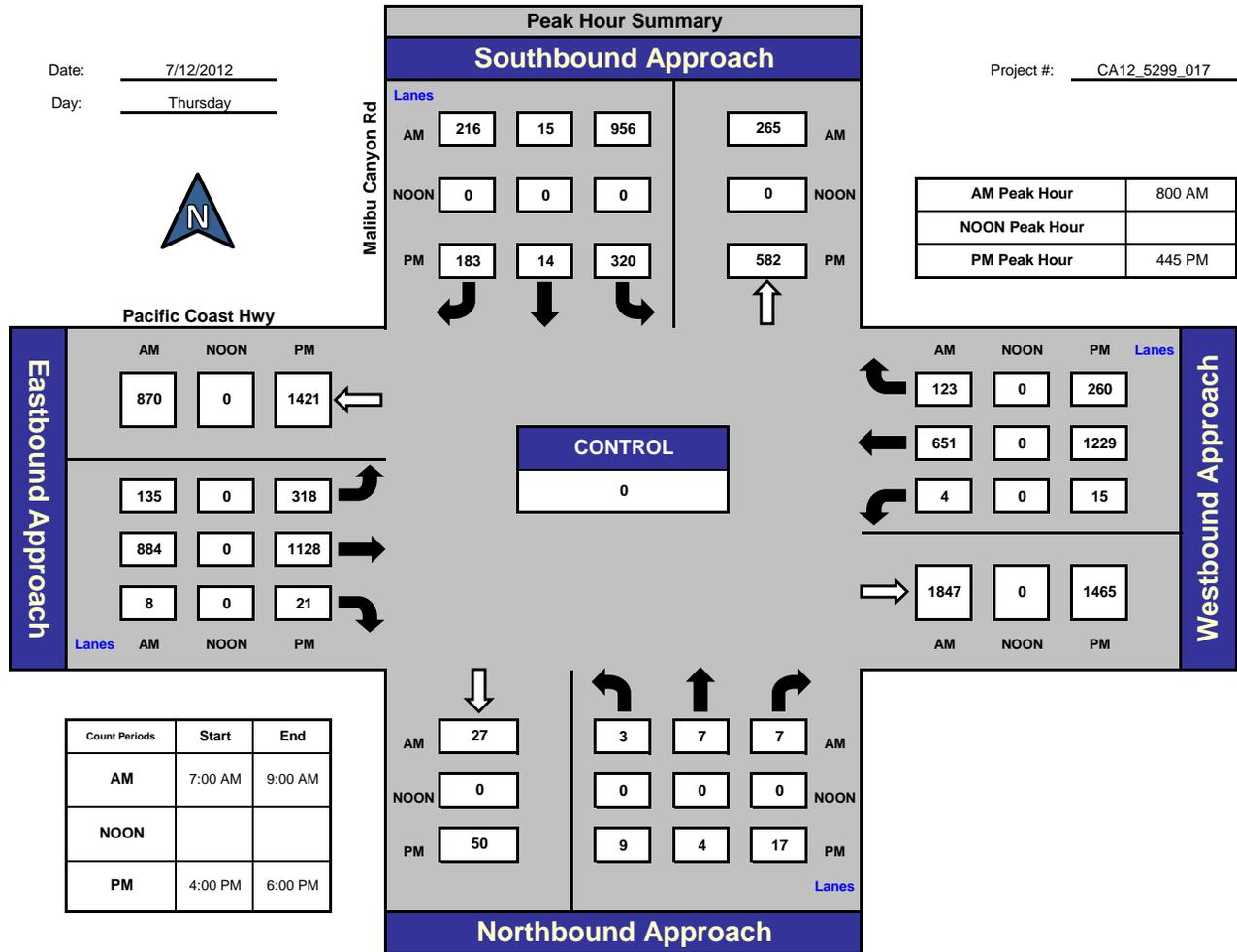


## Malibu Canyon Rd and Pacific Coast Hwy, City of Malibu

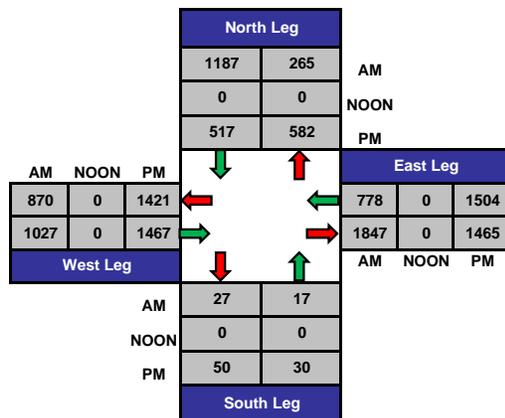
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Day: Thursday

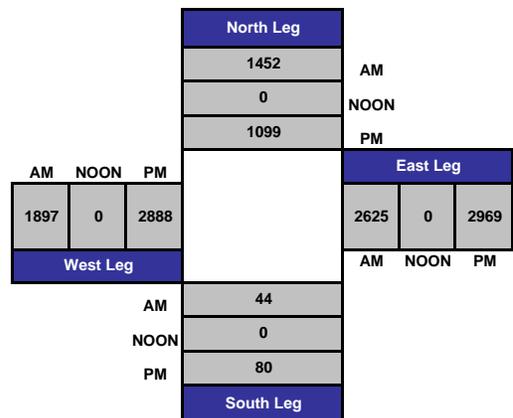
Project #: CA12\_5299\_017



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:

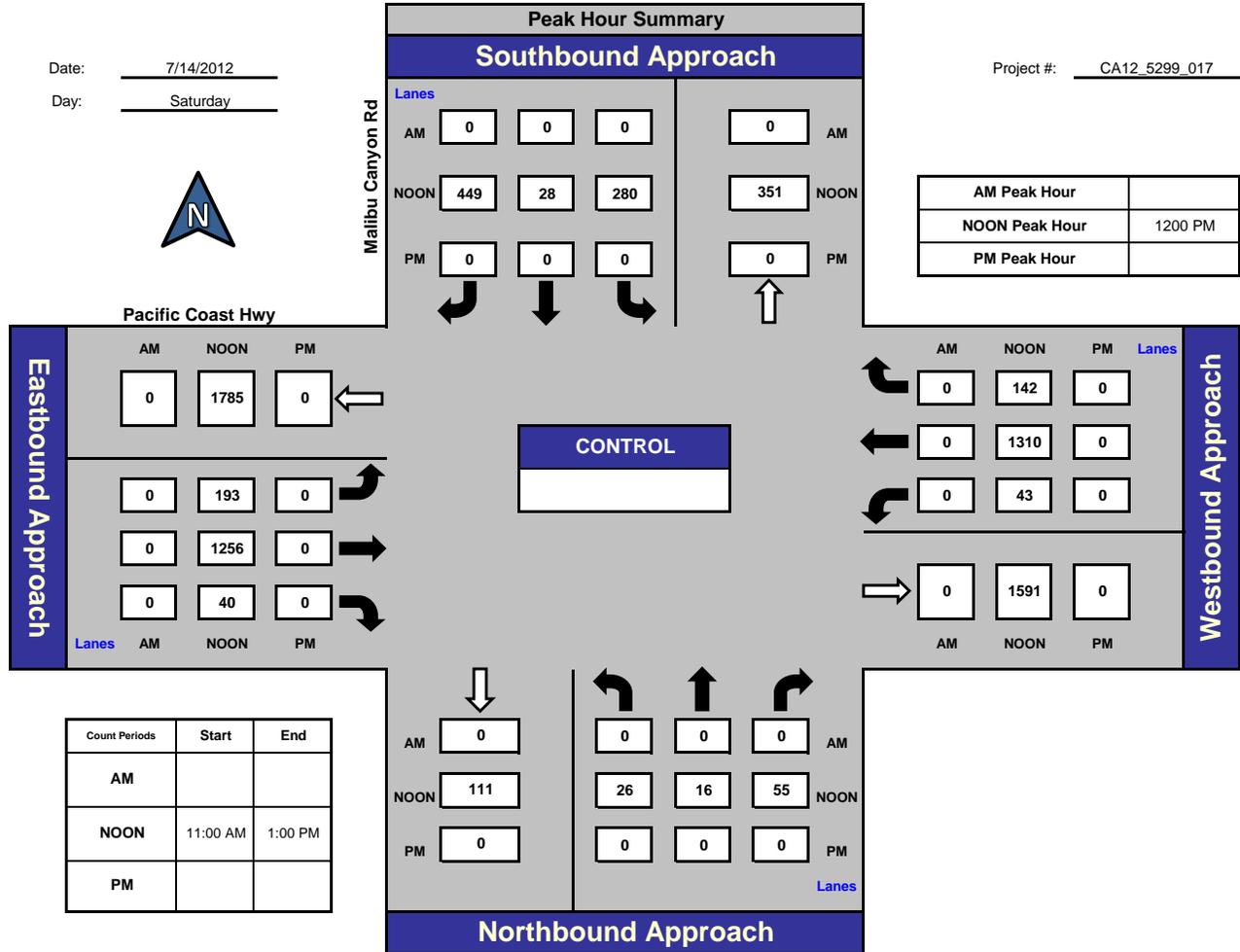


## Malibu Canyon Rd and Pacific Coast Hwy, City of Malibu

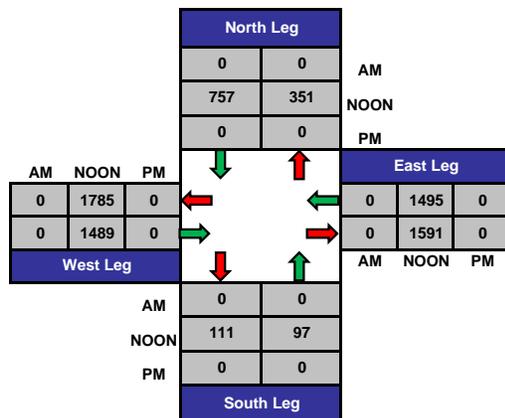
Date: 7/14/2012

Day: Saturday

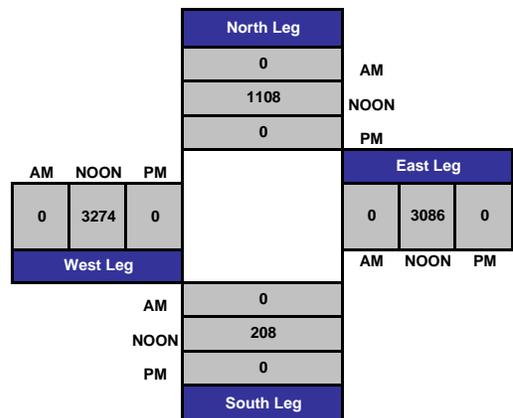
Project #: CA12\_5299\_017



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

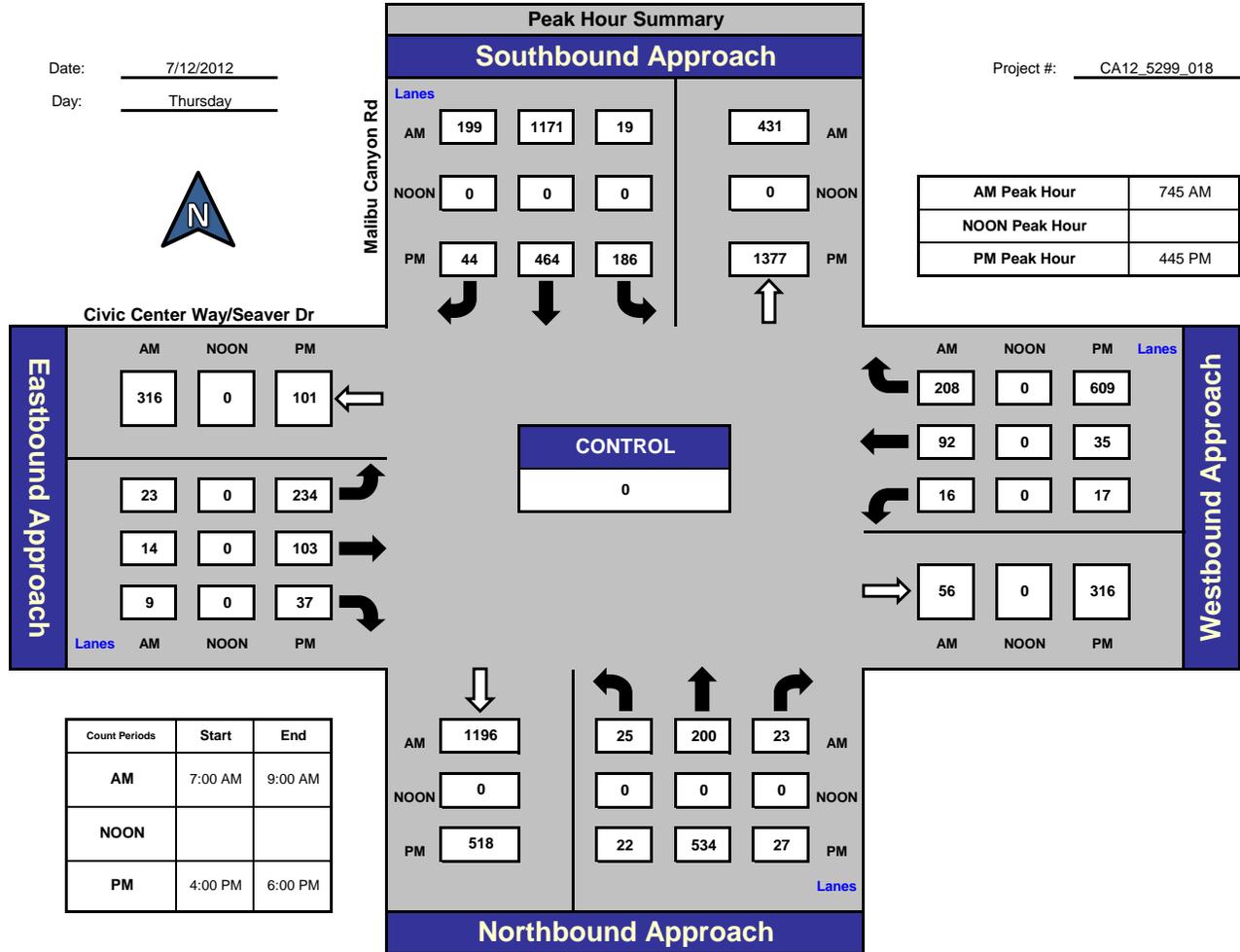
Prepared by:



