# 4.3 TRANSPORTATION AND CIRCULATION

#### 4.3.1 INTRODUCTION

This section summarizes the findings of the traffic impact study prepared by Kimley-Horn & Associates, Inc. (Kimley-Horn) (October 2009) to evaluate the potential traffic impacts associated with the Sunset Ridge Park Project. The study is included in its entirety as Appendix B to this EIR.

#### 4.3.2 REGULATORY SETTING

## <u>Federal</u>

There are no relevant federal traffic and circulation regulations applicable to the proposed Project.

# **State**

# **Congestion Management Program**

The Congestion Management Program (CMP) is the program by which agencies in Orange County have agreed to monitor and report on the status of regional roadways. In June 1990, the passage of the Proposition 111 gas tax increase required urbanized areas in the State with a population of 50,000 or more to adopt a CMP. Decisions made the following year by the majority of local governments in Orange County designated the Orange County Transportation Authority (OCTA) as the Congestion Management Agency (CMA) for the County. Since then, OCTA has been responsible for the development, monitoring, and biennial updating of County's CMP. The goals of Orange County's CMP are to reduce traffic congestion and provide a mechanism for coordinating land use and development decisions. The CMP is also the mechanism for proposing transportation projects that are eligible to compete for the State gas tax funds.

The CMP requires that a traffic impact assessment (TIA) be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System. Per the CMP guidelines, this number is based on the desire to analyze any impacts that comprise 3 percent or more of the existing CMP Highway System facilities' capacity. The CMP Highway System includes specific roadways, including State highways, smart streets, and CMP arterial monitoring locations/intersections. Therefore, the CMP TIA requirements relate only to the designated CMP Highway System. The CMP system in the City consists of the following roadways:

- MacArthur Boulevard (Jamboree Road to Coast Highway)
- Jamboree Road (between the City limits and MacArthur Boulevard)
- Coast Highway (throughout)
- Newport Boulevard (from the north City limits to Coast Highway)

## City of Newport Beach

#### General Plan Circulation Element

The Circulation Element of the City of Newport Beach General Plan includes goals and policies related to transportation that are applicable to the proposed Project. These goals and policies

are provided in Table 4.1-2 in Section 4.1, Land Use and Related Planning Programs, with a Project consistency analysis. The Project's consistency with applicable goals and policies of the City's Coastal Land Use Plan (CLUP) and the California Coastal Act is provided in Section 4.1, Tables 4.1-3 and 4.1-4, respectively.

#### 4.3.3 METHODOLOGY

# **Traffic Study Area**

The traffic study methodology and traffic study area were defined by the City of Newport Beach (City), in accordance with the City's traffic study guidelines. The traffic study area for the traffic analysis is depicted on Exhibit 4.3-1 and includes five intersections. These traffic study area intersections are identified below.

- 1. Superior Avenue at Placentia Avenue,
- West Coast Highway at Prospect Avenue,
- 3. West Coast Highway at Park Access Road entrance (future intersection),
- 4. West Coast Highway at Superior Avenue,
- West Coast Highway at Newport Boulevard.

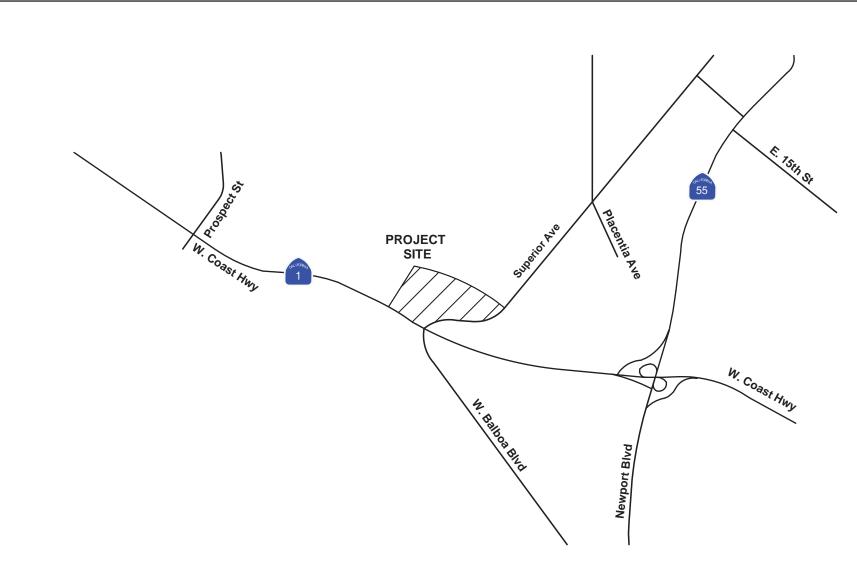
Field observations of the traffic study area intersections were conducted. Turning movement traffic counts for the AM and PM peak hours (between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM, respectively) were collected in February 2009.

# **Traffic Scenarios**

Traffic conditions were analyzed for the following scenarios: Existing (2009), Existing Conditions With Project Buildout, Year 2013 Without Project, and Year 2013 With Project.

**Existing Conditions (2009):** The analysis of existing traffic conditions provides a base of analysis for the remainder of the traffic study. Existing Conditions (2009) includes an assessment of roadways in the traffic study area, current traffic volumes, and operating conditions.

Existing Conditions With Project Buildout: This is a hypothetical scenario in which the Project would be fully implemented at the present time. This analysis, required by CEQA, assumes full development of the Project and full absorption of Project traffic on the existing highway system. The Existing Conditions With Project Buildout scenario does not account for future population growth that is projected in the City and adjacent jurisdictions within the traffic study area, with or without the Project. Further, it does not account for other future land use projects that would also be conditioned to provide for, or contribute to needed traffic improvements to the traffic study area, as well as other anticipated circulation improvements. Lastly, the traffic study area circulation system is projected to change over time, with or without the proposed Project. These circulation system changes include road improvements, reconfigurations, and realignments. For these reasons and the fact that Project completion is proposed for 2012, the Year 2013 With Project scenario provides a more realistic scenario for the traffic impact analysis and, therefore, the mitigation program addresses the Year 2013 With Project scenario rather than Existing Conditions Plus Project Buildout scenario.



Traffic Study Area Exhibit 4.3–1

Sunset Ridge Park EIR





**Year 2013 Without Project:** This scenario identifies future traffic conditions in 2013, which could be expected to result from regional growth, committed projects, and cumulative projects. Regional growth, committed projects, and cumulative projects are referred herein as "cumulative" or "cumulative projects". In accordance with City requirements, future traffic forecasts have been developed for the year following Project opening. The Project opening year is planned for 2012, therefore; the analysis year for this traffic impact study is 2013. According to the City's traffic impact study guidelines, an ambient growth rate of 1.0 percent per year is applied to selected key arterials in the City. Within the traffic study area, West Coast Highway and Newport Boulevard are considered key arterials.

**Year 2013 With Project:** This is an analysis of future traffic conditions in 2013 that could be expected to result from cumulative (regional growth, committed projects, and cumulative projects) and the proposed Sunset Ridge Park Project.

