
4. ENVIRONMENTAL IMPACT ANALYSIS

11. TRANSPORTATION AND CIRCULATION

1. TRAFFIC

1. INTRODUCTION

The following section summarizes the information provided in the Traffic Impact Study, SMC Malibu Satellite Campus Project, City of Malibu, California (Traffic Study), prepared by Linscott, Law & Greenspan Engineers, and dated October 17, 2014. The Traffic Study, which is provided as Appendix J to this Draft EIR, evaluated traffic impacts related to the Santa Monica College Malibu Campus Project. This section evaluates the traffic conditions on the existing street and highway network serving the Project Site, and the impact of the traffic generated by the Proposed Project on the future roadway conditions.

2. ENVIRONMENTAL SETTING

a. Regional Network

Primary regional access to the Project Site is provided via the Pacific Coast Highway (SR-1), which is located south of the Project Site. Indirect regional access to the Project Site is provided via Topanga Canyon Boulevard (SR-27), which is located east of the Project Site. Provided below are brief descriptions of the important roadways in the Project vicinity:

Pacific Coast Highway (SR-1) is an east-west oriented roadway that is located south of the Project Site. Pacific Coast Highway is designated as 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. Two through travel lanes are provided in each direction in the Project vicinity. It should be noted that a third eastbound through travel lane is provided at the eastbound approach on Pacific Coast Highway at Webb Way. Exclusive left-turn lanes are provided in both directions at major intersections in the Project vicinity. Dual left-turn lanes are provided in the eastbound direction at the Malibu Canyon Road intersection. Exclusive right-turn only lanes are provided in the westbound direction at the Kanan Dume Road, Malibu Canyon Road, Webb Way, and Las Flores Canyon Road intersections. An exclusive right-turn only lane is also provided in the eastbound direction on Pacific Coast Highway at Webb Way. Curbside parking is generally prohibited on both sides of Pacific Coast Highway in the Project vicinity. Pacific Coast Highway is posted for speed limits of 50 miles per hour west of Malibu Canyon Road and 45 miles per hour east of Malibu Canyon Road.

b. Local Street Network

The local streets serving the Proposed Project are under the jurisdiction of the City of Malibu. Primary access would be provided by streets adjacent to the Proposed Project Site, which includes Civic Center Way. The local street network serving the Project Site is a combination of Civic Center Way with other major streets in the Project vicinity. The streets comprising this street network are described below:

Civic Center Way is an east-west oriented roadway that borders the Project Site to the south. Civic Center Way is classified as a Collector roadway in the Circulation Element of the City of Malibu General Plan. One through travel lane is provided in each direction in the Project vicinity. A free-flow right-turn lane is provided in the westbound direction at the Malibu Canyon Road intersection, and an exclusive right-turn lane is provided in the eastbound direction at the Webb Way intersection. Parking is generally prohibited along both sides of Civic Center Way west of Webb Way, while off-road and curbside parking is accommodated east of Webb Way. Civic Center Way is posted for a speed limit of 40 miles per hour.

Kanan Dume Road is a north-south oriented roadway that is located approximately seven miles west of the Project Site. Kanan Dume Road is classified as a Major Arterial in the Circulation Element of the City of Malibu General Plan. Two through travel lanes are generally provided in each direction, except near the Pacific Coast Highway intersection, where there is only one lane in each direction. An exclusive right-turn lane and dual left-turn lanes are provided in the southbound direction on Kanan Dume Road at the Pacific Coast Highway intersection. A truck arrestor located within the center median is provided in the southbound direction at the Pacific Coast Highway intersection. Parking is allowed along both sides of Kanan Dume Road. Kanan Dume Road is posted for a speed limit of 50 miles per hour within the study area near Pacific Coast Highway.

Malibu Canyon Road is a north-south oriented roadway that is located west of the Project Site. Malibu Canyon Road is classified as a Major Arterial in the Circulation Element of the City of Malibu General Plan. One through travel lane is provided in each direction north of Civic Center Way, while two through travel lanes are provided between Civic Center Way and Pacific Coast Highway. An exclusive right-turn lane, one combination left-turn/through lane and one exclusive left-turn lane are provided in the southbound direction on Malibu Canyon Road at the Pacific Coast Highway intersection. Exclusive left-turn lanes are also provided in both directions on Malibu Canyon Road at the Civic Center Way intersection. Parking is prohibited along both sides Malibu Canyon Road. Malibu Canyon Road is posted for a speed limit of 45 miles per hour within the study area.

Webb Way is a north-south oriented roadway that extends between Civic Center Way and Pacific Coast Highway and is located west of the Project Site. Webb Way is classified as a Collector roadway in the Circulation Element of the City of Malibu General Plan. One through travel lane is provided in each direction in the Project vicinity. Parking is prohibited along both sides of Webb Way. One exclusive left-turn lane is provided in both directions on the roadway at the Pacific Coast Highway intersection. One exclusive right-turn lane is also provided in the southbound direction at the Pacific Coast Highway intersection and in the northbound direction at the Civic Center Way intersection. There is no posted speed limit on Webb Way in the Project vicinity, thus it is assumed to be a prima-facie speed limit of 25 miles per hour, consistent with the State of California Vehicle Code.

Cross Creek Road is a north-south oriented roadway that borders the Project Site to the east. Cross Creek Road is designated as a Collector roadway in the Circulation Element of the City of Malibu General Plan between Pacific Coast Highway and Civic Center Way, while it is designated as a Local roadway north of Civic Center Way. One through travel lane is provided in each direction in the Project vicinity. Parking is allowed along both sides of Cross Creek Road near the Project Site. One exclusive left-turn lane and one exclusive right-turn lane are provided in the southbound direction at the Pacific Coast Highway intersection. One exclusive right-turn lane is also provided in the northbound direction at the Pacific Coast Highway intersection. Cross Creek Road is posted for a speed limit of 25 miles per hour in the

study area.

Carbon Canyon Road is a north-south oriented roadway that is located east of the Project Site. Carbon Canyon Road is designated as a Local roadway in the Circulation Element of the City of Malibu General Plan. Curb parking is generally provided along west side of Carbon Canyon Road in the Project vicinity. Carbon Canyon Road is posted for a speed limit of 30 miles per hour within the study area.

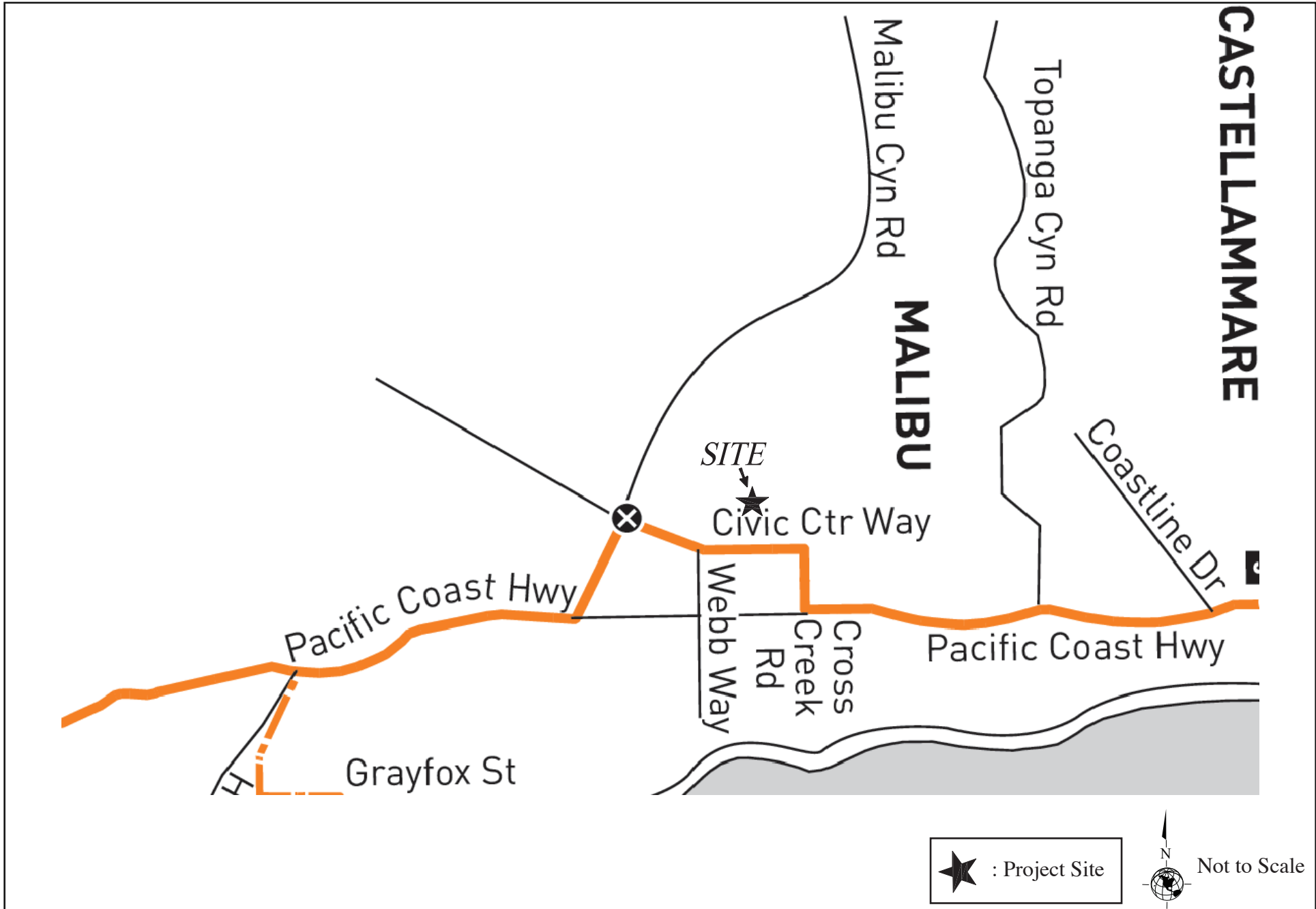
Las Flores Canyon Road is a north-south oriented roadway that is located east of the Project Site. Las Flores Canyon Road is designated as a Local roadway in the Circulation Element of the City of Malibu General Plan. Curb parking is prohibited along both sides of Las Flores Canyon Road in the Project vicinity due to right-of-way constraints, but angled, off-street parking is allowed. Las Flores Canyon Road is posted for a speed limit of 25 miles per hour within the study area.

c. Existing Public Bus Transit Service

Public bus transit service within the vicinity of the proposed SMC Malibu Campus Project is currently provided by the Los Angeles County Metropolitan Transportation Authority (Metro). A summary of the existing transit routes, including the destinations and number of buses during the weekday AM, weekday PM, and Saturday mid-day peak hours is presented in Table 4.11.1. The existing public transit routes in the Project vicinity are illustrated in Figure 4.11.1. The nearest bus stop to the Site is located at the northwest corner of Webb Way/Civic Center Way intersection for Metro Route 534. Metro Route 534 provides a significant means of transportation for much of the working population of the City of Malibu.

**Table 4.11.1
Existing Transit Routes**

Route	Destinations	Roadway(s) near site	No. of Buses during Peak Hours			
			DIR	AM	PM	Sat Mid-Day
Metro Line 534	Los Angeles to Malibu via Santa Monica	Pacific Coast Highway, Las Flores Canyon Road, Cross Creek Road, Civic Center Way, Stuart Ranch Road, Webb Way, Malibu Canyon Road	EB	3	4	2
			WB	4	2	2
			Total	7	6	4
<i>Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014; Los Angeles County Metropolitan Transportation Authority (Metro) website, 2014.</i>						



Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014.

d. Existing Bicycle Routes

Bicycle access is currently provided in the western portion of the City of Malibu, primarily along Pacific Coast Highway.

e. Existing Level of Service

The traffic analysis follows City of Malibu traffic study guidelines and is consistent with the traffic impact assessment guidelines set forth in the Los Angeles County Congestion Management Program.¹ This traffic analysis evaluates potential Project-related impacts at eleven key intersections in the vicinity of the Project Site. The Intersection Capacity Utilization (ICU) method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service at all nine signalized study intersections, and a supplemental Highway Capacity Manual method was used to determine delay values and corresponding Levels of Service for the two stop-sign controlled study intersections. This traffic analysis evaluates potential Project-related impacts at eleven key intersections encompassing a study area that extends from Kanan Dume Road to the west and Las Flores Canyon Road to the east. In addition, a street segment analysis was prepared for two study street segments in the vicinity of the Project. The study intersections and segments were determined in consultation with the City of Malibu Department of Planning staff, as well as the Santa Monica Community College District (SMCCD), the Lead Agency for this Project. Additionally, the intersections evaluated herein were selected for analysis based on comments received by the Lead Agency through the California Environmental Quality Act (CEQA) Notice of Preparation (NOP) process. A review also was conducted of Los Angeles County Metropolitan Transportation Authority freeway and intersection monitoring stations to determine if a Congestion Management Program transportation impact assessment analysis is required for the Proposed Project.

The Traffic Study (i) presents existing traffic volumes, (ii) includes existing traffic volumes with the forecast traffic volumes from the Proposed Project, (iii) forecasts opening cumulative baseline traffic volumes, (iv) forecasts opening traffic volumes with the Proposed Project, (v) determines opening forecast with Project-related impacts, (vi) forecasts future cumulative baseline traffic volumes, (vii) forecasts future traffic volumes with the Proposed Project, (viii) determines future forecast with Project-related impacts, and (ix) recommends mitigation measures, where necessary.

(1) Study Area

Through coordination with City staff, eleven study intersections have been identified for evaluation during the weekday morning and afternoon, as well as the Saturday mid-day peak hours. The eleven study intersections provide local access to the study area and define the extent of the boundaries for this traffic impact analysis. Further discussion of the existing street system and study area is provided below.

The general location of the Project in relation to the study locations and surrounding street system is presented in Figure 4.11.2, Vicinity Map. The traffic analysis study area is generally comprised of those locations which have the greatest potential to experience significant traffic impacts due to the Project as

¹ 2010 Congestion Management Program, Los Angeles County Metropolitan Transportation Authority, 2010.

defined by the Lead Agency. In the traffic engineering practice, the study area generally includes those intersections that are:

- a) Immediately adjacent or in close proximity to the Project Site;
- b) In the vicinity of the Project Site that are documented to have current or projected future adverse operational issues; and
- c) In the vicinity of the Project Site that are forecast to experience a relatively greater percentage of Project-related vehicular turning movements (e.g., at freeway ramp intersections).

The locations selected for analysis were based on the above criteria, Proposed Project peak hour vehicle trip generation, input from City staff, the anticipated distributed of Project vehicular trips, and existing intersection/corridor operations.

Immediate access to the Project Site is provided via Cross Creek Road and Civic Center Way. The following eleven study intersections were selected in consultation with staff from the City of Malibu Planning and Public Works Departments in order to determine potential impacts related to the Proposed Project:

1. Kanan Dume Road/Pacific Coast Highway (SR-1)
2. Malibu Canyon Road/Civic Center Way
3. Malibu Canyon Road/Pacific Coast Highway (SR-1)
4. Winter Canyon Road/Civic Center Way
5. Stuart Ranch Road-Webb Way/Civic Center Way
6. Webb Way/Pacific Coast Highway (SR-1)
7. Cross Creek Road/Civic Center Way
8. Cross Creek Road/Pacific Coast Highway (SR-1)
9. Malibu Pier Signal/Pacific Coast Highway (SR-1)
10. Carbon Canyon Road/Pacific Coast Highway (SR-1)
11. Las Flores Canyon Road/Pacific Coast Highway (SR-1)

Nine of the eleven study intersections selected for analysis are presently controlled by traffic signals. The remaining two study intersections, Stuart Ranch Road-Webb Way/Civic Center Way and Cross Creek Road/Civic Center Way, are presently all-way stop controlled intersections. The location of the eleven study intersections can be found on Figure 4.11.2, Vicinity Map. The existing lane configurations at the eleven study intersections are displayed in Figure 4.11.3, Existing Lane Configuration.

Manual traffic counts of vehicular turning movements conducted in July 2012 were provided by the City of Malibu at each of the eleven study intersections during the weekday morning and afternoon commuter periods and during a weekend day (i.e., Saturday) mid-day period to determine the peak hour traffic volumes. Traffic volumes at the study intersections show the typical peak periods between 7:00 and 9:00 AM generally associated with the peak morning commuter hours, 4:00 and 6:00 PM generally associated with the afternoon commuter hours, and from 11:00 AM to 1:00 PM to determine the Saturday mid-day peak hour. These time periods generally correlate with peak commuter hours in the Los Angeles Basin area, including the City of Malibu. Note that in order to reflect existing (Base Study Year 2014)

conditions, these manual traffic counts were increased at an annual ambient growth rate of 1.5% from 2012 to 2014. In conjunction with the vehicular turning movement counts, pedestrian and bicycle counts were conducted at each intersection. The weekday AM and PM peak period manual counts of vehicle movements at the study intersections are summarized in Table 4.11.2. The existing traffic volumes at the study intersections during the weekday AM and PM peak hours and weekend mid-day peak hour are shown in Figures 4.11.4, 4.11.5, and 4.11.6, respectively.

3. PROJECT IMPACTS

a. Site Access and Circulation

The Proposed Project Site access scheme for the SMC Malibu Campus Project is displayed in Figure 2.4, Site Plan, in Section 2, Project Description. A description of the Proposed Project Site access and circulation scheme is provided in the following subsections.

(1) Vehicular Project Site Access

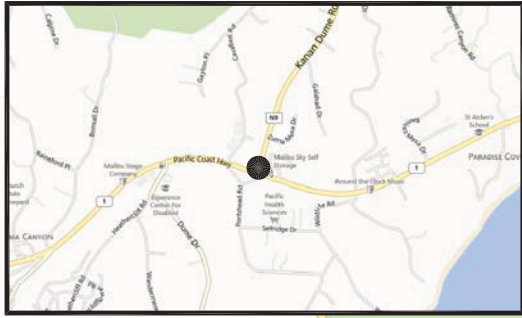
Vehicular access to the existing Civic Center complex is currently provided via four driveways on Civic Center Way. The most easterly driveway on Civic Center Way serves the rear (north) parking area behind the Court facilities and will therefore not serve parking for the SMC Malibu Campus Project. The next driveway to the west serves as the easterly entrance/exit for the surface public parking area located in the front (south) side of the Court and existing Sheriff's Station building. No changes are proposed to this driveway in conjunction with the Project.

To the west, there are currently two driveways along Civic Center Way: one driveway serves the rear parking area behind the existing Sheriff's Station building and the second serves as the westerly entrance/exit for the public parking area in front of the complex. The Project proposes to consolidate the two westerly driveways into a single driveway for entry/exit. The benefits of this proposed consolidation are: 1) eliminates the potential vehicular conflicts related to the current side-by-side configuration of the two existing driveways, and 2) allows for the reconfiguration of the Civic Center public parking area, thereby increasing the number of parking spaces provided. The Project Site Plan (See Figure 2.4 in Section 2, Project Description) reflects the proposed consolidation of the two existing westerly driveways and modification to the front parking area.

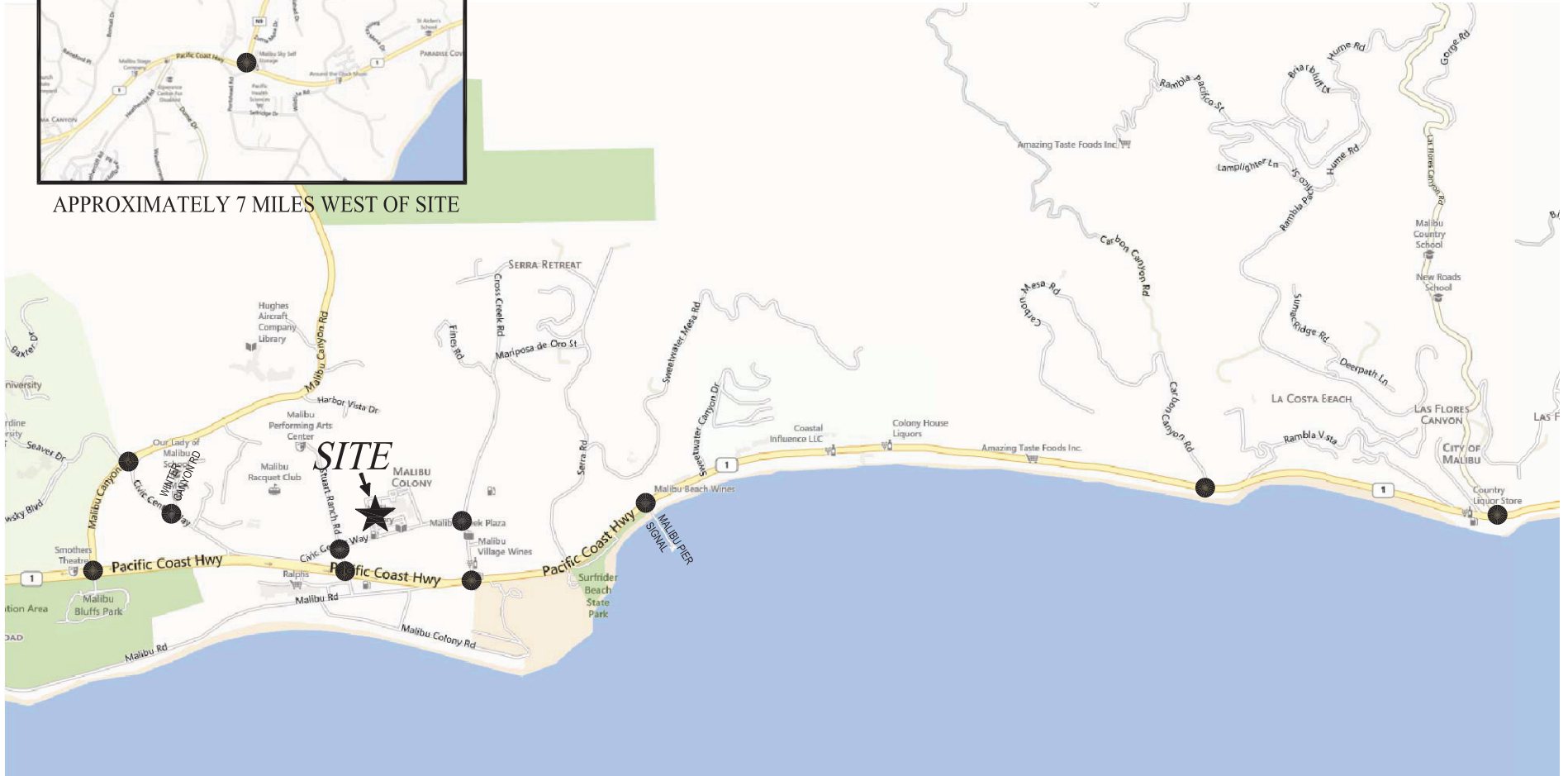
(2) Pedestrian Project Site Access

The Project will be designed to encourage pedestrian activity and walking as a transportation mode.² As indicated in Figure 2.4, Site Plan, the Proposed Project will connect to adjacent sidewalks to promote walkability. Walkability is a term for the extent to which walking is readily available as a safe, connected

² For example, refer to <http://www.walkscore.com/>, which generates a walkability score of approximately 92 (Walker's Paradise) out of 100 for the Project Site. Walk Score calculates the walkability of an address by locating nearby stores, restaurants, schools, parks, etc.



