

### 5.11 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Crummer Site Subdivision to result in transportation and traffic impacts in the City of Malibu. The analysis in this section is based in part on the following technical report:

- *Traffic Impact Analysis, Crummer Site Subdivision City of Malibu*, California, Arch Beach Consulting, December 2012.

A complete copy of this study is included in Appendix Q of this document.

#### 5.11.1 Environmental Setting

##### Study Area Boundary

Figure 5.11-1, *Project Location and Study Area Intersections* 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. These intersections are shown in Figure 5.11-1, *Project Location and Study Area Intersections*.

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

The signalized intersection of PCH and Malibu Canyon Road/Winter Mesa Road is operated and maintained by Caltrans. The signalized intersection of Malibu Canyon Road and Civic Center Way/Seaver Drive is operated and maintained by the City of Malibu.



##### 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. The results of the analysis must be compared to the City's significance criteria as established in the Traffic Impact Analysis (TIA) Guidelines

###### Roadway Segments

The study area roadway segments were analyzed using the City's TIA Guidelines and Highway Capacity Manual (HCM) methodology as prescribed in the City's TIA 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 5.11-1, *Level of Service Definitions* and Table 5.11-2, *Level of Service Descriptions* provides detailed descriptions of each level of service

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**Table 5.11-1  
Level of Service Definitions**

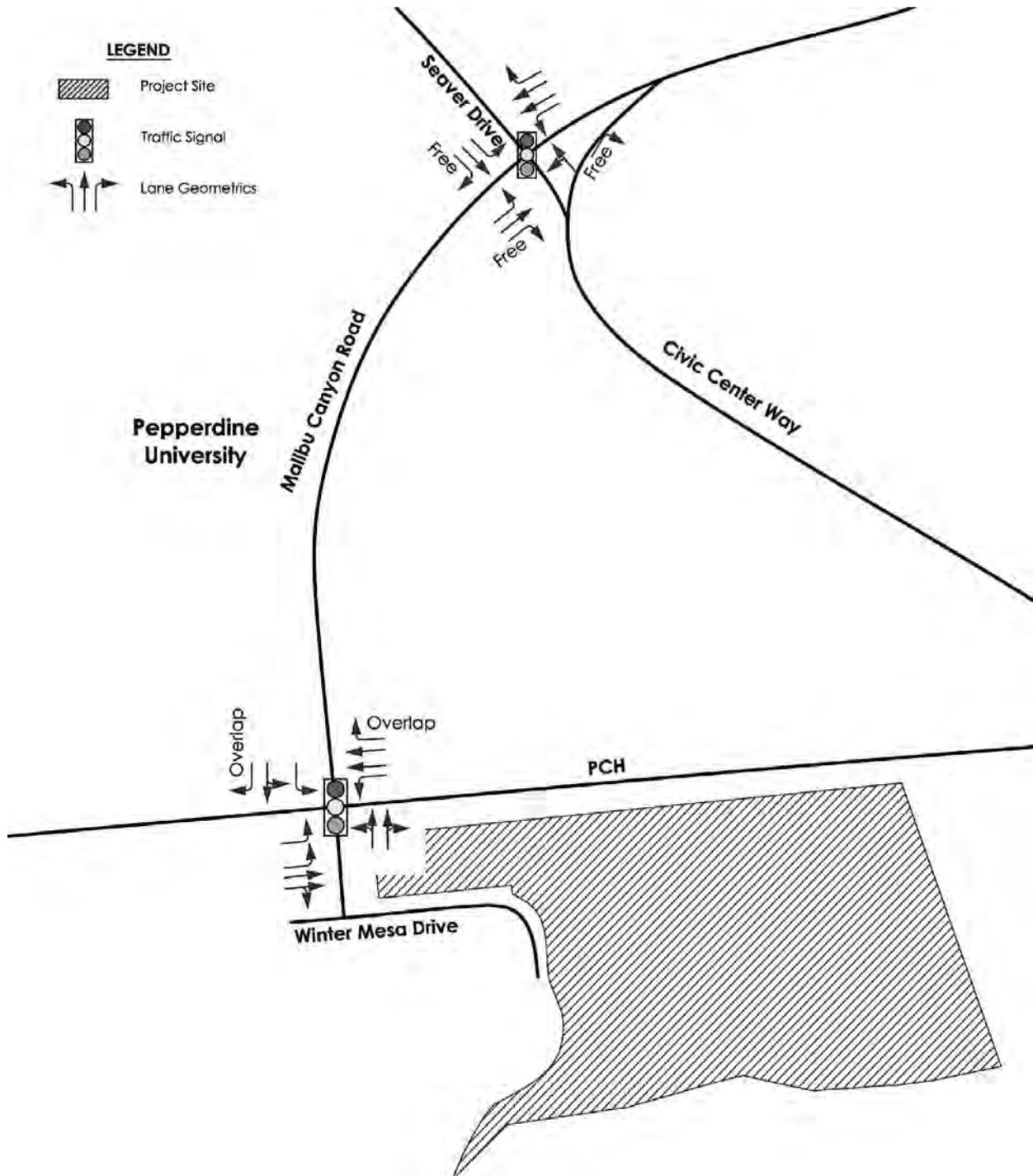
Level of Service	V/C Ratio or ICU (signalized)	Control Delay in Seconds (unsignalized)
A	0.00 – 0.60	0.0–10.0 seconds
B	0.61 – 0.70	10.1–15.0 seconds
C	0.71 – 0.80	15.1–25.0 seconds
D	0.81 – 0.90	25.1–35.0 seconds
E	0.91 – 1.00	35.1–50.0 seconds
F	1.01 or greater	50.1 seconds or greater

**Table 5.11-2  
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.

# Project Location and Study Area Intersections



Source: Arch Beach Consulting 2012



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**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 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.

**City of Malibu Standards**

Development projects that have the potential to substantially affect the City of Malibu's current transportation system may be required to prepare a TIA. The goal of TIA is to identify the roadway network improvements that would be required to ensure that the road network will operate efficiently upon completion of the project. The City will consider the requirement of a TIA on a case-by-case basis as development projects are brought forward for consideration. The City TIA guidelines streamline the approval process and provide a standardized framework to follow when submitting studies for review. The City TIA guidelines include specific thresholds for project related increases in the V/C of study intersections and roadways. Table 5.11-3, *City of Malibu Significance Criteria*, illustrates the V/C ratio increases that are considered significant impacts. According to the City, an 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, or 0.01 at an intersection operating at LOS E or F.



**Table 5.11-3  
City of Malibu Significance Criteria**

Level of Service (LOS)	Preproject V/C	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

**Congestion Management Program Standards**

The Los Angeles County Metropolitan Transportation Authority is responsible for implementing the CMP for Los Angeles County. State statute requires that a congestion management program be developed, adopted, and updated biennially for every county that includes an urbanized area, and shall include every city and the county government within that county. The CMP sets LOS standards for specific roadways, referred to as CMP-designated roadways.

According to the Guidelines for CMP Transportation Impact Analysis, which is Appendix B of the Los Angeles County 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.

Because 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

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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. However, the results of the CMP analysis must be compared to the City's significance criteria as established in the TIA Guidelines. According to the City, an intersection would be significantly impacted by a 0.01 increase at an intersection operating at LOS E or F.

#### Existing Traffic Conditions

##### Roadway Network

The roadways that provide access to the project vicinity include PCH, Malibu Canyon Road, Civic Center Way, and Winter Mesa Road. PCH is a four-lane, east–west roadway that abuts the north side of the project site. It is designated a Modified Major Arterial in the Circulation Element of the City of Malibu General Plan and an Eligible Scenic Highway by the California Department of Transportation (Caltrans).

**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 a Major Arterial in the Circulation Element.

**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 a Collector in the Circulation Element.

**Winter Mesa Road** is a two-lane roadway that is the continuation of Malibu Canyon Road south of PCH. It is a north–south roadway immediately south of PCH, then curves to the east and runs along the south edge of the project site. Access to the project site would be provided from Winter Mesa Road.

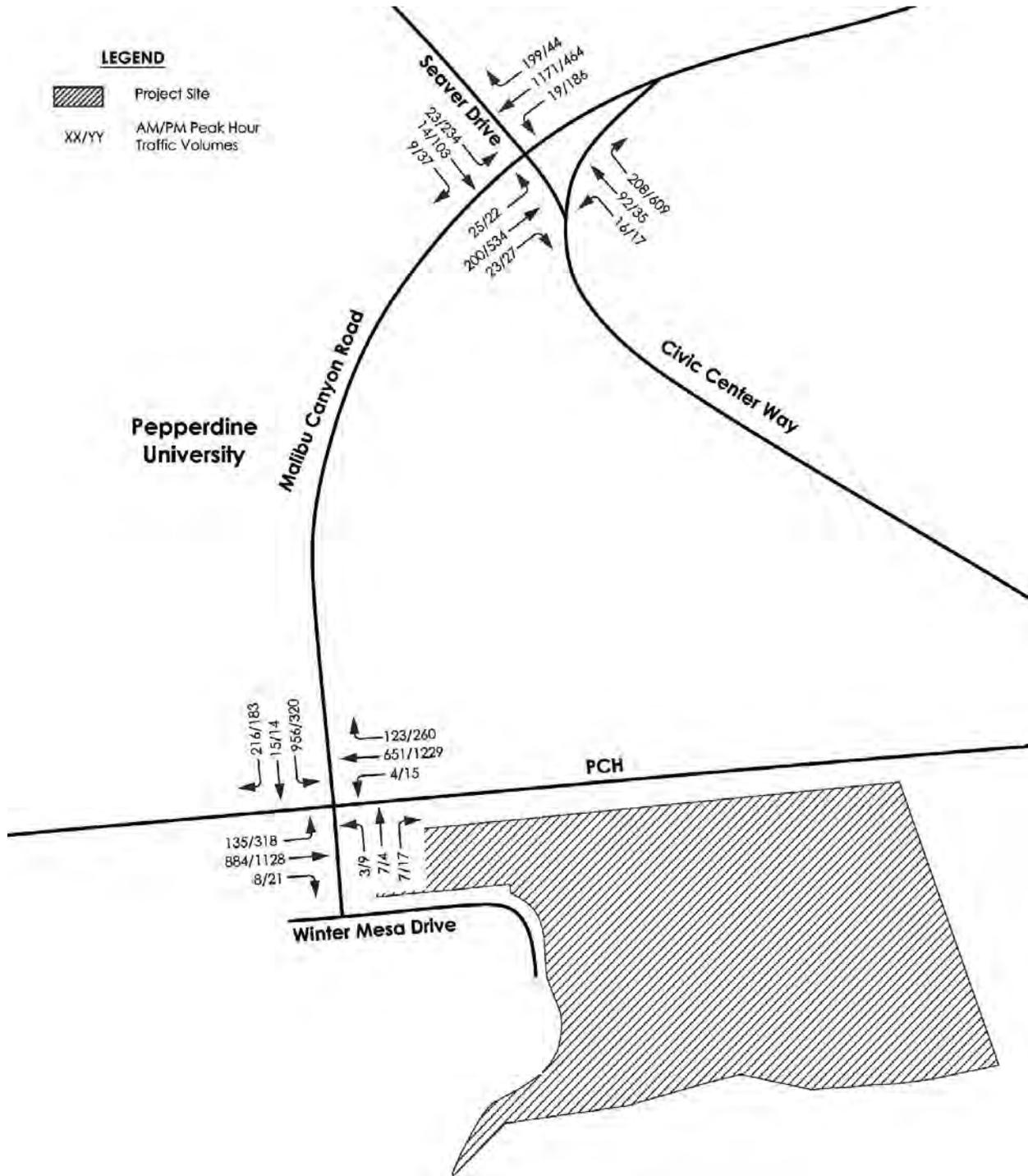
The existing lane configuration and roadway characteristics on the study area roadways and at the intersections are shown on Figure 5.11-1.

##### Existing Baseline Traffic Volumes

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 5.11-2 shows the existing weekday a.m. and p.m. peak hour traffic volumes at the study intersections, while Figure 5.11-3 shows the existing Saturday midday peak hour volumes. The raw traffic volume count sheets are provided in Traffic Study Appendix A (Appendix P of this DEIR).