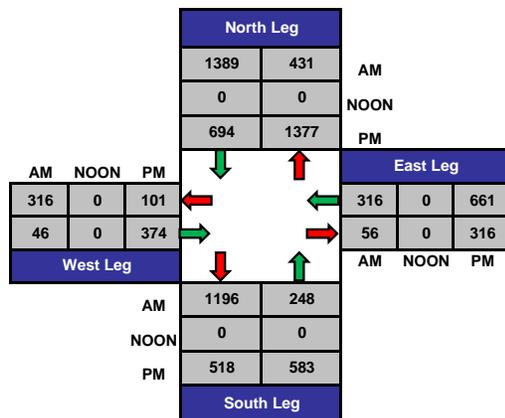
## Malibu Canyon Rd and Civic Center Way/Seaver Dr., City of Malibu

Date: 7/12/2012  
Day: Thursday

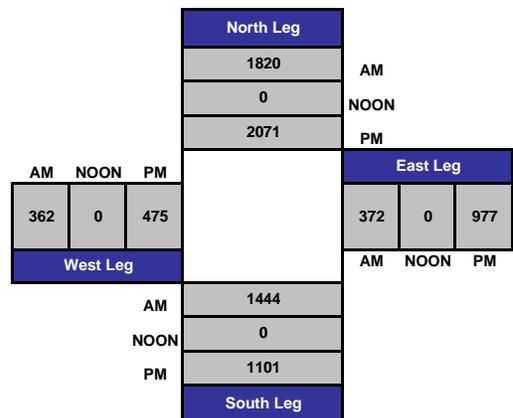
Project #: CA12\_5299\_018



### Total Ins & Outs



### Total Volume Per Leg



# ITM Peak Hour Summary

Prepared by:

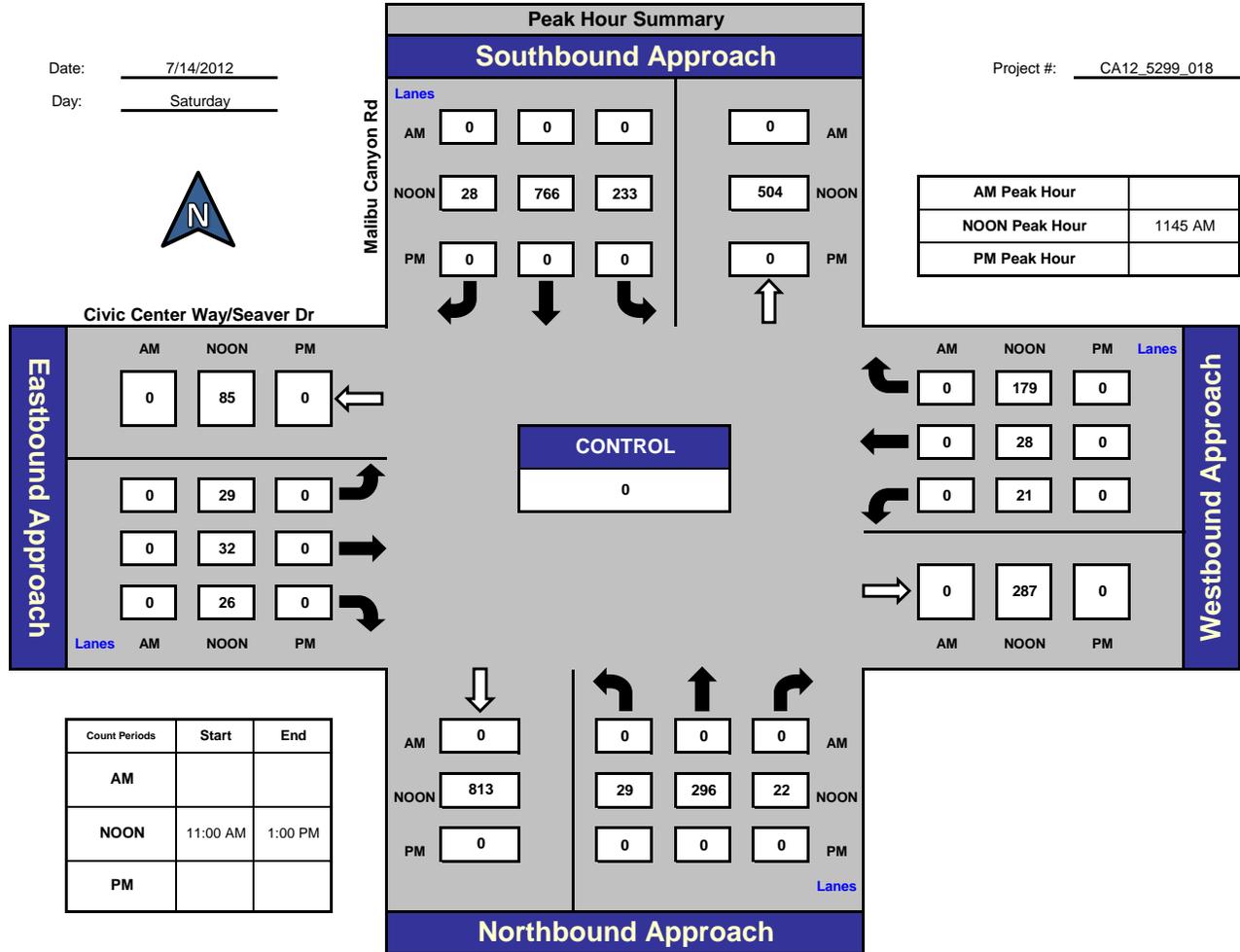


## Malibu Canyon Rd and Civic Center Way/Seaver Dr., City of Malibu

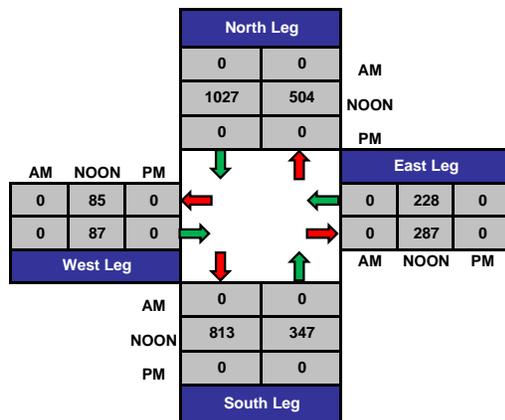
Date: 7/14/2012

Day: Saturday

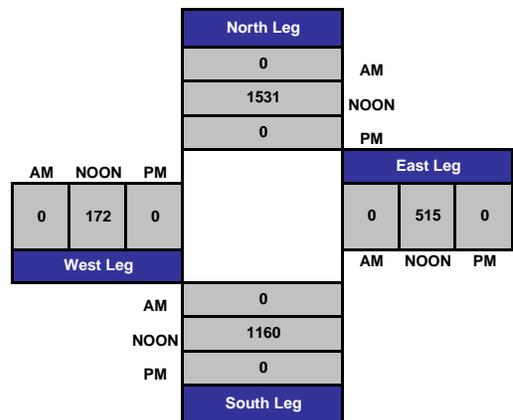
Project #: CA12\_5299\_018



### Total Ins & Outs



### Total Volume Per Leg



## APPENDIX B

### Intersection Level of Service Worksheets

*EXISTING CONDITION*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.785
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 63 Level Of Service: C

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 7 7 956 15 216 135 884 8 4 651 123

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: 3 7 7 956 15 216 135 884 8 4 651 123

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 3 7 7 956 15 216 135 884 8 4 651 123

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: 3 7 7 956 15 216 135 884 8 4 651 123

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 3 7 7 956 15 216 135 884 8 4 651 123

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: 3 7 7 956 15 216 135 884 8 4 651 123

OvlAdjVol: 141 0

-----|-----|-----|-----|

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 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 0.35 0.83 0.82 1.97 0.03 1.00 2.00 1.98 0.02 1.00 2.00 1.00

Final Sat.: 565 1318 1318 2400 800 1600 2880 3171 29 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.40 0.02 0.14 0.05 0.28 0.28 0.00 0.20 0.08

OvlAdjV/S: 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.563
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 25 200 23 19 1171 199 23 14 9 16 92 208

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: 25 200 23 19 1171 199 23 14 9 16 92 208

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 25 200 23 19 1171 199 23 14 9 16 92 208

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 25 200 0 19 1171 199 23 14 0 16 92 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 25 200 0 19 1171 199 23 14 0 16 92 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 25 200 0 19 1171 199 23 14 0 16 92 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.15 0.85 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 237 1363 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.13 0.00 0.01 0.37 0.12 0.01 0.01 0.00 0.07 0.07 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.738
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 55 Level Of Service: C

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 9 4 17 320 14 183 318 1128 21 15 1229 260

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: 9 4 17 320 14 183 318 1128 21 15 1229 260

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 9 4 17 320 14 183 318 1128 21 15 1229 260

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: 9 4 17 320 14 183 318 1128 21 15 1229 260

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 9 4 17 320 14 183 318 1128 21 15 1229 260

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: 9 4 17 320 14 183 318 1128 21 15 1229 260

OvlAdjVol: 6 47

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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 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 0.60 0.40 1.00 1.92 0.08 1.00 2.00 1.96 0.04 1.00 2.00 1.00

Final Sat.: 960 640 1600 2400 800 1600 2880 3142 58 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.13 0.02 0.11 0.11 0.36 0.36 0.01 0.38 0.16

OvlAdjV/S: 0.00 0.03

Crit Moves: \*\*\*\* \*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.729
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 54 Level Of Service: C

\*\*\*\*\*

Table with columns for Street Name (Malibu Canyon, Civic Center), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and Lanes.

Table for Volume Module 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.

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

Table for Capacity Analysis Module showing Vol/Sat and Crit Moves.

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.824
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 73 Level Of Service: D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

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: 26 16 55 280 28 449 193 1256 40 43 1310 142

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 26 16 55 280 28 449 193 1256 40 43 1310 142

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: 26 16 55 280 28 449 193 1256 40 43 1310 142

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

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: 26 16 55 280 28 449 193 1256 40 43 1310 142

OvlAdjVol: 342 0

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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 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 0.54 0.46 1.00 1.82 0.18 1.00 2.00 1.94 0.06 1.00 2.00 1.00

Final Sat.: 858 742 1600 2400 800 1600 2880 3101 99 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.02 0.03 0.12 0.04 0.28 0.07 0.40 0.41 0.03 0.41 0.09

OvlAdjV/S: 0.21 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.481
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	32	Level Of Service:	A

\*\*\*\*\*

Street Name:	Malibu Canyon	Civic Center
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Approach:	North Bound	South Bound	East Bound	West Bound
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Movement:	L - T - R	L - T - R	L - T - R	L - T - R
-----------	-----------	-----------	-----------	-----------

-----|-----|-----|-----|-----|

Control:	Protected	Protected	Split Phase	Split Phase
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Rights:	Ignore	Include	Ignore	Ignore
---------	--------	---------	--------	--------

Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
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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
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Lanes:	1 0 1 0 1	1 0 2 0 1	1 0 1 0 1	0 1 0 0 1
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Volume Module:

Base Vol:	29 296 22	233 766 28	29 32 26	21 28 179
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:	29 296 22	233 766 28	29 32 26	21 28 179
Added Vol:	0 0 0	0 0 0	0 0 0	0 0 0
PasserByVol:	0 0 0	0 0 0	0 0 0	0 0 0
Initial Fut:	29 296 22	233 766 28	29 32 26	21 28 179
User Adj:	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
PHF Adj:	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
PHF Volume:	29 296 0	233 766 28	29 32 0	21 28 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	29 296 0	233 766 28	29 32 0	21 28 0
PCE Adj:	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
MLF Adj:	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
FinalVolume:	29 296 0	233 766 28	29 32 0	21 28 0