APPROXIMATELY 7 MILES WEST OF SITE



● : Study Intersections

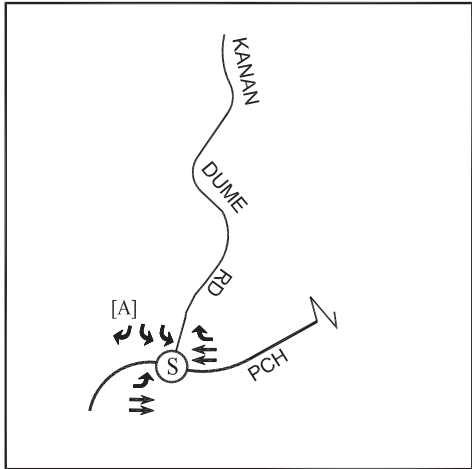


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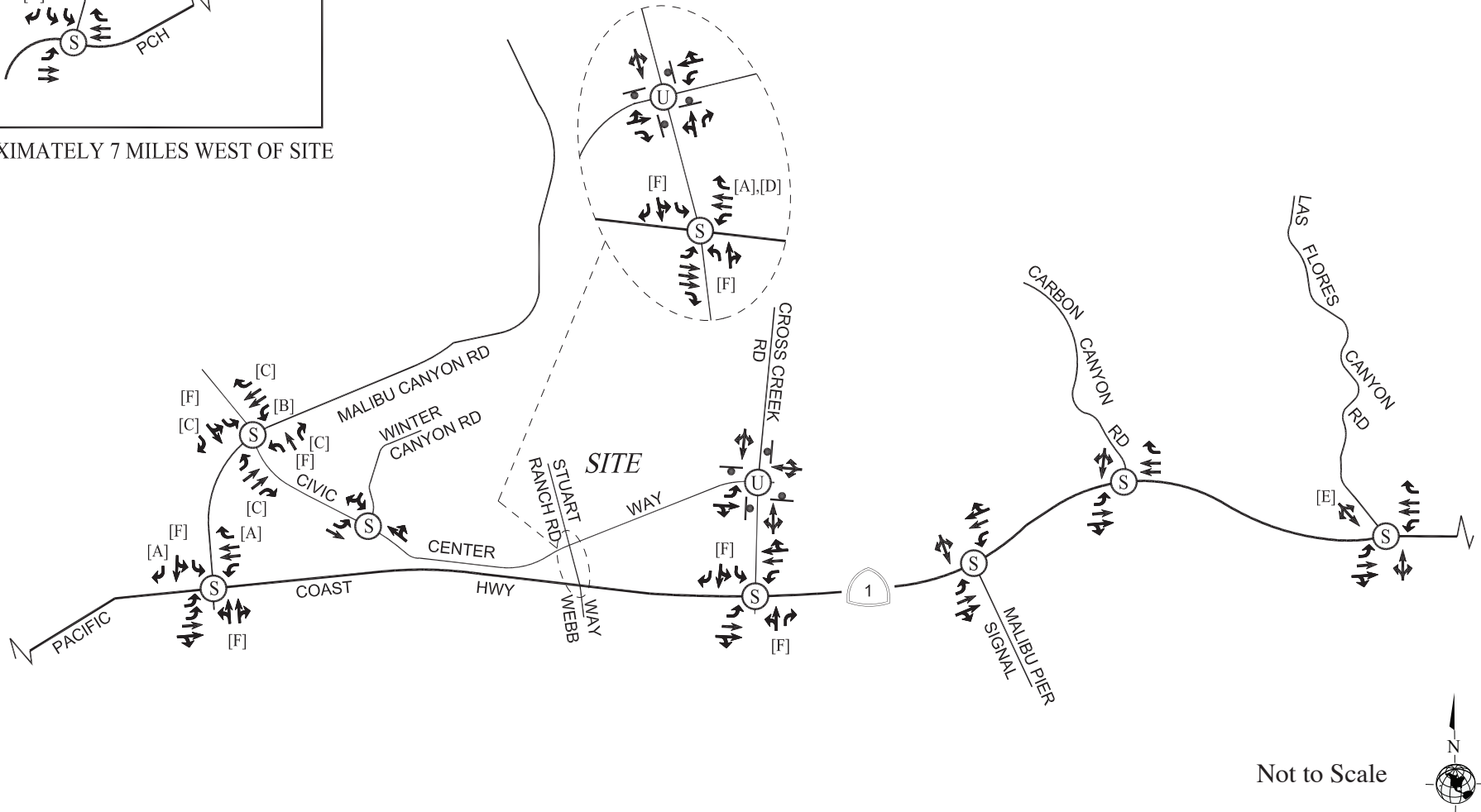
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.2
Vicinity Map



APPROXIMATELY 7 MILES WEST OF SITE



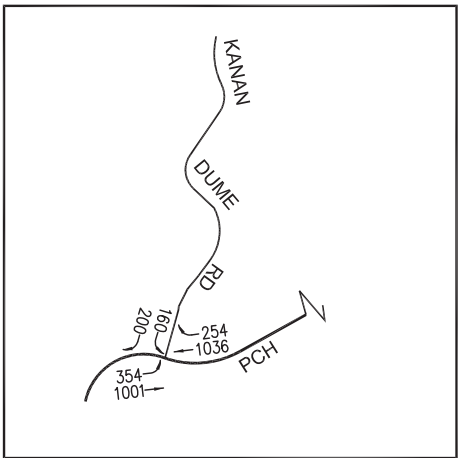
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014

**Table 4.11.2
Existing Traffic Volumes**

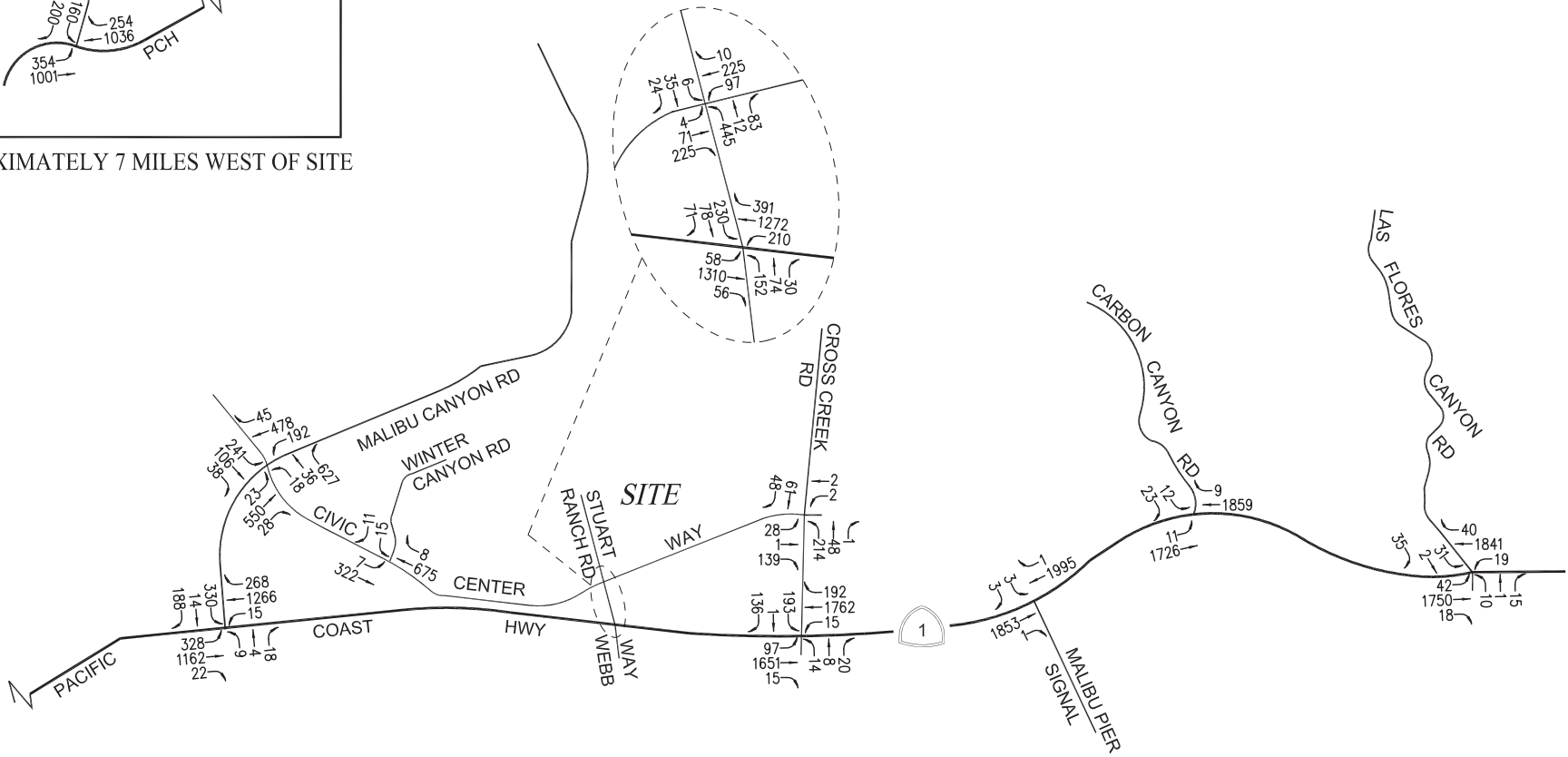
No.	Intersection	Date	Dir.	AM Peak Hour		PM Peak Hour		Sat Mid-day Peak Hour	
				Began	Volume	Began	Volume	Began	Volume
1	Kanan Dume Road/ Pacific Coast Highway (SR-1)	07/12/2012 07/14/2012	NB	8:00	0	4:00	0	12:00	0
			SB		449		349		870
			EB		811		1,316		1,330
			WB		707		1,253		1,393
2	Malibu Canyon Road/ Civic Center Way	07/12/2012 07/14/2012	NB	7:45	248	4:45	583	11:45	347
			SB		1,389		694		1,027
			EB		46		374		87
			WB		316		661		228
3	Malibu Canyon Road/ Pacific Coast Highway (SR-1)	07/12/2012 07/14/2012	NB	8:00	17	4:45	30	12:00	97
			SB		1,187		517		757
			EB		1,027		1,467		1,489
			WB		778		1,504		1,495
4	Winter Canyon Road/ Civic Center Way	07/12/2012 07/14/2012	NB	8:00	0	5:00	0	12:00	0
			SB		22		26		10
			EB		66		320		275
			WB		305		663		230
5	Stuart Ranch Road-Webb Way/ Civic Center Way	07/12/2012 07/14/2012	NB	8:00	378	4:15	525	12:00	283
			SB		12		63		29
			EB		79		291		287
			WB		123		322		188
6	Webb Way/ Pacific Coast Highway (SR-1)	07/12/2012 07/14/2012	NB	8:00	112	4:45	249	12:00	228
			SB		121		368		274
			EB		1,748		1,382		1,490
			WB		1,039		1,819		1,667
7	Cross Creek Road/ Civic Center Way	07/12/2012 07/14/2012	NB	8:00	129	4:15	256	12:00	234
			SB		64		106		65
			EB		84		163		233
			WB		3		4		1
8	Cross Creek Road/ Pacific Coast Highway (SR-1)	07/12/2012 07/14/2012	NB	8:00	7	4:45	41	12:00	68
			SB		143		320		325
			EB		1,726		1,712		1,616
			WB		1,135		1,912		1,858
9	Malibu Pier Signal/ Pacific Coast Highway (SR-1)	07/12/2012 07/14/2012	NB	7:30	0	4:45	0	12:00	0
			SB		0		6		5
			EB		1,674		1,800		1,673
			WB		1,203		1,938		1,880
10	Carbon Canyon Road/ Pacific Coast Highway (SR-1)	07/12/2012 07/14/2012	NB	8:00	0	4:15	0	12:00	0
			SB		27		34		32
			EB		1,533		1,687		1,494
			WB		1,213		1,814		1,811
11	Las Flores Canyon Road/Pacific Coast Highway (SR-1)	07/12/2012 07/14/2012	NB	7:45	1	4:30	26	12:00	34
			SB		76		66		77
			EB		1,558		1,757		1,496
			WB		1,227		1,844		1,815


[1] Counts conducted by City of Malibu

Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014.



APPROXIMATELY 7 MILES WEST OF SITE



Not to Scale 

Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.5
Existing Traffic Volumes: Weekday PM Peak Hour

accessible and pleasant mode of transport.³

A review of the Project Site location and pedestrian walkway network indicates that these five primary characteristics are accommodated as part of the Proposed Project. The Project Site is accessible from nearby public bus transit stops (serving Metro Line 534), as well as other amenities along Civic Center Way including commercial uses that may be patronized by users of the Proposed Project.

b. Traffic Forecasting and Impact Methodology

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

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

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

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

The nine signalized study intersections were evaluated using the Intersection Capacity Utilization (ICU) method of analysis for signalized intersections based on the City's traffic study guidelines. Specifically, the ICU method was used to determine Volume-to-Capacity ratios and corresponding Levels of Service. The ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and dual left-turn capacity of 2,880 vph. Additionally, a clearance adjustment factor of 0.05 was added to each Level of Service calculation.

In addition, the two unsignalized study intersections (Stuart Ranch Road-Webb Way/Civic Center Way and Cross Creek Road/Civic Center Way) were also analyzed using the methodology included in the Highway Capacity Manual (HCM). This methodology estimates the average control delay for each of the

³ *Government of New Zealand, Pedestrian Network Planning and Facilities Design Guide, Chapter 4, www.ltsa.govt.nz website.*

subject movements and determines the level of service for each constrained movement. Average control delay for any particular movement is a function of the capacity of the approach and the degree of saturation. The overall average control delay is measured in seconds per vehicle. For an all-way stop controlled intersection, the overall intersection delay is subsequently assigned a Level of Service (LOS) value to describe intersection operations.

c. Thresholds of Significance

The relative impact of the added Project traffic volumes to be generated by the proposed SMC Malibu Campus Project during the weekday AM and PM peak hours and Saturday midday peak hour was evaluated based on analysis of existing-plus-Project and future operating conditions at the study intersections, without and with the Proposed Project. The previously discussed capacity analysis procedures were utilized to evaluate the future v/c relationships, potential delay increases, and service level characteristics at each study intersection.

The significance of the potential impacts of Project generated traffic at each study intersection was identified using criteria provided by the City of Malibu for those study intersections. According to the City’s criteria for calculating the level of impact due to traffic generated by the Proposed Project, a significant transportation impact is determined based on the criteria presented in Table 4.11.3 and Table 4.11.4 for signalized and unsignalized intersections, respectively.

**Table 4.11.3
City of Malibu
Signalized Intersection Impact Threshold Criteria**

Pre-Project v/c	Level of Service	Project Related Increase in v/c
0.71-0.80	C	Equal to or greater than 0.040
0.81 – 0.90	D	Equal to or greater than 0.020
0.91 or more	E or F	Equal to or greater than 0.010
<i>Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014.</i>		

**Table 4.11.4
City of Malibu
Unsignalized Intersection Impact Threshold Criteria**

Project Related Increase in Delay	Final LOS
5 or more seconds	Degrades to LOS D or worse
<i>Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014.</i>	

The City criteria require mitigation of Project traffic impacts whenever traffic generated by the proposed development causes an increase of the analyzed intersection v/c ratio by an amount equal to or greater than the values shown above for signalized intersections or for certain Project related increase in delay or degradation in level of service to values shown above for unsignalized intersections.

(1) Traffic Impact Analysis Scenarios

The Level of Service calculations have been prepared for the following scenarios for the study intersections:

- (a) Existing (Based Study Year 2014) conditions.
- (b) Existing With Project Conditions.
- (c) Opening Year Cumulative Year (2017) Pre-Project Conditions including a 1.5 percent (1.5%) annual ambient traffic growth and with completion and occupancy of the related projects.
- (d) Opening Year With Project Conditions including a 1.5 percent (1.5%) annual ambient traffic growth and with completion and occupancy of the related projects.
- (e) Future Cumulative (Build out Year 2030) Pre-Project Conditions including a 0.48 percent (0.48%) annual ambient traffic growth and with completion and occupancy of the related projects.
- (f) Future Cumulative With Project Conditions including a 0.48 percent (0.48%) annual ambient traffic growth and with completion and occupancy of the related projects.

d. Project Traffic Generation**(1) Weekday Project Trip Generation Summary**

Traffic volumes expected to be generated by the proposed SMC Malibu Campus Project during the weekday AM and PM peak hours, as well as on a daily basis, were estimated using rates published in the ITE Trip Generation Manual. ITE Land Use Code 540 (Junior/Community College) and ITE Land Use Code 733 (Government Office Complex) trip generation average rates were used to forecast traffic volumes expected to be generated by the educational facility and Sheriff's Substation, respectively. The ITE trip rates based on building floor area were utilized.

The traffic generation forecast for the Proposed Project is summarized in Table 4.11.5. As summarized in Table 4.11.5, the Project is expected to generate 71 vehicle trips (55 inbound trips and 16 outbound trips) during the weekday AM peak hour. During the weekday PM peak hour, the Project is expected to generate 66 vehicle trips (34 inbound trips and 32 outbound trips). Over a 24-hour period, the Project is forecast to generate 698 daily trip ends during a typical weekday (approximately 349 inbound trips and 349 outbound trips).

**Table 4.11.5
Project Trip Generation**

Land use	Size (GSF)	Daily Trip Ends ^a Volume	AM Peak Hour Volumes			PM Peak Hour Volumes			SAT Daily Trip Ends Volumes	SAT Peak Hour Volumes		
			In	Out	Total	In	Out	Total		In	Out	Total
Community College ^b	19,670	541	44	15	59	29	21	50	221	16	12	28
Sheriff Station ^c	5,610	157	11	1	12	5	11	16	157	5	11	16
PROJECT TOTAL:		698	55	16	71	34	32	66	378	21	23	44

Notes:
^a Trips are one-way traffic movements, entering or leaving
^b ITE Land Use Code 540 (Junior/Community College) trip generation average rates
^c ITE Land Use Code 733 (Government Office Complex) trip generation average rates
 See Traffic Study (Appendix J) for detailed list on trip generation average rates.
 Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014 and ITE "Trip Generation", 8th Edition, 2008

(2) Saturday Project Trip Generation Summary

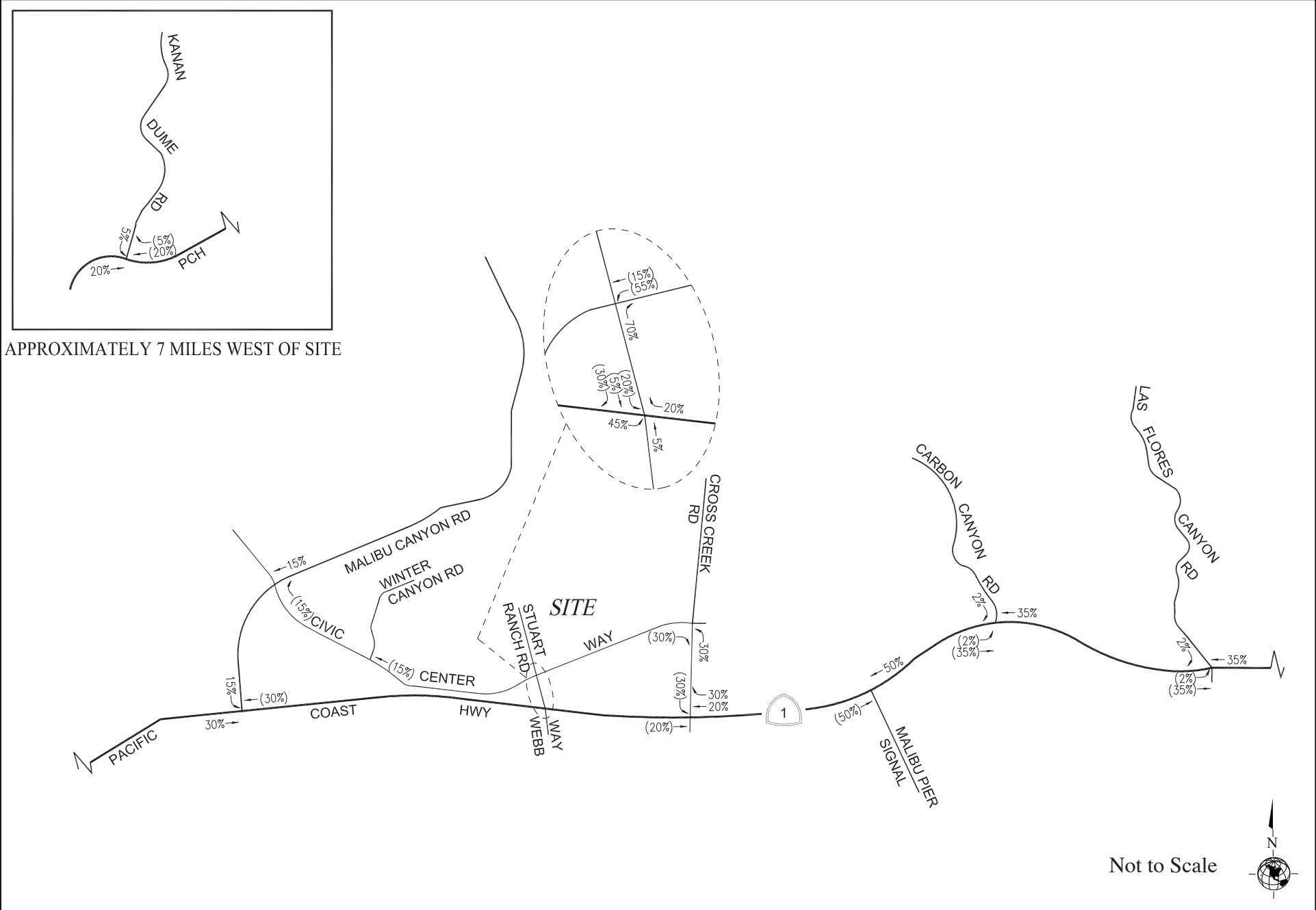
The Saturday trip generation forecast for the Proposed Project is also summarized in Table 4.11.5. As summarized in Table 4.11.5, the Proposed Project is expected to generate a total of 44 vehicle trips (21 inbound trips and 23 outbound trips) during the Saturday mid-day peak hour. Over a 24-hour weekend period, the Proposed Project is forecast to generate a total of 378 vehicle trips (189 inbound trips and 189 outbound trips).