# Existing Weekday Peak Hour Traffic



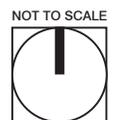
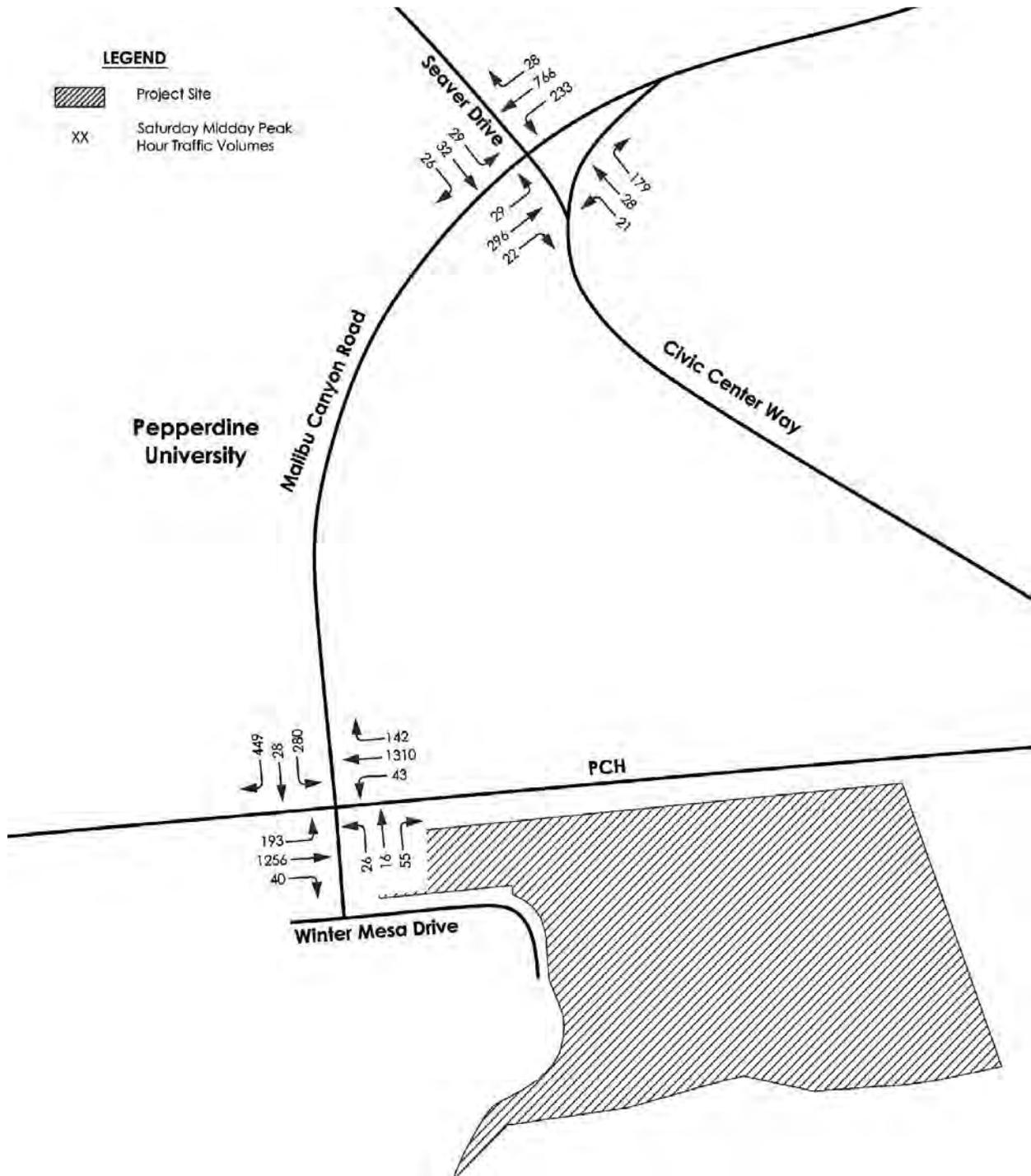
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# Existing Saturday Peak Hour Traffic



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**Intersection Levels of Service**

To quantify the existing baseline traffic conditions, the two study area intersections were analyzed to determine their operating conditions during the weekday morning and afternoon peak hours and the weekend midday peak hour. Based on the peak hour traffic volumes, the turning movement counts, and the existing number of lanes at each intersection, V/C ratios and LOS have been determined at each intersection, as summarized in Table 5.11-4. The LOS calculation sheets are provided in Traffic Study Appendix B (Appendix P of this DEIR)

**Table 5.11-4  
Existing Intersection Levels of Service**

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	0.824	D
2. Malibu Canyon Rd/Civic Center Way	signal	0.563	A	0.729	C	0.481	A

Note: LOS determined using ICU method.

As shown on Table 5.11-4, the two study area intersections currently operate at levels of service A, B, C, or D during the morning, afternoon, and weekend peak hours.

**Roadway Segments**

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table 5.11-5 presents the results of the existing roadway segment LOS analysis, while the LOS calculation sheets are provided in Traffic Study Appendix C.



**Table 5.11-5  
Existing Roadway Segment Level of Service**

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

Notes: LOS determined using HCM Multilane Highways Operations method.  
# lanes and median: 2D = two lanes divided with median; 2U = two lanes undivided  
pcplpm = Roadway segment density expressed in passenger cars per lane per mile.

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#### 5.11.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

- T-1 Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections).
- T-2 Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.
- T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.
- T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- T-5 Result in inadequate emergency access.
- T-6 Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

According to the City of Malibu, a project could also have a significant effect on the environment if the project could:

- T-7 Result in inadequate parking capacity.

The 2012 Initial Study, included as Appendix C, substantiates that impacts associated with the following thresholds would be less than significant:

- Thresholds T-3, T-5, and T-6

These impacts will not be addressed in the following analysis.

#### 5.11.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the 2012 Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**IMPACT 5.11-1:** The proposed project with baseball field option would result in a substantial increase in traffic in Opening Year 2017 and Future Year 2030. [Threshold T-1]

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##### *Impact Analysis:*

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 design option, the baseball field could instead be developed as a public skate park. Both project options are analyzed in this DEIR section. 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.

**Single-Family Homes and Baseball Field Development Option**

**Project Trip Generation**

For the purpose of disclosing the approximate number of trips generated by the proposed project based on land use, trip rates contained in the Institute of Transportation Engineers’ (ITE) *Trip Generation* (8<sup>th</sup> ed.) were used to calculate the potential trip generation of the proposed project. Table 5.11-6 shows the potential trip generation of the proposed single-family homes and baseball field. 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 games per day on weekdays, and ten 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).



**Table 5.11-6  
Weekday Project Trip Generation**

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>

Note: DU = dwelling unit

<sup>1</sup> Trip rates for single-family detached homes are from *Trip Generation* (8<sup>th</sup> ed.), Institute of Transportation Engineers, 2008.

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

As shown in Table 5.11-6, the proposed project is forecast to generate 168 daily trips, with 4 trips (1 inbound, 3 outbound) produced in the AM peak hour and 65 trips (33 inbound, 32 outbound) produced in the PM peak hour.

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According to Table 5.11-7, during Saturdays, the proposed project would generate approximately 970 daily trips, and 97 midday peak hour trips (49 inbound and 48 outbound).

**Table 5.11-7  
Saturday Project Trip Generation**

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>

Note: DU = dwelling unit

<sup>1</sup> Trip rates for single-family detached homes are from *Trip Generation* (8<sup>th</sup> ed.), Institute of Transportation Engineers, 2008.

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

### 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 5.11-4 and 5.11-5 illustrate the weekday and Saturday, respectively, trip distribution and assignment for the proposed project.

### 2012 EXISTING PLUS PROJECT

#### Traffic Volumes

The proposed project trip assignments for the weekday and Saturday peak hours, noted in Figures 5.11-4 and 5.11-5, respectively, were added to the Existing Baseline weekday and Saturday peak hour traffic volumes in Figures 5.11-2 and 5.11-3, respectively, which resulted in the Existing plus Project traffic volumes.

#### Levels of Service

##### Intersections

Table 5.11-8 presents the results of the Existing plus Project intersection LOS analysis. Based on 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 because 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 5.11-9 presents the results of the Existing plus Project roadway segment LOS analysis. Based on this analysis, the proposed project would not create any significant impacts to the study area roadway segments because the roadway segments are forecast to operate at LOS C or better with project-added traffic.

**Table 5.11-8  
Existing plus Project with Baseball Field 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 5.11.9  
Existing plus Project with Baseball Field 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
<b>1. PCH, John Tyler Dr to Malibu Cyn Rd</b>															
- 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
<b>2. PCH, Malibu Cyn Rd to Webb Way</b>															
- 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
<b>3. Malibu Cyn Rd, PCH to Civic Center</b>															
- 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

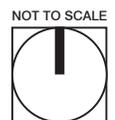
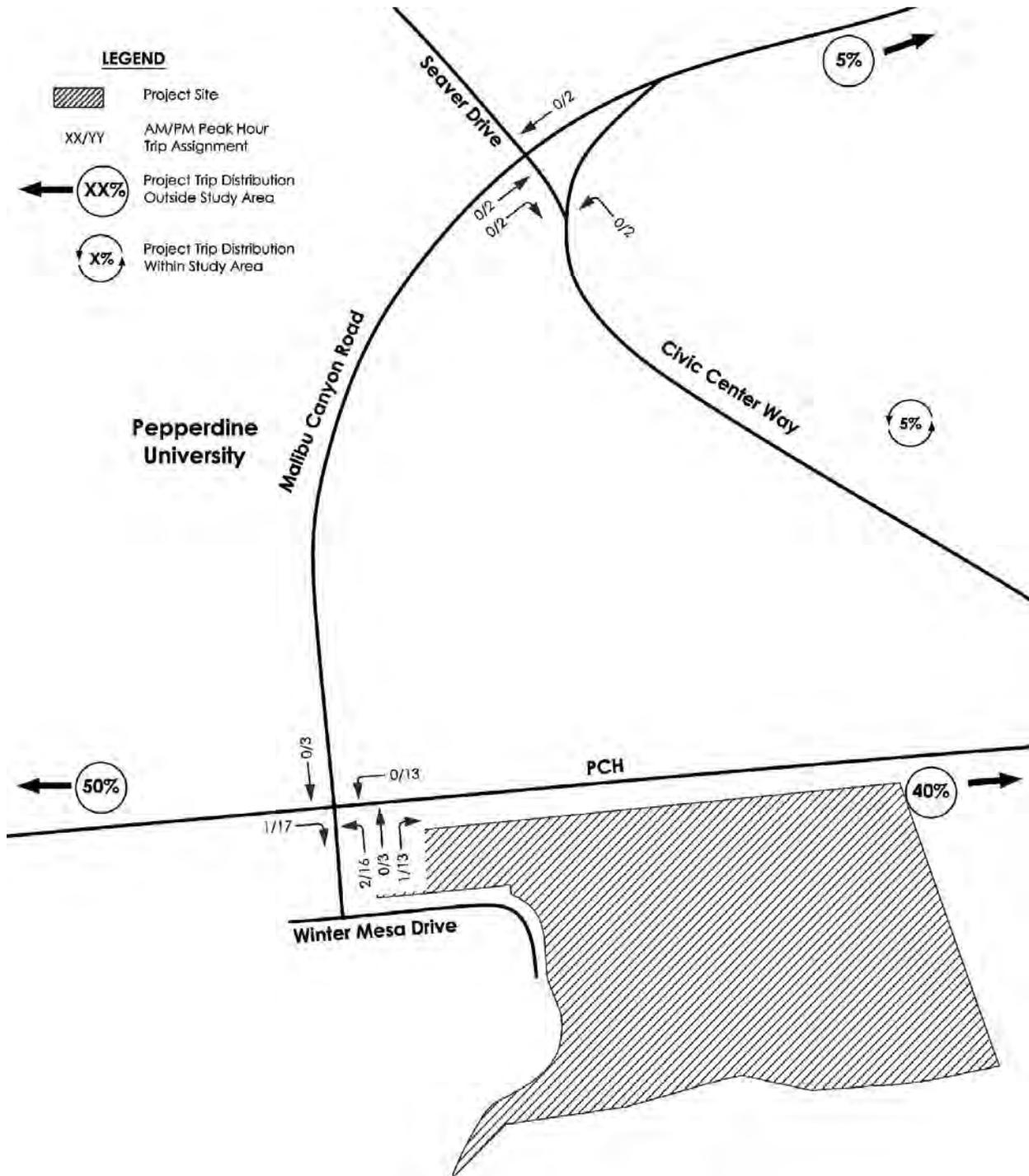
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# Project Weekday Peak Hour Trips



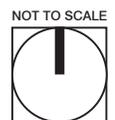
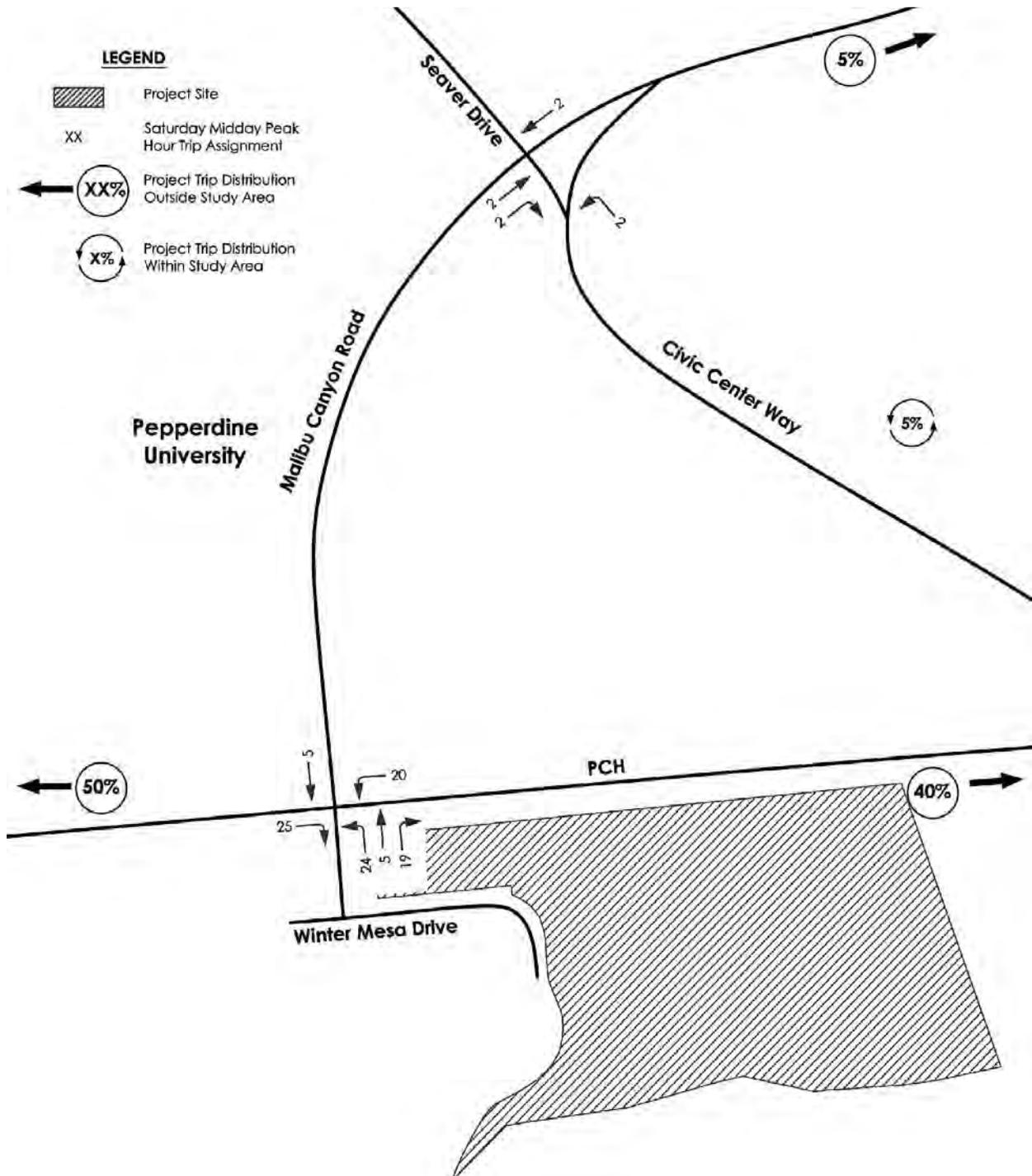
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# Project Saturday Peak Hour Trips



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### *OPENING YEAR 2017*

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 comprises 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, no improvements are 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 have not yet been constructed, but have been approved or are pending approval through a discretionary action or building permit issuance. Tables 5.11-10 and 5.11-11 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 5.11-6, Map of Cumulative Projects shows the locations of the cumulative projects. Figures 5.11-7 and 5.11-8 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 in Traffic Study 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 5.11-9 and Figures 5.11-10 illustrate the resulting Opening Year 2017 Baseline weekday a.m. and p.m. peak hour, and Saturday midday peak hour traffic volumes, respectively.