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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 1.00 1.00	1.00 2.00 1.00	1.00 1.00 1.00	0.43 0.57 1.00
Final Sat.:	1600 1600 1600	1600 3200 1600	1600 1600 1600	686 914 1600

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.02 0.19 0.00	0.15 0.24 0.02	0.02 0.02 0.00	0.03 0.03 0.00
Crit Moves:	****	****	****	****

\*\*\*\*\*

*EXISTING PLUS PROJECT*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 64 Level Of Service: C

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

-----|-----|-----|-----|

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 7 7 956 15 216 135 884 8 4 651 123

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: 3 7 7 956 15 216 135 884 8 4 651 123

Added Vol: 2 0 1 0 0 0 0 0 0 1 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 5 7 8 956 15 216 135 884 9 4 651 123

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 7 8 956 15 216 135 884 9 4 651 123

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 5 7 8 956 15 216 135 884 9 4 651 123

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 7 8 956 15 216 135 884 9 4 651 123

OvlAdjVol: 141 0

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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 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 0.50 0.70 0.80 1.97 0.03 1.00 2.00 1.98 0.02 1.00 2.00 1.00

Final Sat.: 800 1120 1280 2400 800 1600 2880 3168 32 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.40 0.02 0.14 0.05 0.28 0.28 0.00 0.20 0.08

OvlAdjV/S: 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.563
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 25 200 23 19 1171 199 23 14 9 16 92 208

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: 25 200 23 19 1171 199 23 14 9 16 92 208

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 25 200 23 19 1171 199 23 14 9 16 92 208

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 25 200 0 19 1171 199 23 14 0 16 92 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 25 200 0 19 1171 199 23 14 0 16 92 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 25 200 0 19 1171 199 23 14 0 16 92 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.15 0.85 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 237 1363 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.13 0.00 0.01 0.37 0.12 0.01 0.01 0.00 0.07 0.07 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.747
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 57 Level Of Service: C

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 9 4 17 320 14 183 318 1128 21 15 1229 260

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: 9 4 17 320 14 183 318 1128 21 15 1229 260

Added Vol: 16 3 13 0 3 0 0 0 17 13 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 25 7 30 320 17 183 318 1128 38 28 1229 260

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: 25 7 30 320 17 183 318 1128 38 28 1229 260

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 25 7 30 320 17 183 318 1128 38 28 1229 260

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: 25 7 30 320 17 183 318 1128 38 28 1229 260

OvlAdjVol: 6 47

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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 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 0.81 0.22 0.97 1.90 0.10 1.00 2.00 1.93 0.07 1.00 2.00 1.00

Final Sat.: 1290 361 1548 2400 800 1600 2880 3096 104 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.02 0.02 0.13 0.02 0.11 0.11 0.36 0.36 0.02 0.38 0.16

OvlAdjV/S: 0.00 0.03

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.731  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 54 Level Of Service: C

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 22 534 27 186 464 44 234 103 37 17 35 609

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: 22 534 27 186 464 44 234 103 37 17 35 609

Added Vol: 0 2 2 0 2 0 0 0 0 2 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 22 536 29 186 466 44 234 103 37 19 35 609

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 22 536 0 186 466 44 234 103 0 19 35 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 22 536 0 186 466 44 234 103 0 19 35 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 22 536 0 186 466 44 234 103 0 19 35 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.35 0.65 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 563 1037 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.34 0.00 0.12 0.15 0.03 0.15 0.06 0.00 0.03 0.03 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.836
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 76 Level Of Service: D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

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: 26 16 55 280 28 449 193 1256 40 43 1310 142

Added Vol: 24 5 19 0 5 0 0 0 25 20 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 50 21 74 280 33 449 193 1256 65 63 1310 142

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: 50 21 74 280 33 449 193 1256 65 63 1310 142

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 50 21 74 280 33 449 193 1256 65 63 1310 142

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: 50 21 74 280 33 449 193 1256 65 63 1310 142

OvlAdjVol: 342 0

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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 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 0.69 0.31 1.00 1.79 0.21 1.00 2.00 1.90 0.10 1.00 2.00 1.00

Final Sat.: 1103 497 1600 2400 800 1600 2880 3043 157 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.05 0.04 0.05 0.12 0.04 0.28 0.07 0.41 0.41 0.04 0.41 0.09

OvlAdjV/S: 0.21 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.484  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 32 Level Of Service: A

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 1 0 0 1

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Volume Module:

Base Vol: 29 296 22 233 766 28 29 32 26 21 28 179

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: 29 296 22 233 766 28 29 32 26 21 28 179

Added Vol: 0 2 2 0 2 0 0 0 0 2 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 29 298 24 233 768 28 29 32 26 23 28 179

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 29 298 0 233 768 28 29 32 0 23 28 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 29 298 0 233 768 28 29 32 0 23 28 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 29 298 0 233 768 28 29 32 0 23 28 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.45 0.55 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 722 878 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.19 0.00 0.15 0.24 0.02 0.02 0.02 0.00 0.03 0.03 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

*OPENING YEAR 2017 BASELINE*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

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

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 7 7 956 15 216 135 884 8 4 651 123

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 3 8 8 1028 16 232 145 950 9 4 700 132

Added Vol: 0 0 0 23 0 9 25 36 0 0 17 52

PasserByVol: 0 0 0 26 0 11 33 0 0 0 0 42

Initial Fut: 3 8 8 1077 16 252 203 986 9 4 717 226

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: 3 8 8 1077 16 252 203 986 9 4 717 226

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 3 8 8 1077 16 252 203 986 9 4 717 226

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: 3 8 8 1077 16 252 203 986 9 4 717 226

OvlAdjVol: 151 0

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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: 0.35 0.83 0.82 1.97 0.03 1.00 2.00 1.98 0.02 1.00 2.00 1.00

Final Sat.: 565 1318 1318 2400 800 1600 3200 3172 28 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.45 0.02 0.16 0.06 0.31 0.31 0.00 0.22 0.14

OvlAdjV/S: 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

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Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.625
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 25 200 23 19 1171 199 23 14 9 16 92 208

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 27 215 25 20 1259 214 25 15 10 17 99 224

Added Vol: 0 3 74 49 5 0 0 0 0 27 0 18

PasserByVol: 0 11 2 0 22 0 0 0 0 3 0 6

Initial Fut: 27 229 101 69 1286 214 25 15 10 47 99 248

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 27 229 0 69 1286 214 25 15 0 47 99 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 27 229 0 69 1286 214 25 15 0 47 99 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 27 229 0 69 1286 214 25 15 0 47 99 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.32 0.68 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 517 1083 1600

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Capacity Analysis Module:

Vol/Sat: 0.02 0.14 0.00 0.04 0.40 0.13 0.02 0.01 0.00 0.09 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.879
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

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Volume Module:

Base Vol: 9 4 17 320 14 183 318 1128 21 15 1229 260

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 10 4 18 344 15 197 342 1213 23 16 1321 280

Added Vol: 0 0 0 103 0 41 32 61 0 0 65 78

PasserByVol: 0 0 0 39 0 20 25 24 0 0 23 46

Initial Fut: 10 4 18 486 15 258 399 1298 23 16 1409 404

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 4 18 486 15 258 399 1298 23 16 1409 404

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 10 4 18 486 15 258 399 1298 23 16 1409 404

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 4 18 486 15 258 399 1298 23 16 1409 404

OvlAdjVol: 58 80

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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: 0.60 0.40 1.00 1.94 0.06 1.00 2.00 1.97 0.03 1.00 2.00 1.00

Final Sat.: 960 640 1600 2400 800 1600 3200 3145 55 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.20 0.02 0.16 0.12 0.41 0.41 0.01 0.44 0.25

OvlAdjV/S: 0.04 0.05

Crit Moves: \*\*\*\* \*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.926
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	115	Level Of Service:	E

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Street Name:	Malibu Canyon	Civic Center
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Approach:	North Bound	South Bound	East Bound	West Bound
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Movement:	L - T - R	L - T - R	L - T - R	L - T - R
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Control:	Protected	Protected	Split Phase	Split Phase
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Rights:	Ignore	Include	Ignore	Ignore
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Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
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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
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Lanes:	1 0 1 0 1	1 0 2 0 1	1 0 1 0 1	0 1 0 0 1
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Volume Module:

Base Vol:	22 534 27	186 464 44	234 103 37	17 35 609
Growth Adj:	1.08 1.08 1.08	1.08 1.08 1.08	1.08 1.08 1.08	1.08 1.08 1.08
Initial Bse:	24 574 29	200 499 47	252 111 40	18 38 655
Added Vol:	0 14 96	64 20 0	0 0 0	124 0 83
PasserByVol:	0 21 4	12 25 0	0 0 0	5 0 11
Initial Fut:	24 609 129	276 544 47	252 111 40	147 38 749
User Adj:	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
PHF Adj:	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
PHF Volume:	24 609 0	276 544 47	252 111 0	147 38 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	24 609 0	276 544 47	252 111 0	147 38 0
PCE Adj:	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
MLF Adj:	1.00 1.00 0.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
FinalVolume:	24 609 0	276 544 47	252 111 0	147 38 0

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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 1.00 1.00	1.00 2.00 1.00	1.00 1.00 1.00	0.80 0.20 1.00
Final Sat.:	1600 1600 1600	1600 3200 1600	1600 1600 1600	1274 326 1600

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.01 0.38 0.00	0.17 0.17 0.03	0.16 0.07 0.00	0.12 0.12 0.00
Crit Moves:	****	****	****	****

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.953
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 136 Level Of Service: E

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Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 28 17 59 301 30 483 207 1350 43 46 1408 153

Added Vol: 0 0 0 117 0 45 49 88 0 0 69 111

PasserByVol: 0 0 0 45 0 23 27 35 0 0 33 51

Initial Fut: 28 17 59 463 30 551 283 1473 43 46 1510 315

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: 28 17 59 463 30 551 283 1473 43 46 1510 315

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 28 17 59 463 30 551 283 1473 43 46 1510 315

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: 28 17 59 463 30 551 283 1473 43 46 1510 315

OvlAdjVol: 409 6

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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: 0.54 0.46 1.00 1.88 0.12 1.00 2.00 1.94 0.06 1.00 2.00 1.00

Final Sat.: 858 742 1600 2400 800 1600 3200 3109 91 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.03 0.02 0.04 0.19 0.04 0.34 0.09 0.47 0.47 0.03 0.47 0.20

OvlAdjV/S: 0.26 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

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

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 29 296 22 233 766 28 29 32 26 21 28 179

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 31 318 24 250 823 30 31 34 28 23 30 192

Added Vol: 0 13 148 99 27 0 0 0 0 135 0 90

PasserByVol: 0 24 5 18 28 0 0 0 0 6 0 17

Initial Fut: 31 355 177 367 878 30 31 34 28 164 30 299

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 31 355 0 367 878 30 31 34 0 164 30 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 31 355 0 367 878 30 31 34 0 164 30 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 31 355 0 367 878 30 31 34 0 164 30 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.84 0.16 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1351 249 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.22 0.00 0.23 0.27 0.02 0.02 0.02 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

*OPENING YEAR 2017 PLUS PROJECT*

Level Of Service Computation Report

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

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Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.869
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 87 Level Of Service: D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 7 7 956 15 216 135 884 8 4 651 123

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 3 8 8 1028 16 232 145 950 9 4 700 132

Added Vol: 2 0 1 23 0 9 25 36 1 0 17 52

PasserByVol: 0 0 0 26 0 11 33 0 0 0 0 42

Initial Fut: 5 8 9 1077 16 252 203 986 10 4 717 226

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 8 9 1077 16 252 203 986 10 4 717 226

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 5 8 9 1077 16 252 203 986 10 4 717 226

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 8 9 1077 16 252 203 986 10 4 717 226

OvlAdjVol: 151 0

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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: 0.49 0.71 0.80 1.97 0.03 1.00 2.00 1.98 0.02 1.00 2.00 1.00

Final Sat.: 786 1132 1282 2400 800 1600 3200 3169 31 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.45 0.02 0.16 0.06 0.31 0.31 0.00 0.22 0.14

OvlAdjV/S: 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.625
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 25 200 23 19 1171 199 23 14 9 16 92 208

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 27 215 25 20 1259 214 25 15 10 17 99 224

Added Vol: 0 3 74 49 5 0 0 0 0 27 0 18

PasserByVol: 0 11 2 0 22 0 0 0 0 3 0 6

Initial Fut: 27 229 101 69 1286 214 25 15 10 47 99 248

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 27 229 0 69 1286 214 25 15 0 47 99 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 27 229 0 69 1286 214 25 15 0 47 99 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 27 229 0 69 1286 214 25 15 0 47 99 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.32 0.68 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 517 1083 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.14 0.00 0.04 0.40 0.13 0.02 0.01 0.00 0.09 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

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

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 9 4 17 320 14 183 318 1128 21 15 1229 260

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 10 4 18 344 15 197 342 1213 23 16 1321 280

Added Vol: 16 3 13 103 3 41 32 61 17 13 65 78

PasserByVol: 0 0 0 39 0 20 25 24 0 0 23 46

Initial Fut: 26 7 31 486 18 258 399 1298 40 29 1409 404

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: 26 7 31 486 18 258 399 1298 40 29 1409 404