(3) Project Traffic Distribution

The general, directional traffic distribution patterns for the Proposed Project was based on the Proposed Project land use, the development site access scheme, survey of travel routes by existing SMC students currently attending classes at the Webster Elementary School, existing traffic patterns, existing intersection traffic volumes, characteristics of the surrounding roadway system, and nearby population and local schools. The proximity and function of the nearby multi-modal corridors, as well as Secondary and Major Highways, was also considered in the development of the Proposed Project traffic distribution pattern. The weekday AM peak hour Project traffic distribution percentages at the study intersections are illustrated in Figure 4.11.7. The weekday PM peak hour and Saturday mid-day peak hour Project traffic distribution percentages at the study intersections are illustrated in Figure 4.11.8.

(4) Project Traffic Assignment

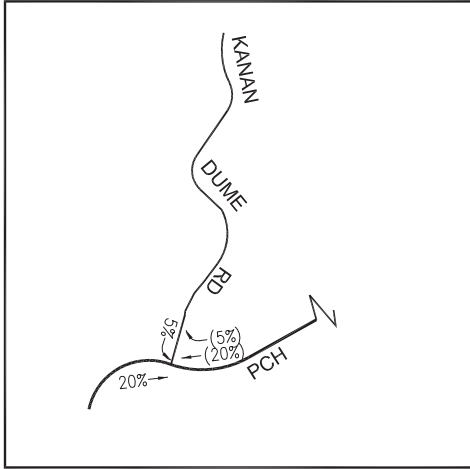
The forecast new weekday AM and PM peak hour traffic volumes at the study intersections associated with the Proposed Project are presented in Figures 4.11.9 and 4.11.10, respectively. The forecast new Saturday mid-day peak hour traffic volumes at the study intersections associated with the Proposed Project are displayed in Figure 4.11.11. The traffic volume assignments presented in Figures 4.11.9, 4.11.10, and 4.11.11 reflect the traffic distribution characteristics shown in Figures 4.11.7 and 4.11.8 and the Project traffic generation forecast presented in Table 4.11.5.



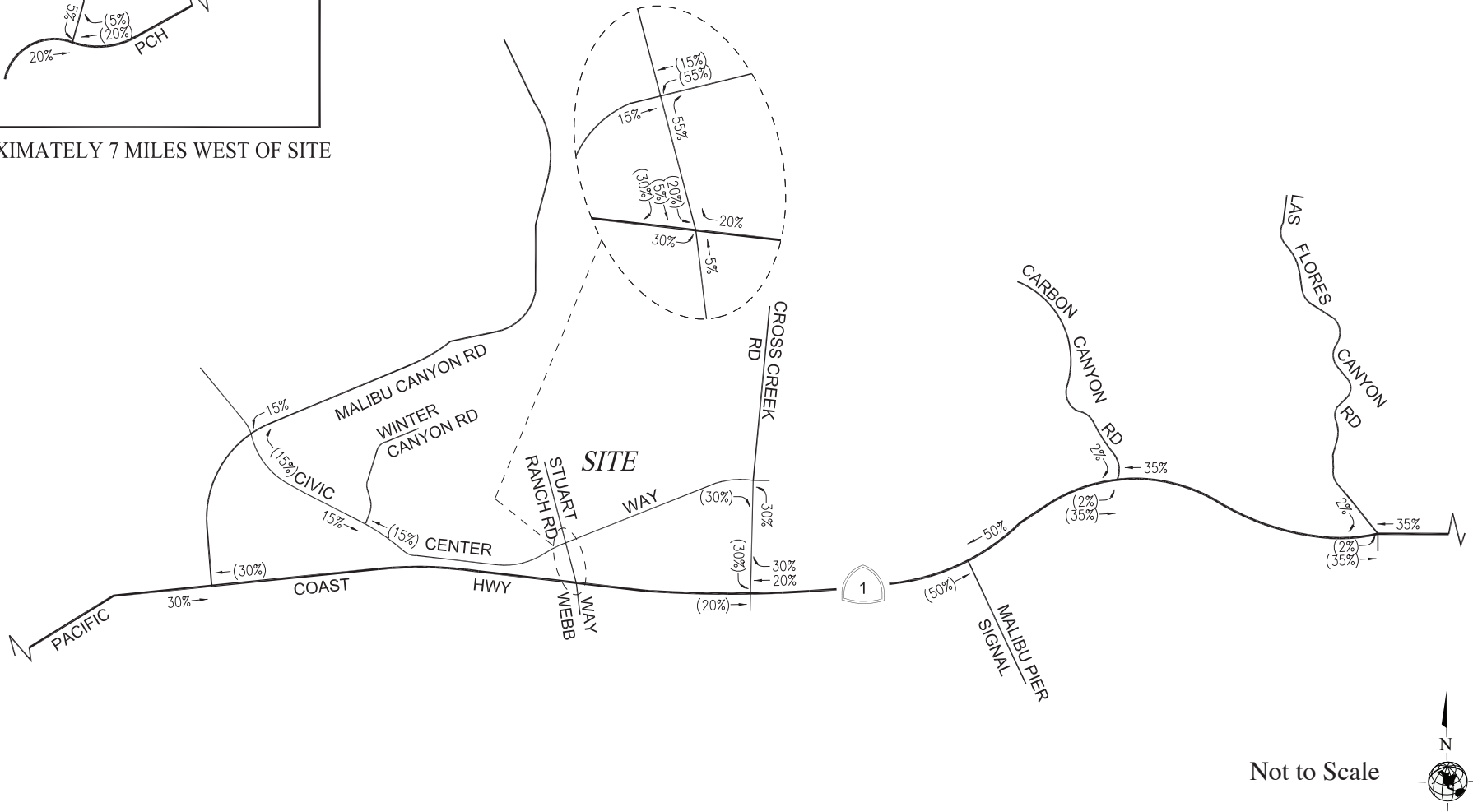
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.7
Project Trip Distribution: Weekday AM Peak Hour



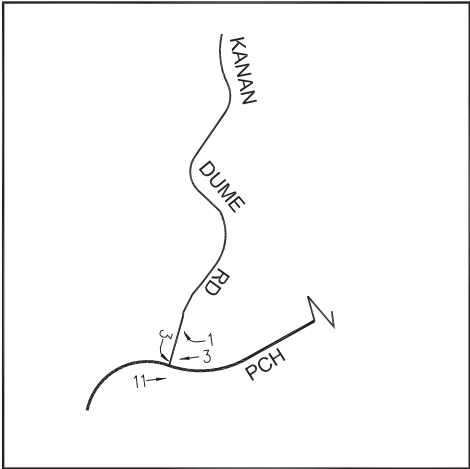
APPROXIMATELY 7 MILES WEST OF SITE



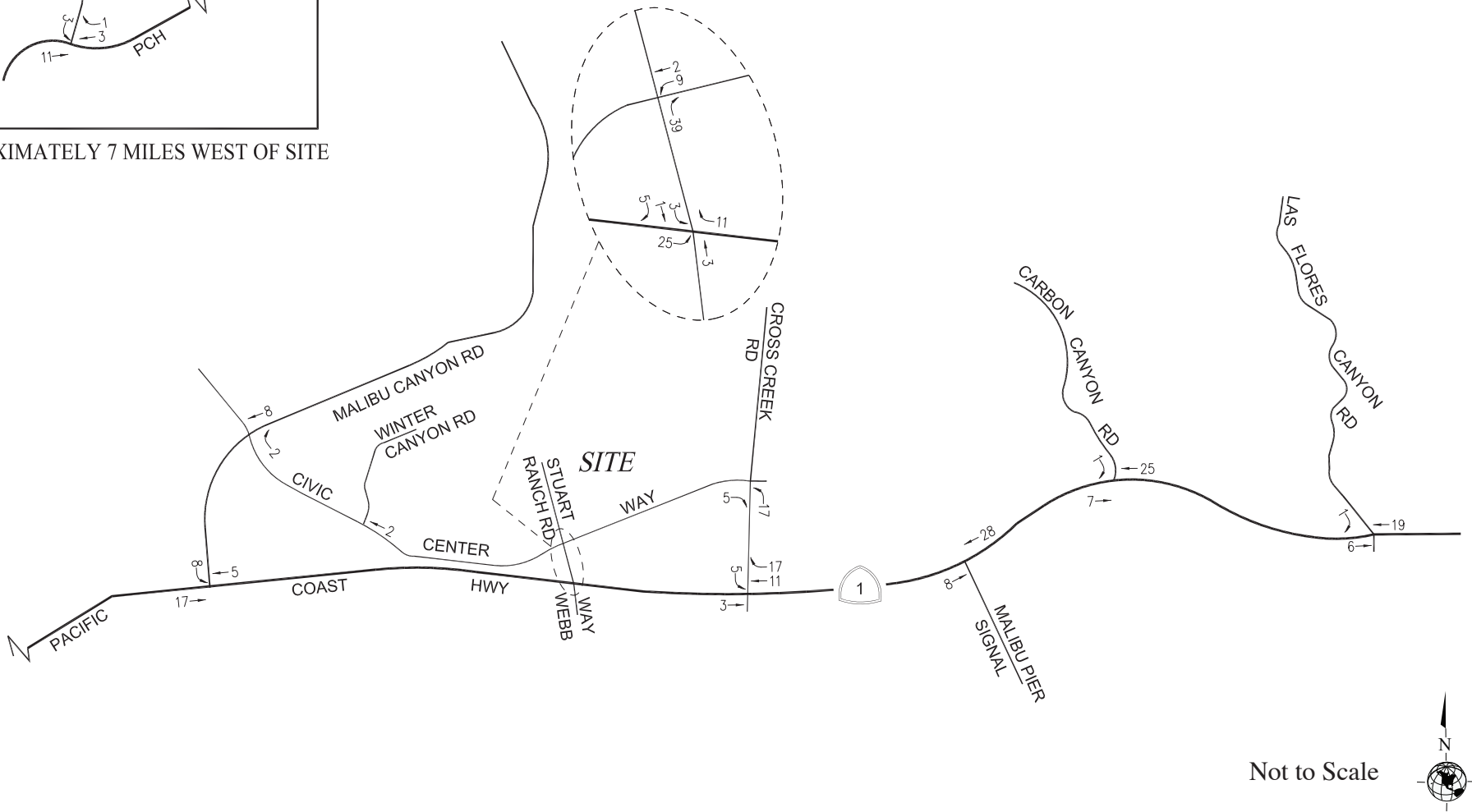
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.8
Project Trip Distribution: Weekday PM and Saturday Mid-Day Peak Hour



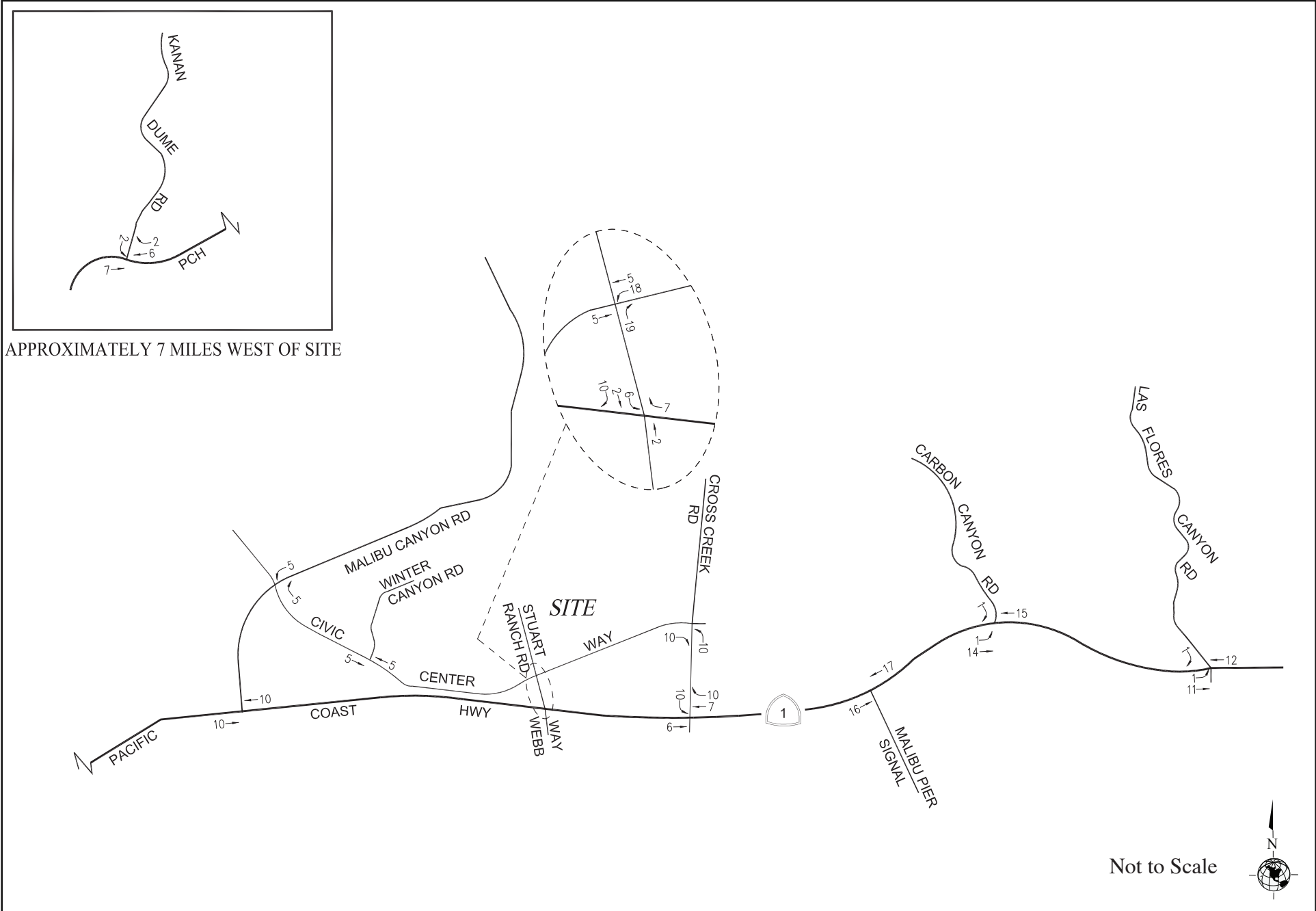
APPROXIMATELY 7 MILES WEST OF SITE



Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



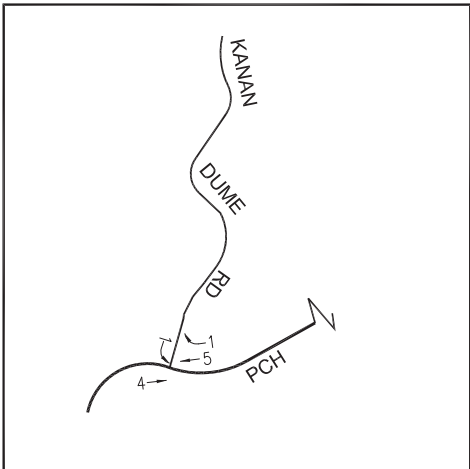
Figure 4.11.9
Total Project Traffic Volumes: Weekday AM Peak Hour



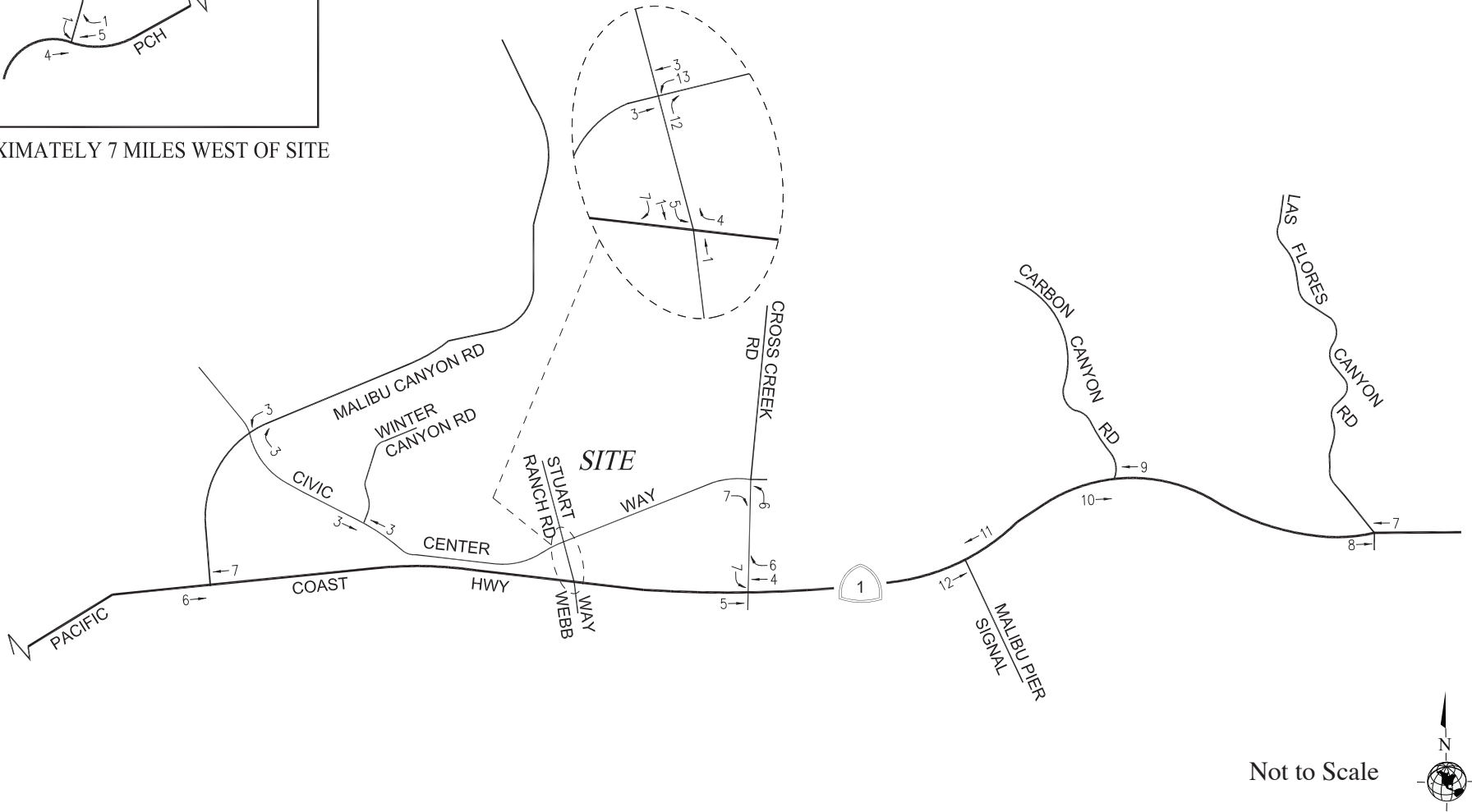
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.10
Total Project Traffic Volumes: Weekday PM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



Not to Scale

Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.11
Total Project Traffic Volumes: Saturday Mid-Day Peak Hour

It is likely that some local students attending classes at the proposed SMC Malibu Campus may otherwise attend classes at SMC's Santa Monica campus, or some other college campus in the Los Angeles area. Thus, some or all of these trips may already occur on the local street system related to students commuting to campuses outside the local Malibu community. However, to provide a conservative "worst case" analysis, no adjustments or "credits" were made in the traffic analysis for these existing trips on the local street system that may instead travel to the future SMC Malibu Campus (i.e., all Project-related trips were assumed to be "new" trips on the local street system). Similarly, no trip credits were taken in the traffic analysis for existing SMC classes conducted at nearby Webster Elementary School (which would presumably end with the completed construction of the Project).

e. Traffic Analysis

The traffic impact analysis prepared for the eleven study intersections using the ICU/HCM methodology and application of the City of Malibu significant traffic impact criteria is summarized in Table 4.11.6 for Existing traffic conditions (year 2012).

(1) Existing Conditions

As indicated in column [1] of Table 4.11.6, all of the eleven study intersections are presently operating at LOS D or better during the weekday AM peak hour, weekday PM peak hour, and Saturday mid-day peak hour under existing conditions. As previously mentioned, the existing traffic volumes at the study intersections during the weekday AM peak hour, weekday PM peak hour and Saturday mid-day peak hour are provided above in Figures 4.11.4, 4.11.5, and 4.11.6, respectively.

(2) Existing With Project Conditions

As shown in column [2] of Table 4.11.6, application of the City's/County's threshold criteria to the "Existing With Project" scenario indicates that the Proposed Project is not expected to create significant impacts at any of the eleven study intersections. Incremental, but not significant, impacts are noted at the study intersections. Because there are no significant impacts, no traffic mitigation measures are required or recommended for the study intersections under the "Existing With Project" conditions. The existing with Project traffic volumes at the study intersections during the weekday AM peak hour, weekday PM peak hour, and Saturday mid-day peak hour are shown in Figures 4.11.12, 4.11.13, and 4.11.14, respectively.

f. Congestion Management Program Traffic Impact Assessment

The Congestion Management Program (CMP) is a state-mandated program that was enacted by the California State Legislature with the passage of Proposition 111 in 1990. The program is intended to address the impact of local growth on the regional transportation system.