#### **Traffic Study Methodology**

A two-step process is used to develop Project traffic forecasts. The first step is to identify Project traffic generation; this is done by estimating the total arriving and departing traffic in the traffic study area on a peak hour and daily basis. The second step in the forecasting process is to assign Project-generated trips to roadways and intersections on the street system.

# Intersection Level of Service Methodology

Roadway performance is most often controlled by the performance of intersections, specifically during peak traffic periods. This is because traffic control at intersections interrupts traffic flow that would otherwise be relatively unimpeded except for the influences of on-street parking, access to adjacent land uses, and/or other factors resulting in vehicle interaction between intersections. For this reason, this traffic analysis focuses on peak period operating conditions for key intersections (rather than roadway segments) during the morning and evening commute peak hours (between 7:00 AM and 9:00 AM and between 4:00 PM and 6:00 PM) on a typical weekday.

Based upon City guidelines, the intersection capacity utilization (ICU) methodology was used to determine the volume-to-capacity (V/C) relationship for an intersection (based upon the individual V/C ratios for key conflicting traffic movements) and that intersection's corresponding level of service. By assuming 1,600 vehicles per hour per lane (vphpl) as the practical capacity for through lanes, left-turn and right-turn lanes, the ICU method directly relates traffic demand to the available capacity (an ICU allowance for yellow light signal time is not required by the City's guidelines). The resulting ICU numerical value represents the greatest green light signal time requirements for the entire intersection. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Intersections on State Highway facilities, which are controlled by the California Department of Transportation (Caltrans), were also analyzed using the Highway Capacity Manual (HCM) methodology. In the Project vicinity, West Coast Highway and Newport Boulevard are Caltrans facilities. Therefore, study intersections on these roadways are analyzed using the HCM intersection analysis methodology.

HCM methodology measures average seconds of delay per vehicle based on a number of technical parameters, such as peak hourly traffic volumes, number of lanes, type of signal operation, and signal timing and phasing in the calculations.

Under both methodologies, operating conditions at intersections are typically described in terms of a "level of service" (LOS). Level of service is a qualitative measure of a facility's operating performance and is described with a letter designation from A to F with LOS A representing uncongested free-flowing operating conditions and LOS F representing congested over-capacity conditions. The HCM methodology returns a delay value, expressed in terms of the average seconds of delay per vehicle, which also corresponds to a level of service measure. Table 4.3-1 identifies each LOS and the corresponding V/C ratio.

The City of Newport Beach has adopted LOS D as the peak hour operating standard for intersection locations. For signalized intersections, an ICU value less than or equal to 0.90 satisfies the City's standards.

For State-controlled intersections, the *Caltrans Guide for the Preparation of Traffic Impact Studies* states that "Caltrans endeavors to maintain a target Level of Service at the transition between LOS 'C' and LOS 'D' on State highway facilities. If an existing State highway facility is operating at less than the target LOS, the existing Level of Service is to be maintained".

TABLE 4.3-1
INTERSECTION LEVELS OF SERVICE

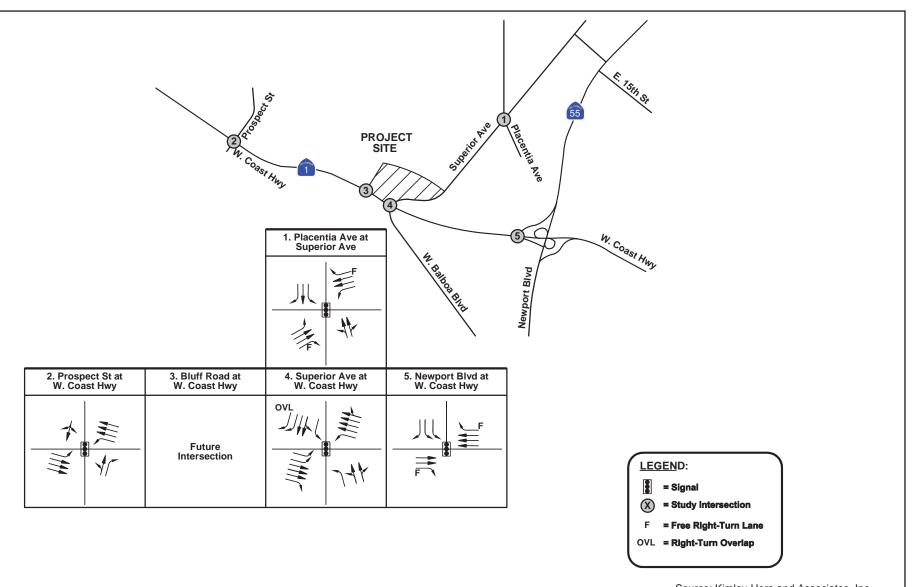
Level of Service	ICU V/C Ratio	HCM <sup>a</sup> Average Delay per Vehicle (sec)	Description
Α	0.00-0.60	≤10	Excellent: No vehicle waits longer than 1 red light and no approach phase is fully used.
В	0.61–0.70	> 10 and ≤ 20	Very Good: An occasional approach phase is fully utilized; drivers begin to feel somewhat restricted within groups of vehicles.
С	0.71–0.80	> 20 and ≤ 35	Good: Occasionally drivers may have to wait through more than 1 red light; back-ups may develop behind turning vehicles
D	0.81–0.90	> 35 and ≤ 55	Fair: Delays may be substantial during portions of the peak hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.91–1.00	> 55 and ≤ 80	<i>Poor:</i> Represents the most vehicles that the intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.00	> 80	Failure: Back-ups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Tremendous delays with continuously increasing queue lengths.
a HCM 20	00.		

#### 4.3.4 EXISTING CONDITIONS

Exhibit 4.3-2 depicts the existing physical characteristics of the traffic study area street system, including lane configurations and traffic control at study area intersections.

## **Intersection Volumes**

ICU values and the corresponding levels of service for the traffic study area are identified in Table 4.3-2. The table shows that all intersections are operating at an acceptable level of service (i.e., LOS D or better). Existing AM and PM peak hour intersection turning movement



# Existing Lane Configuration and Traffic Control





volumes for the traffic study area intersections are depicted in Exhibit 4.3-3. No traffic is currently generated at the Project site.

TABLE 4.3-2 EXISTING (2009) LEVELS OF SERVICE/ICU

			AM Peak Hour				PM Peak Hour				
No.	Intersection	Control	Delay	LOS	ICU	LOS	Delay	LOS	ICU	LOS	
Superior Ave at:											
1	Placentia Ave	S	N/A	N/A	0.50	Α	N/A	N/A	0.57	Α	
West	Coast Hwy at:										
2	Prospect St	S	11.7 <sup>a</sup>	В	0.72	С	3.9 <sup>a</sup>	Α	0.63	В	
3	Park Access Road				Future	Intersec	tion				
4	Superior Ave	S	22.1 <sup>a</sup>	С	0.65	В	27.8 <sup>a</sup>	С	0.65	В	
5	Newport Blvd	S	12.4 <sup>a</sup>	В	0.83	D	15.5 <sup>a</sup>	В	0.64	В	

S: signalized; N/A: Not applicable

Source: Kimley-Horn 2009.

