

## **2.4 Traffic and Transportation/Pedestrian and Bicycle Facilities**

This section discusses the proposed State Route 133 (SR-133) Improvement Project (proposed project) effects on traffic and circulation, both during construction and after completion (long-term or operational effects). Please note that recreational trails are discussed in Section 2.1, Land Use, and Section 2.2, Community Impacts, of this document.

### **2.4.1 Regulatory Setting**

The Department, as assigned by the Federal Highway Administration (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR Part 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to Federal-aid projects, including Transportation Enhancement Activities.

### **2.4.2 Affected Environment**

The following discussion has been summarized from the traffic analysis provided in the *State Route 133 Improvement Draft Project Report* (May 2018). A Preliminary Transportation Management Plan was prepared in 2017, which will be finalized during the design phase.

The study area for the transportation analysis of the proposed project, includes the project limits, from approximately just south of SR-133 (Laguna Canyon Road)/

El Toro Road intersection (Post Mile [PM] 3.1) to the State Route 73 (SR-73)/SR-133 interchange (PM R4.1).

The following describes the existing transportation facility affected by the proposed project, planned improvements, and adopted policies relevant to the proposed project.

#### **2.4.2.1 State Route 133 Existing Conditions**

SR-133 is a conventional facility, freeway, and partially tolled highway that provides access to the coastal area within the City of Laguna Beach, employment centers in the City of Irvine, and residential communities located at the foothills of Orange County. As shown below, the number of lanes varies from two to six lanes for the five segments of SR-133 within the study area:

- Between Canyon Acres Drive to El Toro Road, is a two-lane (one lane in each direction) conventional highway with a painted median that is used as a two-way left-turn lane.
- Between El Toro Road and SR-73, is a three-lane (two lanes northbound and one lane southbound) conventional highway with various median widths, with the exception of a 600-foot (ft) long section, north of the El Toro Road, which is a two-lane highway.

SR-133 connects coastal Orange County with the base of the County foothills. The City of Laguna Beach is a popular destination for visitors throughout the region, and SR-133 is one of two State Highways that connect the City of Laguna Beach to the rest of Orange County (the other being State Route 1 (SR-1), Pacific Coast Highway). The northern portion of SR-133 also functions as a toll road, which allows commuters from other areas to reach the City of Irvine, one of the largest employment centers in Orange County. SR-133 also provides access to nearby recreation and entertainment areas, including the Orange County Great Park (formerly Marine Corps Air Station El Toro).

There are four components to the project as discussed in Chapter 1, which includes a drainage component, safety component, shoulder widening to include bicycle lanes, and undergrounding of utilities.

#### ***Pedestrian, Bicycle, and Transit Facilities***

The Orange County Existing Bikeways map, prepared by the County of Orange, and the Orange County Commuter Bikeways Strategic Plan, prepared by the Orange County Transportation Authority (OCTA) identifies SR-133, from SR-1 to south of

Interstate 405 (I-405), as a Class III Bikeway (on-road, signed bicycle route). In addition, OCTA in collaboration with the Orange County Council of Governments (OCCOG), developed the District 5 Bikeways Strategy Report to identify and prioritize potential regional bikeways throughout south Orange County (Supervisorial District 5). According to this report, an additional 6.8 miles of Class II bikeway are proposed. The report acknowledges that upgrading this corridor to Class II bike facilities would require major improvements such as roadway widening and construction of new sidewalks, curb and gutter, signing, and striping. This corridor was also ranked third in regard to safety criteria indicating high collisions per miles and priority for treatment.

Transit facilities serving the project area consist of OCTA bus stops for Route 89 located north and south of Canyon Acres Drive, north and south of the pedestrian signal at Laguna College of Art and Design (LCAD), Stan Oaks Drive, north and south of Stans Lane, north of the entrance to Anneliese's School and on southbound SR-133 south of the Willow Staging Area. There is about 110 feet of sidewalk and a bus passenger landing north of Canyon Acres Drive and 118 feet for same on the southbound side, south of Canyon Acres Drive. There are 140 feet of sidewalk northbound across from LCAD, 100 feet northbound at 3051 Laguna Canyon Road (Canyon German Body & Paint), 100 feet at 20982 Laguna Canyon Road (The Blue Bell), 950 feet northbound just south of the entrance to the Pacific Marine Mammal Center (with parking meters), 200 feet of sidewalk frontage to Anneliese's School. There are three ADA curb ramps at the EL Toro Road intersection.

The Laguna Coast Wilderness Park and the Aliso Woods Canyon Wilderness Park are within the coastal recreation area and are accessible from the Willow Staging Area. During construction of the Build Alternative, access at the Willow Staging Area may be temporarily affected; however, these effects would be temporary and would not result in permanent effects related to access or recreational opportunities.

### **Study Area Traffic**

The average daily traffic (ADT) ranges from 18,000 to 37,000 vehicle trips and 1,450 to 2,850 vehicle trips during the peak period. The existing year (2015) Annual Average Daily Truck Traffic compiled by Caltrans indicates a truck percentage of 2.46 percent on SR-133 at El Toro Road. A growth factor was applied to the peak hour volume of 1,200 vehicles on the project segment to determine an estimate of future traffic volumes. For the Opening Year 2023, peak-hour volumes are projected to be 2,500, and for the Horizon Year 2043, peak-hour volumes are projected to be

3,300. However, based on the need for the project and environmental constraints, no capacity expansion is proposed for the portion of SR-133 within the project limits.