As required by the *2010 Congestion Management Program* for Los Angeles County, a Traffic Impact Assessment (TIA) has been prepared to determine the potential impacts on designated monitoring locations on the CMP highway system. The analysis has been prepared in accordance with procedures

**Table 4.11.6,
Summary of Volume to Capacity Ratios/Delays and Levels of Service for Year 2014 (Existing)
Weekday AM, PM and Weekend Mid-Day Peak Hours**

No.	Intersection	Peak Hour	[1]		[2]			
			Year 2014 Existing		Year 2014 Existing w/ Project		Change V/C or Delay [(2)-(1)]	Signif. Impact
			V/C or Delay	LOS	V/C or Delay	LOS		
1	Kanan Dume Road/ Pacific Coast Highway (SR-1) [a]	AM	0.404	A	0.406	A	0.002	NO
		PM	0.651	B	0.653	B	0.002	NO
		SAT	0.820	D	0.822	D	0.002	NO
2	Malibu Canyon Road/ Civic Center Way [a]	AM	0.514	A	0.517	A	0.003	NO
		PM	0.473	A	0.476	A	0.003	NO
		SAT	0.353	A	0.353	A	0.000	NO
3	Malibu Canyon Road/ Pacific Coast Highway (SR-1) [a]	AM	0.659	B	0.666	B	0.007	NO
		PM	0.678	B	0.681	B	0.003	NO
		SAT	0.796	C	0.798	C	0.002	NO
4	Winter Canyon Road/ Civic Center Way [a]	AM	0.268	A	0.269	A	0.001	NO
		PM	0.498	A	0.501	A	0.003	NO
		SAT	0.228	A	0.230	A	0.002	NO
5	Stuart Ranch Road – Webb Way/ Civic Center Way [a]	AM	10.3	B	10.3	B	0.0	NO
		PM	24.4	C	25.0	C	0.5	NO
		SAT	9.9	A	10.0	A	0.1	NO
6	Webb Way/ Pacific Coast Highway (SR- 1) [a]	AM	0.528	A	0.531	A	0.003	NO
		PM	0.675	B	0.684	B	0.009	NO
		SAT	0.685	B	0.691	B	0.006	NO
7	Cross Creek Road/ Civic Center Way [a]	AM	7.8	A	7.9	A	0.1	NO
		PM	9.1	A	9.3	A	0.2	NO
		SAT	9.2	A	9.3	A	0.1	NO
8	Cross Creek Road/ Pacific Coast Highway (SR-1) [a]	AM	0.607	B	0.609	B	0.002	NO
		PM	0.796	C	0.804	D	0.008	NO
		SAT	0.832	D	0.837	D	0.005	NO
9	Malibu Pier Signal/ Pacific Coast Highway (SR-1) [a]	AM	0.588	A	0.591	A	0.003	NO
		PM	0.677	B	0.683	B	0.006	NO
		SAT	0.659	B	0.663	B	0.004	NO
10	Carbon Canyon Road/ Pacific Coast Highway (SR-1) [b]	AM	0.553	A	0.556	A	0.003	NO
		PM	0.660	B	0.666	B	0.006	NO
		SAT	0.659	B	0.662	B	0.003	NO
11	Las Flores Canyon Road / Pacific Coast Highway (SR-1) [a]	AM	0.596	A	0.598	A	0.002	NO
		PM	0.701	C	0.706	C	0.005	NO
		SAT	0.686	B	0.688	B	0.002	NO

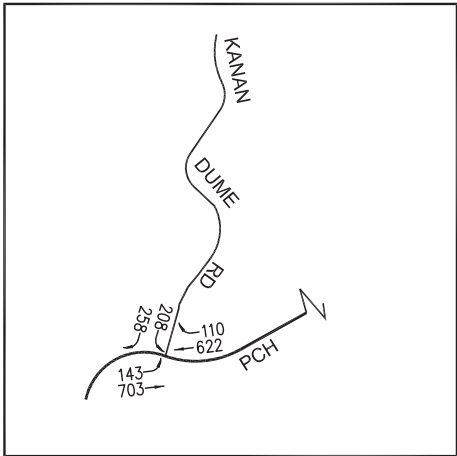
[a] City of Malibu signalized intersection impact threshold criteria is a follows:

<u>Pre-Project v/c</u>	<u>LOS</u>	<u>Project Related Increase in v/c</u>
0.71 – 0.80	C	0.04 or more
0.81 – 0.90	D	0.02 or more
0.91 or more	E/F	0.01 or more

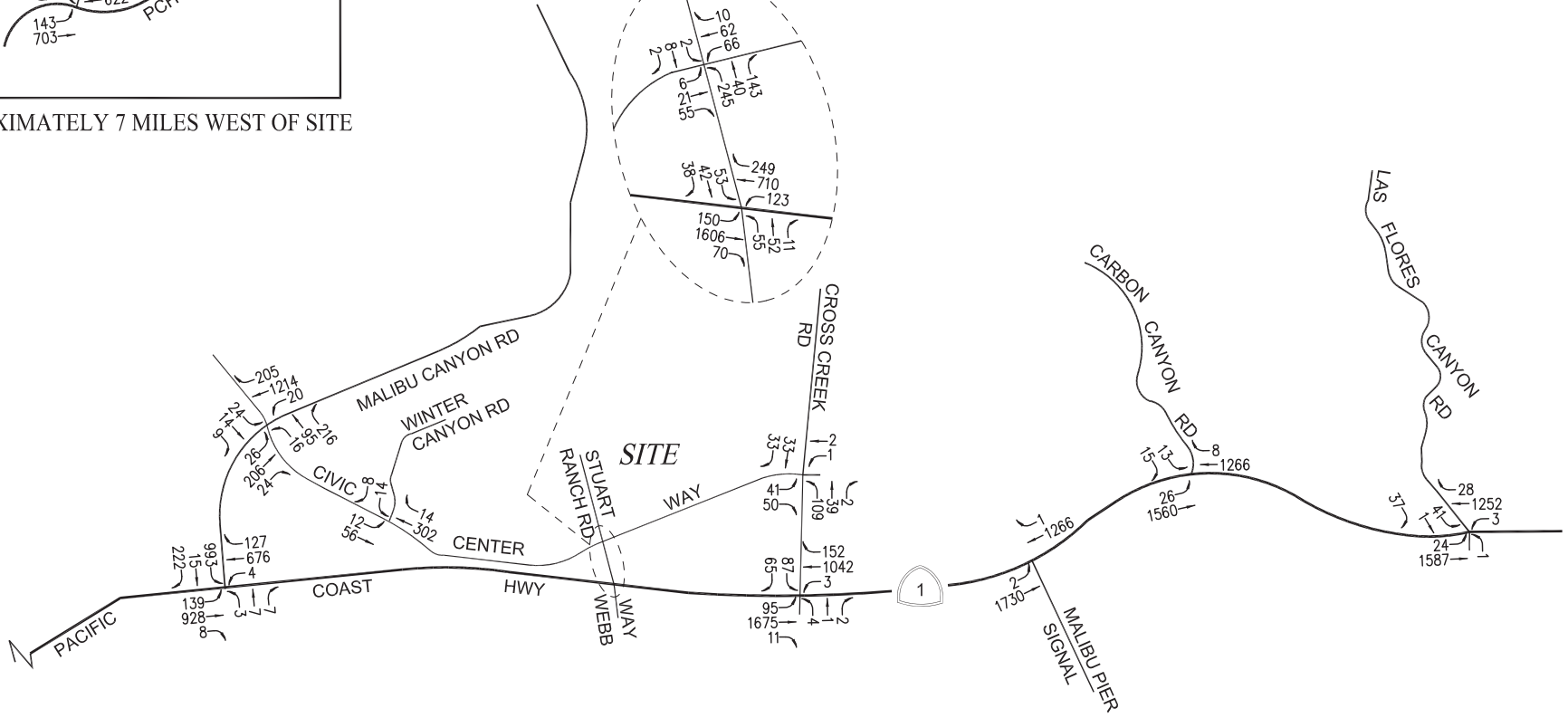
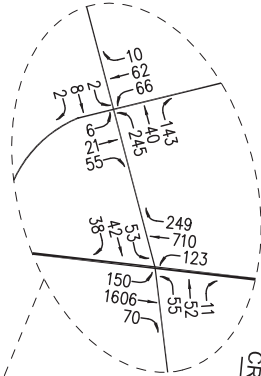
[b] City of Malibu unsignalized intersection impact threshold criteria is a follows:

- Project Related Increase in delay
- 5 or more seconds
- Final LOS
- Degrades to level D or worse

Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014.



APPROXIMATELY 7 MILES WEST OF SITE

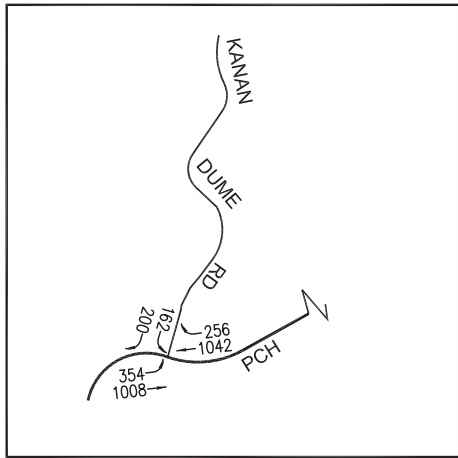


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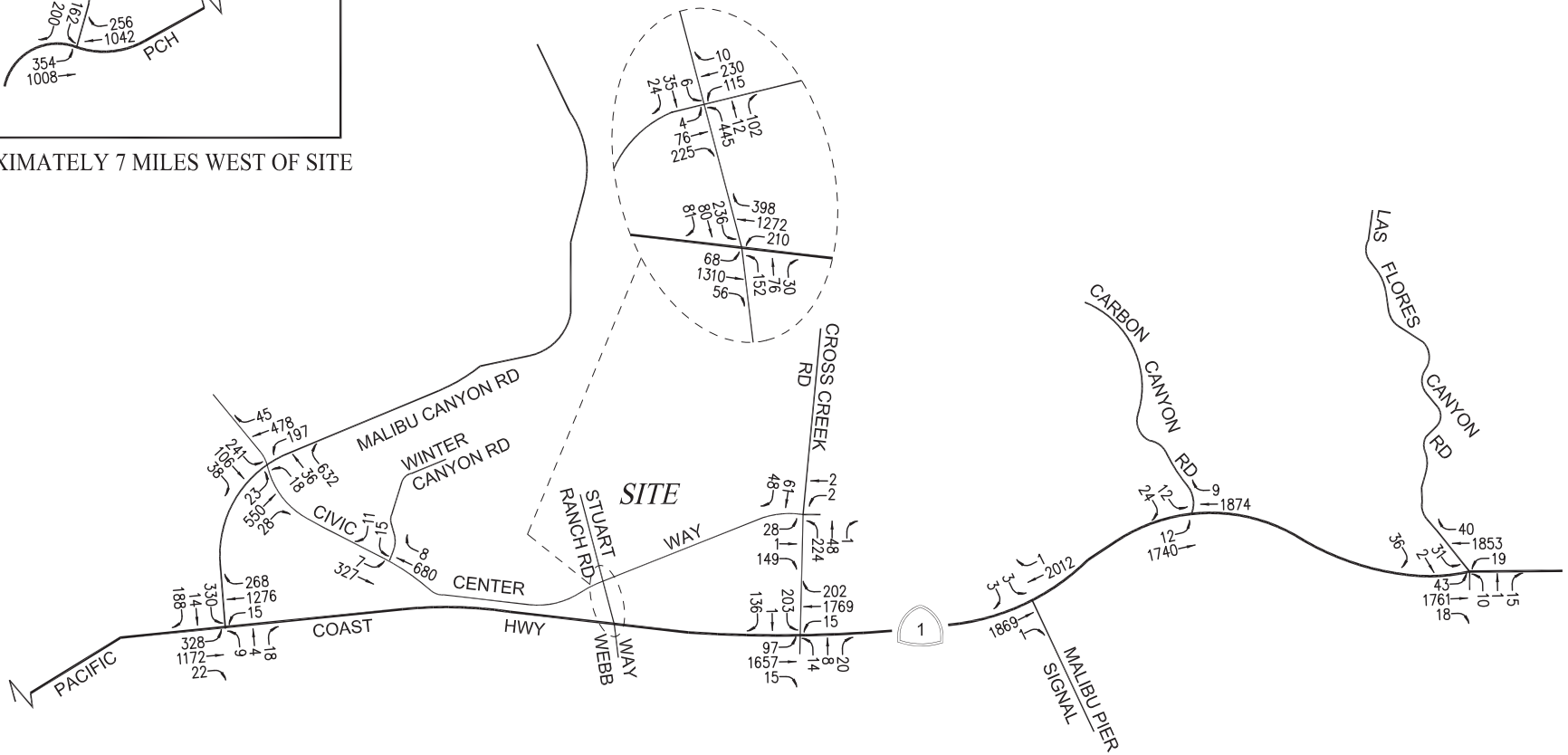
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



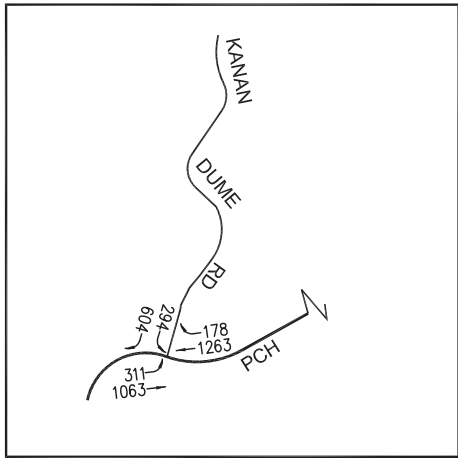
Figure 4.11.12
Existing with Project Traffic Volumes: Weekday AM Peak Hour



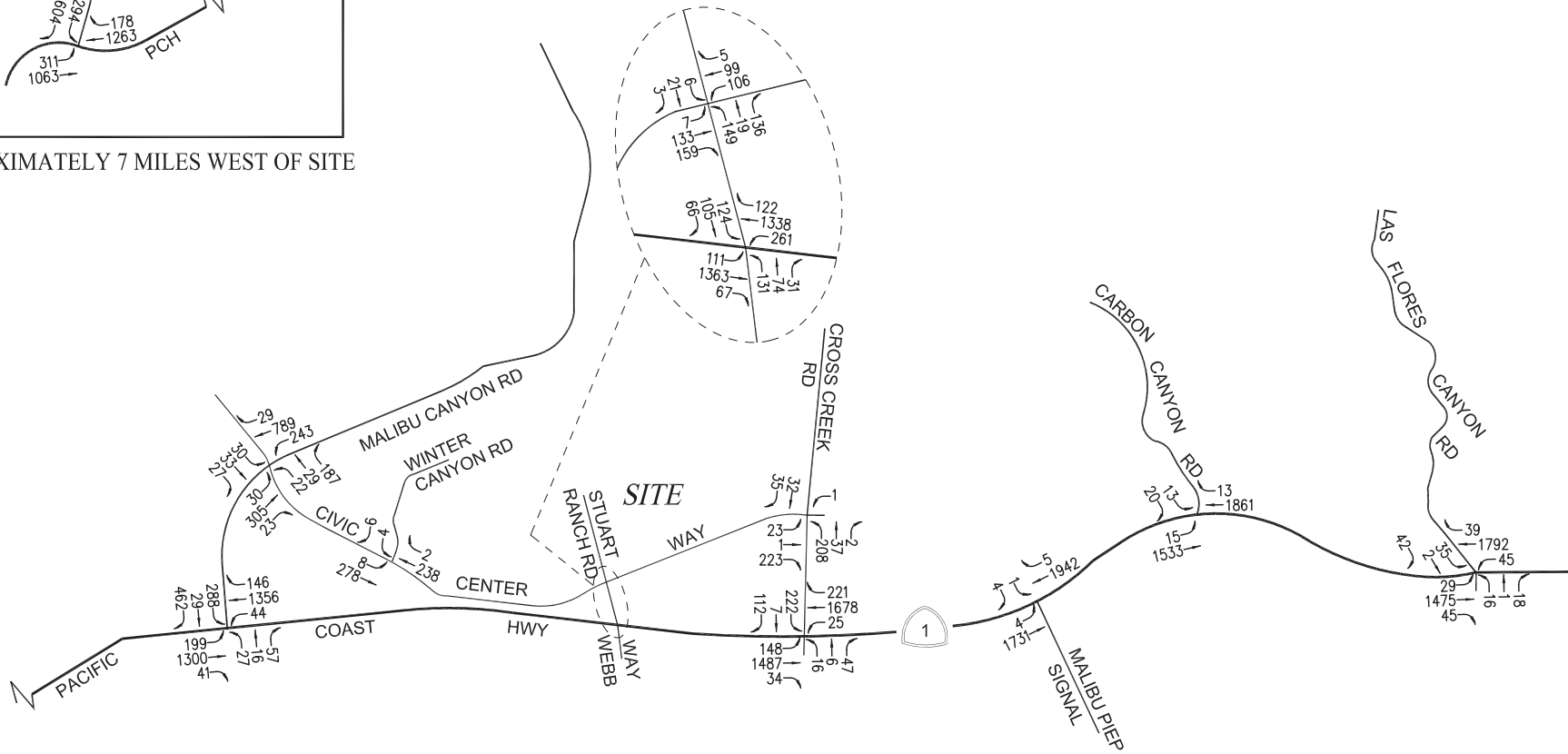
APPROXIMATELY 7 MILES WEST OF SITE




Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



APPROXIMATELY 7 MILES WEST OF SITE



Not to Scale 

Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.14
Existing with Project Traffic Volumes: Saturday Mid-Day Peak Hour

outlined in the *2010 Congestion Management Program*, County of Los Angeles Metropolitan Transportation Authority, 2010.

According to Section D.9.1 of the 2010 CMP manual, the criteria for determining a significant transportation impact is listed below:

“A significant transportation impact occurs when the Proposed Project increases traffic demand on a CMP facility by 2% of capacity ($V/C > 0.02$), causing or worsening LOS F ($V/C > 1.00$).”

The CMP impact criteria apply for analysis of both intersection and freeway monitoring locations.

(1) Intersections

The following CMP intersection monitoring locations in the Project vicinity have been identified:

<u>CMP Station</u>	<u>Intersection</u>
No. 107	Pacific Coast Highway/Kanan Dume Road (Study Int. No. 1)
No. 108	Pacific Coast Highway/Las Flores Canyon Road (Study Int. No. 11)
No. 109	Pacific Coast Highway/Malibu Canyon Road (Study Int. No. 3)

The CMP TIA guidelines require that intersection monitoring locations must be examined if the Proposed Project will add 50 or more trips during either the AM or PM weekday peak hours. The Proposed Project will not add 50 or more trips during either the AM or PM weekday peak hours (i.e., of adjacent street traffic) at any of the three CMP monitoring intersections in the Project vicinity, which is stated in the CMP manual as the threshold criteria for a traffic impact assessment. The weekday AM, PM, and Saturday mid-day forecast Project trips anticipated at each of the three locations are as follows:

- No. 107: Pacific Coast Highway/Kanan Dume Road (Study Int. No. 1) AM Peak Hour: 18 trips; PM peak hour: 17 trips; Saturday Mid-day peak hour: 11 trips
- No. 108: Pacific Coast Highway/Las Flores Canyon Road (Study Int. No. 11) AM Peak Hour: 26 trips; PM peak hour: 25 trips; Saturday Mid-day peak hour: 15 trips
- No. 109: Pacific Coast Highway/Malibu Canyon Road (Study Int. No. 3) AM Peak Hour: 30 trips; PM peak hour: 20 trips; Saturday Mid-day peak hour: 13 trips

Also as summarized in Table 4.11.6 (above) and Tables 4.11.7 and 4.11.8 (below), none of these three intersections are anticipated to be significantly impacted by the Proposed Project. Therefore, no further review of potential impacts to intersection monitoring locations that are part of the CMP highway system is required.

(2) Freeways

No CMP intersection monitoring freeway locations are identified in the Project vicinity. The CMP TIA guidelines require that freeway monitoring locations must be examined if the Proposed Project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. The Proposed Project will not add 150 or more trips (in either direction), during either the AM or PM weekday peak hours to any CMP freeway monitoring location, which is the threshold for preparing a traffic impact assessment, as stated in the CMP manual. Therefore, no further review of potential impacts to freeway monitoring locations that are part of the CMP highway system is required.

(3) Transit Impact Review

As required by the *2010 Congestion Management Program*, a review has been made of the potential impacts of the Project on transit service. As previously discussed, existing transit service is provided in the vicinity of the proposed SMC Malibu Campus Project.

The Project trip generation, as shown in Table 4.11.5, was adjusted by values set forth in the CMP (i.e., person trips equal 1.4 times vehicle trips, and transit trips equal 3.5 percent of the total person trips) to estimate transit trip generation. Pursuant to the CMP guidelines, the Proposed Project is forecast to generate demand for 4 transit trips during the weekday AM peak hour, 4 transit trips during the weekday PM peak hour, and 3 transit trips during the Saturday mid-day peak hour. Over a 24-hour weekday and Saturday period, the Proposed Project is forecast to generate demand for 35 and 19 daily transit trips, respectively. The transit trip calculations are as follows:

- Weekday AM Peak Hour = $71 \times 1.4 \times 0.035 = 4$ Transit Trips
- Weekday PM Peak Hour = $66 \times 1.4 \times 0.035 = 4$ Transit Trips
- Weekday Daily Trips = $698 \times 1.4 \times 0.035 = 35$ Transit Trips
- Saturday Mid-day Peak Hour = $44 \times 1.4 \times 0.035 = 3$ Transit Trips
- Saturday Daily Trips = $378 \times 1.4 \times 0.035 = 19$ Transit Trips

As shown in Table 4.11.1, one bus transit line is provided adjacent to or in close proximity the Project Site. As outlined in Table 4.11.1, under the “No. of Buses During Peak Hour” column, the transit line provides services for an average of (i.e., average of the directional number of buses during the peak hours) generally seven buses during the weekday AM peak hour and roughly six buses during the weekday PM peak hour. During the weekend day, this transit line provides services for an average of four buses during the Saturday mid-day peak hour. Therefore, based on the above calculated weekday AM and PM peak hour trips, as well as the Saturday mid-day peak hour trips, this would correspond to approximately one additional transit rider per bus. It is anticipated that the existing transit service in the Project area will adequately accommodate the increase of Project-generated transit trips. Thus, given the low number of Project-generated transit trips per bus, no Project impacts on existing or future transit services in the Project area are expected to occur as a result of the Proposed Project.

g. Construction Traffic-Related Impacts

Project construction would generate traffic from construction worker travel, as well as the arrival and departure of trucks delivering construction materials to the Project Site and removing debris generated by on-site demolition activities. Both the number of construction workers and trucks would vary throughout the construction process in order to maintain a reasonable schedule of completion.

In general, it is anticipated that construction workers arrive and depart from the Project Site during off-peak hours and the construction-related traffic would be largely freeway-oriented. Construction workers would arrive and depart via the Pacific Coast Highway (SR-1), located to the south of the Project Site. The Pacific Coast Highway would connect to I-10 Freeway and link to the greater Los Angeles highway network. The construction traffic leaving the Project Site could access the Pacific Coast Highway (SR-1) via Cross Creek Road, to the east of the Project Site, or Webb Way, to the west of the Project Site. Both Cross Creek Road and Webb Way are considered collector roadways, according to the City of Malibu's Circulation Element. The construction work force would likely be from all parts of the Los Angeles region and are assumed to arrive from the Pacific Coast Highway via I-10 and from Malibu Canyon Drive from the I-101 (Ventura) Freeway. In general, the majority of the construction workers are expected to arrive and depart the Project Site during off-peak hours (i.e., arrive prior to 7:00am and depart between 3:00pm and 4:00pm) thereby avoiding generating trips during the 7:00 to 9:00am and 4:00 to 6:00pm peak traffic periods. Consequently, the impact generated by construction traffic on peak-hour traffic in the vicinity of the Project Site would be negligible. Given the off-peak nature of construction worker traffic, a less-than-significant impact is anticipated with regard to the local roadway network.