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 26 7 31 486 18 258 399 1298 40 29 1409 404

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: 26 7 31 486 18 258 399 1298 40 29 1409 404

OvlAdjVol: 58 80

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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: 0.80 0.23 0.97 1.93 0.07 1.00 2.00 1.94 0.06 1.00 2.00 1.00

Final Sat.: 1279 364 1558 2400 800 1600 3200 3105 95 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.02 0.02 0.20 0.02 0.16 0.12 0.42 0.42 0.02 0.44 0.25

OvlAdjV/S: 0.04 0.05

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.928
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 116 Level Of Service: E

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 22 534 27 186 464 44 234 103 37 17 35 609

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 24 574 29 200 499 47 252 111 40 18 38 655

Added Vol: 0 16 98 64 22 0 0 0 0 125 0 83

PasserByVol: 0 21 4 12 25 0 0 0 0 5 0 11

Initial Fut: 24 611 131 276 546 47 252 111 40 148 38 749

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 24 611 0 276 546 47 252 111 0 148 38 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 24 611 0 276 546 47 252 111 0 148 38 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 24 611 0 276 546 47 252 111 0 148 38 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.80 0.20 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1276 324 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.38 0.00 0.17 0.17 0.03 0.16 0.07 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.965
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 148 Level Of Service: E

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 28 17 59 301 30 483 207 1350 43 46 1408 153

Added Vol: 24 5 19 117 5 45 49 88 25 20 69 111

PasserByVol: 0 0 0 45 0 23 27 35 0 0 33 51

Initial Fut: 52 22 78 463 35 551 283 1473 68 66 1510 315

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: 52 22 78 463 35 551 283 1473 68 66 1510 315

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 52 22 78 463 35 551 283 1473 68 66 1510 315

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: 52 22 78 463 35 551 283 1473 68 66 1510 315

OvlAdjVol: 409 6

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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: 0.68 0.32 1.00 1.86 0.14 1.00 2.00 1.91 0.09 1.00 2.00 1.00

Final Sat.: 1092 508 1600 2400 800 1600 3200 3059 141 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.05 0.04 0.05 0.19 0.04 0.34 0.09 0.48 0.48 0.04 0.47 0.20

OvlAdjV/S: 0.26 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.697
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 29 296 22 233 766 28 29 32 26 21 28 179

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 31 318 24 250 823 30 31 34 28 23 30 192

Added Vol: 0 15 151 99 30 0 0 0 0 138 0 90

PasserByVol: 0 24 5 18 28 0 0 0 0 6 0 17

Initial Fut: 31 357 180 367 881 30 31 34 28 167 30 299

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 31 357 0 367 881 30 31 34 0 167 30 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 31 357 0 367 881 30 31 34 0 167 30 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 31 357 0 367 881 30 31 34 0 167 30 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.85 0.15 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1355 245 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.22 0.00 0.23 0.28 0.02 0.02 0.02 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

*FUTURE YEAR 2030 BASELINE*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.876
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 89 Level Of Service: D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 7 7 956 15 216 135 884 8 4 651 123

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 3 8 8 1039 16 235 147 960 9 4 707 134

Added Vol: 0 0 0 23 0 9 25 36 0 0 17 52

PasserByVol: 0 0 0 26 0 11 33 0 0 0 0 42

Initial Fut: 3 8 8 1088 16 255 205 996 9 4 724 228

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: 3 8 8 1088 16 255 205 996 9 4 724 228

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 3 8 8 1088 16 255 205 996 9 4 724 228

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: 3 8 8 1088 16 255 205 996 9 4 724 228

OvlAdjVol: 152 0

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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: 0.35 0.83 0.82 1.97 0.03 1.00 2.00 1.98 0.02 1.00 2.00 1.00

Final Sat.: 565 1318 1318 2400 800 1600 3200 3172 28 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.45 0.02 0.16 0.06 0.31 0.31 0.00 0.23 0.14

OvlAdjV/S: 0.10 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.631
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 25 200 23 19 1171 199 23 14 9 16 92 208

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 27 217 25 21 1272 216 25 15 10 17 100 226

Added Vol: 0 3 74 49 5 0 0 0 0 27 0 18

PasserByVol: 0 11 2 0 22 0 0 0 0 3 0 6

Initial Fut: 27 231 101 70 1299 216 25 15 10 47 100 250

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 27 231 0 70 1299 216 25 15 0 47 100 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 27 231 0 70 1299 216 25 15 0 47 100 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 27 231 0 70 1299 216 25 15 0 47 100 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.32 0.68 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 515 1085 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.14 0.00 0.04 0.41 0.14 0.02 0.01 0.00 0.09 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.886
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	93	Level Of Service:	D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach:	North Bound	South Bound	East Bound	West Bound
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Movement:	L - T - R	L - T - R	L - T - R	L - T - R
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Control:	Split Phase	Split Phase	Protected	Protected
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Rights:	Include	Ovl	Include	Ovl
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Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
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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
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Lanes:	0 1 0 1 0	1 1 0 0 1	2 0 1 1 0	1 0 2 0 1
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Volume Module:

Base Vol:	9 4 17	320 14 183	318 1128 21	15 1229 260
Growth Adj:	1.09 1.09 1.09	1.09 1.09 1.09	1.09 1.09 1.09	1.09 1.09 1.09
Initial Bse:	10 4 18	348 15 199	345 1225 23	16 1335 282
Added Vol:	0 0 0	103 0 41	32 61 0	0 65 78
PasserByVol:	0 0 0	39 0 20	25 24 0	0 23 46
Initial Fut:	10 4 18	490 15 260	402 1310 23	16 1423 406
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 4 18	490 15 260	402 1310 23	16 1423 406
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	10 4 18	490 15 260	402 1310 23	16 1423 406
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 4 18	490 15 260	402 1310 23	16 1423 406
OvlAdjVol:		59		80

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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:	0.60 0.40 1.00	1.94 0.06 1.00	2.00 1.97 0.03	1.00 2.00 1.00
Final Sat.:	960 640 1600	2400 800 1600	3200 3145 55	1600 3200 1600

-----|-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat:	0.01 0.01 0.01	0.20 0.02 0.16	0.13 0.42 0.42	0.01 0.44 0.25
OvlAdjV/S:		0.04		0.05

Crit Moves:	****	****	****	****
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Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.933
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 120 Level Of Service: E

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 22 534 27 186 464 44 234 103 37 17 35 609

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 24 580 29 202 504 48 254 112 40 18 38 662

Added Vol: 0 14 96 64 20 0 0 0 0 124 0 83

PasserByVol: 0 21 4 12 25 0 0 0 0 5 0 11

Initial Fut: 24 615 129 278 549 48 254 112 40 147 38 756

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 24 615 0 278 549 48 254 112 0 147 38 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 24 615 0 278 549 48 254 112 0 147 38 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 24 615 0 278 549 48 254 112 0 147 38 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.80 0.20 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1272 328 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.38 0.00 0.17 0.17 0.03 0.16 0.07 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.961
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 144 Level Of Service: E

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 28 17 60 304 30 488 210 1365 43 47 1423 154

Added Vol: 0 0 0 117 0 45 49 88 0 0 69 111

PasserByVol: 0 0 0 45 0 23 27 35 0 0 33 51

Initial Fut: 28 17 60 466 30 556 286 1488 43 47 1525 316

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: 28 17 60 466 30 556 286 1488 43 47 1525 316

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 28 17 60 466 30 556 286 1488 43 47 1525 316

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: 28 17 60 466 30 556 286 1488 43 47 1525 316

OvlAdjVol: 413 5

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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: 0.54 0.46 1.00 1.88 0.12 1.00 2.00 1.94 0.06 1.00 2.00 1.00

Final Sat.: 858 742 1600 2400 800 1600 3200 3109 91 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.02 0.04 0.19 0.04 0.35 0.09 0.48 0.48 0.03 0.48 0.20

OvlAdjV/S: 0.26 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 29 296 22 233 766 28 29 32 26 21 28 179

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 32 322 24 253 832 30 32 35 28 23 30 194

Added Vol: 0 13 148 99 27 0 0 0 0 135 0 90

PasserByVol: 0 24 5 18 28 0 0 0 0 6 0 17

Initial Fut: 32 359 177 370 887 30 32 35 28 164 30 301

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 32 359 0 370 887 30 32 35 0 164 30 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 32 359 0 370 887 30 32 35 0 164 30 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 32 359 0 370 887 30 32 35 0 164 30 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.84 0.16 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1349 251 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.22 0.00 0.23 0.28 0.02 0.02 0.02 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

*FUTURE YEAR 2030 PLUS PROJECT*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.877
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 7 7 956 15 216 135 884 8 4 651 123

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 3 8 8 1039 16 235 147 960 9 4 707 134

Added Vol: 2 0 1 23 0 9 25 36 1 0 17 52

PasserByVol: 0 0 0 26 0 11 33 0 0 0 0 42

Initial Fut: 5 8 9 1088 16 255 205 996 10 4 724 228

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 8 9 1088 16 255 205 996 10 4 724 228

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 5 8 9 1088 16 255 205 996 10 4 724 228

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 8 9 1088 16 255 205 996 10 4 724 228

OvlAdjVol: 152 0

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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: 0.49 0.71 0.80 1.97 0.03 1.00 2.00 1.98 0.02 1.00 2.00 1.00

Final Sat.: 784 1134 1283 2400 800 1600 3200 3169 31 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.45 0.02 0.16 0.06 0.31 0.31 0.00 0.23 0.14

OvlAdjV/S: 0.10 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.631
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 25 200 23 19 1171 199 23 14 9 16 92 208

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 27 217 25 21 1272 216 25 15 10 17 100 226

Added Vol: 0 3 74 49 5 0 0 0 0 27 0 18

PasserByVol: 0 11 2 0 22 0 0 0 0 3 0 6

Initial Fut: 27 231 101 70 1299 216 25 15 10 47 100 250

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 27 231 0 70 1299 216 25 15 0 47 100 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 27 231 0 70 1299 216 25 15 0 47 100 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 27 231 0 70 1299 216 25 15 0 47 100 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.32 0.68 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 515 1085 1600

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Capacity Analysis Module:

Vol/Sat: 0.02 0.14 0.00 0.04 0.41 0.14 0.02 0.01 0.00 0.09 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec):	100	Critical Vol./Cap.(X):	0.895
Loss Time (sec):	10	Average Delay (sec/veh):	xxxxxx
Optimal Cycle:	97	Level Of Service:	D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach:	North Bound	South Bound	East Bound	West Bound
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Movement:	L - T - R	L - T - R	L - T - R	L - T - R
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Control:	Split Phase			Split Phase			Protected			Protected						
Rights:	Include			Ovl			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:	0	1	0	1	0	1	2	0	1	1	0	1	0	2	0	1

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Volume Module:

Base Vol:	9	4	17	320	14	183	318	1128	21	15	1229	260
Growth Adj:	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Initial Bse:	10	4	18	348	15	199	345	1225	23	16	1335	282
Added Vol:	16	3	13	103	3	41	32	61	17	13	65	78
PasserByVol:	0	0	0	39	0	20	25	24	0	0	23	46
Initial Fut:	26	7	31	490	18	260	402	1310	40	29	1423	406
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:	26	7	31	490	18	260	402	1310	40	29	1423	406
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	26	7	31	490	18	260	402	1310	40	29	1423	406
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:	26	7	31	490	18	260	402	1310	40	29	1423	406
OvlAdjVol:						59						80

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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:	0.80	0.23	0.97	1.93	0.07	1.00	2.00	1.94	0.06	1.00	2.00	1.00
Final Sat.:	1277	364	1559	2400	800	1600	3200	3106	94	1600	3200	1600

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Capacity Analysis Module:

Vol/Sat:	0.02	0.02	0.02	0.20	0.02	0.16	0.13	0.42	0.42	0.02	0.44	0.25
OvlAdjV/S:						0.04						0.05

Crit Moves:			****	****			****			****		
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Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.935
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 121 Level Of Service: E

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 22 534 27 186 464 44 234 103 37 17 35 609

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 24 580 29 202 504 48 254 112 40 18 38 662

Added Vol: 0 16 98 64 22 0 0 0 0 125 0 83

PasserByVol: 0 21 4 12 25 0 0 0 0 5 0 11

Initial Fut: 24 617 131 278 551 48 254 112 40 148 38 756

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 24 617 0 278 551 48 254 112 0 148 38 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 24 617 0 278 551 48 254 112 0 148 38 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 24 617 0 278 551 48 254 112 0 148 38 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.80 0.20 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1274 326 1600

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Capacity Analysis Module:

Vol/Sat: 0.01 0.39 0.00 0.17 0.17 0.03 0.16 0.07 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.973
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 158 Level Of Service: E

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

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Volume Module:

Base Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 28 17 60 304 30 488 210 1365 43 47 1423 154

Added Vol: 24 5 19 117 5 45 49 88 25 20 69 111

PasserByVol: 0 0 0 45 0 23 27 35 0 0 33 51

Initial Fut: 52 22 79 466 35 556 286 1488 68 67 1525 316

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: 52 22 79 466 35 556 286 1488 68 67 1525 316