#### 4.3.5 PROJECT DESIGN FEATURES AND STANDARD CONDITIONS

# **Project Design Features**

No Project Design Features (PDFs) have been identified.

# **Standard Conditions and Requirements**

- **SC 4.3-1** Sight distance at the Project's access point shall comply with City of Newport Beach standards.
- Traffic control and truck route plans shall be reviewed and approved by the Public Works Department before their implementation. Large construction vehicles shall not be permitted to travel narrow streets, as determined by the Public Works Department. Disruption caused by construction work along roadways and by movement of construction vehicles shall be minimized by proper use of traffic-control equipment and flag persons. Construction workers shall be required to park on the Project site.

#### 4.3.6 THRESHOLDS OF SIGNIFICANCE

The following threshold criteria are from the City of Newport Beach Initial Study Checklist. The Project would result in a significant traffic impact if it would:

Threshold 4.3-1 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).

HCM delay analysis conducted for Caltrans-controlled intersections. Intersection operation is expressed in a V/C ratio for the ICU methodology and in average seconds of delay per vehicle during the peak hour for the HCM 2000 Methodology.

**Threshold 4.3-2** Exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for

designated roads or highways.

**Threshold 4.3-3** Substantially increase hazards due to a design feature (e.g., sharp curves

or dangerous intersections) or incompatible uses (e.g. farm equipment),

or result in inadequate emergency access.

**Threshold 4.3-4** Result in inadequate parking capacity.

Threshold 4.3-5 Conflict with any applicable plan, policy, or regulation of an agency with

jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Conflict with adopted policies, plans, or programs supporting alternative transportation

(e.g., bus turnouts, bicycle racks).

As previously discussed in Section 2.3.3, Effects Found Not to be Significant, the City through the preparation of the Initial Study determined that the proposed Project would not have a significant impact for the following thresholds and that no further analysis was required:

 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.

The proposed Project would not include any uses that would change air traffic patterns or locations and would not increase the amount of air traffic. No airports are located within the immediate Project area. Regional air traffic demands would be accommodated by Los Angeles International Airport, John Wayne Airport, Ontario Airport, and Long Beach Airport.

# **City of Newport Beach Intersections**

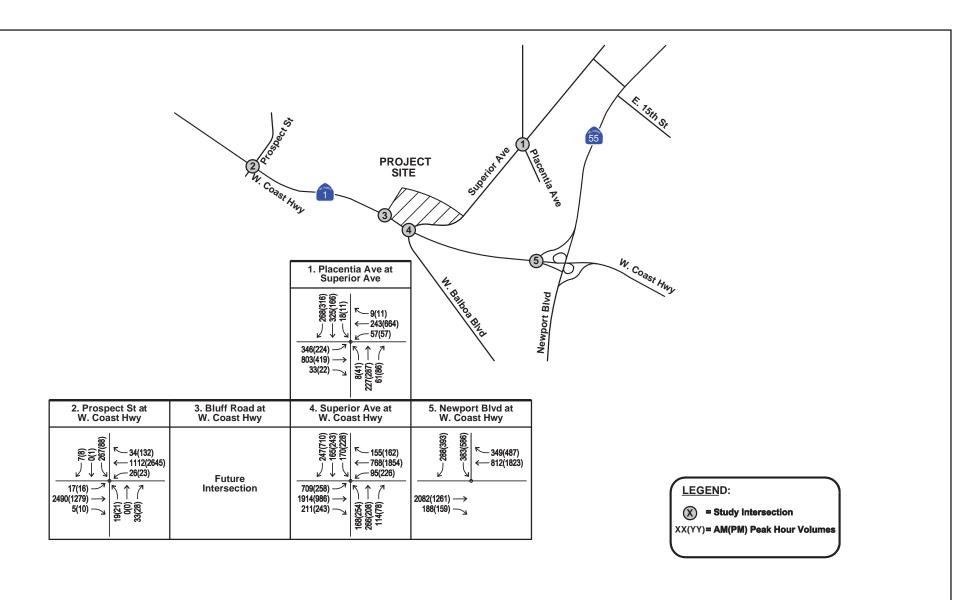
For City-controlled intersections, ICU and change in ICU values are calculated to three decimal places then rounded to two decimal places. Consistent with City requirements, the following criteria are applied to identify those intersections where significant impacts occur and project-related mitigation is warranted.

- The ICU value under "with project" conditions exceeds 0.90 (LOS E or F).
- The ICU increase attributable to the project is 0.01 or greater at an intersection already operating at an unacceptable level of service.

A significant traffic impact caused by a project is considered to be mitigated when project-related improvements would modify the ICU value to less than or equal to 0.90, or an ICU value to less than or equal to the "without project" ICU.

#### **Caltrans Intersections**

A significant project impact occurs at a State Highway study intersection when the addition of project-generated trips causes the peak hour level of service of the study intersection to change from acceptable operation (LOS A, B, or C) to deficient operation (LOS D, E, or F).



# **Existing Peak Hour Traffic Volumes**

Exhibit 4.3-3

Sunset Ridge Park EIR



#### 4.3.7 ENVIRONMENTAL IMPACTS: PROJECT AND CUMULATIVE

## **Trip Generation**

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation factors and equations used in the traffic forecasting procedure are from *Trip Generation* (8<sup>th</sup> ed.), published by the Institute of Transportation Engineers (ITE 2008). The main components of the proposed Project are one baseball field, two soccer fields, playground, a memorial garden, and pedestrian walkways. Due to the layout of the sports fields, the baseball field and the soccer fields cannot be used simultaneously. The two youth soccer fields can be used at the same time.

The traffic impact study analyzed trip generation for two soccer fields using ITE Land Use category "Soccer Complex" (488), and ITE Land Use category "City Park" (411) for the entire 18.9-acre Project site.

Daily AM and PM peak hour trip generation rates, and Project-related trips for the Project are presented in Table 4.3-3. Background data regarding trip rate formulation is provided in Appendix B of this EIR. Sunset Ridge Park is estimated to generate 173 daily trips with 2 AM peak hour trips and 42 PM peak hour trips. Exhibit 4.3-4, Project-Related Peak Hour Traffic Volumes, identifies Project-specific traffic without cumulative development.

TABLE 4.3-3
TRIP GENERATION

			Trip Generation Rates						
	ITE			AM Peak Hour		PM Peak Hour		ur	
Land Use	Code	Unit	Daily	In	Out	Total	In	Out	Total
City Park	411	ac	1.59	_	-	_	-	-	_
Soccer Complex	488	Field	71.33	0.70	0.70	1.40	14.26	6.41	20.67
Land Use		Quantity							
City Park		18.9 ac	30	N/A	N/A	N/A	N/A	N/A	N/A
Soccer Complex		2 Fields	143	1	1	2	29	13	42
		Total Trips	173	1	1	2	29	13	42

ac: acre

N/A: Not Applicable.

Source: Kimley-Horn 2009.