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**Table 5.11-10  
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
Municipal Use	20.000 TSF	458	20	13	32	11	18	29
<i>- pass-by for Shopping Center (42%)<sup>2</sup></i>		<i>-2,414</i>	<i>-34</i>	<i>-22</i>	<i>-56</i>	<i>-110</i>	<i>-115</i>	<i>-225</i>

## 5. Environmental Analysis

### TRANSPORTATION AND TRAFFIC

**Table 5.11-10**  
**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>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

**Table 5.11-10  
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>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 ed.) and *Trip Generation Handbook*, 2004.

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

<sup>2</sup> Pass-by trip reduction percentage based on 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.

## 5. Environmental Analysis

### TRANSPORTATION AND TRAFFIC

Table 5.11-11  
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
Municipal Use	20.000 TSF	182	12	10	21
<i>- pass-by for Shopping Center (37%)<sup>2</sup></i>		<i>-2,906</i>	<i>-139</i>	<i>-129</i>	<i>-268</i>

5. Environmental Analysis  
TRANSPORTATION AND TRAFFIC

**Table 5.11-11  
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>Total</b>		5,203	256	235	491
<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
<i>- pass-by for Shopping Center (38%)<sup>2</sup></i>		-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
<i>- pass-by for Shopping Center (38%)<sup>2</sup></i>		-505	-23	-21	-44

## 5. Environmental Analysis

### TRANSPORTATION AND TRAFFIC

**Table 5.11-11**  
**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>Total</b>		814	37	34	71
<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 ed.) and *Trip Generation Handbook*, 2004.

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

<sup>2</sup> Pass-by trip reduction percentage based on logarithmic equation for shopping center land use in ITE *Trip Generation Handbook*, 2004.

*Levels of Service*

*Intersections*

Table 5.11-12 presents the results of the Opening Year 2017 Baseline intersection LOS analysis.

**Table 5.11-12  
Opening Year 2017 Baseline Intersection Level of Service**

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	0.953	E
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 5.11-13 presents the results of the Opening Year 2017 Baseline roadway segment LOS analysis. 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.



**Table 5.11-13  
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.

## 5. Environmental Analysis

### TRANSPORTATION AND TRAFFIC

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#### *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 were added to the Opening Year 2017 Baseline weekday and Saturday peak hour traffic volumes, which resulted in the Opening Year 2017 plus Project traffic volumes. Figures 5.11-11 and 5.11-12 illustrate the Opening Year 2017 plus Project weekday and Saturday peak hour traffic volumes, respectively.

#### *Levels of Service*

##### *Intersections*

Table 5.11-14 presents the results of the Opening Year 2017 plus Project intersection LOS analysis.

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 because 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 proposed project would not create any significant impacts to the other study area intersections since 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 5.11-15 presents the results of the Opening Year 2017 plus Project roadway segment LOS analysis.

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 because the roadway segments are forecast to operate at LOS C or better with project-added traffic.

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TRANSPORTATION AND TRAFFIC

Table 5.11-14  
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				
	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	0.888	D	0.965	E	+0.001	+0.009	+0.012
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 5.11-15  
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				
	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	AM	PM	Midday
<b>1. PCH, John Tyler Dr to Malibu Cyn Rd</b>															
- 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	15.10	B	19.7	C	0.0	+0.2	+0.2
<b>2. PCH, Malibu Cyn Rd to Webb Way</b>															
- 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
<b>3. Malibu Cyn Rd, PCH to Civic Center</b>															
- 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

## 5. Environmental Analysis

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### TRANSPORTATION AND TRAFFIC

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5. Environmental Analysis

Map of Cumulative Projects



Source: Arch Beach Consulting 2012

Crummer Site Subdivision Draft EIR



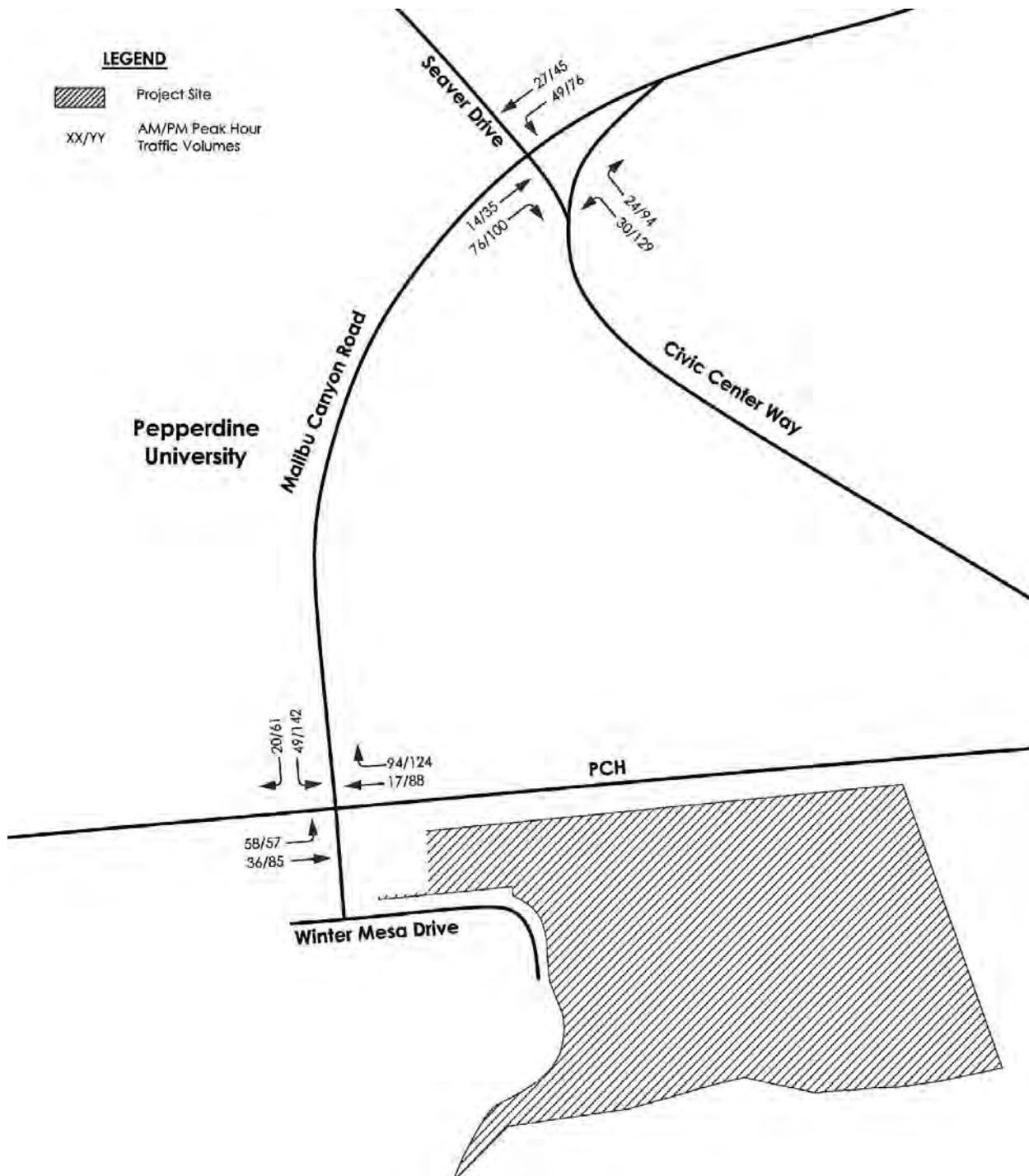
## 5. Environmental Analysis

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### TRANSPORTATION AND TRAFFIC

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# Cumulative Projects, Weekday Peak Hour Trips



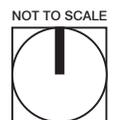
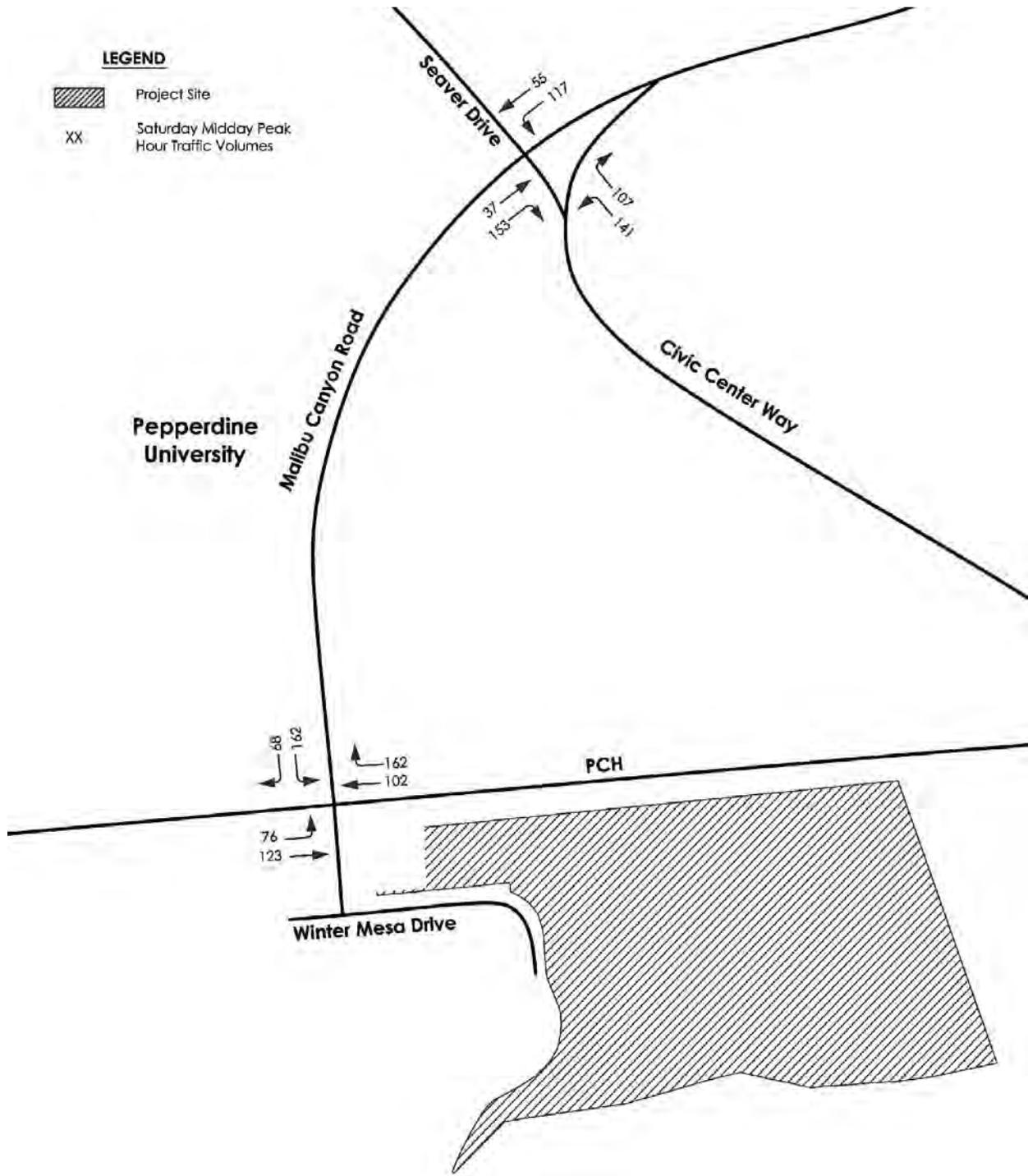
## 5. Environmental Analysis

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### TRANSPORTATION AND TRAFFIC

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# Cumulative Projects, Saturday Peak Hour Trips