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 52 22 79 466 35 556 286 1488 68 67 1525 316

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: 52 22 79 466 35 556 286 1488 68 67 1525 316

OvlAdjVol: 413 5

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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: 0.68 0.32 1.00 1.86 0.14 1.00 2.00 1.91 0.09 1.00 2.00 1.00

Final Sat.: 1090 510 1600 2400 800 1600 3200 3059 141 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.05 0.04 0.05 0.19 0.04 0.35 0.09 0.49 0.49 0.04 0.48 0.20

OvlAdjV/S: 0.26 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.702
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: C

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 29 296 22 233 766 28 29 32 26 21 28 179

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 32 322 24 253 832 30 32 35 28 23 30 194

Added Vol: 0 15 151 99 30 0 0 0 0 138 0 90

PasserByVol: 0 24 5 18 28 0 0 0 0 6 0 17

Initial Fut: 32 361 180 370 890 30 32 35 28 167 30 301

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 32 361 0 370 890 30 32 35 0 167 30 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 32 361 0 370 890 30 32 35 0 167 30 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 32 361 0 370 890 30 32 35 0 167 30 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.85 0.15 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1353 247 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.23 0.00 0.23 0.28 0.02 0.02 0.02 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

*EXISTING PLUS ALTERNATIVE*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.786
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 64 Level Of Service: C

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 7 7 956 15 216 135 884 8 4 651 123

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: 3 7 7 956 15 216 135 884 8 4 651 123

Added Vol: 2 0 1 0 0 0 0 0 0 1 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 5 7 8 956 15 216 135 884 9 4 651 123

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 7 8 956 15 216 135 884 9 4 651 123

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 5 7 8 956 15 216 135 884 9 4 651 123

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 7 8 956 15 216 135 884 9 4 651 123

OvlAdjVol: 141 0

-----|-----|-----|-----|

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 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 0.50 0.70 0.80 1.97 0.03 1.00 2.00 1.98 0.02 1.00 2.00 1.00

Final Sat.: 800 1120 1280 2400 800 1600 2880 3168 32 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.40 0.02 0.14 0.05 0.28 0.28 0.00 0.20 0.08

OvlAdjV/S: 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.563
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 37 Level Of Service: A

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 25 200 23 19 1171 199 23 14 9 16 92 208

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: 25 200 23 19 1171 199 23 14 9 16 92 208

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 25 200 23 19 1171 199 23 14 9 16 92 208

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 25 200 0 19 1171 199 23 14 0 16 92 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 25 200 0 19 1171 199 23 14 0 16 92 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 25 200 0 19 1171 199 23 14 0 16 92 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.15 0.85 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 237 1363 1600

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Capacity Analysis Module:

Vol/Sat: 0.02 0.13 0.00 0.01 0.37 0.12 0.01 0.01 0.00 0.07 0.07 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.740
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 56 Level Of Service: C

\*\*\*\*\*

Table with columns for Street Name (Malibu Canyon, PCH), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ovl), and various timing parameters like Min. Green, Y+R, and 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 across different approaches.

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

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

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.729  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 54 Level Of Service: C

\*\*\*\*\*

Street Name:	Malibu Canyon						Civic Center					
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			Split Phase			Split Phase		
Rights:	Ignore			Include			Ignore			Ignore		
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	0	1	0	1	0	1	0	1	0

Volume Module:

Base Vol:	22	534	27	186	464	44	234	103	37	17	35	609
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:	22	534	27	186	464	44	234	103	37	17	35	609
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	22	534	27	186	464	44	234	103	37	17	35	609
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Volume:	22	534	0	186	464	44	234	103	0	17	35	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	22	534	0	186	464	44	234	103	0	17	35	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
FinalVolume:	22	534	0	186	464	44	234	103	0	17	35	0

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	1.00	1.00	1.00	2.00	1.00	1.00	1.00	1.00	0.33	0.67	1.00
Final Sat.:	1600	1600	1600	1600	3200	1600	1600	1600	1600	523	1077	1600

Capacity Analysis Module:

Vol/Sat:	0.01	0.33	0.00	0.12	0.15	0.03	0.15	0.06	0.00	0.03	0.03	0.00
Crit Moves:	****			****			****			****		

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.827
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 73 Level Of Service: D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

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: 26 16 55 280 28 449 193 1256 40 43 1310 142

Added Vol: 6 1 5 0 1 0 0 0 7 5 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 32 17 60 280 29 449 193 1256 47 48 1310 142

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: 32 17 60 280 29 449 193 1256 47 48 1310 142

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 32 17 60 280 29 449 193 1256 47 48 1310 142

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: 32 17 60 280 29 449 193 1256 47 48 1310 142

OvlAdjVol: 342 0

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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 0.90 1.00 1.00 1.00 1.00 1.00

Lanes: 0.59 0.41 1.00 1.81 0.19 1.00 2.00 1.93 0.07 1.00 2.00 1.00

Final Sat.: 939 661 1600 2400 800 1600 2880 3085 115 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.03 0.03 0.04 0.12 0.04 0.28 0.07 0.41 0.41 0.03 0.41 0.09

OvlAdjV/S: 0.21 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.483  
 Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx  
 Optimal Cycle: 32 Level Of Service: A

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

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Control: Protected Protected Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 29 296 22 233 766 28 29 32 26 21 28 179

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: 29 296 22 233 766 28 29 32 26 21 28 179

Added Vol: 0 1 1 0 1 0 0 0 0 1 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 29 297 23 233 767 28 29 32 26 22 28 179

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 29 297 0 233 767 28 29 32 0 22 28 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 29 297 0 233 767 28 29 32 0 22 28 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 29 297 0 233 767 28 29 32 0 22 28 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.44 0.56 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 704 896 1600

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Capacity Analysis Module:

Vol/Sat: 0.02 0.19 0.00 0.15 0.24 0.02 0.02 0.02 0.00 0.03 0.03 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

*OPENING YEAR 2017 PLUS ALTERNATIVE*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.869
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 87 Level Of Service: D

\*\*\*\*\*

Table with columns for Street Name (Malibu Canyon, PCH), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ovl), and various timing parameters like Min. Green, Y+R, and 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, Final Volume, and OvlAdjVol across different approaches.

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

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

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.625
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 42 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 25 200 23 19 1171 199 23 14 9 16 92 208

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 27 215 25 20 1259 214 25 15 10 17 99 224

Added Vol: 0 3 74 49 5 0 0 0 0 27 0 18

PasserByVol: 0 11 2 0 22 0 0 0 0 3 0 6

Initial Fut: 27 229 101 69 1286 214 25 15 10 47 99 248

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 27 229 0 69 1286 214 25 15 0 47 99 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 27 229 0 69 1286 214 25 15 0 47 99 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 27 229 0 69 1286 214 25 15 0 47 99 0

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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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.32 0.68 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 517 1083 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.14 0.00 0.04 0.40 0.13 0.02 0.01 0.00 0.09 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.881
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 91 Level Of Service: D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 9 4 17 320 14 183 318 1128 21 15 1229 260

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 10 4 18 344 15 197 342 1213 23 16 1321 280

Added Vol: 4 1 3 103 1 41 32 61 4 3 65 78

PasserByVol: 0 0 0 39 0 20 25 24 0 0 23 46

Initial Fut: 14 5 21 486 16 258 399 1298 27 19 1409 404

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: 14 5 21 486 16 258 399 1298 27 19 1409 404

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 14 5 21 486 16 258 399 1298 27 19 1409 404

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: 14 5 21 486 16 258 399 1298 27 19 1409 404

OvlAdjVol: 58 80

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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: 0.68 0.32 1.00 1.94 0.06 1.00 2.00 1.96 0.04 1.00 2.00 1.00

Final Sat.: 1087 513 1600 2400 800 1600 3200 3136 64 1600 3200 1600

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Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.20 0.02 0.16 0.12 0.41 0.41 0.01 0.44 0.25

OvlAdjV/S: 0.04 0.05

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.926
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 115 Level Of Service: E

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 22 534 27 186 464 44 234 103 37 17 35 609

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 24 574 29 200 499 47 252 111 40 18 38 655

Added Vol: 0 14 96 64 21 0 0 0 0 124 0 83

PasserByVol: 0 21 4 12 25 0 0 0 0 5 0 11

Initial Fut: 24 609 129 276 545 47 252 111 40 147 38 749

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 24 609 0 276 545 47 252 111 0 147 38 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 24 609 0 276 545 47 252 111 0 147 38 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 24 609 0 276 545 47 252 111 0 147 38 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.80 0.20 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1274 326 1600

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Capacity Analysis Module:

Vol/Sat: 0.01 0.38 0.00 0.17 0.17 0.03 0.16 0.07 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.956
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 139 Level Of Service: E

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 28 17 59 301 30 483 207 1350 43 46 1408 153

Added Vol: 6 1 5 117 1 45 49 88 7 5 69 111

PasserByVol: 0 0 0 45 0 23 27 35 0 0 33 51

Initial Fut: 34 18 64 463 31 551 283 1473 50 51 1510 315

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: 34 18 64 463 31 551 283 1473 50 51 1510 315

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 34 18 64 463 31 551 283 1473 50 51 1510 315

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: 34 18 64 463 31 551 283 1473 50 51 1510 315

OvlAdjVol: 409 6

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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: 0.58 0.42 1.00 1.87 0.13 1.00 2.00 1.93 0.07 1.00 2.00 1.00

Final Sat.: 934 666 1600 2400 800 1600 3200 3095 105 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.03 0.04 0.19 0.04 0.34 0.09 0.48 0.48 0.03 0.47 0.20

OvlAdjV/S: 0.26 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.695
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 49 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 29 296 22 233 766 28 29 32 26 21 28 179

Growth Adj: 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08 1.08

Initial Bse: 31 318 24 250 823 30 31 34 28 23 30 192

Added Vol: 0 13 149 99 28 0 0 0 0 136 0 90

PasserByVol: 0 24 5 18 28 0 0 0 0 6 0 17

Initial Fut: 31 355 178 367 879 30 31 34 28 165 30 299

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 31 355 0 367 879 30 31 34 0 165 30 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 31 355 0 367 879 30 31 34 0 165 30 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 31 355 0 367 879 30 31 34 0 165 30 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.85 0.15 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1353 247 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.22 0.00 0.23 0.27 0.02 0.02 0.02 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

*FUTURE YEAR 2030 PLUS ALTERNATIVE*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.877
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 90 Level Of Service: D

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 3 7 7 956 15 216 135 884 8 4 651 123

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 3 8 8 1039 16 235 147 960 9 4 707 134

Added Vol: 2 0 1 23 0 9 25 36 1 0 17 52

PasserByVol: 0 0 0 26 0 11 33 0 0 0 0 42

Initial Fut: 5 8 9 1088 16 255 205 996 10 4 724 228

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 8 9 1088 16 255 205 996 10 4 724 228

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 5 8 9 1088 16 255 205 996 10 4 724 228

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 8 9 1088 16 255 205 996 10 4 724 228

OvlAdjVol: 152 0

-----|-----|-----|-----|

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: 0.49 0.71 0.80 1.97 0.03 1.00 2.00 1.98 0.02 1.00 2.00 1.00

Final Sat.: 784 1134 1283 2400 800 1600 3200 3169 31 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.01 0.01 0.45 0.02 0.16 0.06 0.31 0.31 0.00 0.23 0.14

OvlAdjV/S: 0.10 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.631
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 43 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 25 200 23 19 1171 199 23 14 9 16 92 208

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 27 217 25 21 1272 216 25 15 10 17 100 226

Added Vol: 0 3 74 49 5 0 0 0 0 27 0 18

PasserByVol: 0 11 2 0 22 0 0 0 0 3 0 6

Initial Fut: 27 231 101 70 1299 216 25 15 10 47 100 250

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 27 231 0 70 1299 216 25 15 0 47 100 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 27 231 0 70 1299 216 25 15 0 47 100 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 27 231 0 70 1299 216 25 15 0 47 100 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.32 0.68 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 515 1085 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.14 0.00 0.04 0.41 0.14 0.02 0.01 0.00 0.09 0.09 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

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 (Malibu Canyon, PCH), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control (Split Phase, Protected), Rights (Include, Ovl), and various timing parameters like Min. Green, Y+R, and Lanes.

Table for Volume Module 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 across different movements.

Table for Saturation Flow Module showing Sat/Lane, Adjustment, Lanes, and Final Sat. for each movement.

Table for Capacity Analysis Module showing Vol/Sat, OvlAdjV/S, and Crit Moves for each movement.

\*\*\*\*\*

Level of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.933
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 120 Level Of Service: E

\*\*\*\*\*

Table with columns for Street Name (Malibu Canyon, Civic Center), Approach (North Bound, South Bound, East Bound, West Bound), Movement (L, T, R), Control, Rights, Min. Green, Y+R, and 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, 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.