# **Trip Distribution and Assignment**

Project trip distribution assumptions for the Project site were developed after consultation with the City's Recreation and Senior Services Department, and are based on knowledge of traffic flow patterns and the roadway system in the area, as well as the location of area trip producers, such as residential neighborhoods. Trip distribution assumptions were submitted to City traffic engineering staff for review and concurrence. The trip distribution for the Project is depicted in Exhibit 4.3-5, Project Trip Distribution.

<sup>-:</sup> No peak hour trip generation rates given by ITE for this land use.

# **Committed Projects**

Information about committed projects was provided by the City of Newport Beach staff. Committed projects are projects that have been approved, but are either not yet built, or are built but not yet fully occupied. Committed City projects are summarized in Table 4.3-4. Committed projects data sheets provided by the City are provided in Appendix B.

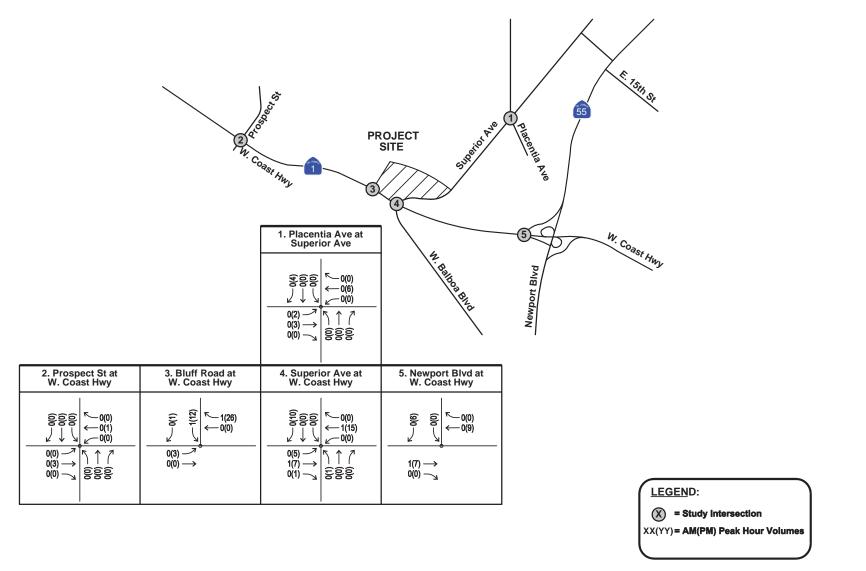
TABLE 4.3-4
CITY OF NEWPORT BEACH COMMITTED PROJECTS

City Project Number	Project Name	Percent Complete
148	Fashion Island Expansion	40
154	Temple Bat Yahm Expansion	65
555	Circulation Improvement and Open Space Agreement (CIOSA) – Irvine Project	91
910	Newport Dunes	0
936	1401 Dove Street	0
944	1901 Westcliff Surgical Center	0
945	Hoag Hospital Phase III	0
947	Birch Medical Office Complex	0
949	St. Mark Presbyterian Church	77
951	Corporate Plaza West	0
952	Mariner's Mile Gateway	0
953	Land Rover Newport Beach Service Center	0
954	Our Lady Queen of Angeles Catholic Church Expansion	0
955	2300 Newport Boulevard	0
957	Newport Executive Court	0
958	Hoag Healthcare Center	0
959	North Newport Center	0
960	Santa Barbara Condominiums	0
Source: City of I	Newport Beach - Traffic Phasing Data - Inc	cludes approved

Source: City of Newport Beach – Traffic Phasing Data – Includes approved projects less than 100 percent complete, 2009.

# **Cumulative Projects**

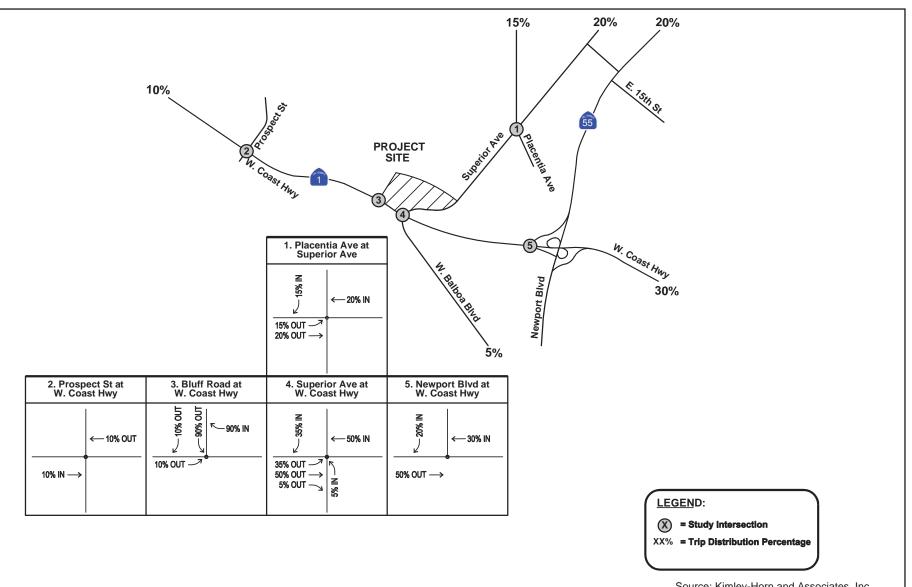
The traffic analysis also includes traffic from reasonably foreseeable projects in the Project vicinity. Reasonably foreseeable projects are projects that are in various stages of the application and approval process, but have not yet been approved. Cumulative project traffic information was provided by the City. Cumulative projects are summarized in Table 4.3-5 (Appendix B).



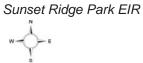
# Project-Related Peak Hour Traffic Volumes







# Project Trip Distribution





# **TABLE 4.3-5 CUMULATIVE PROJECTS**

Project Name	Project Description
Newport Banning Ranch	75-Room Resort Hotel 439 du Residential Condominium/Townhouse 806 du Residential Condominium/Townhouse 130 du Single-Family Detached Housing 75,000 sf Retail
City Hall and Park Development	98,000 sf Government Office Complex 17,135 sf Library 15-acre Park
Coast Community College	67,000 gsf Higher Education Learning Center
Marina Park	4.89-acre Park 21,300 gsf Recreational Community Center 23-berth Marina
Mariner's Medical Arts	12,245 gsf Medical Office Addition
Newport Beach Mormon Temple	17,460 sf Church
Newport Coast	1,298 du Condominium/Townhouse <sup>a</sup> 3,180 du Single-Family Detached Residential <sup>a</sup> 582 du Multi-Family Residential <sup>a</sup>
Newport Ridge	2,107 du Single-Family Detached Residential <sup>a</sup> 1,281 du Multi-Family Residential <sup>a</sup> 102,959 sf Commercial
Old Newport GPA	25,725 gsf Medical Office
	or the Newport Banning Ranch project indicates that the

construction for the project would not begin before the Sunset Ridge Park opening year of 2012.

Source: City of Newport Beach 2009.

Peak hour volumes for committed and cumulative projects are depicted on Exhibit 4.3-6, Cumulative Projects Peak Hour Traffic Volumes.