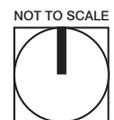
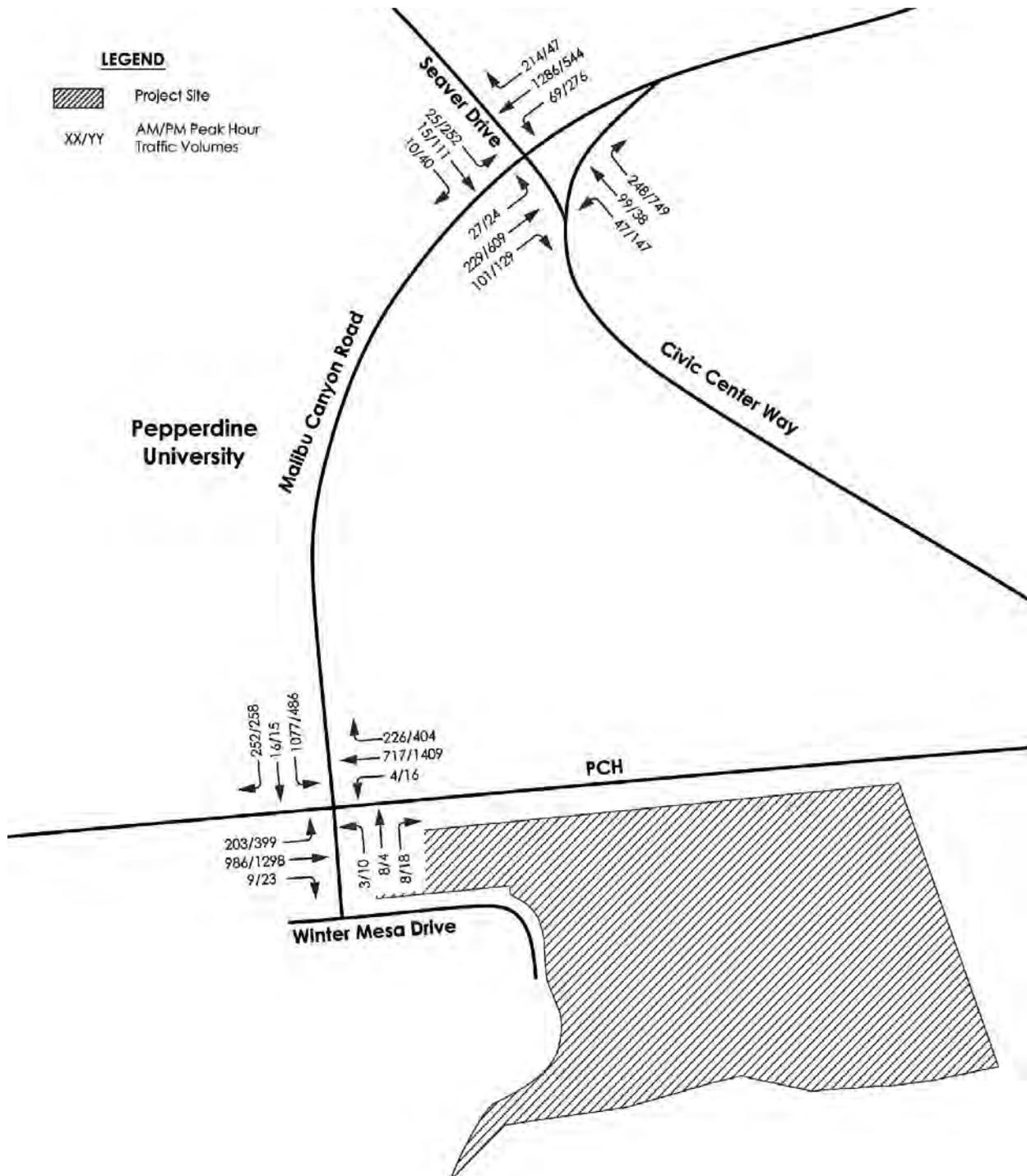
## 5. Environmental Analysis

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### TRANSPORTATION AND TRAFFIC

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Year 2017 Baseline, Weekday Peak Hour Traffic



Source: Arch Beach Consulting 2012

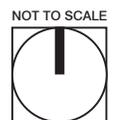
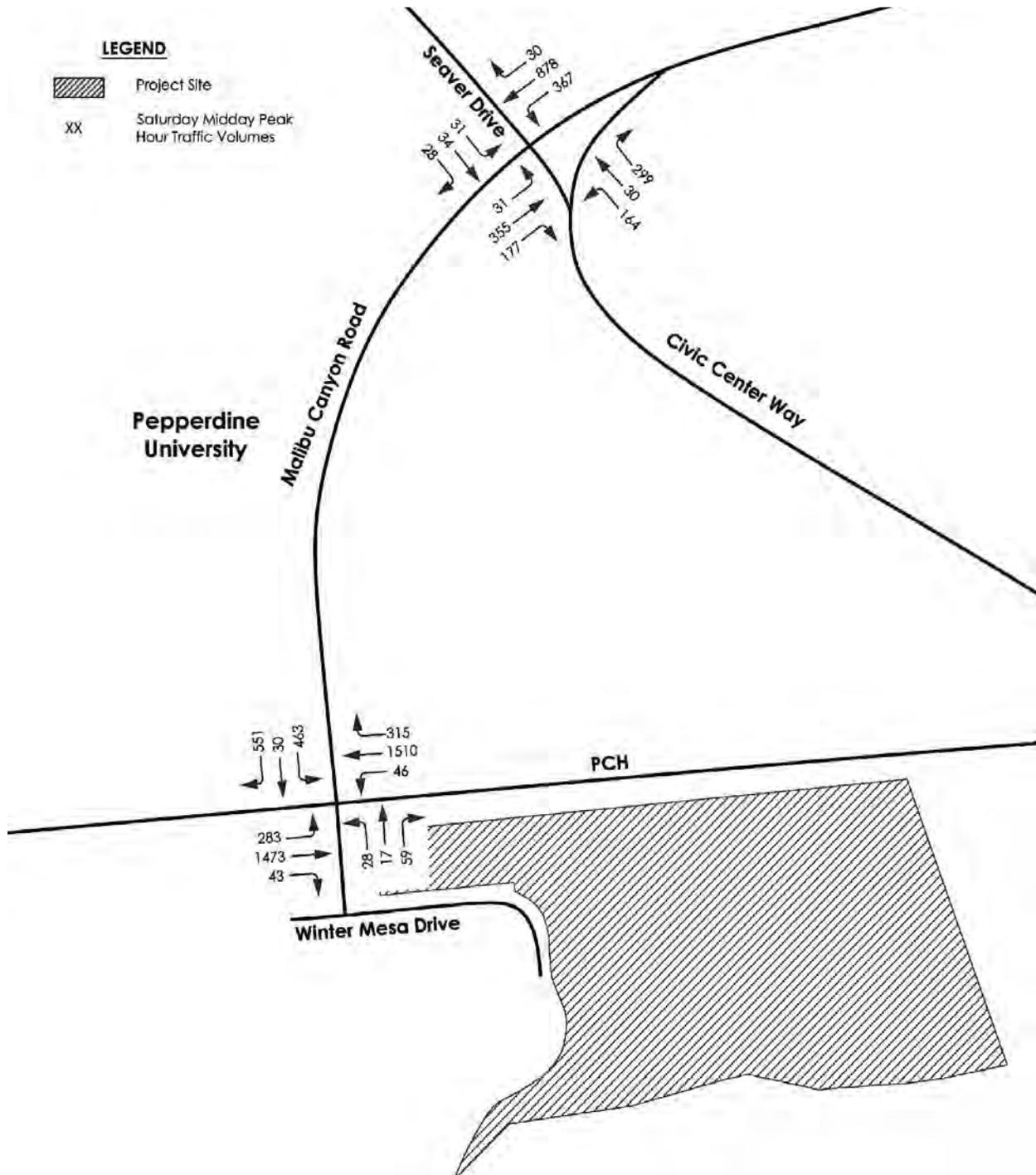
## 5. Environmental Analysis

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### TRANSPORTATION AND TRAFFIC

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Year 2017 Baseline, Saturday Peak Hour Traffic



## 5. Environmental Analysis

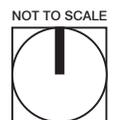
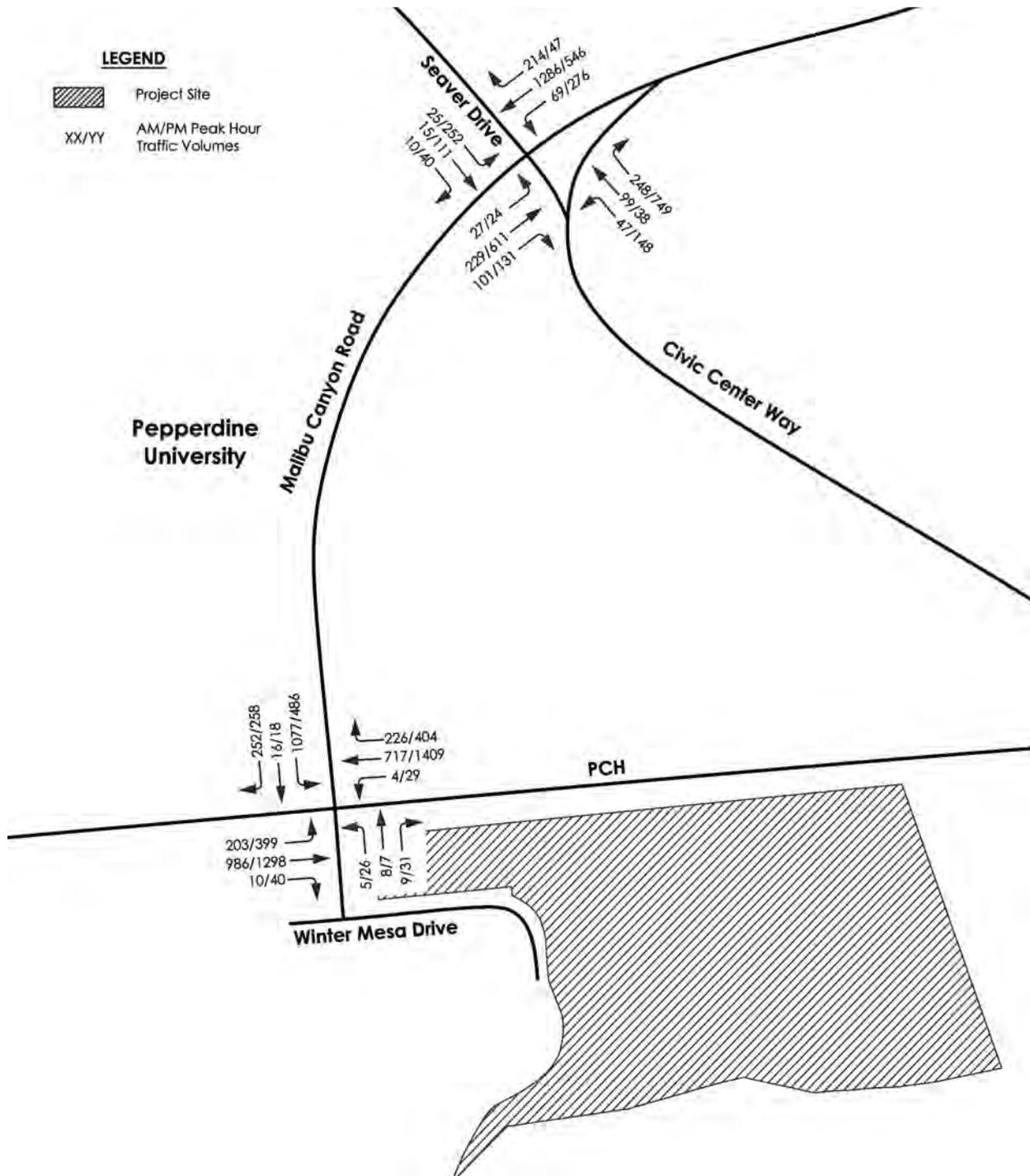
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### TRANSPORTATION AND TRAFFIC

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5. Environmental Analysis

Year 2017 plus Project, Weekday Peak Hour Traffic



Source: Arch Beach Consulting 2012

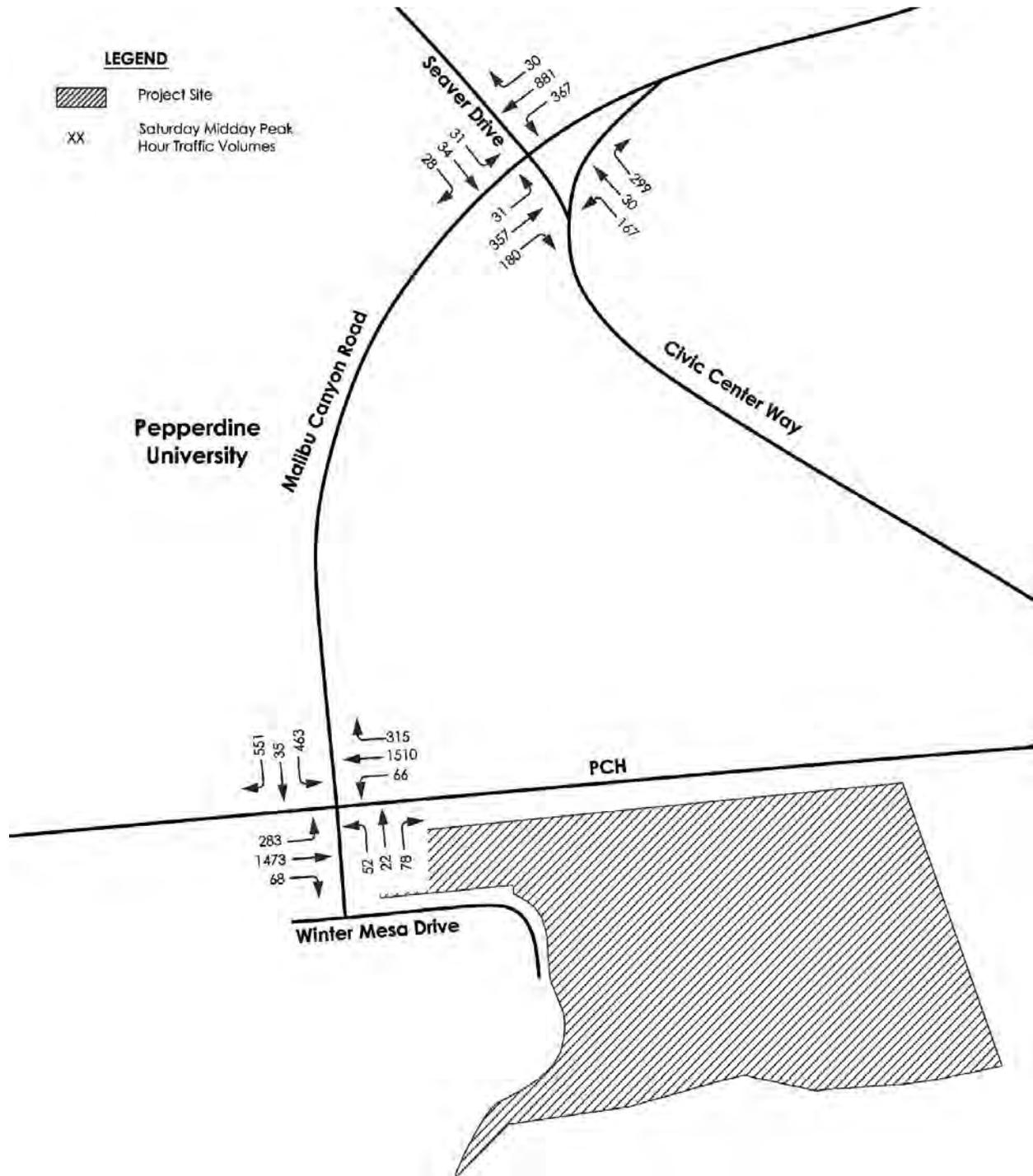
## 5. Environmental Analysis

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### TRANSPORTATION AND TRAFFIC

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Year 2017 plus Project, Saturday Peak Hour Traffic



## 5. Environmental Analysis

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**FUTURE YEAR 2030 GENERAL PLAN BUILDOUT**

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 comprises 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 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 are 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 (2012–2030) 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 5.11-10, and Figure 5.11-8 (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 5.11-13 and 5.11-14 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*

Table 5.11-16 presents the results of the Future Year 2030 Baseline intersection LOS analysis.