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #1 Malibu Canyon/PCH

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.964
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 148 Level Of Service: E

\*\*\*\*\*

Street Name: Malibu Canyon PCH

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Split Phase Split Phase Protected Protected

Rights: Include Ovl 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: 0 1 0 1 0 1 1 0 0 1 2 0 1 1 0 1 0 2 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 26 16 55 280 28 449 193 1256 40 43 1310 142

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 28 17 60 304 30 488 210 1365 43 47 1423 154

Added Vol: 6 1 5 117 1 45 49 88 7 5 69 111

PasserByVol: 0 0 0 45 0 23 27 35 0 0 33 51

Initial Fut: 34 18 65 466 31 556 286 1488 50 52 1525 316

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: 34 18 65 466 31 556 286 1488 50 52 1525 316

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 34 18 65 466 31 556 286 1488 50 52 1525 316

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: 34 18 65 466 31 556 286 1488 50 52 1525 316

OvlAdjVol: 413 5

-----|-----|-----|-----|

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: 0.58 0.42 1.00 1.87 0.13 1.00 2.00 1.93 0.07 1.00 2.00 1.00

Final Sat.: 934 666 1600 2400 800 1600 3200 3095 105 1600 3200 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.04 0.03 0.04 0.19 0.04 0.35 0.09 0.48 0.48 0.03 0.48 0.20

OvlAdjV/S: 0.26 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

Level Of Service Computation Report

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

\*\*\*\*\*

Intersection #2 Malibu Canyon/Civic Center

\*\*\*\*\*

Cycle (sec): 100 Critical Vol./Cap.(X): 0.699
Loss Time (sec): 10 Average Delay (sec/veh): xxxxxx
Optimal Cycle: 50 Level Of Service: B

\*\*\*\*\*

Street Name: Malibu Canyon Civic Center

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 Split Phase Split Phase

Rights: Ignore Include Ignore Ignore

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 0 1 1 0 2 0 1 1 0 1 0 0 1

-----|-----|-----|-----|

Volume Module:

Base Vol: 29 296 22 233 766 28 29 32 26 21 28 179

Growth Adj: 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09 1.09

Initial Bse: 32 322 24 253 832 30 32 35 28 23 30 194

Added Vol: 0 13 149 99 28 0 0 0 0 136 0 90

PasserByVol: 0 24 5 18 28 0 0 0 0 6 0 17

Initial Fut: 32 359 178 370 888 30 32 35 28 165 30 301

User Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Volume: 32 359 0 370 888 30 32 35 0 165 30 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 32 359 0 370 888 30 32 35 0 165 30 0

PCE Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 0.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

FinalVolume: 32 359 0 370 888 30 32 35 0 165 30 0

-----|-----|-----|-----|

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 1.00 1.00 1.00 2.00 1.00 1.00 1.00 1.00 0.84 0.16 1.00

Final Sat.: 1600 1600 1600 1600 3200 1600 1600 1600 1600 1351 249 1600

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.02 0.22 0.00 0.23 0.28 0.02 0.02 0.02 0.00 0.12 0.12 0.00

Crit Moves: \*\*\*\* \*\*\*\* \*\*\*\* \*\*\*\*

\*\*\*\*\*

## APPENDIX C

### Roadway Segment Analysis Worksheetg

## SEGMENT 1 – PCH W/O MALIBU CANYON ROAD

Existing Condition

Existing plus Project

Opening Year 2017 Baseline

Opening Year plus Project

Future Year 2030 Baseline

Future Year 2030 plus Project

Existing plus Project Alternative

Opening Year 2017 plus Project Alternative

Future Year 2030 plus Project Alternative

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing 2012  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1027	vph	870	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		285		242	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	574	pcphpl	486	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	574	pcphpl	486	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	9.6	pc/mi/ln	8.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing 2012  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1467	vph	1421	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		408		395	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	820	pcphpl	794	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	820	pcphpl	794	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	13.7	pc/mi/ln	13.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing 2012  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1489	vph	1785	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		414		496	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	833	pcphpl	998	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	833	pcphpl	998	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	13.9	pc/mi/ln	16.6	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1028	vph	872	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		286		242	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	575	pcphpl	487	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	575	pcphpl	487	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	9.6	pc/mi/ln	8.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1484	vph	1437	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		412		399	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	830	pcphpl	803	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	830	pcphpl	803	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	13.8	pc/mi/ln	13.4	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1514	vph	1809	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		421		503	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	846	pcphpl	1012	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	846	pcphpl	1012	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	14.1	pc/mi/ln	16.9	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1198	vph	972	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		333		270	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	670	pcphpl	543	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	670	pcphpl	543	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.2	pc/mi/ln	9.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1720	vph	1677	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		478		466	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	962	pcphpl	938	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	962	pcphpl	938	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	16.0	pc/mi/ln	15.6	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1799	vph	2089	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		500		580	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	1006	pcphpl	1168	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1006	pcphpl	1168	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		C	
Density, D	16.8	pc/mi/ln	19.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1199	vph	974	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		333		271	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	670	pcphpl	544	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	670	pcphpl	544	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.2	pc/mi/ln	9.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Project  
 Project ID:

### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

### VOLUME

	Direction	1		2	
Volume, V		1737	vph	1693	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		483		470	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	971	pcphpl	947	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	971	pcphpl	947	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	16.2	pc/mi/ln	15.8	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1824	vph	2113	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		507		587	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	1020	pcphpl	1182	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1020	pcphpl	1182	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		C	
Density, D	17.0	pc/mi/ln	19.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1210	vph	982	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		336		273	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	676	pcphpl	549	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	676	pcphpl	549	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.3	pc/mi/ln	9.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1735	vph	1693	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		482		470	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	970	pcphpl	947	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	970	pcphpl	947	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	16.2	pc/mi/ln	15.8	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1817	vph	2109	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		505		586	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	1016	pcphpl	1179	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	1016	pcphpl	1179	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		C	
Density, D	16.9	pc/mi/ln	19.6	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1211	vph	984	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		336		273	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	677	pcphpl	550	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	677	pcphpl	550	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.3	pc/mi/ln	9.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1752	vph	1709	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		487		475	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	980	pcphp1	956	pcphp1

RESULTS

Direction	1		2	
Flow rate, vp	980	pcphp1	956	pcphp1
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	16.3	pc/mi/ln	15.9	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:  
E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
Agency/Co: City of Malibu  
Date: 12/5/2012  
Analysis Period: Saturday Peak Hour  
Highway: PCH  
From/To: w/o Malibu Canyon Road  
Jurisdiction: Caltrans  
Analysis Year: 2030 + Project  
Project ID:

FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

VOLUME

	Direction	1		2	
Volume, V		1842	vph	2133	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		512		593	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	1030	pcphpl	1193	pcphpl

RESULTS

	Direction	1		2	
Flow rate, vp		1030	pcphpl	1193	pcphpl
Free-flow speed, FFS		60.0	mph	60.0	mph
Avg. passenger-car travel speed, S		60.0	mph	60.0	mph
Level of service, LOS		B		C	
Density, D		17.2	pc/mi/ln	19.9	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1028	vph	872	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		286		242	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	575	pcphpl	487	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	575	pcphpl	487	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	A		A	
Density, D	9.6	pc/mi/ln	8.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1471	vph	1425	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		409		396	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	822	pcphpl	797	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	822	pcphpl	797	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	13.7	pc/mi/ln	13.3	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1496	vph	1791	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		416		498	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	836	pcphpl	1001	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	836	pcphpl	1001	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	13.9	pc/mi/ln	16.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Alternative  
 Project ID:

### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

### VOLUME

	Direction	1		2	
Volume, V		1199	vph	974	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		333		271	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	670	pcphpl	544	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	670	pcphpl	544	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.2	pc/mi/ln	9.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Alternative  
 Project ID:

### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

### VOLUME

	Direction	1		2	
Volume, V		1724	vph	1681	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		479		467	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	964	pcphpl	940	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	964	pcphpl	940	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	16.1	pc/mi/ln	15.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Alternative  
 Project ID:

### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

### VOLUME

	Direction	1		2	
Volume, V		1806	vph	2095	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		502		582	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	1010	pcphpl	1172	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1010	pcphpl	1172	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		C	
Density, D	16.8	pc/mi/ln	19.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1211	vph	984	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		336		273	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	677	pcphpl	550	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	677	pcphpl	550	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		A	
Density, D	11.3	pc/mi/ln	9.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1739	vph	1697	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		483		471	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	972	pcphpl	949	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	972	pcphpl	949	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		B	
Density, D	16.2	pc/mi/ln	15.8	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: w/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		60.0	mph	60.0	mph

#### VOLUME

	Direction	1		2	
Volume, V		1824	vph	2115	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		507		588	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Level		Level	
Grade		0.00	%	0.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	1020	pcphpl	1183	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1020	pcphpl	1183	pcphpl
Free-flow speed, FFS	60.0	mph	60.0	mph
Avg. passenger-car travel speed, S	60.0	mph	60.0	mph
Level of service, LOS	B		C	
Density, D	17.0	pc/mi/ln	19.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

## SEGMENT 2 – PCH E/O MALIBU CANYON ROAD

Existing Condition

Existing plus Project

Opening Year 2017 Baseline

Opening Year plus Project

Future Year 2030 Baseline

Future Year 2030 plus Project

Existing plus Project Alternative

Opening Year 2017 plus Project Alternative

Future Year 2030 plus Project Alternative

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing 2012  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1465	vph	1504	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		407		418	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	819	pcphpl	868	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	819	pcphpl	868	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	13.7	pc/mi/ln	14.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing 2012  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1847	vph	778	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		513		216	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1033	pcphpl	449	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	1033	pcphpl	449	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		A	
Density, D	17.3	pc/mi/ln	7.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing 2012  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1591	vph	1495	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		442		415	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	890	pcphpl	863	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	890	pcphpl	863	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	14.9	pc/mi/ln	14.4	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1848	vph	778	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		513		216	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1033	pcphpl	449	pcphpl

RESULTS

	Direction	1		2	
Flow rate, vp		1033	pcphpl	449	pcphpl
Free-flow speed, FFS		59.8	mph	59.8	mph
Avg. passenger-car travel speed, S		59.8	mph	59.8	mph
Level of service, LOS		B		A	
Density, D		17.3	pc/mi/ln	7.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1478	vph	1517	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		411		421	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	826	pcphpl	876	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	826	pcphpl	876	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	13.8	pc/mi/ln	14.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:  
 E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Project  
 Project ID:

FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

VOLUME

	Direction	1		2	
Volume, V		1610	vph	1515	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		447		421	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	900	pcphpl	875	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	900	pcphpl	875	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	15.1	pc/mi/ln	14.6	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		2071	vph	947	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		575		263	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1158	pcphpl	547	pcphpl

RESULTS

	Direction	1		2	
Flow rate, vp		1158	pcphpl	547	pcphpl
Free-flow speed, FFS		59.8	mph	59.8	mph
Avg. passenger-car travel speed, S		59.8	mph	59.8	mph
Level of service, LOS		C		A	
Density, D		19.4	pc/mi/ln	9.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1802	vph	1829	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		501		508	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1008	pcphpl	1056	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	1008	pcphpl	1056	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	16.9	pc/mi/ln	17.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1995	vph	1871	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		554		520	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1116	pcphpl	1081	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1116	pcphpl	1081	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	C		C	
Density, D	18.7	pc/mi/ln	18.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Project  
 Project ID:

### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

### VOLUME

	Direction	1		2	
Volume, V		2072	vph	947	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		576		263	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1159	pcphpl	547	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1159	pcphpl	547	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	C		A	
Density, D	19.4	pc/mi/ln	9.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:  
 E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Project  
 Project ID:

FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

VOLUME

	Direction	1		2	
Volume, V		2014	vph	1891	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		559		525	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1126	pcphpl	1092	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1126	pcphpl	1092	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	C		C	
Density, D	18.8	pc/mi/ln	18.3	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		2092	vph	956	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		581		266	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1170	pcphpl	552	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1170	pcphpl	552	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	C		A	
Density, D	19.6	pc/mi/ln	9.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		2014	vph	1888	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		559		524	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1126	pcphpl	1090	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1126	pcphpl	1090	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	C		C	
Density, D	18.8	pc/mi/ln	18.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		2093	vph	956	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		581		266	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1170	pcphpl	552	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1170	pcphpl	552	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	C		A	
Density, D	19.6	pc/mi/ln	9.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1831	vph	1858	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		509		516	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1024	pcphpl	1073	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1024	pcphpl	1073	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	17.1	pc/mi/ln	18.0-	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		2033	vph	1908	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		565		530	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1137	pcphpl	1102	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	1137	pcphpl	1102	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	C		C	
Density, D	19.0	pc/mi/ln	18.4	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1848	vph	778	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		513		216	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1033	pcphpl	449	pcphpl

RESULTS

	Direction	1		2	
Flow rate, vp		1033	pcphpl	449	pcphpl
Free-flow speed, FFS		59.8	mph	59.8	mph
Avg. passenger-car travel speed, S		59.8	mph	59.8	mph
Level of service, LOS		B		A	
Density, D		17.3	pc/mi/ln	7.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1468	vph	1507	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		408		419	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	821	pcphpl	870	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	821	pcphpl	870	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	13.7	pc/mi/ln	14.6	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Existing + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1596	vph	1500	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		443		417	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	892	pcphpl	866	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	892	pcphpl	866	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	14.9	pc/mi/ln	14.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Alternative  
 Project ID:

### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

### VOLUME

	Direction	1		2	
Volume, V		2072	vph	947	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		576		263	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1159	pcphpl	547	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1159	pcphpl	547	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	C		A	
Density, D	19.4	pc/mi/ln	9.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Alternative  
 Project ID:

### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

### VOLUME

	Direction	1		2	
Volume, V		1805	vph	1832	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		501		509	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1009	pcphpl	1058	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	1009	pcphpl	1058	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	16.9	pc/mi/ln	17.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: Open Year 2017 + Alternative  
 Project ID:

### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

### VOLUME

	Direction	1		2	
Volume, V		2000	vph	1876	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		556		521	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1118	pcphpl	1083	pcphpl

RESULTS

	Direction	1		2	
Flow rate, vp		1118	pcphpl	1083	pcphpl
Free-flow speed, FFS		59.8	mph	59.8	mph
Avg. passenger-car travel speed, S		59.8	mph	59.8	mph
Level of service, LOS		C		C	
Density, D		18.7	pc/mi/ln	18.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		2093	vph	956	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		581		266	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1170	pcphpl	552	pcphpl

RESULTS

	Direction	1		2	
Flow rate, vp		1170	pcphpl	552	pcphpl
Free-flow speed, FFS		59.8	mph	59.8	mph
Avg. passenger-car travel speed, S		59.8	mph	59.8	mph
Level of service, LOS		C		A	
Density, D		19.6	pc/mi/ln	9.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		1821	vph	1848	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		506		513	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1018	pcphpl	1067	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	1018	pcphpl	1067	pcphpl
Free-flow speed, FFS	59.8	mph	59.8	mph
Avg. passenger-car travel speed, S	59.8	mph	59.8	mph
Level of service, LOS	B		B	
Density, D	17.0	pc/mi/ln	17.9	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: PCH  
 From/To: e/o Malibu Canyon Road  
 Jurisdiction: Caltrans  
 Analysis Year: 2030 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		1		1	
Median type		Divided		Divided	
Free-flow speed:		Base		Base	
FFS or BFFS		60.0	mph	60.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		0.0	mph	0.0	mph
Access points adjustment, FA		0.3	mph	0.3	mph
Free-flow speed		59.8	mph	59.8	mph

#### VOLUME

	Direction	1		2	
Volume, V		2019	vph	1893	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		561		526	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		-6.00	%	6.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		2.0	
Recreational vehicles PCE, ER		1.2		4.0	

Heavy vehicle adjustment, fHV	0.993		0.962	
Flow rate, vp	1129	pcphp1	1093	pcphp1

RESULTS

	Direction	1		2	
Flow rate, vp		1129	pcphp1	1093	pcphp1
Free-flow speed, FFS		59.8	mph	59.8	mph
Avg. passenger-car travel speed, S		59.8	mph	59.8	mph
Level of service, LOS		C		C	
Density, D		18.9	pc/mi/ln	18.3	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

## SEGMENT 3 – MALIBU CANYON ROAD N/O PCH

Existing Condition

Existing plus Project

Opening Year 2017 Baseline

Opening Year plus Project

Future Year 2030 Baseline

Future Year 2030 plus Project

Existing plus Project Alternative

Opening Year 2017 plus Project Alternative

Future Year 2030 plus Project Alternative

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Existing 2012  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		582	vph	517	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		162		144	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	325	pcphpl	289	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	325	pcphpl	289	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	6.7	pc/mi/ln	6.0	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Existing 2012  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		265	vph	1187	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		74		330	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	148	pcphpl	664	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	148	pcphpl	664	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	3.1	pc/mi/ln	13.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Existing 2012  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		351	vph	757	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		98		210	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	196	pcphpl	423	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	196	pcphpl	423	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	4.0	pc/mi/ln	8.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone: Fax:  
 E-mail:

OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Existing + Project  
 Project ID:

FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

VOLUME

	Direction	1		2	
Volume, V		265	vph	1187	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		74		330	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	148	pcphpl	664	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	148	pcphpl	664	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	3.1	pc/mi/ln	13.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Existing + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		585	vph	520	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		163		144	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	327	pcphp1	290	pcphp1

RESULTS

	Direction			
	1		2	
Flow rate, vp	327	pcphp1	290	pcphp1
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	6.8	pc/mi/ln	6.0	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
Agency/Co: City of Malibu  
Date: 12/5/2012  
Analysis Period: Saturday Peak Hour  
Highway: Malibu Canyon Road  
From/To: n/o PCH  
Jurisdiction: City of Malibu  
Analysis Year: Existing + Project  
Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		356	vph	762	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		99		212	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	199	pcphpl	426	pcphpl

RESULTS

	Direction	1		2	
Flow rate, vp		199	pcphpl	426	pcphpl
Free-flow speed, FFS		48.4	mph	48.4	mph
Avg. passenger-car travel speed, S		48.4	mph	48.4	mph
Level of service, LOS		A		A	
Density, D		4.1	pc/mi/ln	8.8	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Open Year 2017 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		437	vph	1345	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		121		374	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	244	pcphpl	752	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	244	pcphpl	752	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	5.0	pc/mi/ln	15.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Open Year 2017 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		807	vph	759	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		224		211	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	451	pcphp1	424	pcphp1

RESULTS

	Direction			
	1		2	
Flow rate, vp	451	pcphp1	424	pcphp1
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	9.3	pc/mi/ln	8.8	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Open Year 2017 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		615	vph	1044	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		171		290	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	344	pcphpl	584	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	344	pcphpl	584	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	7.1	pc/mi/ln	12.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Open Year 2017 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		437	vph	1345	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		121		374	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	244	pcphp1	752	pcphp1

RESULTS

	Direction			
	1		2	
Flow rate, vp	244	pcphp1	752	pcphp1
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	5.0	pc/mi/ln	15.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Open Year 2017 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		810	vph	762	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		225		212	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	453	pcphpl	426	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	453	pcphpl	426	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	9.4	pc/mi/ln	8.8	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Open Year 2017 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		620	vph	1049	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		172		291	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	346	pcphpl	586	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	346	pcphpl	586	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	7.1	pc/mi/ln	12.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: 2030 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		441	vph	1359	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		123		378	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	246	pcphp1	760	pcphp1

RESULTS

	Direction			
	1		2	
Flow rate, vp	246	pcphp1	760	pcphp1
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	5.1	pc/mi/ln	15.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: 2030 Baseline  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		619	vph	1052	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		172		292	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	346	pcphpl	588	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	346	pcphpl	588	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	7.1	pc/mi/ln	12.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: 2030 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		441	vph	1359	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		123		378	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	246	pcphp1	760	pcphp1

RESULTS

	Direction			
	1		2	
Flow rate, vp	246	pcphp1	760	pcphp1
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	5.1	pc/mi/ln	15.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: 2030 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		815	vph	768	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		226		213	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	455	pcphpl	429	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	455	pcphpl	429	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	9.4	pc/mi/ln	8.9	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: 2030 + Project  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		624	vph	1052	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		173		292	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	349	pcphpl	588	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	349	pcphpl	588	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	7.2	pc/mi/ln	12.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Existing + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		265	vph	1187	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		74		330	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	148	pcphpl	664	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	148	pcphpl	664	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	3.1	pc/mi/ln	13.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Existing + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		583	vph	518	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		162		144	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	326	pcphpl	289	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	326	pcphpl	289	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	6.7	pc/mi/ln	6.0	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Existing + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		353	vph	758	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		98		211	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	197	pcphpl	424	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	197	pcphpl	424	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	4.1	pc/mi/ln	8.8	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Open Year 2017 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		437	vph	1345	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		121		374	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	244	pcphp1	752	pcphp1

RESULTS

	Direction			
	1		2	
Flow rate, vp	244	pcphp1	752	pcphp1
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	5.0	pc/mi/ln	15.5	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Open Year 2017 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		808	vph	760	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		224		211	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	452	pcphpl	425	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	452	pcphpl	425	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	9.3	pc/mi/ln	8.8	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: Open Year 2017 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		616	vph	1045	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		171		290	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	344	pcphpl	584	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	344	pcphpl	584	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	7.1	pc/mi/ln	12.1	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: AM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: 2030 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		441	vph	1359	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		123		378	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	246	pcphp1	760	pcphp1

RESULTS

	Direction			
	1		2	
Flow rate, vp	246	pcphp1	760	pcphp1
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	5.1	pc/mi/ln	15.7	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: PM Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: 2030 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		813	vph	766	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		226		213	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	454	pcphpl	428	pcphpl

RESULTS

	Direction			
	1		2	
Flow rate, vp	454	pcphpl	428	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		A	
Density, D	9.4	pc/mi/ln	8.8	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

Phone:  
E-mail:

Fax:

### OPERATIONAL ANALYSIS

Analyst: Dennis Pascua  
 Agency/Co: City of Malibu  
 Date: 12/5/2012  
 Analysis Period: Saturday Peak Hour  
 Highway: Malibu Canyon Road  
 From/To: n/o PCH  
 Jurisdiction: City of Malibu  
 Analysis Year: 2030 + Alternative  
 Project ID:

#### FREE-FLOW SPEED

	Direction	1		2	
Lane width		12.0	ft	12.0	ft
Lateral clearance:					
Right edge		6.0	ft	6.0	ft
Left edge		6.0	ft	6.0	ft
Total lateral clearance		12.0	ft	12.0	ft
Access points per mile		0		0	
Median type		Undivided		Undivided	
Free-flow speed:		Base		Base	
FFS or BFFS		50.0	mph	50.0	mph
Lane width adjustment, FLW		0.0	mph	0.0	mph
Lateral clearance adjustment, FLC		0.0	mph	0.0	mph
Median type adjustment, FM		1.6	mph	1.6	mph
Access points adjustment, FA		0.0	mph	0.0	mph
Free-flow speed		48.4	mph	48.4	mph

#### VOLUME

	Direction	1		2	
Volume, V		620	vph	1053	vph
Peak-hour factor, PHF		0.90		0.90	
Peak 15-minute volume, v15		172		293	
Trucks and buses		1	%	1	%
Recreational vehicles		1	%	1	%
Terrain type		Grade		Grade	
Grade		3.00	%	-3.00	%
Segment length		0.00	mi	0.00	mi
Number of lanes		2		2	
Driver population adjustment, fP		1.00		1.00	
Trucks and buses PCE, ET		1.5		1.5	
Recreational vehicles PCE, ER		1.2		1.2	

Heavy vehicle adjustment, fHV	0.993		0.993	
Flow rate, vp	346	pcphpl	589	pcphpl

RESULTS

Direction	1		2	
Flow rate, vp	346	pcphpl	589	pcphpl
Free-flow speed, FFS	48.4	mph	48.4	mph
Avg. passenger-car travel speed, S	48.4	mph	48.4	mph
Level of service, LOS	A		B	
Density, D	7.1	pc/mi/ln	12.2	pc/mi/ln

Overall results are not computed when free-flow speed is less than 45 mph.