#### **Year 2013 Without Project**

The Year 2013 Without Project traffic scenario assumes implementation of cumulative projects (regional growth, committed projects, and cumulative projects) without the proposed Project. In accordance with City requirements, future traffic forecasts have been developed for the year following Project opening which would be 2012. Therefore, the analysis year is 2013. Consistent with the City's traffic impact study guidelines, an ambient growth rate of 1.0 percent per year is applied to selected key arterials in the City. Within the traffic study area, West Coast Highway and Newport Boulevard are considered key arterials.

# Intersection Volumes

Year 2013 intersection volumes without the Project are depicted on Exhibit 4.3-7, Year 2013 Without Project Peak Hour Traffic Volumes. Intersection analysis was conducted for Year 2013 without Project conditions for the study intersections. Table 4.3-6 identifies the ICU values and the corresponding levels of service for the traffic study area intersections in 2013 without the Project. As identified in the table, four of five the intersections are forecasted to operate at acceptable levels of service. All intersections currently operating at acceptable levels of service are forecasted to continue to operate at acceptable levels of service with the exception of one

du: dwelling unit(s); sf: square feet; gsf: gross square feet

Assumes 70 percent of dwelling units occupied.

intersection. This intersection is projected to operate at a deficient level of service during the AM peak hour without the Project:

West Coast Highway at Newport Boulevard — 0.92 (LOS E), AM peak

TABLE 4.3-6
YEAR 2013 WITHOUT PROJECT LEVELS OF SERVICE/ICU

			AM Peak Hour				PM Peak Hour				
No.	Intersection	Control	Delay	LOS	ICU	LOS	Delay	LOS	ICU	LOS	
Superior Ave at:											
1	Placentia Ave	S	N/A	N/A	0.56	Α	N/A	N/A	0.66	В	
West	Coast Hwy at:										
2	Prospect St	S	11.8 <sup>a</sup>	В	0.78	С	3.9 <sup>a</sup>	Α	0.72	С	
3	Park Access Road				Future	Interse	ction				
4	Superior Ave	S	23.0 <sup>a</sup>	С	0.70	В	28.8ª	С	0.74	С	
5	Newport Blvd	S	14.3 <sup>a</sup>	В	0.92	E	16.3ª	В	0.79	С	

S: signalized; N/A: Not applicable

Source: Kimley-Horn 2009.

#### Threshold 4.3-1

Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., resulting in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?

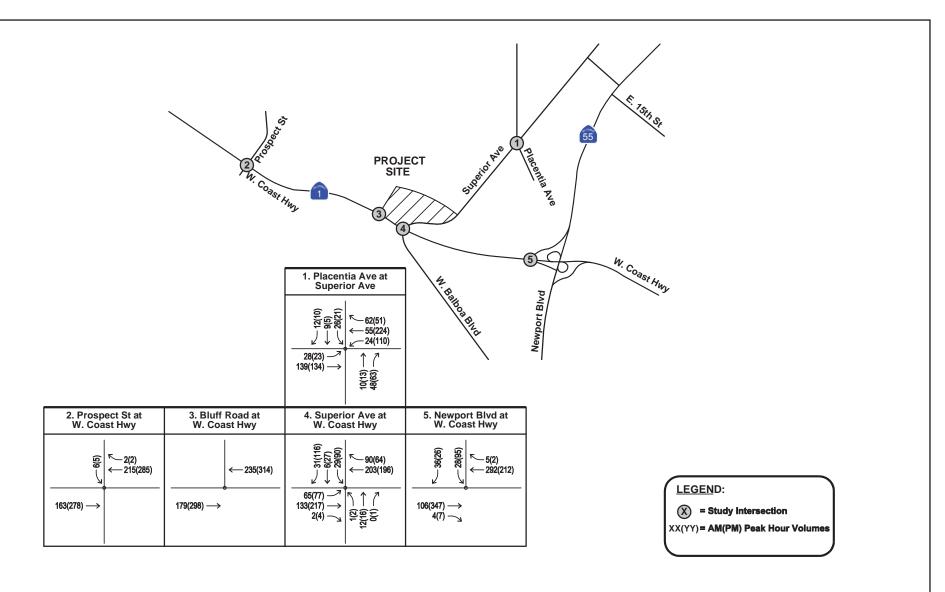
## **Existing Conditions With Project Buildout**

As previously discussed, this is a hypothetical scenario in which the Project would be fully implemented at the present time. This analysis, required by CEQA, assumes full development of the Project and full absorption of Project traffic on the existing highway system. The *Existing Conditions With Project Buildout* scenario does not account for future population growth that is projected in the City and adjacent jurisdictions within the traffic study area, with or without the Project. Further, it does not account for other future land use projects that would also be conditioned to provide for, or contribute to needed traffic improvements to the traffic study area, as well as other anticipated circulation improvements. Lastly, the traffic study area circulation system is projected to change over time, with or without the proposed Project. These circulation system changes include road improvements, reconfigurations, and realignments. For these reasons and the fact that Project completion is proposed for 2012, the *Year 2013 With Project* scenario provides a more realistic scenario for the traffic impact analysis and, therefore, the mitigation program addresses the *Year 2013 With Project* scenario rather than *Existing Conditions Plus Project Buildout* scenario.

#### Intersection Volumes

Table 4.3-7 identifies the ICU values and the corresponding levels of service for the traffic study area intersections for the *Existing Conditions With Project Buildout* scenario. With the addition of Project traffic to existing conditions, all traffic study area intersections continue to operate at acceptable levels of service. Under this scenario, no traffic impacts would occur.

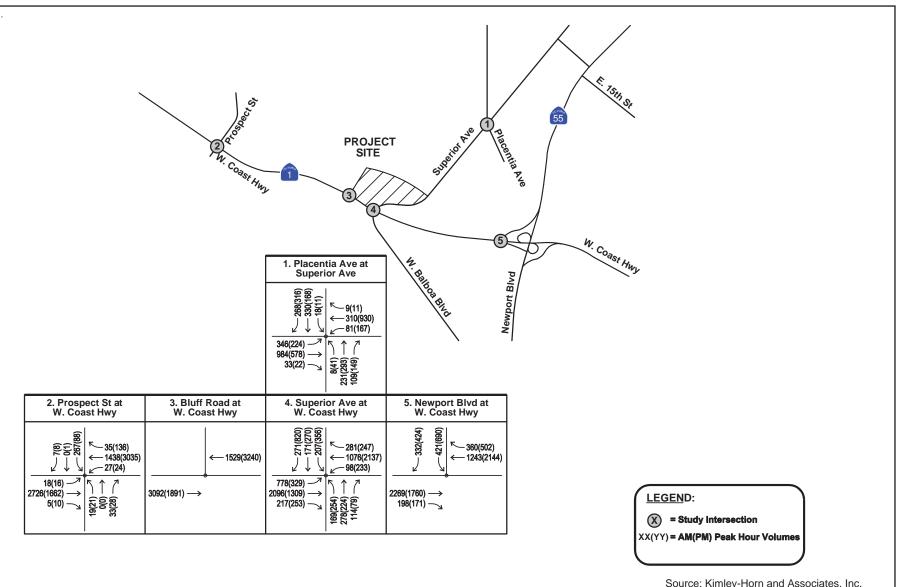
<sup>&</sup>lt;sup>a</sup> HCM delay analysis conducted for Caltrans-controlled intersections. Intersection operation is expressed in V/C ratio for the ICU methodology and in average seconds of delay per vehicle during the peak for the HCM 2000 Methodology.