**Table 5.11-16  
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*

## 5. Environmental Analysis

### TRANSPORTATION AND TRAFFIC

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table 5.11-17 presents the results of the Future Year 2030 Baseline roadway segment LOS analysis. 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.

**Table 5.11-17  
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
		<b>1. PCH, John Tyler Dr to Malibu Cyn Rd</b>					
- eastbound	2D	11.2	B	16.0	B	16.8	B
- westbound	2D	9.1	A	15.6	B	19.5	C
<b>2. PCH, Malibu Cyn Rd to Webb Way</b>							
- eastbound	2D	19.4	C	16.9	B	18.7	C
- westbound	2D	9.2	A	17.7	B	18.1	C
<b>3. Malibu Cyn Rd, PCH to Civic Center</b>							
- 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.

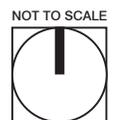
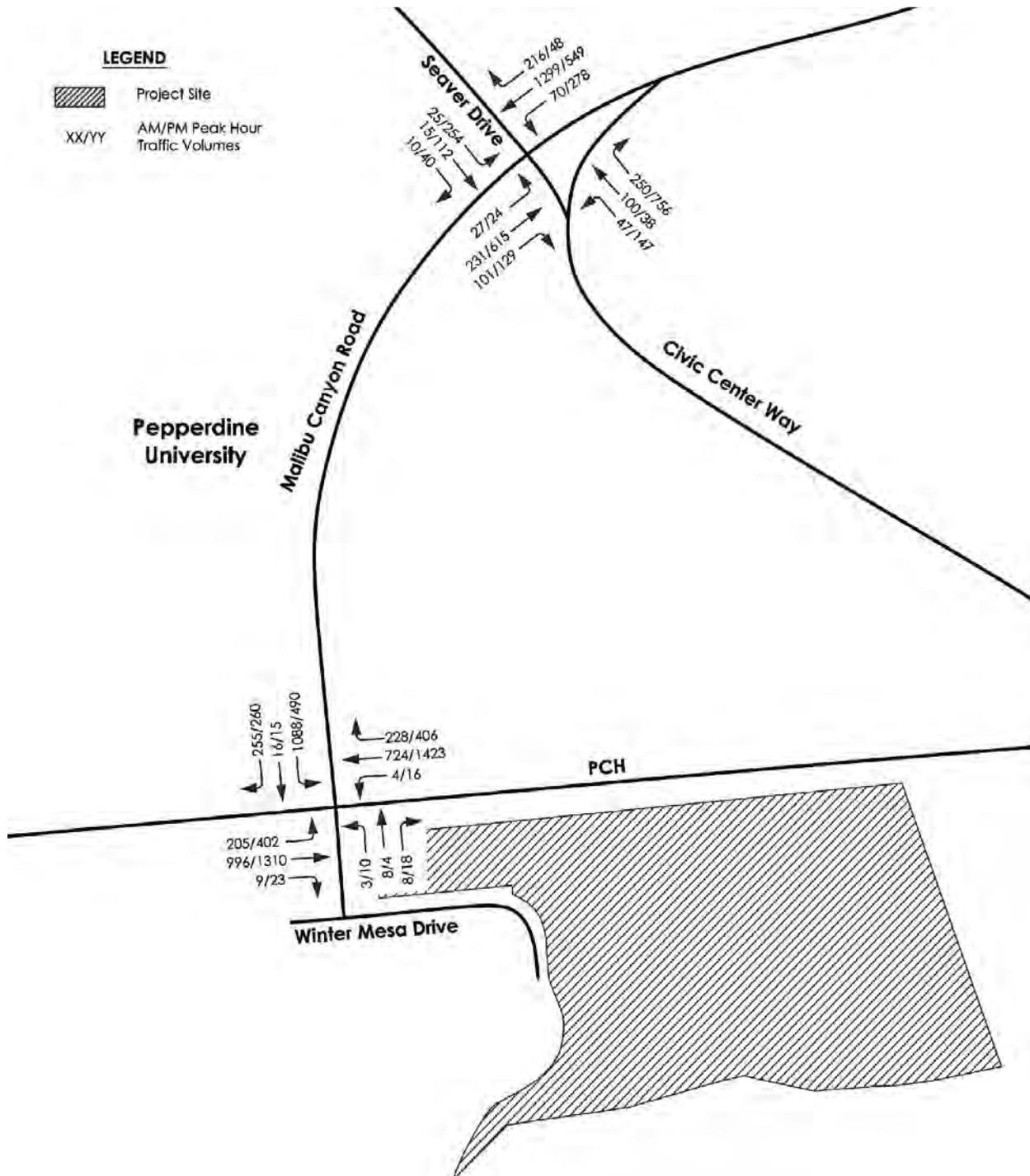
#### Future Year 2030 plus Project

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 were added to the Future Year 2030 Baseline weekday and Saturday peak hour traffic volumes, which resulted in the Future Opening Year 2017 plus Project traffic volumes. Figures 5.11-15 and 5.11-16 illustrate the Future Year 2030 plus Project weekday and Saturday peak hour traffic volumes, respectively.

Year 2030 Baseline, Weekday Peak Hour Traffic



Source: Arch Beach Consulting 2012

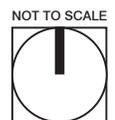
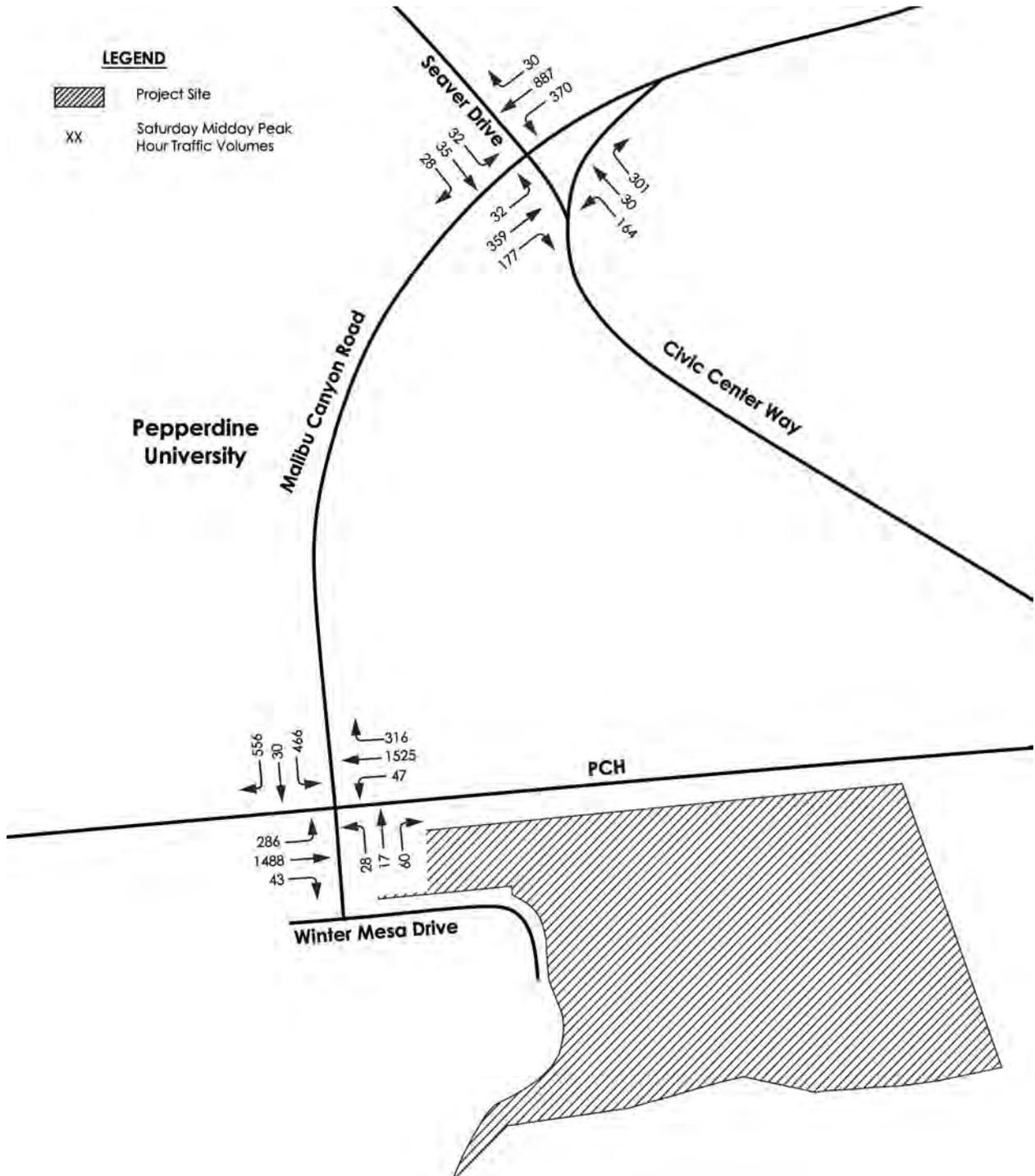
## 5. Environmental Analysis

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### TRANSPORTATION AND TRAFFIC

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Year 2030 Baseline, Saturday Peak Hour Traffic



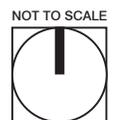
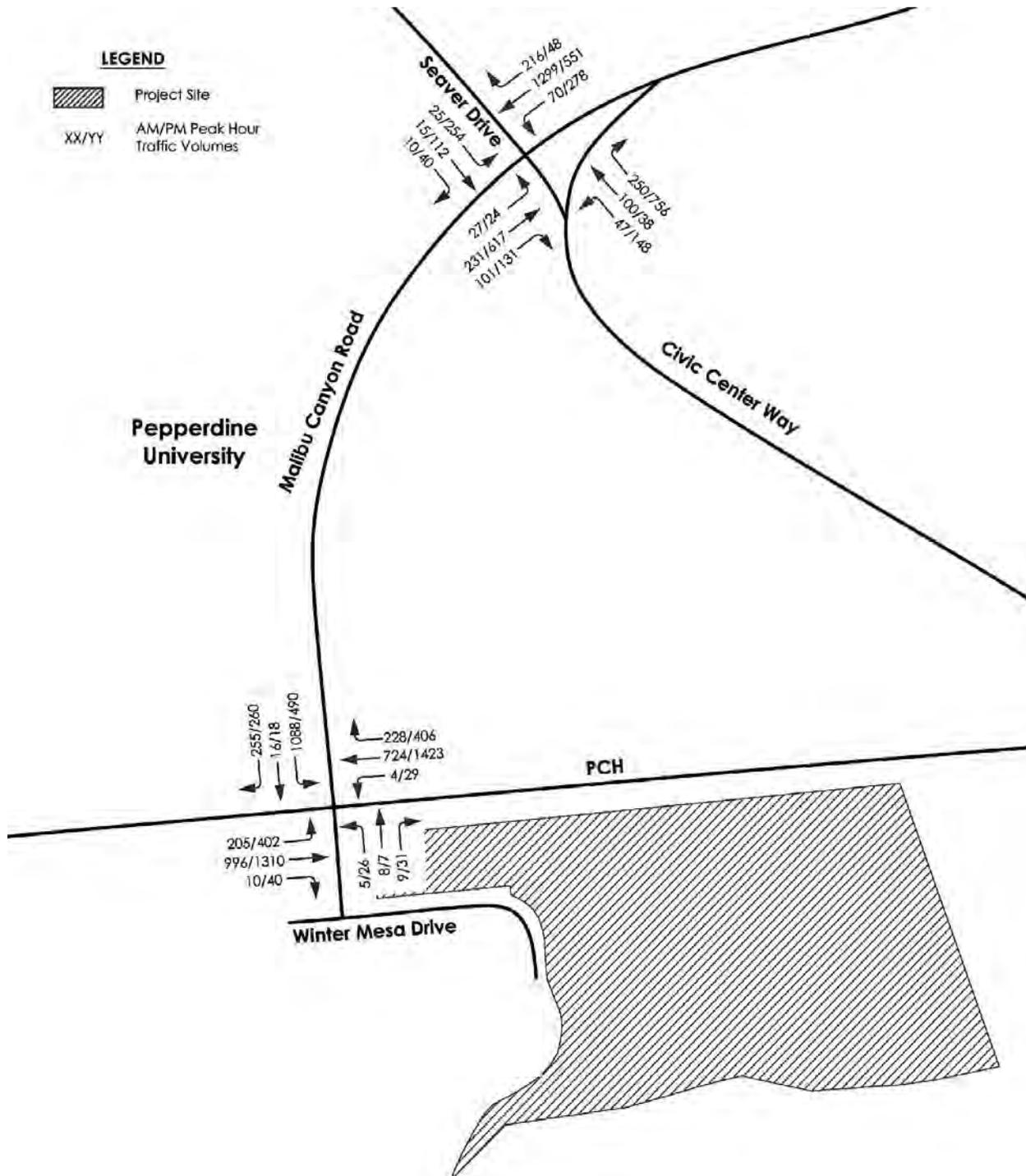
## 5. Environmental Analysis