## APPENDIX D

### Cumulative Projects List and Trip Assignments

**City of Malibu Cumulative Projects Listing**

*Updated August 1, 2012*

**Acronyms**

ac = acres

BPC = in building plan check

CCC = California Coastal Commission

CCD = Cross Creek Drive

CCW = Civic Center Way

CDP = coastal development permit

LLA = lot line adjustment

MCR = Malibu Canyon Road

NSFR = new, single-family residence

PA = planning approval / CDP received

PCH = Pacific Coast Highway

sf = square feet

TCR = Trancas Canyon Road

UC = under construction

UPR = still under planning review

**West Malibu**

Project Name	Brief Description	Location	Status	Size	Planner
Trancas Town	New residential development	6155 TCR	Pending CDP submittal; zone change UPR	Zone change from Rural Residential to Multi-Family; 32 detached townhomes (preliminary)	B. Blue
HOWS / Trancas Country Market	Remodel and expansion of existing retail	30745 PCH (at TCR)	PA; UC	53,423 sf total (27,695 sf existing; 25,728 sf new); 339 parking spaces	R. Mollica
SMMC Lechuza Beach Public Access Improvements	Several public access improvements along the areas of East Sea Level, West Sea Level and Bunnie Lane, including stairways	31720.5 PCH	UPR	Beach access stairways, view platforms, public restroom and 4 ADA parking spaces	S. Danner
Sea Star Estates	5 NSFRs (infill)	6270, 6304, 6312, 6282, and 6398 Sea Star Dr	UPR	5 NSFRs on 5 existing parcels	S. Edmondson
Malibu High and Middle School Campus Improvement Project	New admin building, remodel existing buildings, new parking area and site improvements	30215 Morning View Drive	UPR	35,315 sf of new construction, 12,509 sf of renovation/modernization of existing buildings, new 150 space parking lot, various parking and site improvements	J. Smith
Broad Beach Restoration Project	Beachwide rock revetment, off-shore sand dredging, sand nourishment, dune restoration	Broad Beach Road	UPR	Westward terminus of Zuma Beach to 6525 Point Lechuza	CA State Lands Commission / Coastal Commission, S. Danner
Malibu Athletic Field Lighting Project	Sports field lighting	30215 Morning View Drive	BPC (State)	Four 70 ft tall lights installed on the MHS football field/track (limited usability allowed - 16 nights/yr till 10:30pm between Nov to May and 45 nights/yr till 7:30pm between Nov to Mar - no lights used between June to Aug per year)	J. Smith
28811 PCH Subdivision	3 lot subdivision	28811 PCH	UPR	Potential development for each lot equals a maximum TDSF of 8,620 sf; 8,342 sf; and 8,470 sf	S. Danner
LA County Fire Station No. 71	Fire station reconstruction	28722 PCH	UPR	6,033 sf total (2,881 sf existing; 3,152 sf new); 12 parking spaces; temporary fire station relocation to Zuma Beach Lifeguard HQ	J. Smith
Solstice Creek Fish Ladder	New fish ladder project at mouth of Solstice Creek / across a portion of Dan Blocker Beach	26038.5 PCH	BPC (State)	Bridge culvert and stream channel reconstruction with rock weirs and step-pools for a total length of 436 feet	S. Edmondson
Galahad Subdivision	5 lot subdivision; 4 buildable lots and 1 open space lot	6061 Galahad Rd	UPR	Potential development for each lot equals a maximum TDSF of 7,044 sf, 7,142 sf, 7,234 sf, and 8,414 sf	A. Fernandez
Zuma Mesa	LLA and 2 NSFR	6271 and 6277 Zuma Mesa Dr	PA; UC	5,329 sf and 6,984 sf	A. Fernandez
Trancas Highlands Water Assessment District	Water tank/line, buster pump station and NSFR	31537 Anacapa View Dr, Anacapa View Dr and TCR	PA, assessment district formation process underway	500,000 gallon water tank, +/- 12,400 linear feet of trenching, assessment district (+/- 66 existing lots), one NSFR +/- 11,000 sf	B. Blue
Sea Level	2 NSFR (infill) and road widening project	31864 and 31866 Sea Level Dr	UPR	2,185 sf and 1,925 sf, 2,000 sf; and 130 linear feet of road widening (Sea Level Dr)	A. Fernandez
N/A	2-lot LLA and 2 NSFR	5905 and 5909 Latigo Canyon Rd	UPR	Lot line adjustment and construction of 2 NSFR - 8,223 sf and 5,935 sq respectively	S. Danner
N/A	TPM	27535 PCH	PA	Subdivision of 1 lot into 2 lots	H. Ly
Puerco Canyon Road Extension	Road extension	3500 Puerco Canyon Rd	UPR	3,500 linear feet of road extension to provide access to 7 residentially zoned lots (1 City lot/6 County lots)	S. Danner

**Civic Center Area**

Project Name	Brief Description	Location	Status	Size	Planner
Crummer	7 lot subdivision (5 for residential)	24120 PCH	UPR; final project scope pending	(Preliminary) 5 NSFRs; expanded parking for Bluffs Park; 1.74 acre dedication to City for recreation use	H. Ly
Hajian	New office	24903 PCH	PA; UC	9,685 sf; 44 parking spaces	H. Ly
Towing Subdivision	7 lot subdivision (4 for residential)	23915 Malibu Rd	PA; BPC	4 NSFRs	S. Danner
Rancho Malibu Hotel	New hotel and spa	4000 MCR (NW corner of MCR and PCH, along Winter Canyon Rd)	UPR	146-room luxury hotel with related facilities. The hotel's 141,428 sf main building contains a retail component, day spa, fitness center, lobby, restaurant, bar, banquet and meeting facilities, and guest rooms. Development also includes 133,873 sf of detached buildings which include guest rooms. A large swimming pool, subterranean parking structure, function lawn, landscaping, and hardscape. CUP for live entertainment, events, alcohol sales and a TTM for a commercial airspace subdivision (146 hotel rooms and 2 retail spaces will be available for private ownership).	S. Danner
SMMC Beach Public Access Improvements	Public beach access improvements and a new stairway	24038 Malibu Rd	PA; pre-BPC	Beach access	R. Mollica
La Paz Shopping Center	New retail, office and institutional development	23465 Civic Center Way	PA; BPC	112,058 sf retail and office; 20,000 sf institutional; 543 parking spaces	S. Edmondson
Whole Foods Shopping Center	New retail development	23401 CCW	UPR	25,000 sf grocery; 14,839 sf retail/commercial (up to 4,000 sf restaurant); 220 parking spaces	B. Blue
City of Malibu Civic Center Wastewater Treatment Facility	Wastewater treatment and treated water recycling facility	unknown	Testing and preliminary design underway, pending CDP submittal	Scheduled to be online by November 2015 to serve first phase of Civic Center (commercial parcels); second phase by 2019 (residential parcels)	B. Blue
Santa Monica College	New satellite campus on 2.94 acre ground lease site out of 9.18 acre County Civic Center parcel	23525 CCW (APN 4458-022-904, lease area addressed as 23555 by County)	Pending CDP submittal	+/- 25,000 sf building to replace vacant County Sheriff facility; will serve +/- 200 FTE; 2 classrooms, 3 lab/studios, multipurpose room, 2,100 sf lecture hall, 5,700 sf sheriff substation, interpretive center	B. Blue
Housing Element Update	Overlay to allow up to 20 dwelling units per acre on three sites	28455 PCH, 28401 Pacific Coast Highway, 3700 La Paz Lane (APNs 4458-022-023 and 4458-022-024)	UPR	5.12, 3.25 and 2.3 ac sites -> change from allowing 6 units per ac up to 20 units per ac	S. Danner, R. Mollica
Malibu Sycamore Village	New non-residential mixed use commercial project	23575 CCW (APN 4458-022-011); addressed as 23789 Stuart Ranch Rd per LA County Assessor	UPR	Two projects alternatives submitted: 1) 76,000 sf retail, restaurant, and office space with a public benefit of a 5,000 sf urgent care facility, and 380 pkg spaces ; 2) 60,000 sf of retail, restaurant, and office space with 300 pkg spaces; project site is a 10 acre commercial parcel and both alternatives include outdoor exhibition space.	J. Smith

**Los Angeles County**

Pepperdine Campus Life Project	Project would develop and re-develop property within an existing approximately 365 acre area on the Pepperdine campus through a two-phase development program that will take 12 years	24255 PCH	PA; pending approval of an amendment at CCC	Six components of proposed development include approximately 394,137 sf of net new development comprised of the following: 1) Student Housing Rehabilitation; 2) Athletics and Events Center and Parking Structure; 3) Upgraded NCAA Soccer Field and Maintenance Facilities; 4) Town Square and Welcome Center over Subterranean Parking; 5) Enhanced Recreation Center Area; and 6) School of Law Parking Structure.	County of Los Angeles Regional Planning, S. Danner
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**East Malibu**

Project Name	Brief Description	Location	Status	Size	Planner
Pierview	New restaurant	22716 PCH	PA; UC	7,100 sf; 70 parking spaces (joint use parking agreement with 22706 PCH to donate 10 spaces - total of 59 spaces required for this use with 1 extra)	S. Edmondson
Windsail	New restaurant	22706 PCH	PA; UC	5,904 sf; 64 parking spaces (joint use parking agreement with 22716 PCH for 10 additional spaces - total of 74 spaces required for this use)	S. Edmondson
N/A	New office and retail	22959 PCH	UPR	2,630 sf office; 4,517 sf retail; 31 parking spaces	J. Smith
N/A	New office	22729 PCH	PA; pre-BPC	2,499 sf; 32 parking spaces	H. Ly
Carbon Condominiums	New condominium	22065 PCH	UC	8 units	J. Smith
N/A	LLA and 3 NSFRs	18805, 18807 & 18809 PCH	PA; BPC	9,559 sf, 9,141 sf, and 7,429 sf	S. Edmondson
N/A	4 NSFRs	22301, 22303, 22305 and 22309 PCH	PA; BPC	9,529 sf, 8,649 sf, 8,271 sf, and 9,249 sf	S. Edmondson
N/A	LLA and 2 NSFRs	21997 and 22003 PCH	PA; BPC	9,818 sf and 8,542 sf	A. Fernandez
Serra Retreat	3 lot subdivision	3314 Serra Rd	PA; pending Final Parcel Map approval	Development potential for each lot equals a maximum TDSF of 7,037 sf, 7,033 sf, and 7,740 sf	S. Danner
N/A	2 NSFR	20624 and 20630 PCH	UPR	2,911 sf and 2,911 sf	R. Mollica
Seaboard	4 lot LLA and 1 NSFR	21100 Seaboard	UPR	10,517 sf NSFR and improve 2,590 linear feet of roadway. Proposed lot sizes are 7.6, 1.3, 20 and 2.6 acres.	A. Fernandez



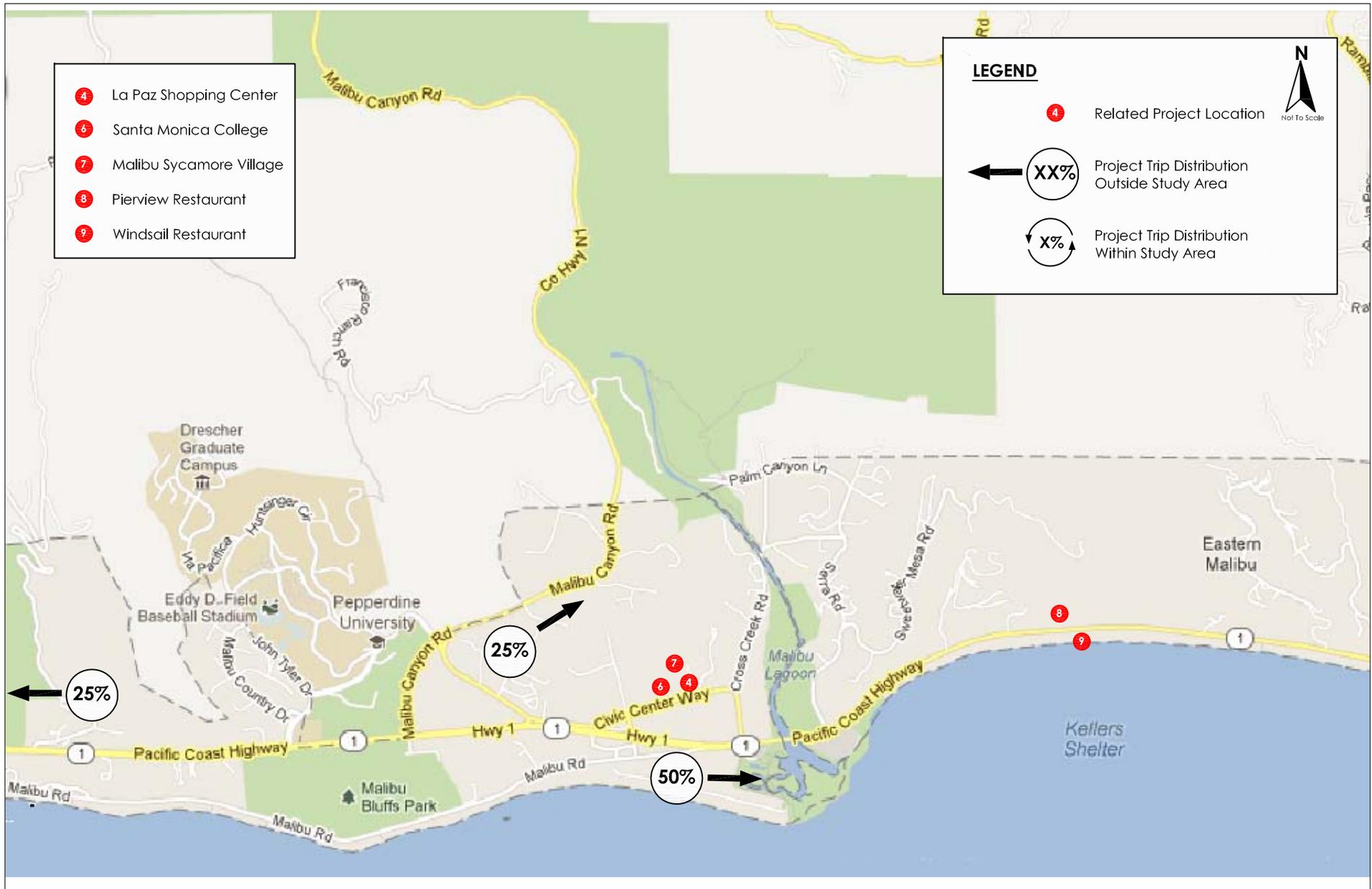
Map Source: Google Maps, November 2012.

Figure A1  
5905 and 5909 Latigo Canyon  
Related Project Trip Distribution



Map Source: Google Maps, November 2012.

Figure A2  
Towing Subdivision and Eastern Residential Projects  
Related Project Trip Distribution



Map Source: Google Maps, November 2012.



Map Source: Google Maps, November 2012.

Figure A4  
Eastern Shopping Center and Restaurant Uses  
Related Project Trip Distribution