# Cumulative Projects Peak Hour Traffic Volumes







# Year 2013 Without Project Peak Hour Traffic Volumes





# TABLE 4.3-7 EXISTING CONDITIONS WITH PROJECT BUILDOUT SUMMARY OF INTERSECTION LEVEL OF SERVICE

			AM Peak Hour				PM Peak Hour				
No.	Intersection	Control	Delay	LOS	ICU	LOS	Delay	LOS	ICU	LOS	
Superior Ave at:											
1	Placentia Ave	S	N/A	N/A	0.50	Α	N/A	N/A	0.58	Α	
West	Coast Hwy at:										
2	Prospect Street	S	11.7 <sup>a</sup>	В	0.72	С	3.9 <sup>a</sup>	Α	0.63	В	
3	Park Access Road	S	0.1 <sup>a</sup>	Α	0.59	Α	0.4 <sup>a</sup>	Α	0.60	Α	
4	Superior Avenue	S	22.1 <sup>a</sup>	С	0.65	В	27.9 <sup>a</sup>	С	0.66	В	
5	Newport Boulevard	S	12.4 <sup>a</sup>	В	0.83	D	15.6ª	В	0.65	В	

S: signalized; N/A: Not Applicable

Source: Kimley-Horn 2009.

# Year 2013 With Project

This traffic scenario assesses the potential traffic impacts of the proposed Project with cumulative projects (committed projects and cumulative projects). Project-related peak hour traffic volumes were added to the year 2013 without Project traffic volumes to develop "Year 2013 With Project" forecasts.

### Intersection Volumes

Year 2013 intersection volumes with the Project are depicted on Exhibit 4.3-8, Cumulative With Project Peak Hour Traffic Volumes. Table 4.3-8 identifies the ICU values and the corresponding levels of service for the traffic study area intersections in 2013 with the Project. With the addition of Project traffic, the intersection of West Coast Highway at Newport Boulevard is forecasted to continue to operate at LOS E in the AM peak hour. Based on the significance criteria set forth by the City of Newport Beach (the ICU increase attributable to the project is 0.01 or greater at an intersection already operating at an unacceptable level of service), the Project would not significantly impact this intersection. All other traffic study intersections are forecasted to operate at acceptable levels of service in the AM and PM peak hours.

<sup>&</sup>lt;sup>a</sup> HCM delay analysis conducted for Caltrans-controlled intersections. Intersection operation is expressed in V/C ratio for the ICU methodology and in average seconds of delay per vehicle during the peak hour for the HCM 2000 Methodology.

# TABLE 4.3-8 YEAR 2013 WITH PROJECT SUMMARY OF INTERSECTION LEVEL OF SERVICE

			AM Peak Hour				PM Peak Hour				
No.	Intersection	Control	Delay	LOS	ICU	LOS	Delay	LOS	ICU	LOS	
Superior Ave at:											
1	Placentia Ave	S	N/A	N/A	0.56	Α	N/A	N/A	0.676	В	
West	Coast Hwy at:										
2	Prospect Street	S	11.8ª	В	0.78	С	3.9 <sup>a</sup>	Α	0.72	С	
3	Park Access Road	S	0.1 <sup>a</sup>	Α	0.65	В	0.6ª	Α	0.69	В	
4	Superior Avenue	S	23.0 <sup>a</sup>	С	0.70	В	28.9 <sup>a</sup>	С	0.75	С	
5	Newport Boulevard	S	14.3ª	В	0.92	E	16.4ª	В	0.80	С	

S: signalized; N/A: Not Applicable

Source: Kimley-Horn 2009.

#### Construction-Related Traffic

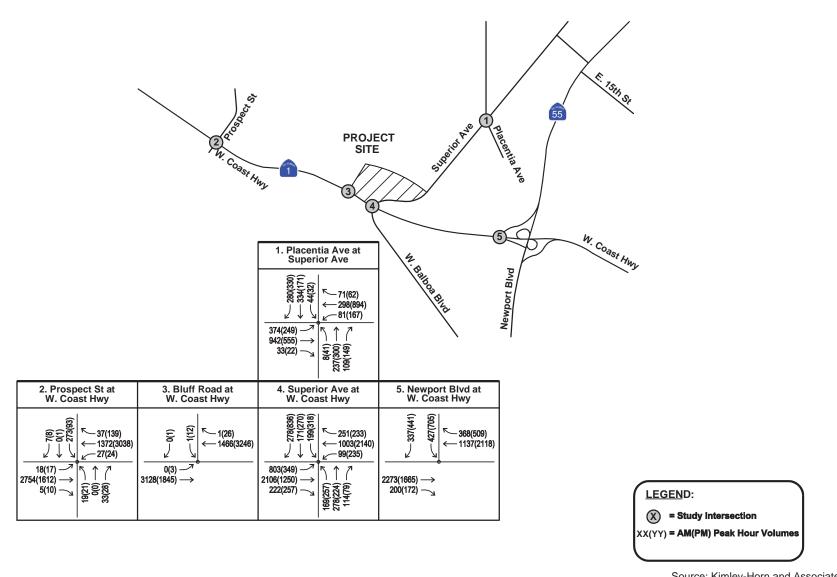
Construction of the proposed Project is planned to occur in a single construction phase lasting between 16 and 18 months.

Construction activities would include site clearing, grading and excavation, and construction (park and access road). Large construction equipment such as bulldozers, loaders, scrapers, and pavers would be required during various construction phases. This equipment is generally brought to the site at the start of the construction phase and kept on site until its term of use ends. A staging area would be designated on-site to store construction equipment and supplies during construction. Throughout the construction, the size of the work crew reporting to the site each day would vary depending on different construction activities. Parking for workers would be provided on site during all phases of construction. Construction workers would not be allowed to park on local streets.

It is estimated that earthwork for the site would require approximately 34,000 cubic yards of dirt export, which would require approximately 2,125 truckloads of dirt removal. The City is proposing to use the adjacent Newport Banning Ranch property for stockpile of the export dirt from the Sunset Ridge Park site. The haul route for trucks carrying dirt from the park site to the stockpile sites would be through the Newport Banning Ranch property (see Exhibit 3-12 of Section 3.0, Project Description).

Construction-related traffic would use the existing regional and local road network and would most likely access the Project site primarily from West Coast Highway and Superior Avenue, as well as through the Newport Banning Ranch property. Temporary delays in traffic may occur due to oversized vehicles traveling at lower speeds on West Coast Highway. Such delays would be occasional, and of short duration. No vehicles would be permitted to stage on West Coast Highway. These temporary delays would be considered less than significant. However, to facilitate the movement of construction traffic and to minimize potential disruptions, Standard Condition (SC) 4.3-2 and Mitigation Measures (MMs) 4.3-1 and 4.3-2 would be applicable to the proposed Project.