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Year 2030 plus Project, Weekday Peak Hour Traffic



Source: Arch Beach Consulting 2012

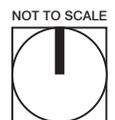
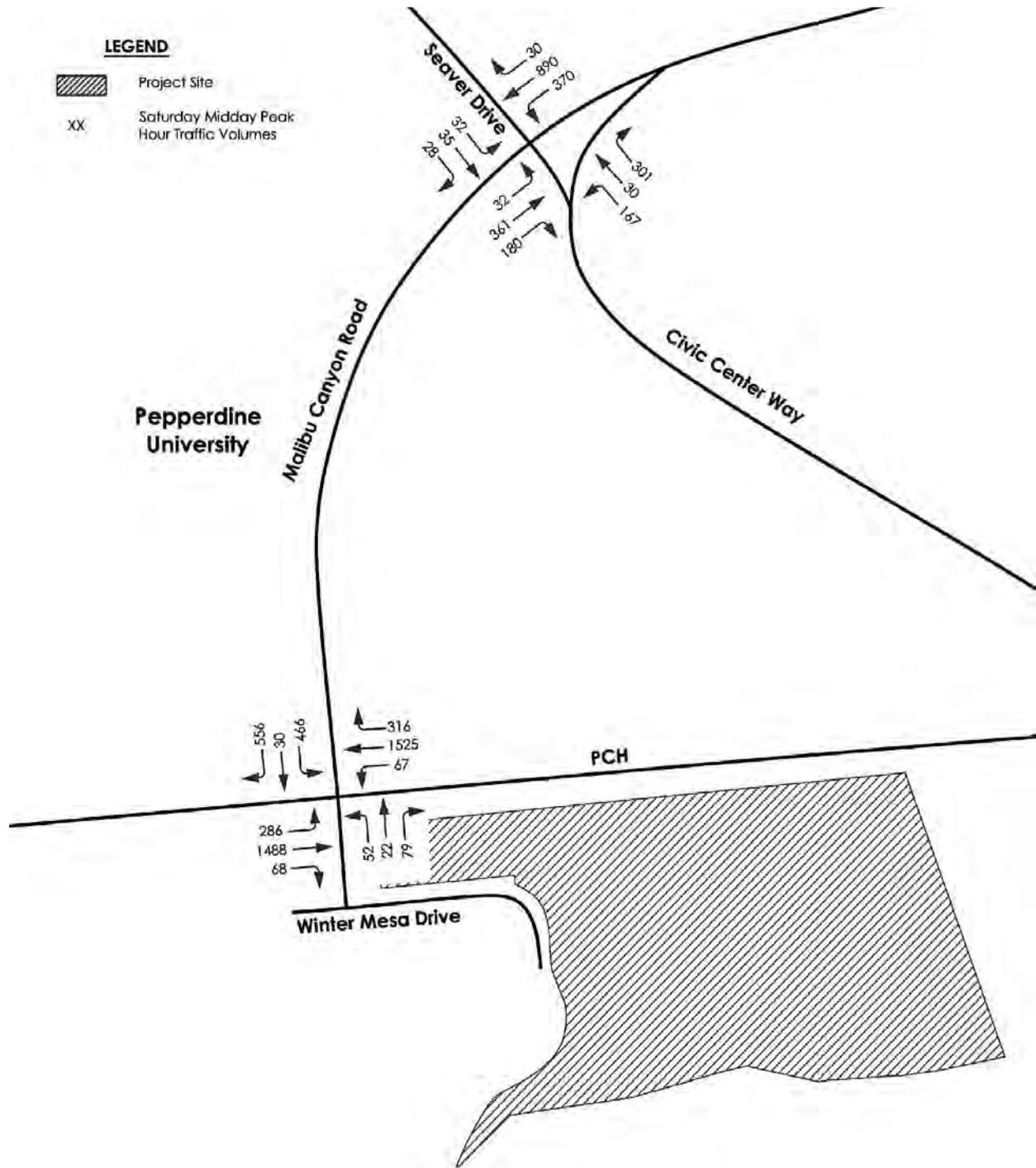
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Year 2030 plus Project, Saturday Peak Hour Traffic



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*Levels of Service*

*Intersections*

Table 5.11-18 presents the results of the Future Year 2030 plus Project intersection LOS analysis. 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 because 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).

*Roadway Segments*

The peak hour roadway segment volumes were analyzed using the HCM Multilane Highway Operations method per City guidelines. Table 5.11-19 presents the results of the Future Year 2030 plus Project roadway segment LOS analysis. Based on this analysis, the proposed project would not create any significant impacts to the study area roadway segments because the roadway segments are forecast to operate at LOS C or better with project-added traffic.



## 5. Environmental Analysis

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5. Environmental Analysis  
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Table 5.11-18  
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				
	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	0.895	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 5.11-19  
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				
	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	pcplpm	LOS	AM	PM	Midday
<b>1. PCH, John Tyler Dr to Malibu Cyn Rd</b>															
- 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
<b>2. PCH, Malibu Cyn Rd to Webb Way</b>															
- 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
<b>3. Malibu Cyn Rd, PCH to Civic Center</b>															
- 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

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**Single-Family Homes and Skate Park Development Option**

**Trip Generation**

Trip generation estimates for the proposed project were developed using trip rates provided in ITE’s *Trip Generation* (8th ed.) for weekday daily, a.m. and p.m. peak hours, and Saturday daily and midday peak hour. 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 5.11-20 for the weekday and Table 5.11-21 for a Saturday. As shown, during the weekdays, the project alternative would generate approximately 78 daily trips, 4 a.m. peak hour trips (1 inbound and 3 outbound), and 15 p.m. peak hour trips (8 inbound and 7 outbound).



**Table 5.11-20  
Weekday Project with Skate Park Option 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>

Note: DU = dwelling unit

<sup>1</sup> Trip rates for single-family detached homes are from *Trip Generation* (8<sup>th</sup> ed.), Institute of Transportation Engineers, 2008.

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

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**Table 5.11-21**  
**Saturday Project with Skate Park Option 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>
<small>Note: DU = dwelling unit  <sup>1</sup> Trip rates for single-family detached homes are from <i>Trip Generation</i> (8<sup>th</sup> ed.), Institute of Transportation Engineers, 2008.  <sup>2</sup> Trip generation for baseball field based on operational data provided by City of Malibu staff.</small>					

According to Table 5.11-21, 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**

Figures 5.11-17 and 5.11-18 illustrate the weekday and Saturday, respectively, trip distribution and assignment for the skate park project option.

#### **EXISTING PLUS PROJECT WITH SKATE PARK OPTION**

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

#### *Traffic Volumes*

The project alternative trip assignments for the weekday and Saturday peak hours were added to the Existing Baseline weekday and Saturday peak hour traffic volumes, which resulted in the Existing plus Project with Skate Park Option traffic volumes.

#### *Levels of Service*

##### *Intersections*

Table 5.11-22 presents the results of the Existing plus Project Alternative intersection LOS analysis. Based on 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 because 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 5.11-23 presents the results of the Existing plus Skate Park Option roadway segment LOS analysis. Based on this analysis, the proposed project would not create any significant impacts to the study area roadway segments because the roadway segments are forecast to operate at LOS C or better with project (skate park alternative)-added traffic.

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**Table 5.11-22  
Existing plus Skate Park Option 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 5.11-23  
Existing plus Skate Park Option 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
<b>1. PCH, John Tyler Dr to Malibu Cyn Rd</b>															
- 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
<b>2. PCH, Malibu Cyn Rd to Webb Way</b>															
- 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
<b>3. Malibu Cyn Rd, PCH to Civic Center</b>															
- 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

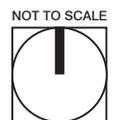
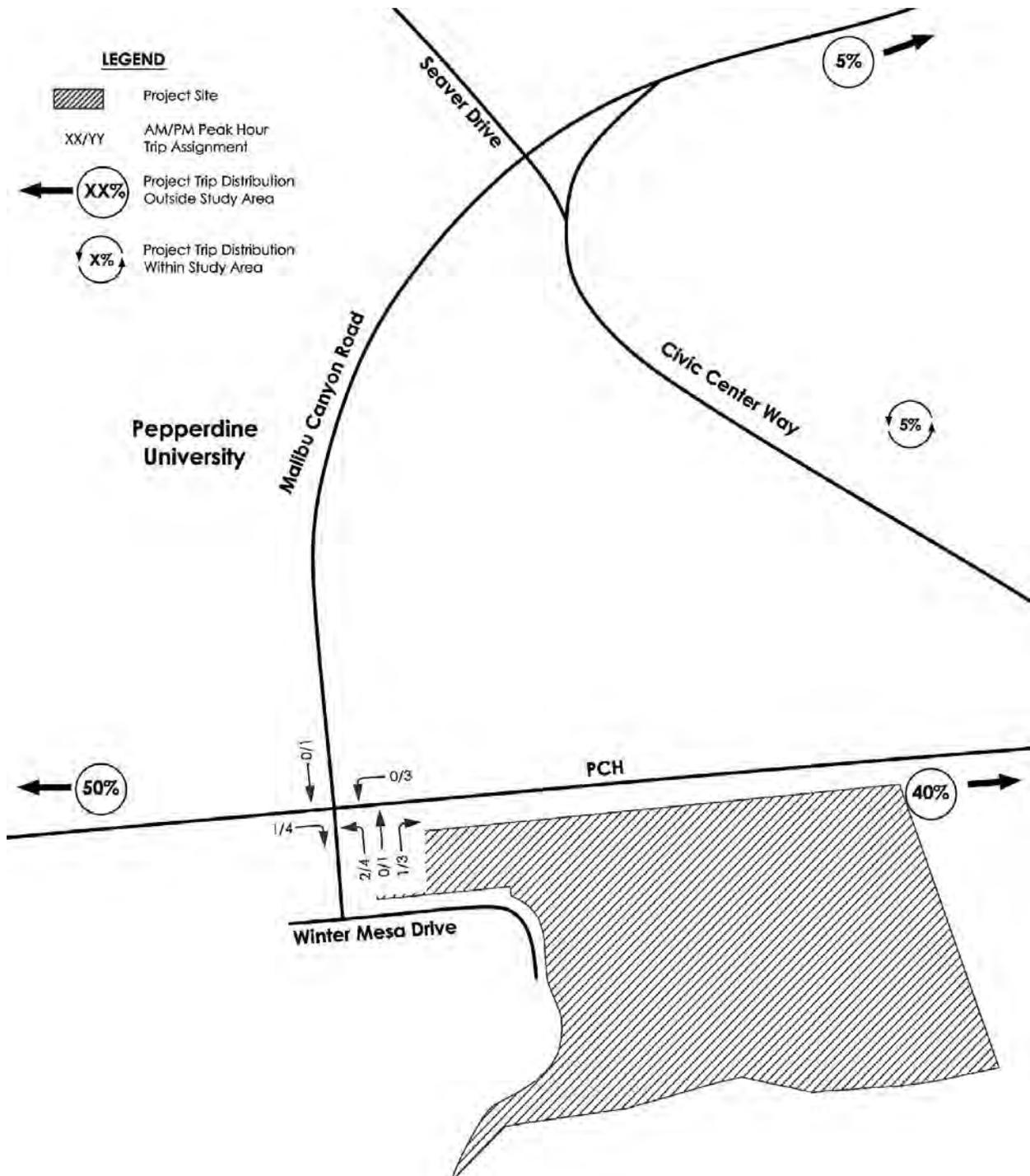
## 5. Environmental Analysis

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# Skate Park Option, Weekday Peak Hour Trips



Source: Arch Beach Consulting 2012

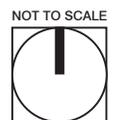
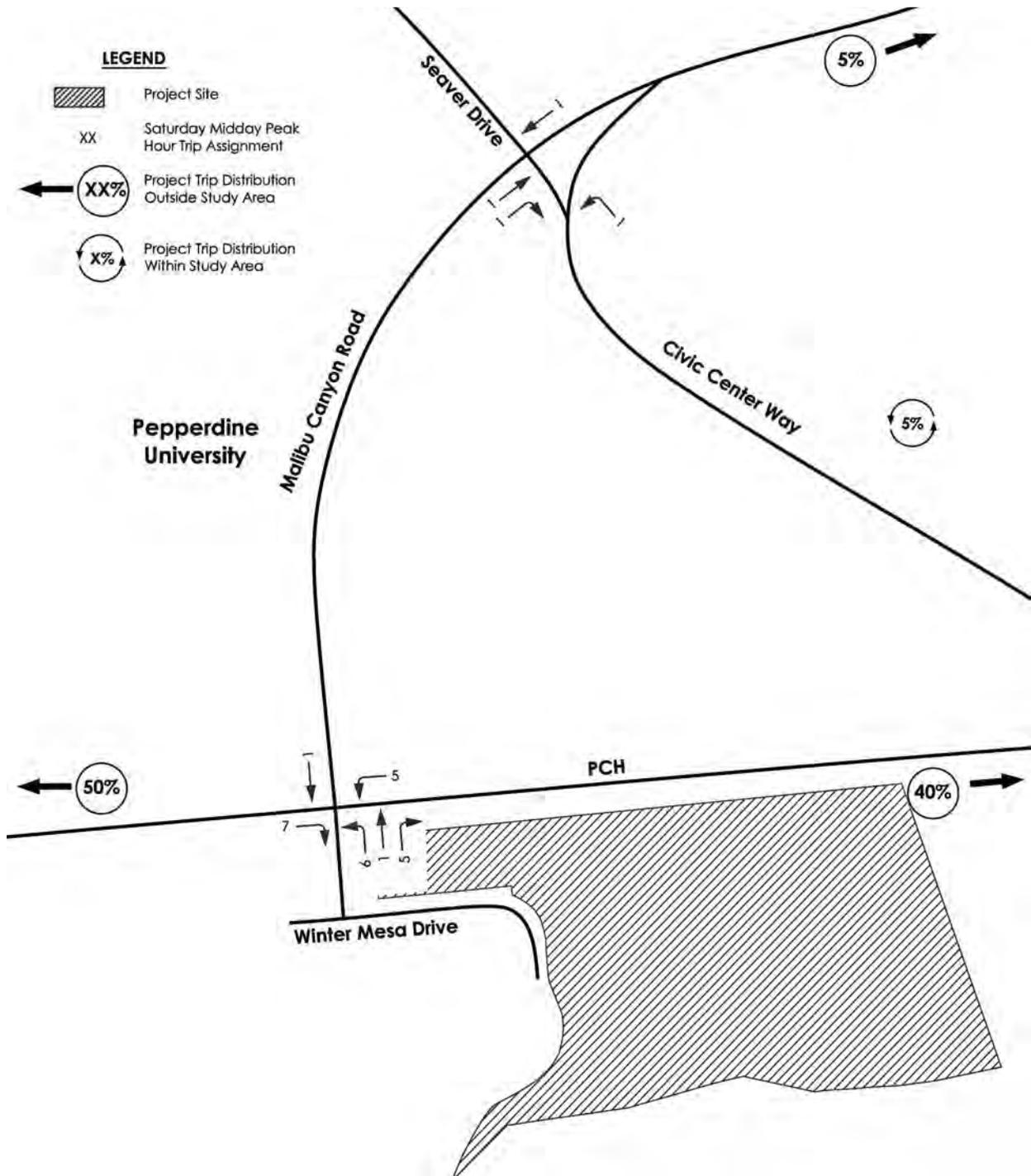
## 5. Environmental Analysis

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# Skate Park Option, Saturday Peak Hour Trips



## 5. Environmental Analysis

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**2017 OPENING YEAR PLUS PROJECT WITH SKATE PARK OPTION**

*Traffic Volumes*

The project with skate park option trip assignments for the weekday and Saturday peak hours, were added to the Opening Year 2017 Baseline weekday and Saturday peak hour traffic volumes which resulted in the Opening Year 2017 plus Skate Park Option traffic volumes. Figures 5.11-19 and 5.11-20 illustrate the Opening Year 2017 plus Project with Skate Park weekday and Saturday peak hour traffic volumes, respectively.