Temporary partial lane closure on Civic Center Way may occur during Project construction to allow for deliveries and haul trucks to safely access and depart the Project Site. It is not anticipated that detours around Civic Center Way or complete road closures would result from construction activities. Flagmen would be used to control traffic movement during the ingress and egress of trucks and heavy equipment from the construction site. Depending upon the specific nature of the construction activity (e.g. demolition, site preparation, and building construction phase), it is assumed the majority of truck traffic would be distributed evenly across the workday. The Proposed Project suggests two possible haul routes, which would be subject to the approval of the City of Malibu and/or County of Los Angeles Department of Public Works, Traffic and Lighting Division. Under the first route, haul trucks and delivery trucks would generally travel along Civic Center Way between Cross Creek Road and Stuart Ranch Road/Webb Way, the portion of Cross Creek Road between Civic Center Way and Pacific Coast Highway, Webb Way, the Pacific Coast Highway, and Interstate 10 Freeway, to access and depart the Project Site. Alternatively, the local haul route may include entering/exiting the Project Site from Civic Center Way, and using Malibu Canyon Road to reach the Calabasas, Sunshine Canyon or Chiquita Canyon landfills located outside of the City of Malibu. The route utilizing Malibu Canyon Road would require prior written approval from the County of Los Angeles. With regard to the other construction traffic-related issues, construction equipment would be stored on the construction site, and construction workers would be directed to park on-site. Thus no spill over parking impacts will occur. Impacts from construction activities are therefore concluded to be less than significant.

4. CUMULATIVE IMPACTS

a. Cumulative Development Projects

The forecast of future pre-Project conditions was prepared in accordance with procedures outlined in Section 15130 of the CEQA Guidelines. Specifically, the CEQA Guidelines provides two options for developing the future traffic volume forecast:

- “(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the [lead] agency, or
- (B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: of greenhouse gas emissions. A summary of projections may also be contained in an adopted of certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.”

Accordingly, the traffic analysis provides a highly conservative estimate of future pre-Project traffic volumes as it incorporates both the “A” and “B” options outlined in the CEQA Guidelines for purposes of developing the forecast.

(1) Related Projects

A forecast of on-street traffic conditions prior to occupancy of the Proposed Project was prepared by incorporating the potential trips associated with other known development projects (related projects) in the area. With this information, the potential impact of the Proposed Project can be evaluated within the context of the cumulative impact of all ongoing development. The related projects research was based on information provided by the City of Malibu Planning Department, as well as recently accepted traffic impact analysis reports prepared for projects in the vicinity of the Proposed Project Site. The list of related projects in the Project Site area is presented in the Related Projects Table in the Project Description, Section II. The location of the related projects is shown in the Project Description, Section II.

Traffic volumes expected to be generated by the related projects were calculated using rates provided in the Institute of Transportation Engineers’ (ITE) *Trip Generation* manual.⁴ The related projects’ respective traffic generation for the weekday AM and PM peak hours, as well as on a daily basis for a typical weekday, is summarized in Table 7-1, Related Projects List and Trip Generation Table in the Project Traffic Study (see Appendix J of this EIR). The anticipated distribution of the related projects traffic volumes to the study intersections during the weekday AM and PM peak hours are displayed in Figures 4.11.15 and 4.11.16, respectively. The related projects’ respective Saturday traffic generation for the mid-day peak hour, as well as on a daily basis, is also summarized in Table 7-1 in Appendix J. The forecast assignment of the related projects traffic volumes to the study intersections during the Saturday mid-day

⁴ *Institute of Transportation Engineers Trip Generation manual, 9th Edition, Washington, D.C., 2012.*

peak hour is displayed in Figure 4.11.17.

(2) Ambient Traffic Growth Factor

Based on consultation from City staff and in order to account for unknown related projects not included in this analysis, the existing traffic volumes were increased at an annual rate of 1.5 percent (1.5%). Specifically, the 1.5% annual growth rate was applied to the 2012 traffic counts to estimate Existing (2014) traffic volumes, and then for an additional three years to estimate Opening Year (2017) traffic volumes (in combination with the forecast traffic due to the related projects). Application of this ambient growth factor allows for a conservative forecast of future traffic volumes in the Project study area. This annual rate is consistent with the ambient growth factor used for other recent environmental studies completed in the Project vicinity. It should be noted that based on general traffic growth factors provided in the 2010 Congestion Management Program for Los Angeles County (the “CMP manual”) as determined for the Las Virgenes and Malibu communities, it is anticipated that the existing traffic volumes are expected to increase at an annual rate of 0.54 percent (0.54%) per year between the years 2010 and 2020. Thus, application of the 1.5 percent (1.5%) annual growth factor allows for a conservative, worst case forecast of future traffic volumes in the area. Further, it is noted that the CMP manual’s traffic growth rate is intended to anticipate future traffic generated by development projects in the Project vicinity. Thus, the inclusion in this traffic analysis of both a forecast of traffic generated by known related projects plus the use of an ambient growth traffic factor higher than that expected from the CMP traffic model data results in a conservative estimate of future traffic volumes at the study intersections.

Furthermore, based on consultation with City staff, existing traffic volumes were increased at an annual rate of 0.48 percent (0.48%) to the year 2030 (i.e., the future year). This annual rate is consistent with the ambient growth factor used for other recent environmental studies completed in the Project vicinity. It should be noted that based on general traffic growth factors provided in the 2010 Congestion Management Program for Los Angeles County (the “CMP manual”) as determined for the Las Virgenes and Malibu communities, it is anticipated that the existing traffic volumes are expected to increase at an annual rate of 0.48 percent (0.48%) per year between the years of 2010 and 2030.

b. Opening Year Conditions

(1) Opening Cumulative Pre-Project Conditions

The Future Cumulative Without Project conditions were forecast based on the addition of traffic generated by the completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The v/c ratios at the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects. As presented in column [3] of Table 4.11.7, seven of the eleven study intersections are expected to continue operating at LOS D or better during the weekday AM peak hour, weekday PM peak hour, and Saturday mid-day peak hour with the addition of growth in ambient traffic and related projects traffic under the future cumulative baseline conditions.

The future cumulative pre-project (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekday AM peak hour, weekday PM peak hour, and Saturday mid-day peak hour are shown in Figures 4.11.18, 4.11.19, and 4.11.20, respectively.

(2) Opening Year Cumulative With Project Conditions

As shown in column [4] of Table 4.11.7, application of the City's threshold criteria to the "Year 2017 Future With Project" scenario indicates that the Proposed Project is not expected to create significant impacts at any of the eleven study intersections. Incremental, but not significant, impacts are noted at the study intersections with the addition of growth in ambient traffic, related project traffic, and Project traffic.

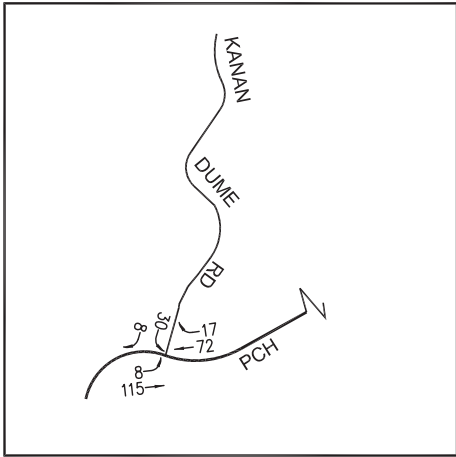
The future cumulative with Project (existing, ambient growth, related projects and Project) traffic volumes at the study intersections during the weekday AM peak hour, weekday PM peak hour, and Saturday mid-day peak hour are illustrated in Figures 4.11.21, 4.11.22, and 4.11.23, respectively.

c. Future Year (2030) Conditions

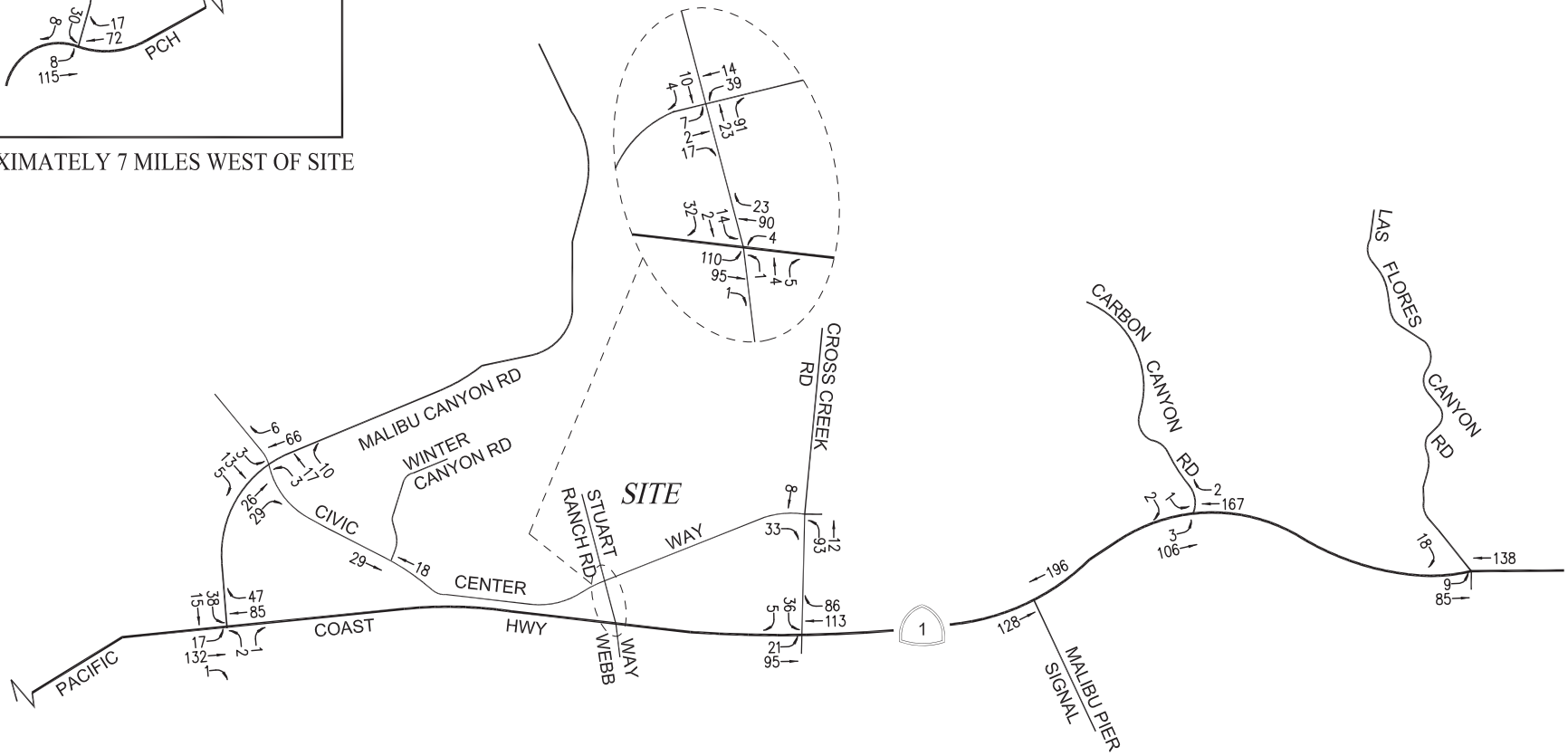
(1) Future Cumulative Pre-Project Conditions

The Future Cumulative Pre-Project conditions were forecast based on the addition of traffic generated by the completion and occupancy of related projects, as well as the growth in traffic due to the combined effects of continuing development, intensification of existing developments and other factors (i.e., ambient growth). The v/c ratios at the study intersections are incrementally increased with the addition of ambient traffic and traffic generated by the related projects. As presented in column [5] of Table 4.11.8, six of the eleven study intersections are expected to continue operating at LOS D or better during the weekday AM peak hour, weekday PM peak hour, and Saturday mid-day peak hour with the addition of growth in ambient traffic and related projects traffic under the future cumulative baseline conditions.

The Future Cumulative Pre-Project (existing, ambient growth and related projects) traffic volumes at the study intersections during the weekday AM peak hour, weekday PM peak hour, and Saturday mid-day peak hour are shown in Figures 4.11.24, 4.11.25 and 4.11.26, respectively.



APPROXIMATELY 7 MILES WEST OF SITE

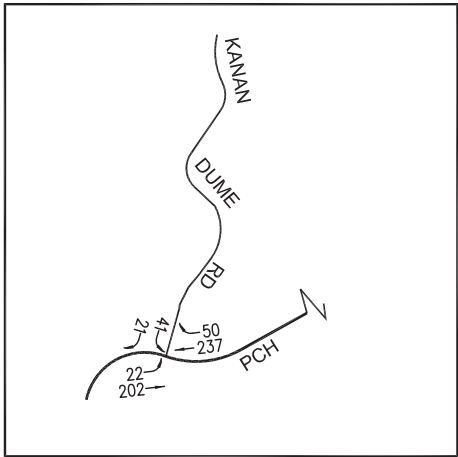


Not to Scale

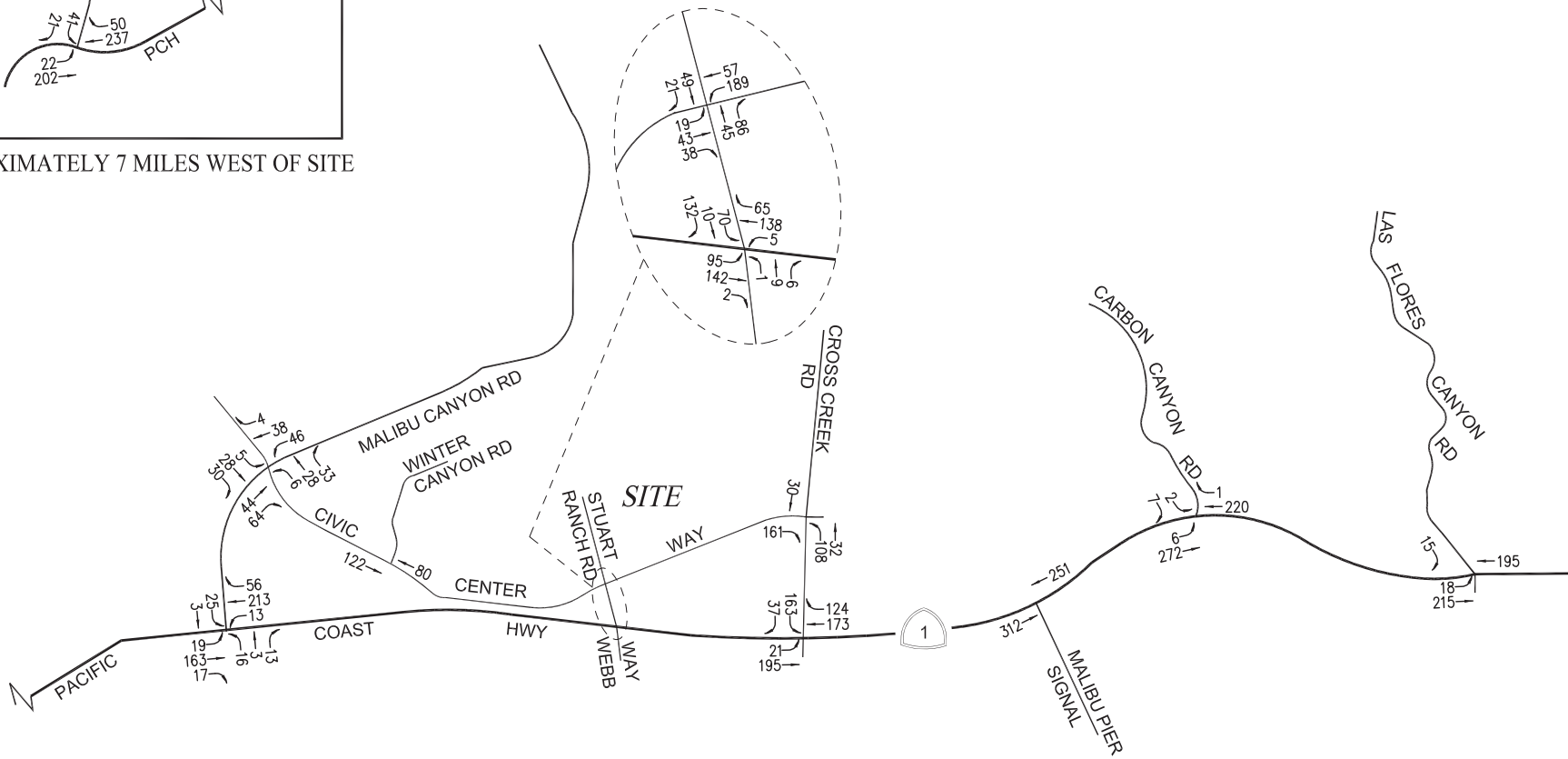
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.15
Related Projects Traffic Volumes: Weekday AM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



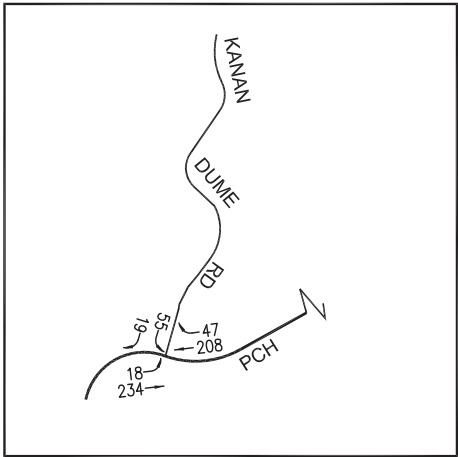
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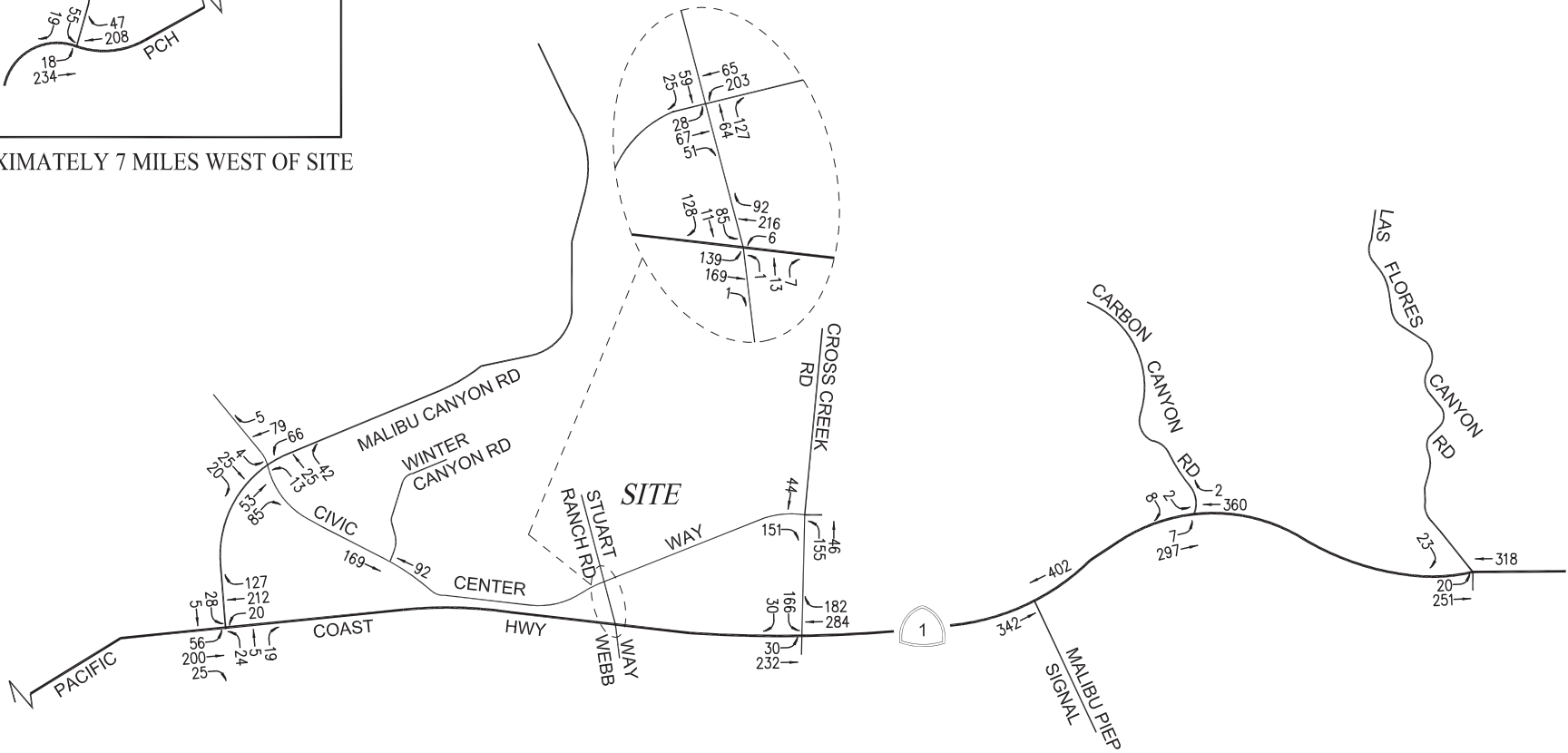
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014.