<sup>&</sup>lt;sup>a</sup> HCM delay analysis conducted for Caltrans-controlled intersections. Intersection operation is expressed in V/C ratio for the ICU methodology and in average seconds of delay per vehicle during the peak hour for the HCM 2000 Methodology.



# Year 2013 With Project Peak Hour Traffic Volumes





## Impact Summary:

Less than Significant Impact with Mitigation. The proposed Project would not result in a 0.01 or greater increase in ICU at the intersection of West Coast Highway at Newport Boulevard, which is projected to exceed the City's LOS standards. All other traffic study intersections would continue to operate at acceptable levels of service. With implementation of SC 4.3-2 and MMs 4.3-1 and 4.3-2, impacts would be less than significant.

#### Threshold 4.3-2

Would the project exceed, either individually or cumulatively, a level of service standard established by the County congestion management agency for designated roads or highways?

The intersection of West Coast Highway at Newport Boulevard is a County of Orange Congestion Management Plan (CMP) intersection. This intersection currently operates at an acceptable level of service. In 2013, this intersection is projected to operate at a deficient level of service in the AM peak hour (LOS E). However, the deficiency is not attributable to the Project. No significant impact would therefore occur associated with the proposed Project.

Impact Summary:

**Less than Significant Impact.** Based on the significance criteria for CMP intersections, the proposed Project would not significantly impact the one CMP intersection within the traffic study area.

#### Threshold 4.3-3

Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment), or result in inadequate emergency access?

## **Site Access and Circulation**

Access to the Sunset Ridge Park site is proposed to be provided via a park access road that would be constructed from West Coast Highway through the adjacent Newport Banning Ranch property. The City is proposing a signal at the park access road and West Coast Highway intersection. Because West Coast Highway is a State facility, Caltrans approval would be required for the widening and signalization. The access road would intersect West Coast Highway approximately 980 feet west of Superior Avenue. The road would extend northward from West Coast Highway for about 850 feet, and then would follow a northwest-to-southeast alignment for about 550 feet to connect to the park parking lot.

The north-south leg of this access road would be constructed as a 28-foot-wide undivided roadway with 2 travel lanes. The east-west leg of the road would vary in width, with a portion being 28 feet with 2 lanes, and a portion being 44 feet wide with 2 travel lanes and parallel parking along the north side.

Pedestrian connections to and from the public street system are proposed to be provided from West Coast Highway and from Superior Avenue.

#### Signal Warrant Analysis

As noted, the City is proposing a signal at the future West Coast Highway and park access road intersection. If signalized, all turning movements to/from the park access road would be allowed. Because West Coast Highway is a State facility, Caltrans approval would be required. A signal warrant analysis was conducted for this proposed future intersection. The *City of Newport* 

Beach General Plan's Circulation Element assumes a roadway extension north through the Newport Banning Ranch property to 19<sup>th</sup> Street, with additional connections at 15<sup>th</sup> and 17<sup>th</sup> Street with or without development of that property. The park access road would also serve as one of the access points from the public street system to any future development on the Newport Banning Ranch property; widening of the park access road would be required.

General Plan Buildout forecast volumes were used to conduct the signal warrant analysis. The forecasts assume buildout of the City as well as the surrounding areas in accordance with General Plan Land Use and Circulation Plans, including the adjacent Newport Banning Ranch property. The *City of Newport Beach General Plan* designates the Newport Banning Ranch property as Open Space/Residential Village (OS[RV]). Under the OS designation, the Newport Banning Ranch property would have active park uses and roads. If the property is not acquired for open space, the property can be developed as a residential village (RV) with up to 1,375 dwelling units, 75,000 square feet of retail uses, 75 hotel rooms, parks, and roadways. Therefore, the signal warrants were conducted for General Plan buildout under both General Plan scenarios for the Newport Banning Ranch property.

Caltrans Signal Warrants 1 and 2 (Figure 9-4 of the Caltrans Traffic Manual) were conducted to determine if the future intersection at West Coast Highway and the park access road would meet the criteria for signalization. A summary of the results of the signal warrant analysis is provided in Table 4.3-9. Signal warrant worksheets are provided in Appendix B.

TABLE 4.3-9
SIGNAL WARRANT ANALYSIS: WEST COAST HIGHWAY AT THE PARK
ACCESS ROAD

		ant 1 icular Warrant	Warrant 2 Interruption of Continuous Traffic			
Factor	Major Street	Minor Street	Major Street	Minor Street		
Minimum ADT Requirements <sup>a</sup>	9,600	3,200	14,400	1,600		
Forecast Conditions ADT <sup>b</sup>						
Newport Banning Ranch: General Plan Buildout as Open Space	45,450	5,225	45,450	5,225		
Minimum Requirement Met?	Yes	Yes	Yes	Yes		
Warrant Satisfied?	Y	es	Ye	es		
Newport Banning Ranch: General Plan Buildout as Residential Village	50,000	7,500	50,000	7,500		
Minimum Requirement Met?	Yes	Yes	Yes	Yes		
Warrant Satisfied?	Y	es	Yes			

ADT: average daily traffic.

Table 4.3-9 indicates that the intersection would satisfy both the Caltrans Warrant #1 (Minimum Vehicular Warrant) and Caltrans Warrant #2 (Interruption of Continuous Traffic Warrant) at General Plan buildout. The estimated average daily traffic (EADT) volume on the park access road approach to West Coast Highway is forecasted to exceed the minimum volume requirement to satisfy Warrant #1 (3,200 vehicles per day [vpd]) and the minimum requirement to satisfy Warrant 2 (1,600 vpd). The intersection of the park access road at West Coast Highway would, therefore, warrant signalization under future General Plan conditions.

<sup>&</sup>lt;sup>a</sup> Based on Figure 9-4 of the Caltrans Traffic Manual

Source: City of Newport Beach Traffic Model - General Plan Conditions, Urban Crossroads

# Vehicular Access Options

If the intersection of the park access road at West Coast Highway is not signalized, full turning movements at the intersection would not be allowed. Two options for unsignalized operation of this intersection are evaluated:

- Access Option 1: Unsignalized, with right-in/right-out only movements to and from the park access road.
- Access Option 2: Unsignalized, with right-in/right-out to and from the park access road, plus left-turn-in provisions on West Coast Highway.

Traffic movements at the park access road and at the next closest intersections to the east and the west on West Coast Highway would change slightly in response to turn restrictions imposed by these options. Under Access Option 1 (right-in/right-out only movements allowed to and from the park access road), traffic approaching from the west on West Coast Highway would be required to pass the entrance, make a U-turn at Superior Avenue, and make a right turn onto the park access road. Under both options, traffic exiting the park access road and travelling east on West Coast Highway (toward Superior Avenue) would be required to turn right onto West Coast Highway and make a U-turn at Prospect Street.

The unsignalized operation of the park access road at West Coast Highway and the effect of the associated changes in Project traffic patterns were analyzed for each traffic study intersection, and the results are summarized in Table 4.3-10. Table 4.3-10 shows that the changes in Project traffic that would occur as a result of Access Option 1 would not cause the level of service at any traffic study area intersection to change compared to the proposed signalized access condition. Under Access Option 2, the left-turn-in movement from eastbound West Coast Highway would be at LOS E in the PM peak hour, due to the heavy westbound through movement on West Coast Highway. This deficiency at this intersection is caused by the proposed Project (Table 4.3-8). Option 2 would result in significant project-specific impacts.