*Levels of Service*

*Intersections*

Table 5.11-24 presents the results of the Opening Year 2017 plus Skate Park Option intersection LOS analysis. Based on 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 because 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 5.11-25 presents the results of the Opening Year 2017 plus Alternative roadway segment LOS analysis. Based on this analysis, the proposed project would not create any significant impacts to the study area roadway segments because the roadway segments are forecast to operate at LOS C or better with project with skate park traffic.



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**Table 5.11-24  
Opening Year 2017 plus Project with Skate Park Option 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 5.11-25  
Opening Year 2017 plus Project with Skate Park Option 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
<b>1. PCH, John Tyler Dr to Malibu Cyn Rd</b>															
- 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
<b>2. PCH, Malibu Cyn Rd to Webb Way</b>															
- 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
<b>3. Malibu Cyn Rd, PCH to Civic Center</b>															
- 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

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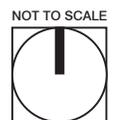
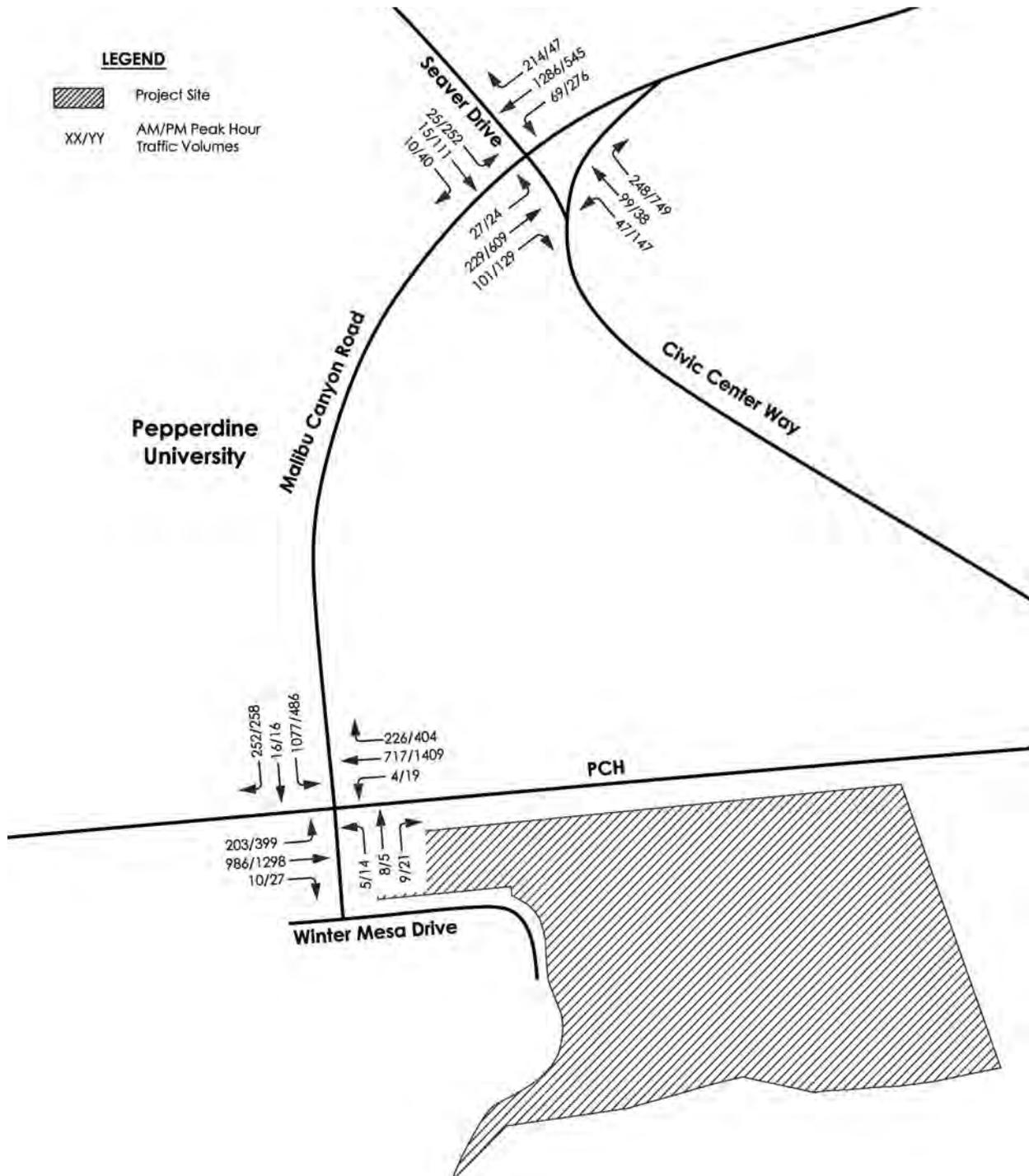
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5. Environmental Analysis

Year 2017 plus Skate Park Option,  
Weekday Peak Hour Traffic



Source: Arch Beach Consulting 2012

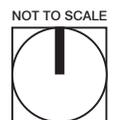
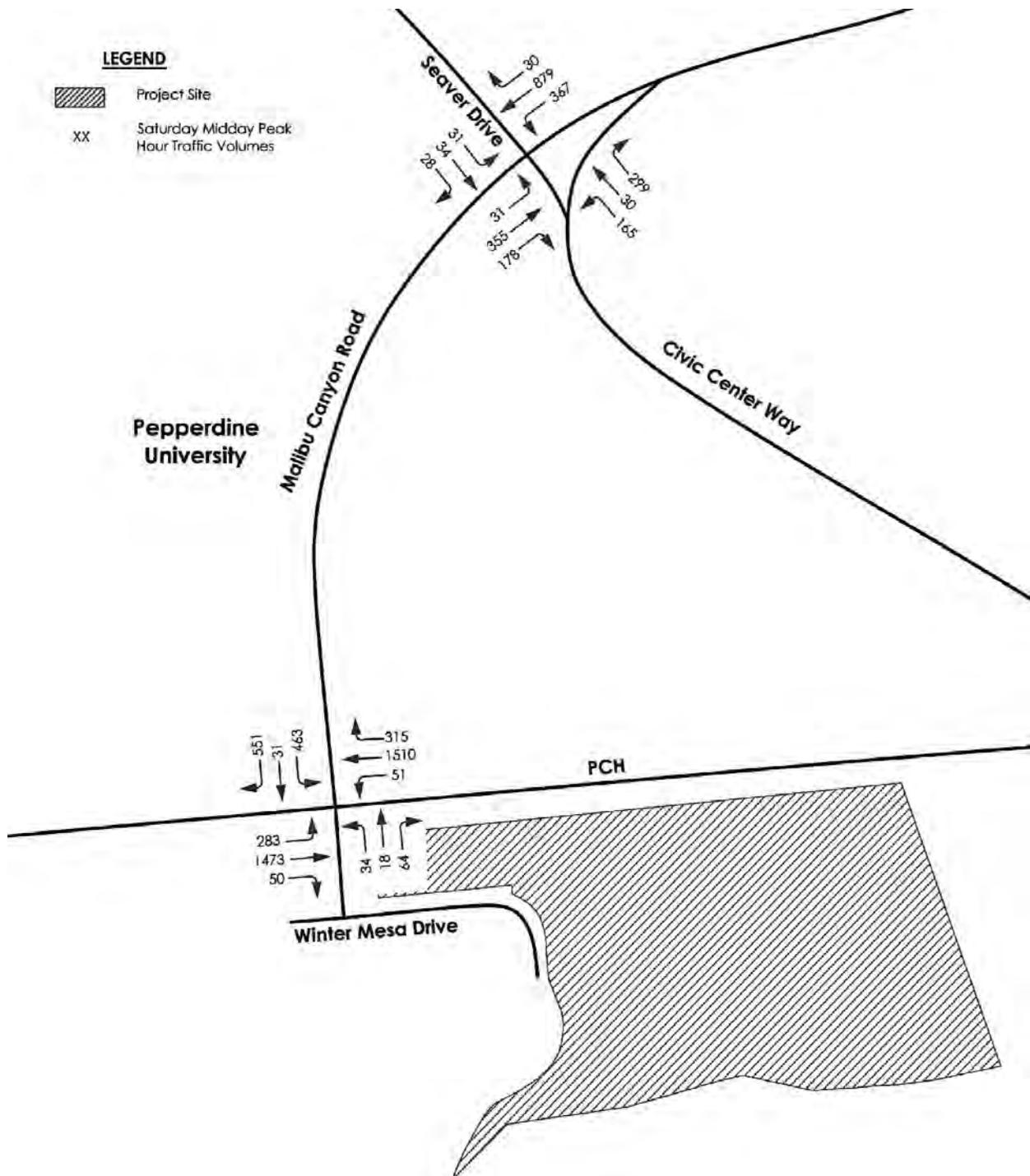
## 5. Environmental Analysis

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### TRANSPORTATION AND TRAFFIC

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*Year 2017 plus Skate Park Option,  
Saturday Peak Hour Traffic*



## 5. Environmental Analysis

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### TRANSPORTATION AND TRAFFIC

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***YEAR 2030 PLUS PROJECT WITH SKATE PARK OPTION***

*Traffic Volumes*

The project with skate park option trip assignments for the weekday and Saturday peak hours were added to the Future Year 2030 Baseline weekday and Saturday peak hour traffic volumes, which resulted in the Future Year 2030 plus project with skate park traffic volumes. Figures 5.11-2 and 5.11-22 illustrate the Opening Year 2017 plus project with skate park weekday and Saturday peak hour traffic volumes, respectively.

***Levels of Service***

*Intersections*

Table 5.11-26 presents the results of the Future Year 2030 plus project with skate park intersection LOS analysis. Based on 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 because 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 5.11-27 presents the results of the Future Year 2030 plus project with skate park roadway segment LOS analysis. Based on this analysis, the proposed project would not create any significant impacts to the study area roadway segments because the roadway segments are forecast to operate at LOS C or better with project with skate park traffic.



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5. Environmental Analysis  
TRANSPORTATION AND TRAFFIC

**Table 5.11-26  
Future Year 2030 plus Project with Skate Park Option 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 5.11-27  
Future Year 2030 plus Project with Skate Park Option 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
<b>1. PCH, John Tyler Dr to Malibu Cyn Rd</b>															
- 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
<b>2. PCH, Malibu Cyn Rd to Webb Way</b>															
- eastbound	19.6	C	17.0	B	18.8	C	19.6	C	17.0	B	18.9	C	0.0	0.0	+0.1
- westbound	9.2	A	17.8	B	18.2	C	9.2	A	17.9	B	18.3	C	0.0	+0.1	+0.1
<b>3. Malibu Cyn Rd, PCH to Civic Center</b>															
- northbound	5.1	A	9.4	A	7.1	A	5.1	A	9.4	A	7.1	A	0.0	0.0	0.0
- southbound	15.7	B	8.8	A	12.1	B	15.7	B	8.8	A	12.2	B	0.0	0.0	+0.1