Figure 4.11.16
Related Projects Traffic Volumes: Weekday PM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



Not to Scale



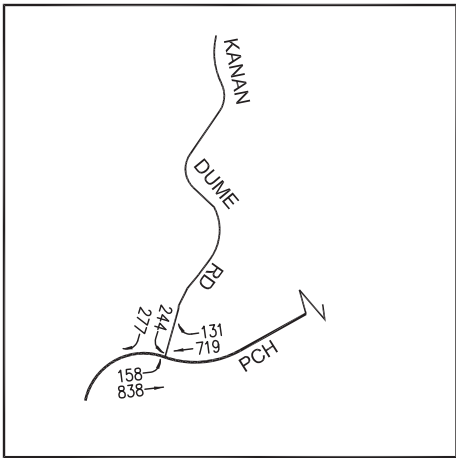
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



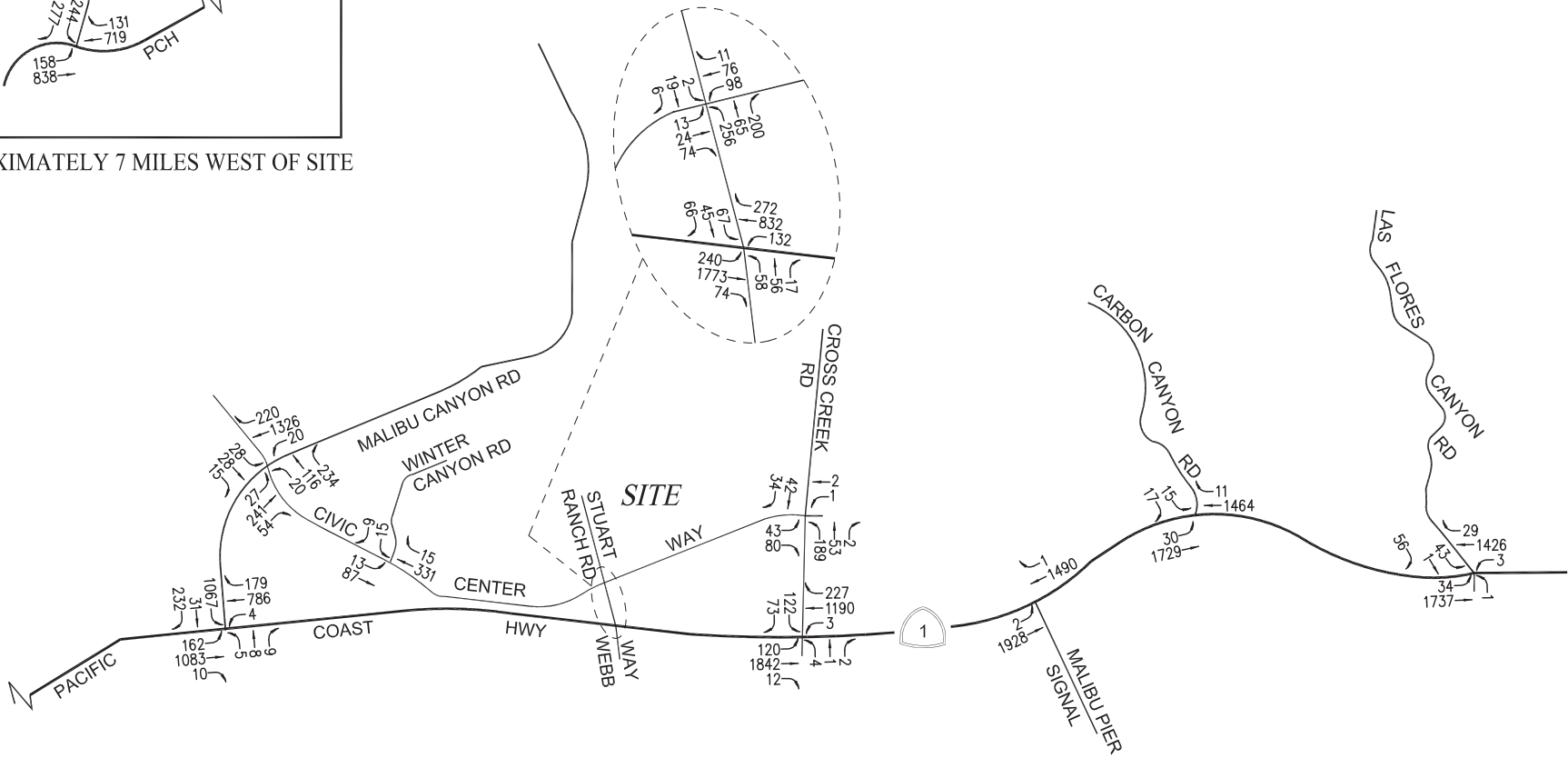
Figure 4.11.17
Related Projects Traffic Volumes: Saturday Mid-Day Peak Hour


**Table 4.11.7,
Summary of Volume to Capacity Ratios/Delays and Levels of Service for Year 2017 (Opening)
Weekday AM, PM and Weekend Mid-Day Peak Hours**

No.	Intersection	Peak Hour	[3]		[4]															
			Year 2017 Opening Pre-Project with A.G. & Rel. Projects		Year 2017 Opening with Project		Change V/C or Delay [(4)-(3)]	Signif. Impact												
			V/C or Delay	LOS	V/C or Delay	LOS														
1	Kanan Dume Road/ Pacific Coast Highway (SR-1) [a]	AM	0.458	A	0.460	A	0.002	NO												
		PM	0.780	C	0.782	C	0.002	NO												
		SAT	0.932	E	0.933	E	0.001	NO												
2	Malibu Canyon Road/ Civic Center Way [a]	AM	0.571	A	0.574	A	0.003	NO												
		PM	0.562	A	0.565	A	0.003	NO												
		SAT	0.428	A	0.430	A	0.002	NO												
3	Malibu Canyon Road/ Pacific Coast Highway (SR-1) [a]	AM	0.745	C	0.753	C	0.008	NO												
		PM	0.797	C	0.800	C	0.003	NO												
		SAT	0.908	E	0.910	E	0.002	NO												
4	Winter Canyon Road/ Civic Center Way [a]	AM	0.289	A	0.291	A	0.002	NO												
		PM	0.568	A	0.571	A	0.003	NO												
		SAT	0.342	A	0.344	A	0.002	NO												
5	Stuart Ranch Road – Webb Way/ Civic Center Way [a]	AM	11.3	B	11.5	B	0.2	NO												
		PM	56.5	F	57.7	F	1.2	NO												
		SAT	17.5	C	18.3	C	0.8	NO												
6	Webb Way/ Pacific Coast Highway (SR- 1) [a]	AM	0.582	A	0.585	A	0.003	NO												
		PM	0.831	D	0.840	D	0.009	NO												
		SAT	0.899	D	0.905	E	0.006	NO												
7	Cross Creek Road/ Civic Center Way [a]	AM	8.7	A	8.9	A	0.2	NO												
		PM	13.3	B	13.8	B	0.5	NO												
		SAT	15.9	C	16.3	C	0.5	NO												
8	Cross Creek Road/ Pacific Coast Highway (SR-1) [a]	AM	0.673	B	0.675	B	0.002	NO												
		PM	0.986	E	0.995	E	0.009	NO												
		SAT	1.084	F	1.089	F	0.005	NO												
9	Malibu Pier Signal/ Pacific Coast Highway (SR-1) [a]	AM	0.652	B	0.655	B	0.003	NO												
		PM	0.784	C	0.789	C	0.005	NO												
		SAT	0.812	D	0.816	D	0.004	NO												
10	Carbon Canyon Road/ Pacific Coast Highway (SR-1) [b]	AM	0.610	B	0.613	B	0.003	NO												
		PM	0.766	C	0.771	C	0.005	NO												
		SAT	0.810	D	0.812	D	0.002	NO												
11	Las Flores Canyon Road / Pacific Coast Highway (SR-1) [a]	AM	0.658	B	0.660	B	0.002	NO												
		PM	0.811	D	0.816	D	0.005	NO												
		SAT	0.841	D	0.843	D	0.002	NO												
[a] City of Malibu signalized intersection impact threshold criteria is a follows: <table border="0" style="margin-left: 200px;"> <tr> <td>Pre-Project v/c</td> <td>LOS</td> <td>Project Related Increase in v/c</td> </tr> <tr> <td>0.71 – 0.80</td> <td>C</td> <td>0.04 or more</td> </tr> <tr> <td>0.81 – 0.90</td> <td>D</td> <td>0.02 or more</td> </tr> <tr> <td>0.91 or more</td> <td>E/F</td> <td>0.01 or more</td> </tr> </table>									Pre-Project v/c	LOS	Project Related Increase in v/c	0.71 – 0.80	C	0.04 or more	0.81 – 0.90	D	0.02 or more	0.91 or more	E/F	0.01 or more
Pre-Project v/c	LOS	Project Related Increase in v/c																		
0.71 – 0.80	C	0.04 or more																		
0.81 – 0.90	D	0.02 or more																		
0.91 or more	E/F	0.01 or more																		
[b] City of Malibu unsignalized intersection impact threshold criteria is a follows: <table border="0" style="margin-left: 200px;"> <tr> <td>Project Related Increase in delay</td> </tr> <tr> <td>5 or more seconds</td> </tr> <tr> <td>Final LOS</td> </tr> <tr> <td>Degrades to level D or worse</td> </tr> </table>									Project Related Increase in delay	5 or more seconds	Final LOS	Degrades to level D or worse								
Project Related Increase in delay																				
5 or more seconds																				
Final LOS																				
Degrades to level D or worse																				
<i>Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014.</i>																				



APPROXIMATELY 7 MILES WEST OF SITE

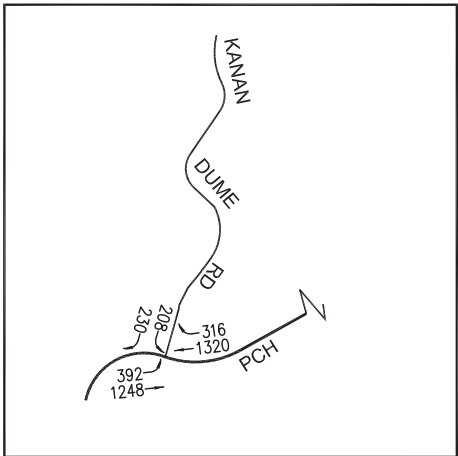


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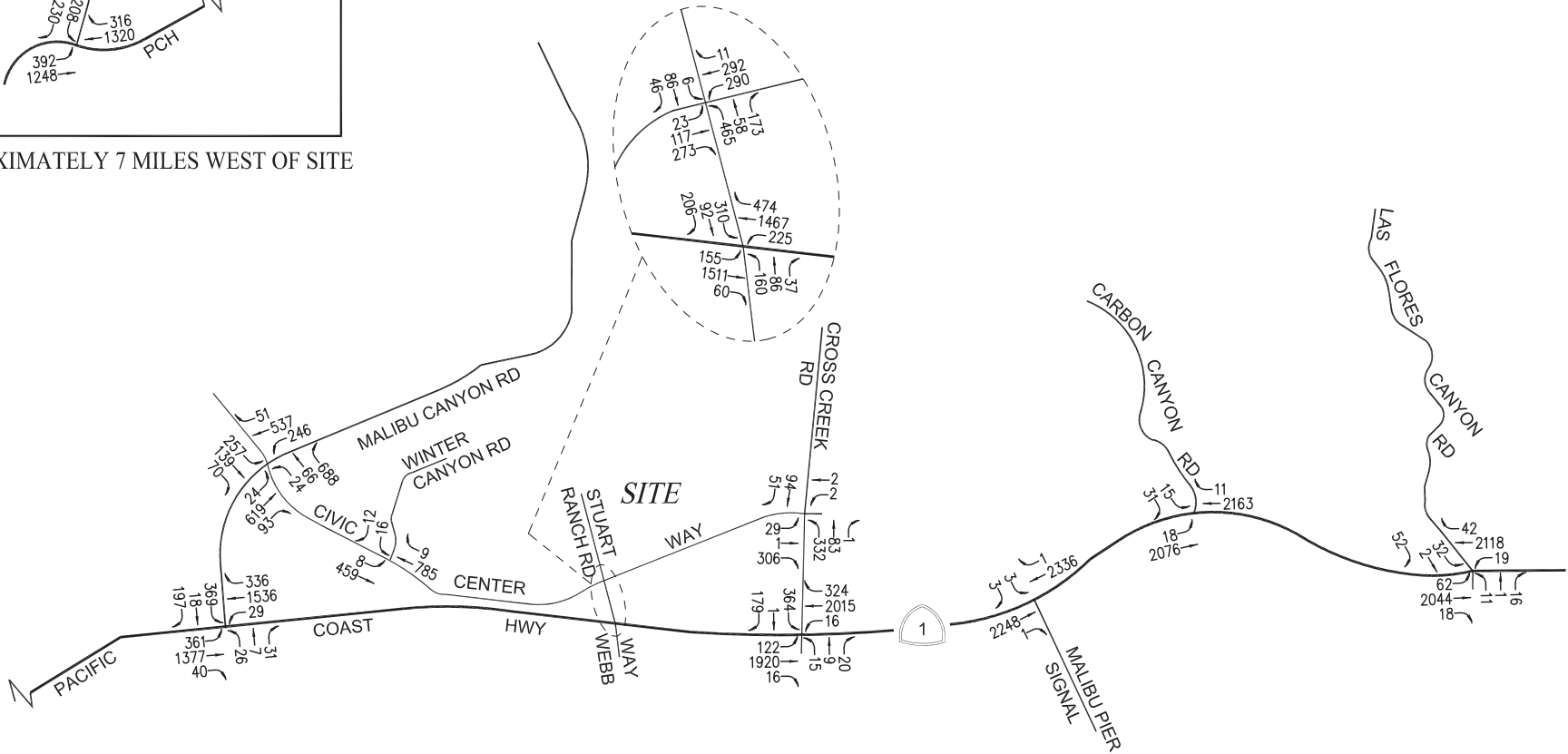
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.18
Opening Cumulative Pre-Project Traffic Volumes: Weekday AM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



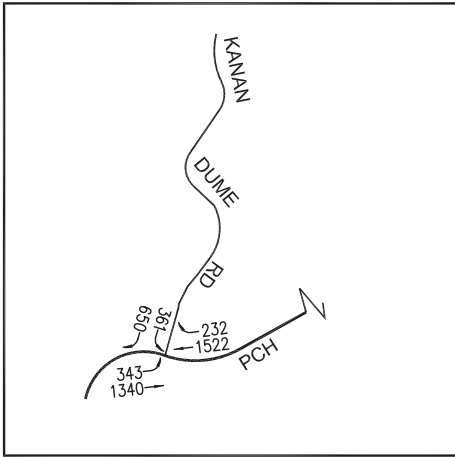
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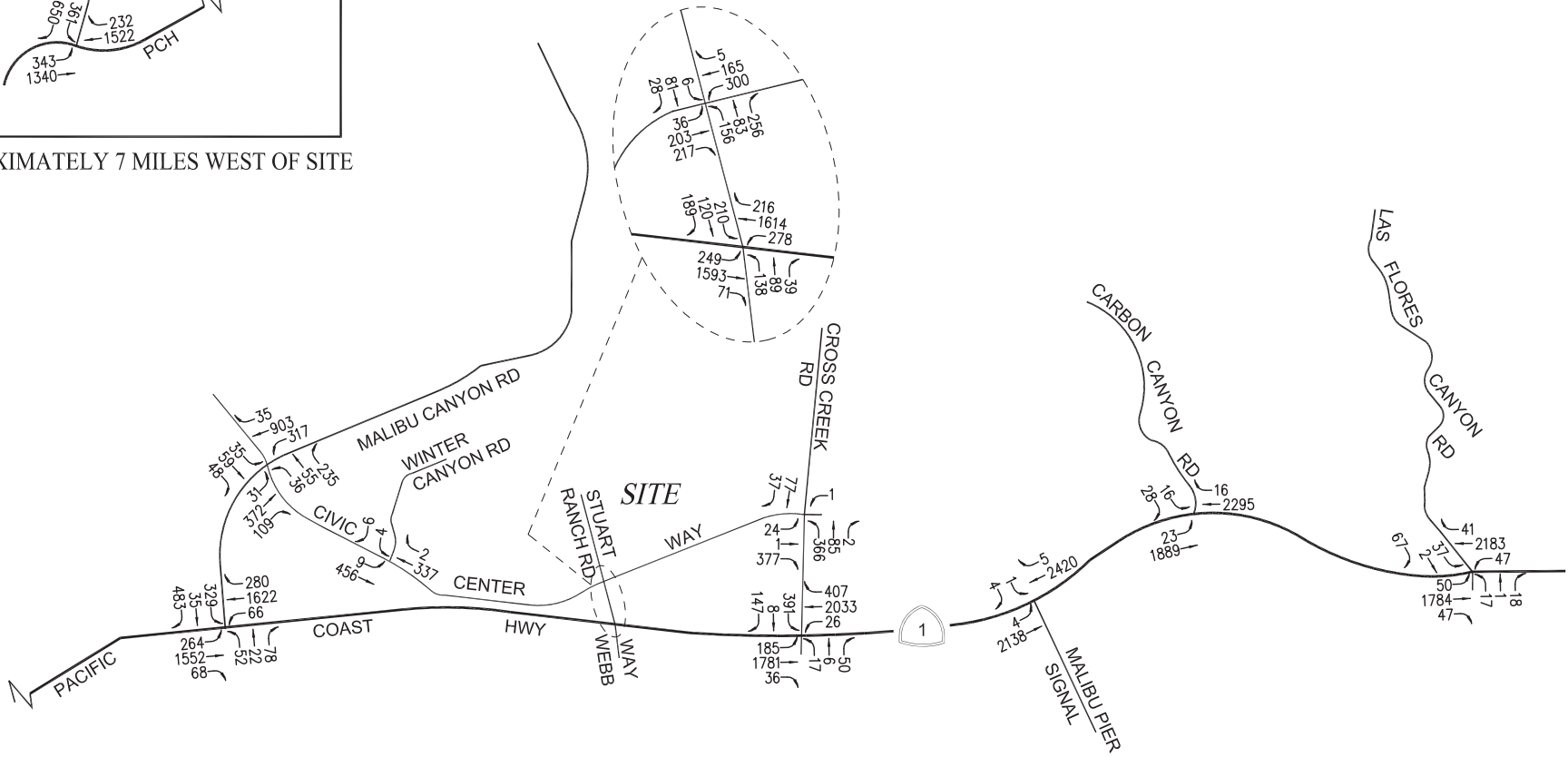
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014




Figure 4.11.19
Opening Cumulative Pre-Project Traffic Volumes: Weekday PM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE

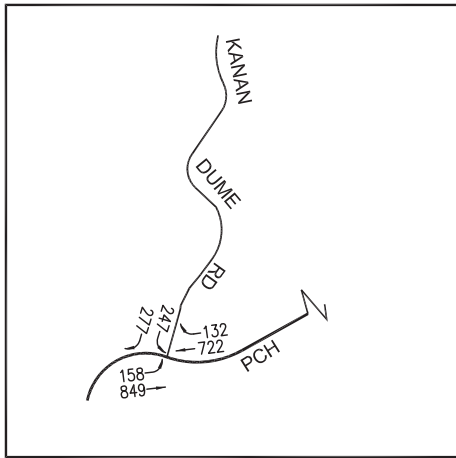


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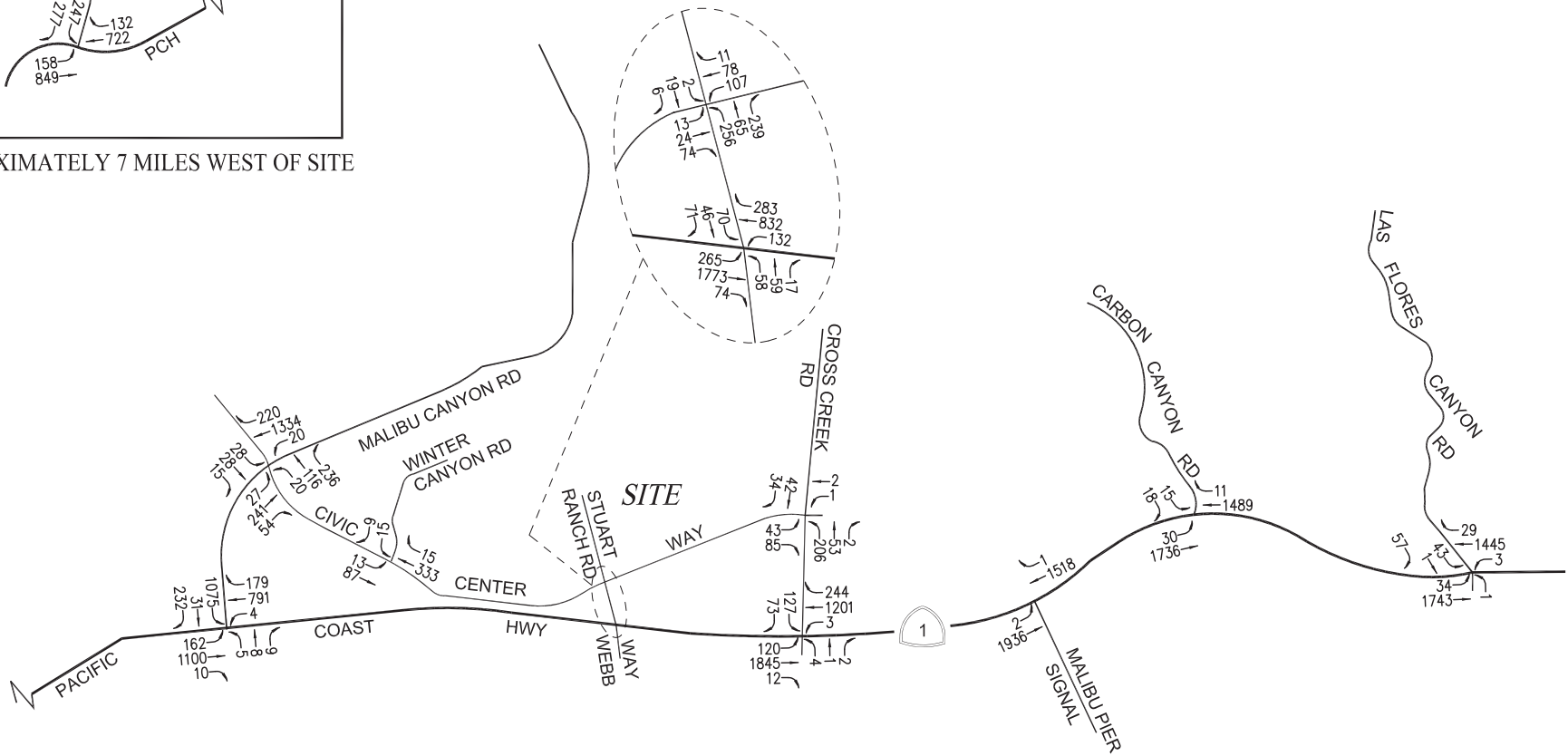
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014




Figure 4.11.20
Opening Cumulative Pre-Project Traffic Volumes: Saturday Mid-day Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE

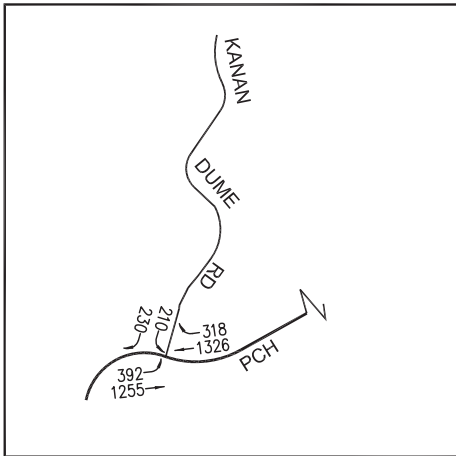


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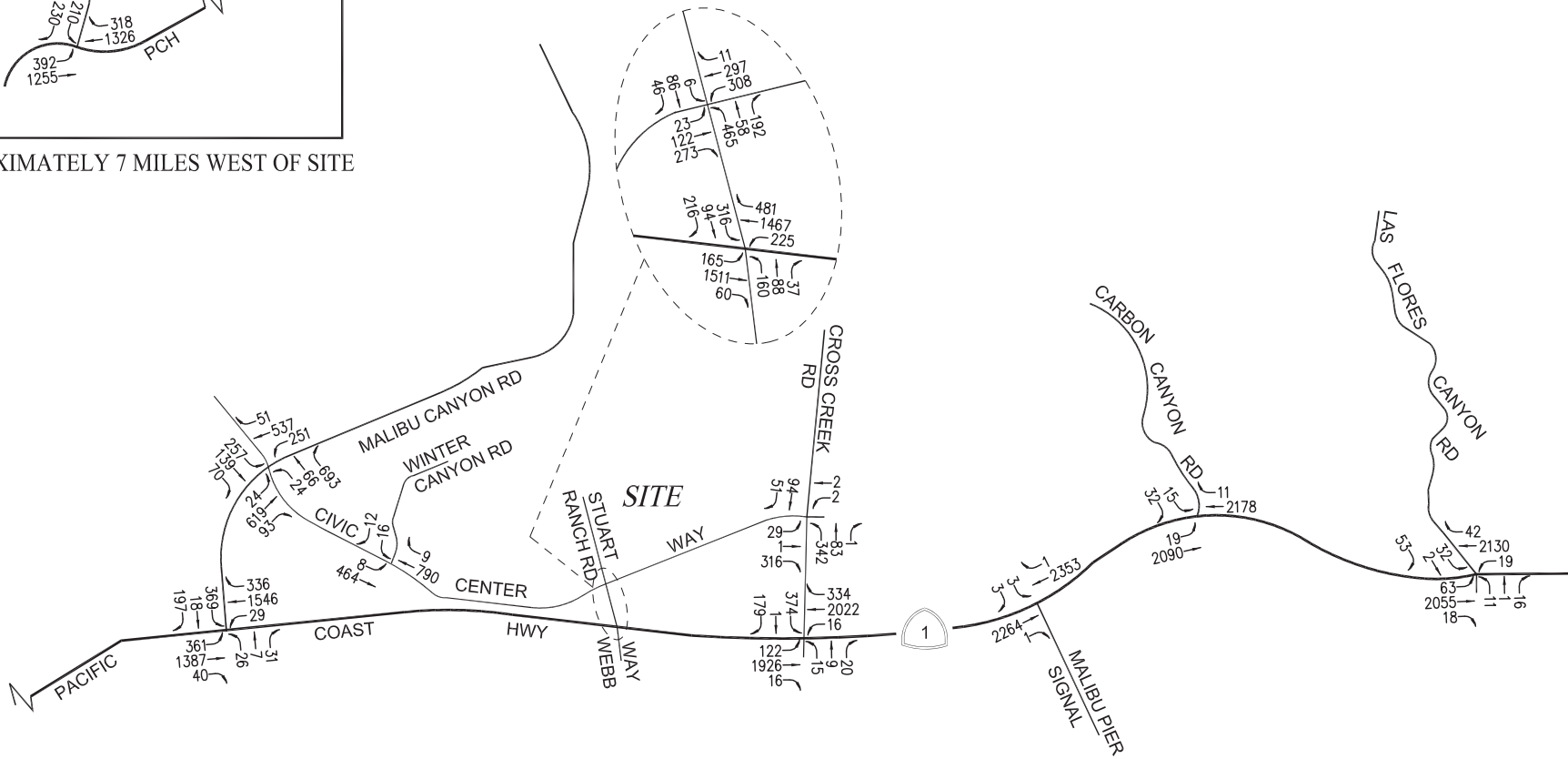
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.21
Opening Cumulative with Project Traffic Volumes: Weekday AM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



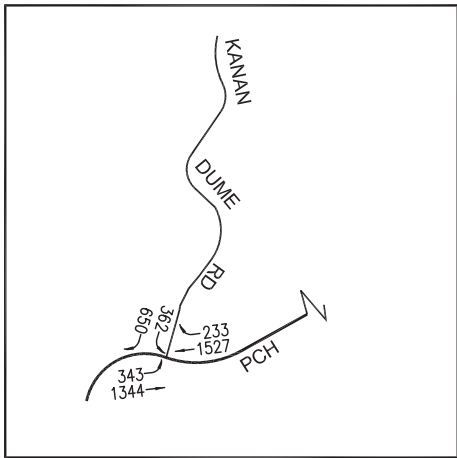
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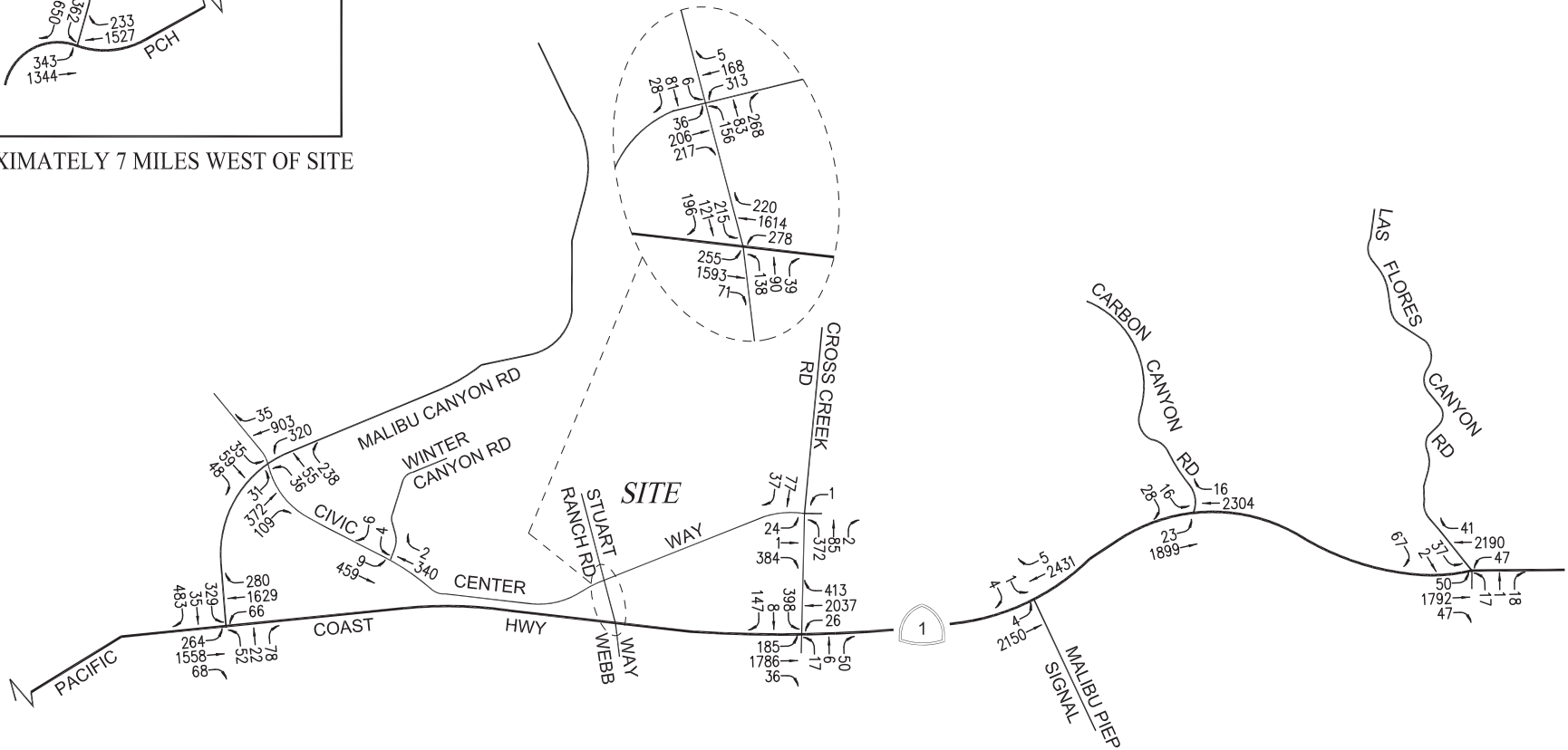
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.22
Opening Cumulative with Project Traffic Volumes: Weekday PM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



Not to Scale



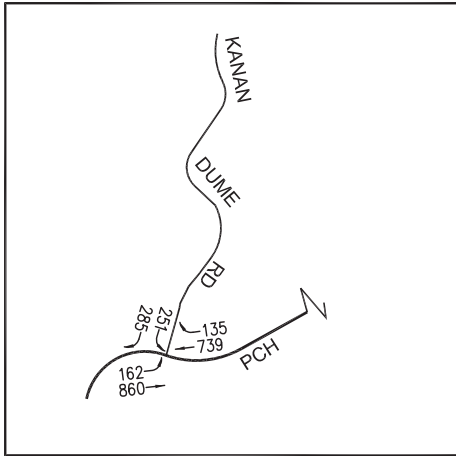
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



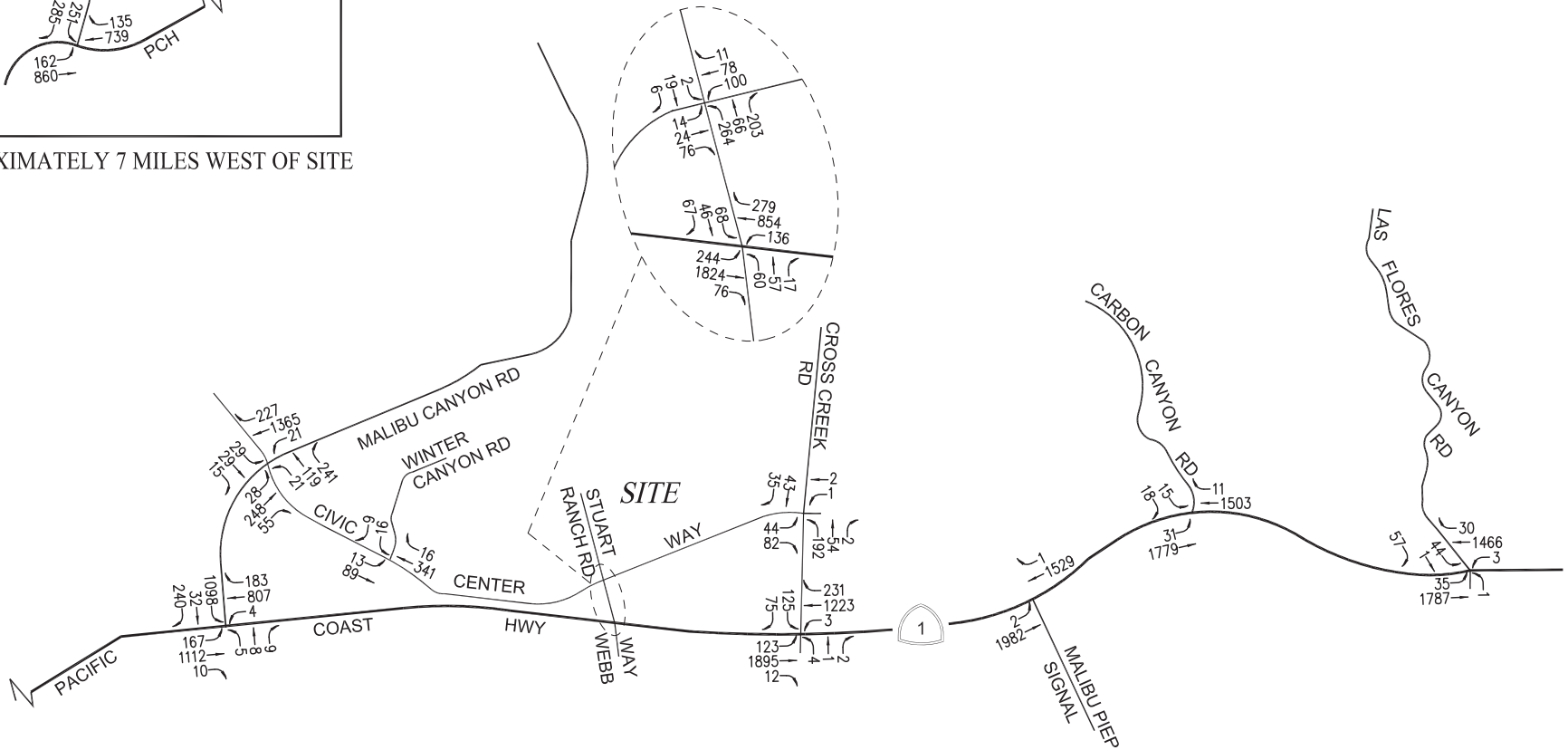
Figure 4.11.23
Opening Cumulative with Project Traffic Volumes: Saturday Mid-Day Peak Hour

**Table 4.11.8,
Summary of Volume to Capacity Ratios/Delays and Levels of Service for Year 2030 (Future)
Weekday AM, PM and Weekend Mid-Day Peak Hours**

No.	Intersection	Peak Hour	[5]		[6]			
			Year 2030 Future Pre-Proj w/ A.G. and Rel. Projects V/C or Delay	LOS	Year 2030 Existing w/ Project V/C or Delay	LOS	Change V/C or Delay [(6)-(5)]	Signif. Impact
1	Kanan Dume Road/ Pacific Coast Highway (SR-1) [a]	AM	0.469	A	0.471	A	0.002	NO
		PM	0.799	C	0.801	D	0.002	NO
		SAT	0.956	E	0.958	E	0.002	NO
2	Malibu Canyon Road/ Civic Center Way [a]	AM	0.586	A	0.589	A	0.003	NO
		PM	0.575	A	0.579	A	0.004	NO
		SAT	0.437	A	0.439	A	0.002	NO
3	Malibu Canyon Road/ Pacific Coast Highway (SR-1) [a]	AM	0.765	C	0.773	C	0.008	NO
		PM	0.817	D	0.820	D	0.003	NO
		SAT	0.932	E	0.934	E	0.002	NO
4	Winter Canyon Road/ Civic Center Way [a]	AM	0.296	A	0.297	A	0.001	NO
		PM	0.582	A	0.586	A	0.004	NO
		SAT	0.348	A	0.350	A	0.002	NO
5	Stuart Ranch Road – Webb Way/ Civic Center Way [a]	AM	11.6	B	11.7	B	0.2	NO
		PM	62.1	F	63.3	F	1.2	NO
		SAT	18.0	C	18.9	C	0.8	NO
6	Webb Way/ Pacific Coast Highway (SR- 1) [a]	AM	0.597	A	0.601	B	0.004	NO
		PM	0.851	D	0.860	D	0.009	NO
		SAT	0.919	E	0.925	E	0.006	NO
7	Cross Creek Road/ Civic Center Way [a]	AM	8.8	A	8.9	A	0.2	NO
		PM	13.7	B	14.2	B	0.5	NO
		SAT	16.4	C	16.9	C	0.5	NO
8	Cross Creek Road/ Pacific Coast Highway (SR-1) [a]	AM	0.691	B	0.693	B	0.002	NO
		PM	1.010	F	1.018	F	0.008	NO
		SAT	1.108	F	1.114	F	0.006	NO
9	Malibu Pier Signal/ Pacific Coast Highway (SR-1) [a]	AM	0.670	B	0.672	B	0.002	NO
		PM	0.804	D	0.809	D	0.005	NO
		SAT	0.832	D	0.835	D	0.003	NO
10	Carbon Canyon Road/ Pacific Coast Highway (SR-1) [b]	AM	0.626	B	0.629	B	0.003	NO
		PM	0.785	C	0.791	C	0.006	NO
		SAT	0.829	D	0.832	D	0.003	NO
11	Las Flores Canyon Road / Pacific Coast Highway (SR-1) [a]	AM	0.675	B	0.678	B	0.003	NO
		PM	0.832	D	0.837	D	0.005	NO
		SAT	0.861	D	0.863	D	0.002	NO
[a] City of Malibu signalized intersection impact threshold criteria is a follows: <u>Pre-Project v/c</u> <u>LOS</u> <u>Project Related Increase in v/c</u> 0.71 – 0.80 C 0.04 or more 0.81 – 0.90 D 0.02 or more 0.91 or more E/F 0.01 or more [b] City of Malibu unsignalized intersection impact threshold criteria is a follows: <u>Project Related Increase in delay</u> 5 or more seconds <u>Final LOS</u> Degrades to level D or worse Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014.								



APPROXIMATELY 7 MILES WEST OF SITE

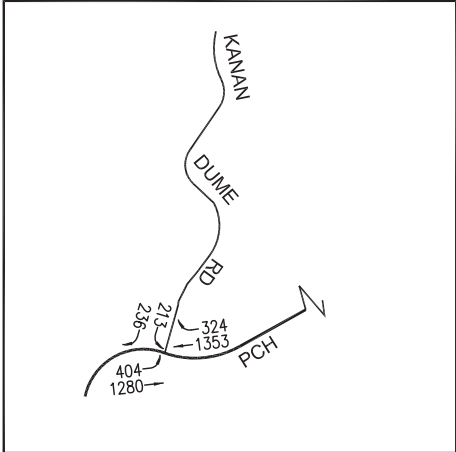


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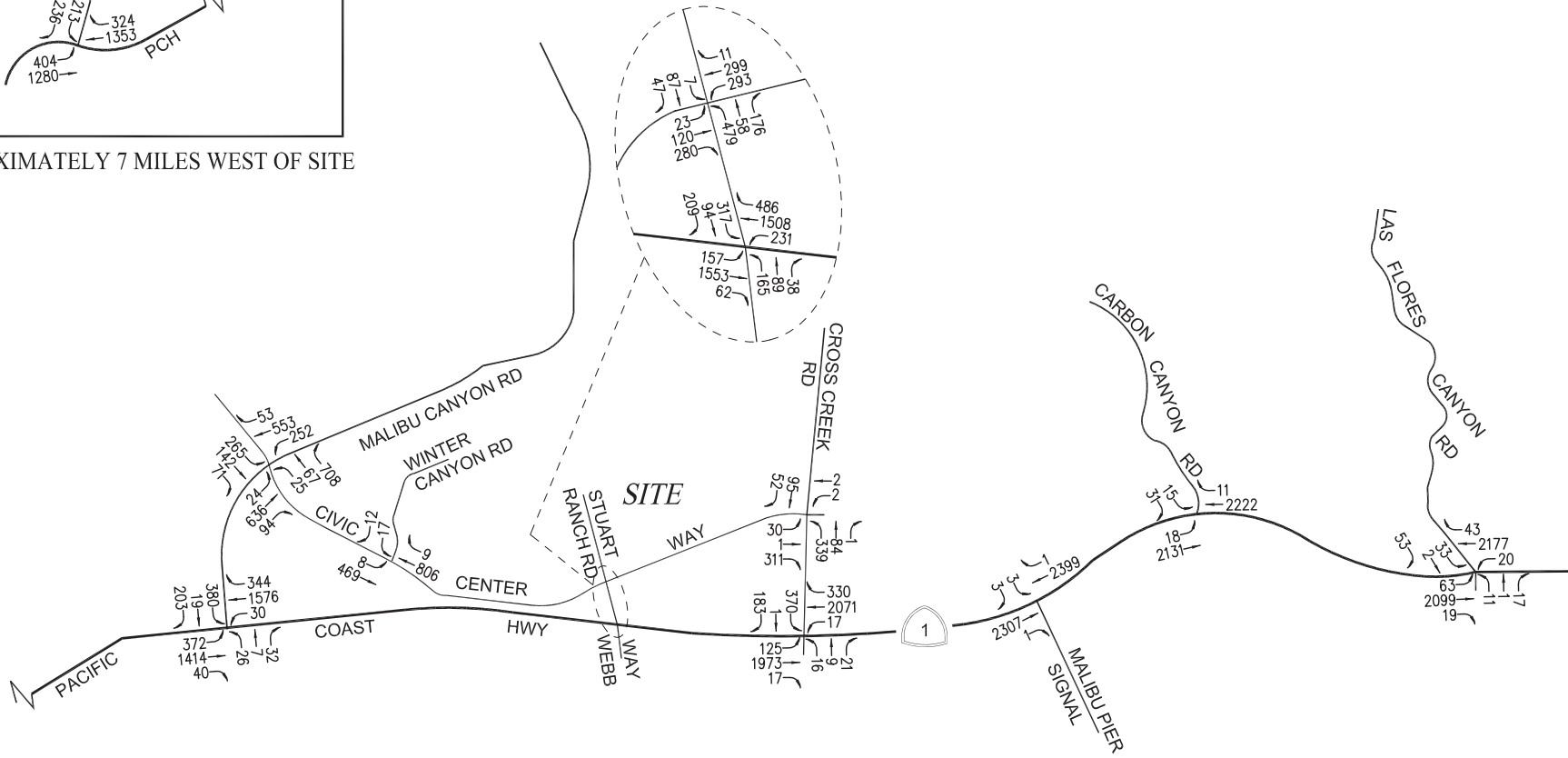
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.24
Future Cumulative Pre-Project Traffic Volumes: Weekday AM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



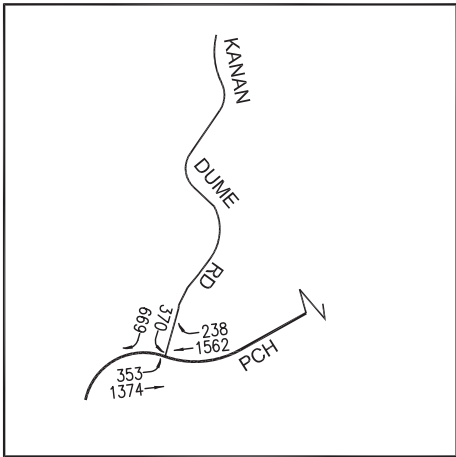
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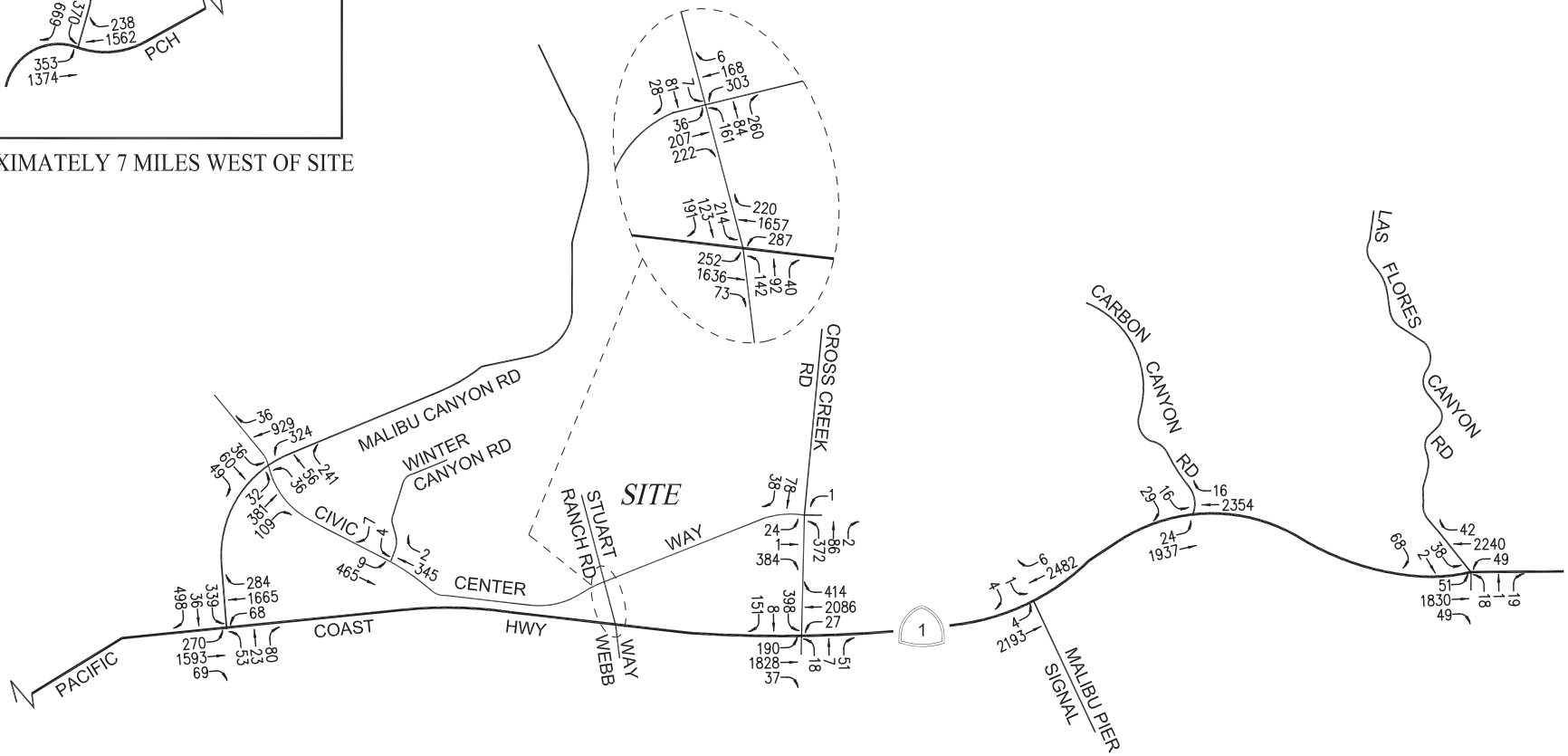
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.25
Future Cumulative Pre-Project Traffic Volumes: Weekday PM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



Not to Scale

Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.26
Future Cumulative Pre-Project Traffic Volumes: Saturday Mid-day Peak Hour

(2) Future Cumulative with Project Conditions

As shown in column [6] of Table 4.11.8, application of the City’s threshold criteria to the “Year 2030 Future With Project” scenario indicates that the Proposed Project is not expected to create significant impacts at any of the eleven study intersections. Incremental, but not significant, impacts are noted at the study intersections with the addition of growth in ambient traffic, related project traffic, and Project traffic.