#### *Impact Summary:*

Less than Significant Impact with Mitigation. Standard Condition 4.3-1 and MMs 4.3-1, 4.3-2, 4.3-3 and 4.3-4 are applicable to the proposed Project. Implementation of the proposed Project would not result in any significant impacts related to circulation or access (Option 2 is not recommended), and therefore would not significantly impact any emergency response evacuation plans. Impacts would be mitigated to a less than significant level.

# TABLE 4.3-10 SUMMARY OF INTERSECTION OPERATIONS WITH UNSIGNALIZED ACCESS OPTIONS FOR THE PARK ACCESS ROAD

			AM Pea	ak Hour			PM Pea	k Hour	
Intersection	Control	Delay	LOS	ICU	LOS	Delay	LOS	ICU	LOS
1. Superior Ave at Placentia A	ve								
Proposed Signalized Access	S	N/A	N/A	0.56	Α	N/A	N/A	0.67	В
Access Option 1	S	N/A	N/A	0.56	Α	N/A	N/A	0.67	В
Access Option 2	S	N/A	N/A	0.56	Α	N/A	N/A	0.67	В
2. West Coast Hwy at Prospec	t St								
Proposed Signalized Access	S	11.8	В	0.78	С	3.9	Α	0.72	С
Access Option 1	S	11.8	В	0.78	С	4.2	Α	0.72	С
Access Option 2	S	11.8	В	0.78	С	4.2	Α	0.72	С
3. West Coast Hwy at Park Ac	cess Road								
Proposed Signalized Access	S	0.1	Α	0.65	В	0.6	Α	0.69	В
Access Option 1	U	11.8	В	N/A	N/A	22.7	С	N/A	N/A
Access Option 2	U	11.8	В	N/A	N/A	45.8	E	N/A	N/A
4. West Coast Hwy at Superio	r Ave								
Proposed Signalized Access	S	23.0	С	0.70	В	28.9	С	0.75	С
Access Option 1	S	23.0	С	0.70	В	28.9	С	0.75	С
Access Option 2	S	23.0	С	0.70	В	28.9	С	0.75	С
5. West Coast Hwy at Newport	Blvd								
Proposed Signalized Access	S	14.3	В	0.92	E	16.4	В	0.80	С
Access Option 1	S	14.3	В	0.92	Е	16.4	В	0.80	С
Access Option 2	S	14.3	В	0.92	E	16.4	В	0.80	С

S: Signalized; U: Unsignalized; N/A: Not Applicable; Access Option 1 – Right-In/Right-Out Only; Access Option 2 – Right-In/Right-Out/Left-In Only.

Source: Kimley-Horn 2009.

# Threshold 4.3-4 Would the project result in inadequate parking capacity?

All parking for the park would be provided on the site. As a part of the Project, a surface parking lot with 75 parking spaces and 22 parallel parking spaces along the park access road near the parking lot (for a total of 97 parking spaces) would be provided.

The City's Zoning Code (Chapter 20.66.030 Off-Street Parking and Loading Spaces Required) does not specify a parking rate for city parks, but rather indicates that the parking requirement for Park and Recreation Facilities would be "As specified by Use Permit". The ITE's *Parking Generation* document contains parking information for a City Park (Land Use Category 411). If the peak parking rate reported in the ITE Parking Generation document is applied to the Sunset Ridge Park Project (5 parking spaces per acre), the parking requirement would be 96 spaces. Therefore, the proposed Project would provide adequate parking.

**Impact Summary:** Less than Significant Impact. The park would provide adequate parking. No significant parking impacts are attributable to the proposed Project. No mitigation is required.

<sup>&</sup>lt;sup>a</sup> HCM delay is conducted for Caltrans-controlled intersections. Intersection delay is expressed in V/C ratio for the ICU methodology and in average seconds of delay per vehicle during the peak for the HCM 2000 Methodology.

#### Threshold 4.3-5

Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? Would the Project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

Bike racks would be provided on the Project site. Additionally, the Project incorporates pedestrian walkways throughout the Project site that tie into existing sidewalks along Superior Avenue and West Coast Highway. Public transit in the City is provided by the Orange County Transportation Authority (OCTA). There is an existing bus stop located at West Coast Highway at Superior Avenue. Tables 4.1-2 through 4.2-4, in Section 4.1, Land Use and Related Planning Programs, addresses the Project's consistency of with the applicable goals and policies of the General Plan, CLUP, and California Coastal Act, respectively.

#### Impact Summary:

**No Impact.** As identified in Tables 4.1-2 through 4.1-4, the proposed Project would not conflict with any goals or policies of the City of Newport Beach General Plan, CLUP, or California Coastal Act. No mitigation is required.

#### 4.3.8 MITIGATION PROGRAM

## **Project Design Features**

The Project does not propose any Project Design Features related to transportation and circulation.

## **Standard Conditions and Requirements**

- **SC 4.3-1** Sight distance at the Project's access point shall comply with City of Newport Beach standards.
- Traffic control and truck route plans shall be reviewed and approved by the Public Works Department before their implementation. Large construction vehicles shall not be permitted to travel narrow streets as determined by the Public Works Department. Disruption caused by construction work along roadways and by movement of construction vehicles shall be minimized by proper use of traffic control equipment and flag persons. Construction workers shall be required to park on the Project site.

#### **Mitigation Measures**

#### **Construction Traffic**

- MM 4.3-1 The Project Manager shall provide advanced written notice of temporary traffic disruptions to the affected area's businesses and the general public. This notice shall be provided at least two weeks prior to disruptions.
- MM 4.3-2 The Project Manager shall ensure that construction activities requiring more than 16 truck (i.e., multiple axle vehicle) trips per hour, such as excavation and concrete pours, shall be limited between June 1 and September 1 to avoid traffic

conflicts with beach and tourist traffic. At all other times, such activities shall be limited to 25 truck (i.e., multiple axle vehicle) trips per hour unless otherwise approved by the City's Traffic Engineer. Haul operations shall be monitored by the Public Works Department, and additional restrictions may be applied if traffic congestion problems arise. A staging area will be designated on-site for construction equipment and supplies to be stored during construction. No construction vehicles would be allowed to stage on West Coast Highway during the grading and construction period.

#### Site Access and Circulation

- **MM 4.3-3** Prior to the start of grading, emergency fire access to the site shall be approved by the City Public Works Department and the Fire Department.
- MM 4.3-4 Prior to the start of grading, the Project Manager shall demonstrate to the City Fire Department that all existing and new access roads surrounding the Project site shall be designated as fire lanes, and no parking shall be permitted unless the accessway meets minimum width requirements of the Public Works and Fire Departments. Parallel parking on one side may be permitted if the road is a minimum 32 feet in width.

#### 4.3.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Project's contribution and all Project-specific cumulative traffic, circulation, and parking impacts can be mitigated to a level considered less than significant.