## 5. Environmental Analysis

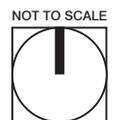
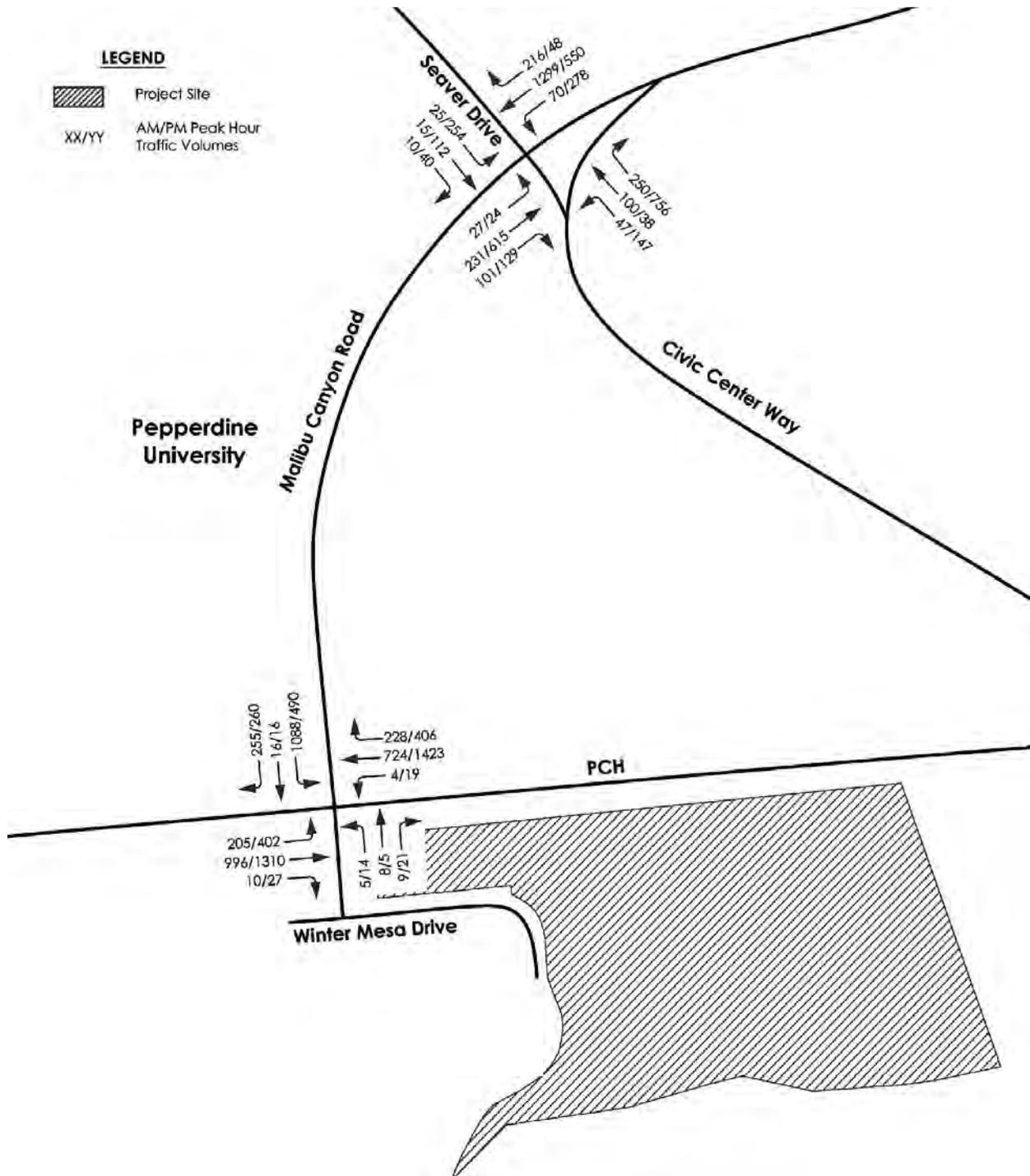
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5. Environmental Analysis

Year 2030 plus Skate Park Option,  
Weekday Peak Hour Traffic



Source: Arch Beach Consulting 2012

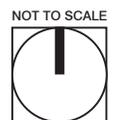
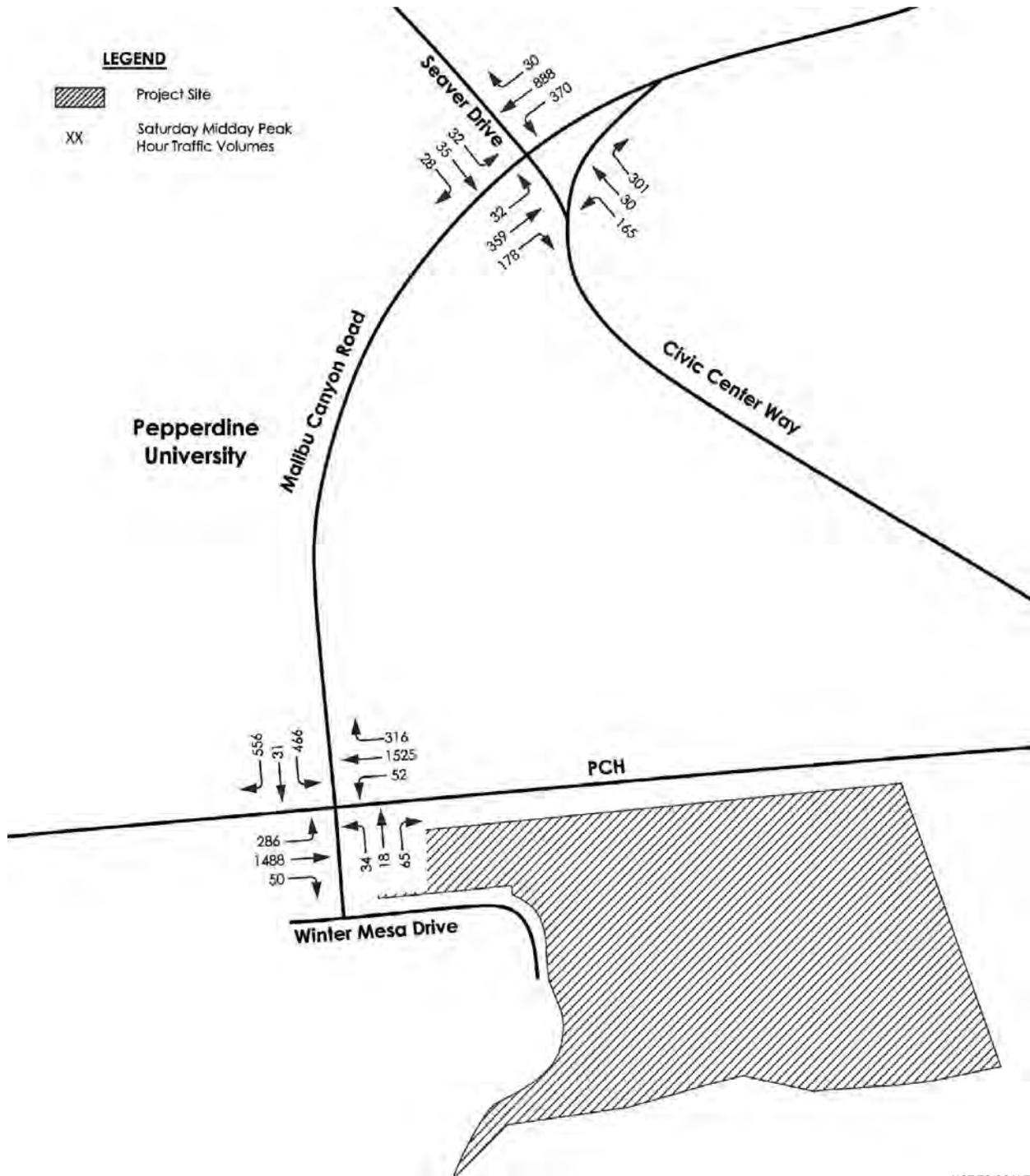
## 5. Environmental Analysis

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# Year 2030 plus Skate Park Option, Saturday Peak Hour Traffic



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## 5. Environmental Analysis

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**IMPACT 5.11-2:** Project-related trip generation in combination with existing and proposed cumulative development would not result in designated road and/or highways exceeding county congestion management agency service standards. [Threshold T-2]

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**Impact Analysis:** Based on the City's TIA Guidelines, the traffic analysis must study all CMP facilities that may be substantially affected by the project in a manner consistent with current CMP guidelines. According to the Guidelines for CMP Transportation Impact Analysis, 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. Because 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 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. Because 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.

The project's impacts are well below the CMP thresholds cited above, and the project would not exceed a level of service standard established by the county congestion management agency. No impacts would occur

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**IMPACT 5.11-3:** Project circulation improvements have been designed to adequately address potentially hazardous conditions (sharp curves, etc.), potential conflicting uses, and emergency access. [Threshold T-4]

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**Impact Analysis:** 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 Road south of Pacific Coast Highway; this would be designed in conformance with the City of Malibu's standards. The project would not result in any sharp curves or dangerous intersections. The proposed residential units and recreation facilities are essentially an expansion or intensification of existing uses in the site vicinity, so 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.

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**IMPACT 5.11-4:** Adequate parking would be provided for the project with skate park or baseball field option. [Threshold T-6]

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**Impact Analysis:**



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#### Project with Baseball Field Alternative

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 envisioned, the new parking lot would have 94 parking stalls (90 standard stalls and 4 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. With 94 parking spaces provided in the proposed parking lot and 40 existing parallel spaces eliminated, the net increase in the overall number of parking spaces would be 54. 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, with an additional 40 vehicles that can be parallel parked along both sides of Winter Mesa Drive. As shown in Table 5.11-28, the total number of parking spaces to serve the existing Malibu Bluffs Park and any future recreational uses would be 175 spaces (81 existing spaces plus 94 proposed spaces).

**Table 5.11-28  
Public Parking Space Summary**

Type	Existing	Proposed	New Grand Total
Standard	77	90	167
Handicapped	4	4	8
Parallel	40	0	0
<b>Total</b>	<b>121</b>	<b>94</b>	<b>175</b>

#### Weekday Peak Parking Demand

The projected weekday peak parking demand for a new baseball field would be 30 vehicles per game, which is based on the assumptions outlined previously in Impact 5.11-1. 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 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 park along Malibu Canyon Road and walk to the baseball field. The analysis does not take into account the 81 existing parking spaces that will remain in place. Since 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 Impact 5.11-1. 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 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. 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 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 onsite.

### **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 125 existing parking spaces at the park. However, during special events or during times when the patronage at the park is particularly heavy, the parking demands cannot be accommodated onsite 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.

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.

### **Project with Skate Park Alternative**

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 would be provided in a new parking lot that is proposed to be constructed between the new skate park and Winter Mesa Drive.

As described above, 94 parking spaces would be provided and 40 existing parallel spaces would be eliminated, for a net increase of 54 parking spaces. 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, and parking impacts would be less than significant.



## 5. Environmental Analysis

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#### 5.11.4 Cumulative Impacts

As discussed in Impact 5.11-1, the traffic analysis that was conducted for the proposed project included a cumulative analysis of the impacts of other proposed development projects. The future baseline traffic conditions without the project for the target year of completion (2017) as well as General Plan Buildout (2030) were estimated by considering the effects of general ambient regional growth as well as the cumulative increase in traffic volumes that would be generated by other development projects proposed in the area. The future baseline traffic volume projections included the increased levels of traffic that would occur at the study area roadways and intersections as a result of the cumulative traffic that would be generated by other proposed development projects, which were provided by staff at the City of Malibu.

Based on the Future Year 2030 plus Project LOS analysis, and the significance criteria of the City, the proposed project with baseball field option 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).

Up to 250 people use the existing Malibu Bluffs Park at any given time, which results in a parking demand of 125 vehicles. 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 demand plus 92 new demand during overlapping games on Saturday). 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 weekdays 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.

Without mitigation, the cumulative impacts would be significant.

#### 5.11.5 Existing Regulations and Standard Conditions

- Los Angeles County CMP
- City of Malibu General Plan
- City TIA Guidelines

#### 5.11.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant:

- Impact 5.11-2      The proposed project would not exceed a level of service standard established by the county congestion management agency.
- Impact 5.11-3      The proposed project would not result in any traffic hazards.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.11-1 The proposed project with baseball field option would result in a substantial increase in traffic in Opening Year 2017 and Future Year 2030.
- Impact 5.11-4 The proposed recreational use would increase the need for parking, which, in combination with special events at Malibu Bluffs Park, or times of peak park use, could result in inadequate parking at the site.
- Cumulative Impacts The proposed project would contribute to a cumulatively significant parking demand impact and to a cumulatively considerable impact to the level of service of the intersection of PCH and Malibu Canyon Road.

### 5.11.7 Mitigation Measures

#### Impact 5.11-1

11-1 Prior to recordation of the final map, the Project Applicant(s) shall construct the following improvements at the intersection of Malibu Canyon Road/PCH (See Draft EIR Figure 5.11-23, *Depiction of Mitigation Measure 11-1*):

- Re-stripe the existing southbound through plus left-turn lane on Malibu Canyon Road (at its intersection with Pacific Coast Highway) 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 on Malibu Canyon Road (at its intersection with Pacific Coast Highway) resulting in LOS E at 0.902 V/C.



#### Impact 5.11-4

11-2 Prior to obtaining the last Building Permit for the recreational facilities, the City Parks and Recreation Department shall prepare and implement a Parking Management Plan that demonstrates that adequate onsite and/or offsite parking shall be provided during special events and/or other times when it is anticipated that Malibu Bluffs Park would operate at over-capacity conditions relative to parking demand. The Parking Management Plan shall preclude the use of the proposed baseball field when Malibu Bluffs Park would operate at over-capacity conditions relative to parking demand. In addition, the Parking Management Plan will require the 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 permitted.

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#### 5.11.8 Level of Significance After Mitigation

Based on the Opening Year 2017 plus Project and Future year 2030 LOS analyses and the City's significance criteria the proposed project would create a significant impact at Malibu Canyon Road/PCH because 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). However, the impact is less than significant based on the County of Los Angeles CMP criteria. Implementation of transportation improvements to Caltrans facilities such as the intersection of Malibu Canyon Road/PCH, is the primary responsibility of Caltrans. 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 Caltrans, the responsible agency for the intersection of Malibu Canyon Road/PCH. While Caltrans has recognized that private development has a role to play in funding fair share improvements to impacts on Caltrans facilities, Caltrans has not adopted a program that can ensure that locally-contributed impact fees will be tied to improvements. Only Caltrans has jurisdiction over improvements to Caltrans facilities. Because Caltrans has exclusive control improvements to the intersection of Malibu Canyon Road/PCH, ensuring that developer fair share contributions to improving this intersection is actually part of a program tied to implementation of mitigation is within the jurisdiction of Caltrans. However, a number of funding programs are in place in Los Angeles to assist in improving and upgrading the regional transportation system. If mitigation measure 11-1 and these programs are not implemented by the agencies with the responsibility to do so, the project's impacts to the intersection of Malibu Canyon Road/PCH, would remain significant and unmitigated for Impact 5.11-1

## Depiction of Mitigation Measure 11-1



0 40  
Scale (Feet)



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