The Future Cumulative with Project (existing, ambient growth, related projects and Project) traffic volumes at the study intersections during the weekday AM peak hour, weekday PM peak hour, and Saturday mid-day peak hour are illustrated in Figures 4.11.27, 4.11.28, and 4.11.29, respectively.

d. Arterial Street Segment Analysis

In order to address the issues of arterial traffic adjacent to the Proposed Project Site, two street segments located near the Project Site has been analyzed for potential significant impacts. The following street segments have been selected for analysis in consultation with City Staff:

- Pacific Coast Highway, between John Tyler Road and Malibu Canyon Road
- Malibu Canyon Road, north of Civic Center Road

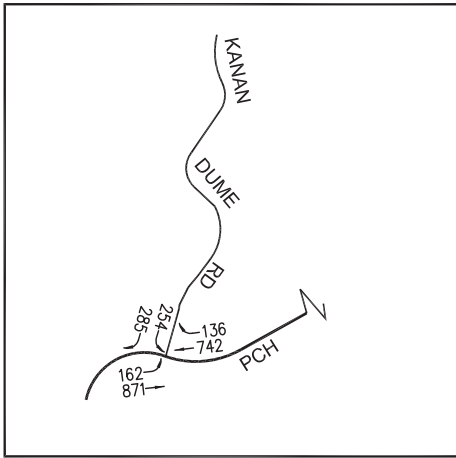
The significance of the potential impacts of Project generated traffic at the study street segments were identified using criteria set forth in City thresholds. According to the City’s published traffic impact assessment guidelines, a transportation impact on an arterial street shall be deemed significant based on an increase in the Project v/c ratio as shown in Tables 4.11.6 through 4.11.8.

Table 4.11.9
City of Malibu
Street Segment Impact Threshold Criteria

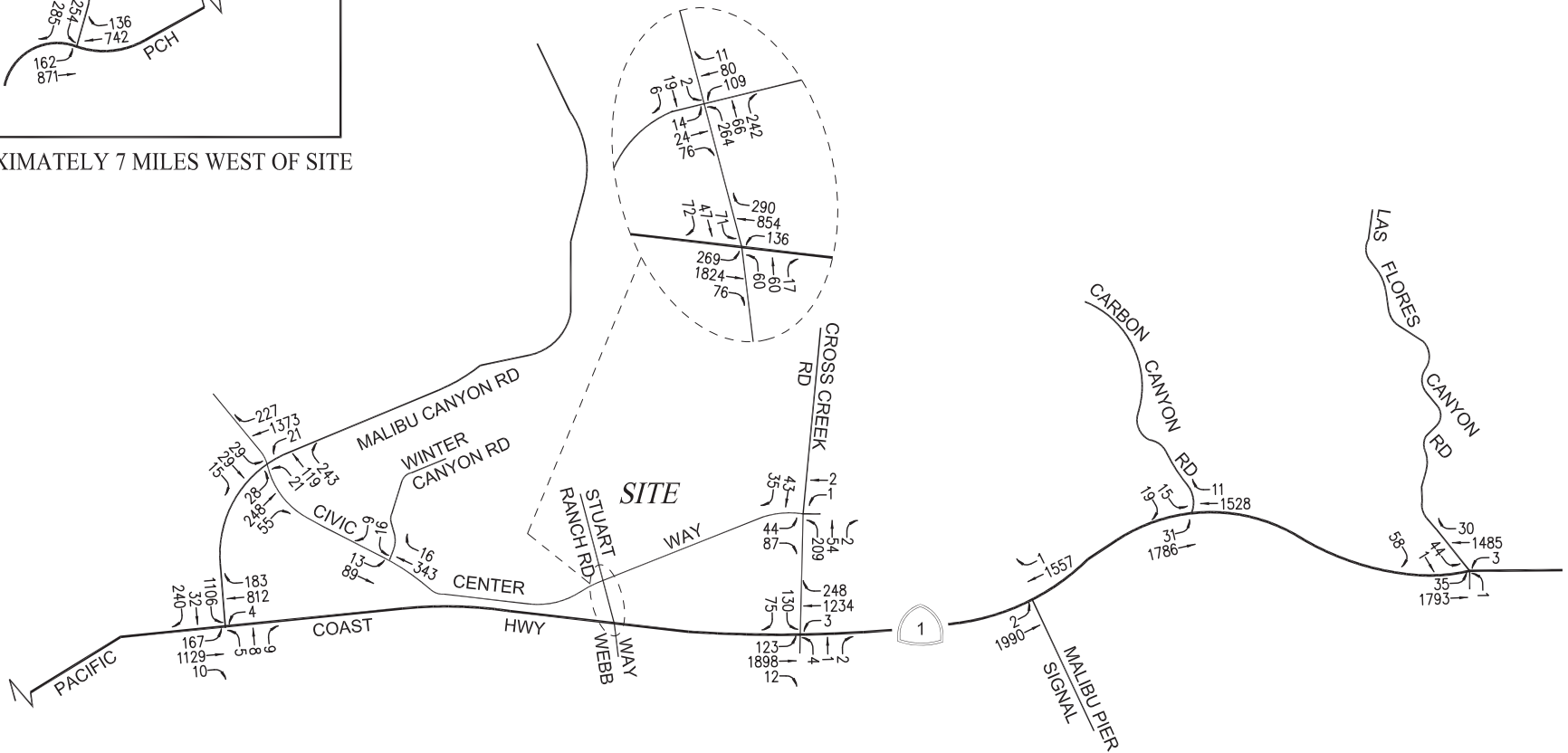
Pre-Project Level of Service	Project Related Increase in v/c
D, E, or F	0.05 or more


Automatic 24-hour machine traffic counts were provided by the City for a mid-week day (Thursday) and weekend (Saturday) in July 2012 for the analyzed street segments. Copies of the 24-hour machine counts are contained in the Traffic Study (See Appendix J). Note that in order to reflect existing conditions, these manual traffic counts were increased at an annual ambient growth rate 1.5% from 2012 to 2014.

The forecast traffic conditions at the analyzed street segment for Existing, Existing With Project, Opening Pre-Project, Opening With Project, Future Pre-Project, and Future With Project scenarios are summarized in Table 4.11.10. As presented in Column [2] of Table 4.11.10, the actual 24-hour count data was utilized to evaluate existing conditions on the roadway during each peak hour period. Furthermore, as shown in Column [4] of Table 4.11.10, a 1.5 percent (1.5%) annual ambient growth rate was conservatively added to the existing ADT volume in order to estimate the opening year (2017) pre-Project traffic volume. Additionally, as shown in Column [6] of Table 4.11.10, a 0.48 percent (0.48%) annual ambient growth



APPROXIMATELY 7 MILES WEST OF SITE

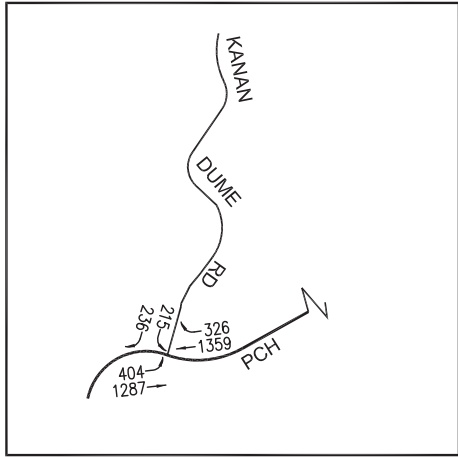


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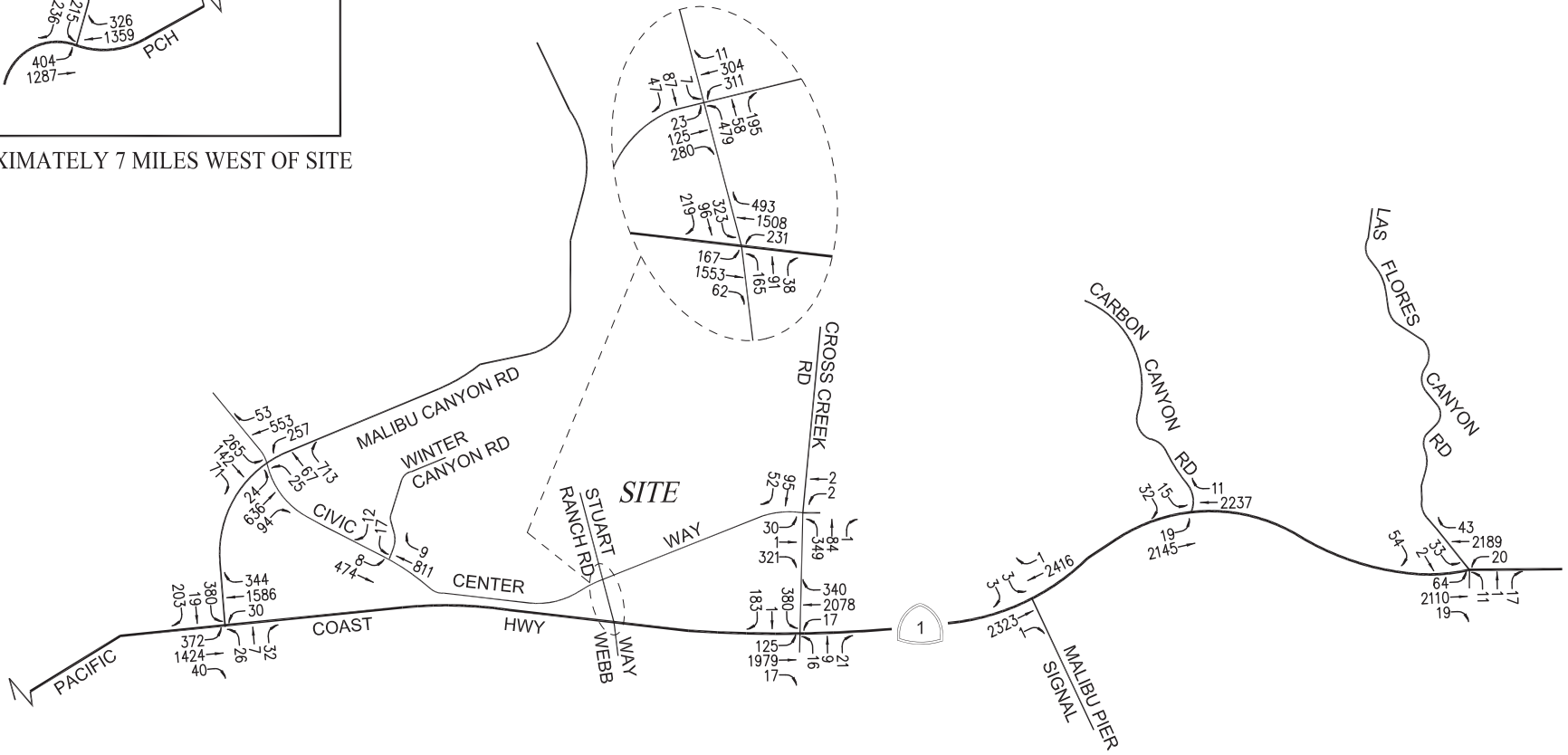
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.27
Future Cumulative with Project Traffic Volumes: Weekday AM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



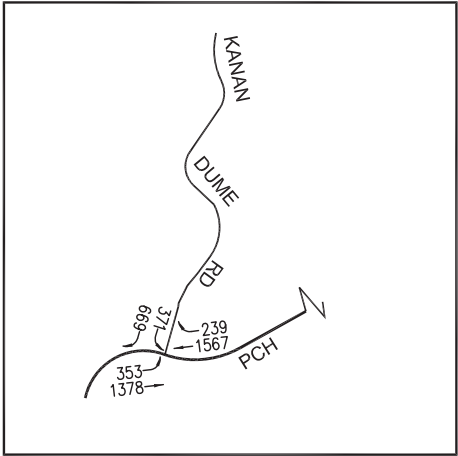
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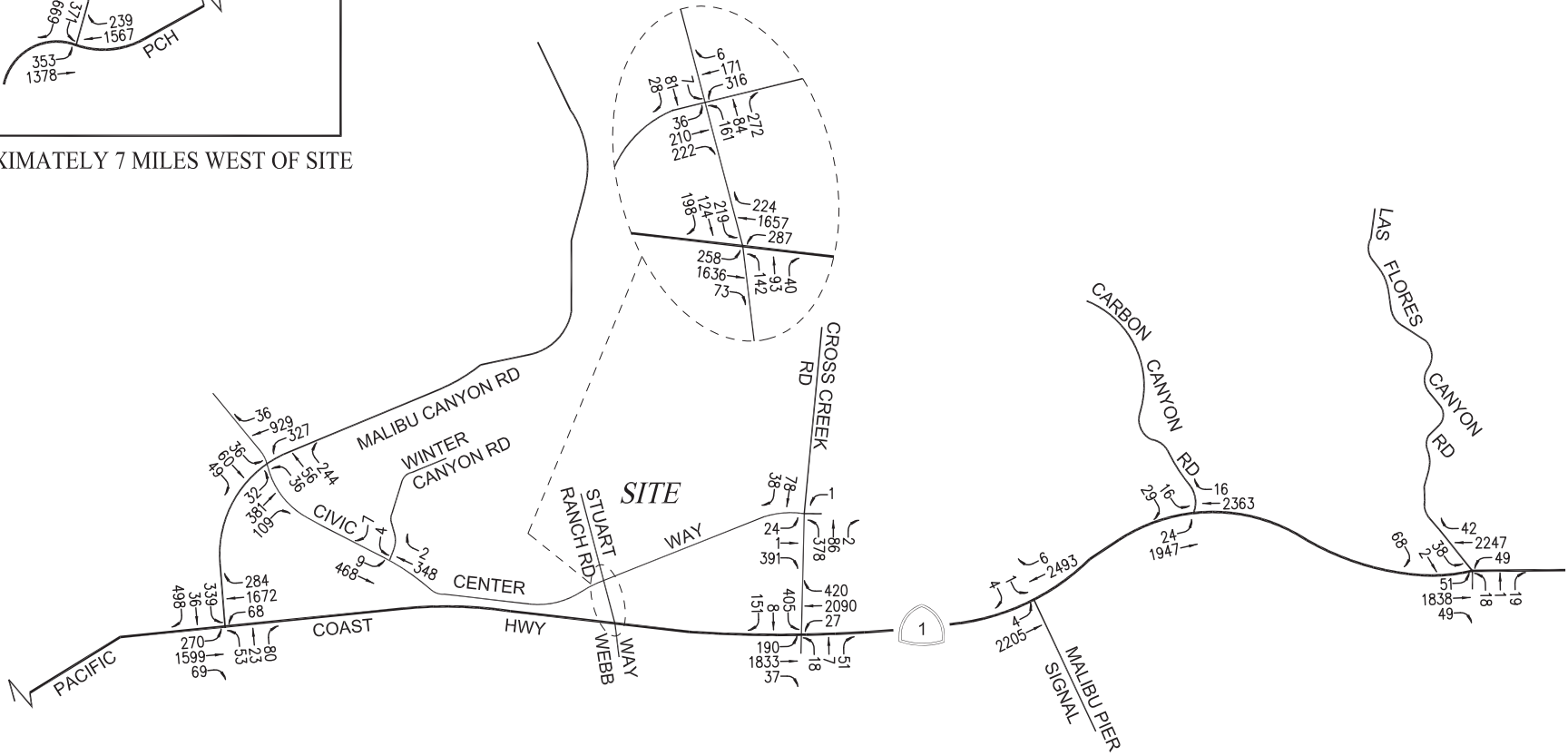
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.28
Future Cumulative with Project Traffic Volumes: Weekday PM Peak Hour



APPROXIMATELY 7 MILES WEST OF SITE



Not to Scale



Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014



Figure 4.11.29
Future Cumulative with Project Traffic Volumes: Saturday Mid-Day Peak Hour

rate through 2030 was conservatively added to the existing ADT volume in order to estimate the Future Pre-Project traffic volume.

As presented in Columns [3], [5], and [7] of Table 4.11.10, the Proposed Project peak hour trips will incrementally affect traffic volumes on the analyzed street segments. Application of the City’s threshold criteria for arterial street segments analysis indicates that the Proposed Project is not anticipated to significantly impact the analyzed street segments.

Table 4.11.10
Arterial Street Segment Analysis Summary

No.	Street Segment	Capacity	Peak Hour	[1] Project Volumes (V)	[2] Year 2014 Existing			[3] Existing with Project Change in V/C	[4] Year 2017 Opening			[5] Opening with Project Change in V/C	[6] Year 2030 Future			[7] Future with Project Change in V/C
					V	V/C	LOS		V	V/C	LOS		V	V/C	LOS	
1	PCH between John Tyler and Malibu Canyon Road (4 Lane Divided)	3,100	Weekday AM	22	1,967	0.63	B	0.02	2,057	0.66	B	0.01	2,083	0.67	B	0.01
		3,100	Weekday PM	20	2,988	0.96	E	0.01	3,124	1.01	F	0.00	3,164	1.02	F	0.01
		3,100	SAT Mid-Day	13	3,309	1.07	F	0.00	3460	1.12	F	0.00	3,505	1.13	F	0.00
2	Malibu Canyon Road north of Civic Center Road (2 Lane Divided)	2,800	Weekday AM	10	1917	0.68	B	0.01	1,945	0.72	C	0.00	2,031	0.73	C	0.00
		2,500	Weekday PM	10	2,136	0.85	D	0.01	2,166	0.89	D	0.01	2,262	0.90	E	0.01
		2,650	SAT Mid-Day	6	1,604	0.61	B	0.00	1,627	0.63	B	0.01	1,699	0.64	B	0.00

Notes:
V = Volume; V/C = Volume-to-capacity Ratio; LOS = Level of Service; PCH = Pacific Coast Highway
Source: Linscott, Law, & Greenspan Engineers, Traffic Impact Study, SMC Malibu Satellite Campus Project, October 17, 2014.

e. Project Impact and Cumulative Impact

This Traffic Study has been conducted to identify and evaluate the potential impacts of traffic generated by the Proposed SMC Malibu Campus Project. In order to evaluate the potential impacts to the local street system, eleven key intersections were analyzed during weekday and Saturday peak hour conditions to determine changes in operations following completion and occupancy of the Project. Application of the intersection impact threshold criteria from the City of Malibu indicates that the Proposed Project is not expected to create significant impacts at any of the eleven study intersections during weekday and Saturday conditions for Existing With Project, as well as Opening Year 2017 with Project conditions and Future 2030 With Project conditions. Incremental but not significant impacts are noted at the study intersections evaluated in this analysis. Furthermore, street segment analyses yielded incremental, but not significant impacts at the two study street segments based on City of Malibu criteria. As no significant impacts are identified due to the Proposed Project, no traffic mitigation measures are required or recommended for the study intersections or street segments. Additionally, no significant impacts are identified due to the Proposed Project using school-time traffic count data at nine of the study intersections and at an additional Los Angeles County intersection.

The Proposed Project in combination with the related projects would not result in any adverse impacts to traffic and circulation. The related projects, as identified in Section II Project Description, would be required through the City of Malibu Municipal Code requirements, to perform a traffic study, and comply with any required mitigation measures. As such, no significant cumulative impacts to traffic and circulation are anticipated.

Three CMP monitoring intersections were identified based on the 2010 Congestion Management Program for Los Angeles County. The CMP TIA guidelines require that intersection monitoring locations be examined if the Proposed Project will add 50 or more trips during either the AM or PM weekday peak hours. In addition, freeway monitoring locations must be examined if the Proposed Project will add 150 or more trips (in either direction) during either the AM or PM weekday peak hours. Based on the Project trip generation forecasts, further review of potential impacts to the nearest intersection and freeway monitoring locations that are part of the CMP highway system are not required.

4. MITIGATION MEASURES

As no significant impacts relative to traffic and circulation would occur, no mitigation measures are necessary.