### Study Area Accidents

Table 2.4.1 summarizes the traffic accident data within and north of the project limits from January 1, 2012 to December 31, 2014. There were a total of 93 accidents on SR-133 within the project limits (PM 3.100 to 3.510) in the three-year period from January 01, 2012 to December 31, 2014. As shown in Table 2.4.1, this segment of SR-133 has a higher than average accident rate with injuries. The Traffic Accident Surveillance and Analysis System (TASAS) indicates that 55.2 percent of these accidents were rear-end, 19 percent broadside, 13.8 percent hit object, 8.6 percent sideswipe, and 1.7 percent each of head-on and other type collisions. Causes for collisions were identified as 51.7 percent from speeding, 10.7 percent Alcohol Related, 10.7 percent Improper Turn, 3.6 percent Failure to Yield, 10.7 percent Improper Turn, 3.6 percent Other than Driver, 7.1 percent Unknown, and 21.4 percent Other Violations.

**Table 2.4.1 Study Area Accident Data**

Location	Number of Accidents				Accident Rate					
					Actual			Average		
	Total	Fatality (F)	Injury (I)	F+I	Fatality	F+I	Total	Fatality	F+I	Total
PM 3.100/3.510	29	0	13	13	0.00	0.87	1.93	0.013	0.54	1.29
PM 3.511/3.943	5	1	3	4	0.105	0.42	0.53	0.013	0.61	1.57
PM 3.944/4.176	14	0	6	6	0.00	1.12	2.60	0.010	0.60	1.45
PM 4.177/4.299	10	0	4	4	0.00	1.37	3.43	0.009	0.55	1.31
PM 3.416 (El Toro Road)	16	0	8	8	0.00	0.20	0.40	0.001	0.09	0.21
PM 4.003 (ramp from SB 73)	7	0	3	3	0.00	0.13	0.30	0.001	0.09	0.21
PM 4.173 (on/off ramps at SR-73)	12	0	4	4	0.00	0.17	0.51	0.001	0.09	0.21

Sources: State Route 133 Widening and Drainage Improvement Draft Project Report (2017); Caltrans Traffic Accident Surveillance and Analysis System (TASAS), Table B.

F+I = Fatality + Injury

PM = Post Mile

SB = southbound

SR-73 = State Route 73

Additionally, 67.9 percent of these accidents occurred during the day light hours while 28.6 percent occurred during dark hours with street lighting. The majority of these accidents, 96.4 percent, occurred during dry conditions and only 3.6 percent accidents took place during wet roadway conditions.

## **2.4.3 Environmental Consequences**

### **2.4.3.1 Temporary Impacts**

#### ***Alternative 1 (Build Alternative)***

Temporary effects related to construction of the Build Alternative would occur as a result of the proposed improvements. The Build Alternative would include drainage improvements, shoulder widening to include bicycle lanes, utility undergrounding, vault construction and the safety improvement that includes lane extension along SR-133. Construction of the proposed project is anticipated to begin in 2021 and take approximately 26 months. The proposed work may require long-term partial closures. Partial closures would leave one travel lane open for use in both northbound and southbound directions of travel.

As part of the project, a Transportation Management Plan (TMP) would be finalized as Project Feature PF-TR-1, further reducing the potential for temporary adverse effects during project construction. The objective of a TMP is to maintain a safe movement of vehicles through the construction zone, as well as provide the optimum level of traffic flow and access during construction periods. Due to the temporary nature of the project construction activities affecting traffic and circulation and the implementation of Project Feature PF-TR-1, the Build Alternative would not result in temporary indirect or direct adverse effects. The Laguna Coast Wilderness Park and the Aliso Woods Canyon Wilderness Park are within the coastal recreation area and are accessible from the Willow Staging Area. During construction of the Build Alternative, access at the Willow Staging Area may be temporarily affected by construction activities associated with Component 2. However, Project Feature PF-TR-1 would require implementation of a TMP, which would ensure access is adequately and safely maintained through construction strategies (e.g., temporary driveways). While no construction activities are proposed along northbound SR-133 directly in front of Anneliese's School, an indirect temporary effect may occur due to construction-related traffic delays. The TMP would also ensure an acceptable level of traffic flow and access is maintained along this portion of SR-133. Therefore, these effects would be temporary and would not result in permanent effects related to access or recreational opportunities.

#### **PF-TR-1**

A Transportation Management Plan (TMP) will be finalized during final design and will be implemented by the construction contractor during project construction to address short-term traffic circulation and access effects during project construction. Specifically, during final design, a qualified

traffic engineer will prepare the TMP, which will include, but not be limited to, the elements described below to reduce traveler delays and enhance traveler safety during project construction. The TMP will be approved by the California Department of Transportation (Caltrans) District 12 during final design and will be incorporated into the plans, specifications, and estimates for implementation by the construction contractor.

The objectives of the TMP consist of the following:

- Enhance motorist and worker safety during construction
- Maintain an acceptable level of traffic flow during construction
- Minimize detours and impacts to pedestrians and bicyclists
- Foster public awareness of the project and related traffic impacts

The TMP will contain, but not be limited to, the following elements intended to reduce traveler delay and enhance traveler safety, a public information/awareness campaign, traveler information strategies, incident management, construction strategies, demand management, and alternate route strategies. These elements will be refined during final design and incorporated into the TMP for implementation by the construction contractor during project construction.

### ***Alternative 2 (No Build Alternative)***

The No Build Alternative would not result in the construction or alteration of any roadways or pedestrian or bicycle facilities and would retain the existing circulation system. Therefore, the No Build Alternative would not result in temporary indirect or direct effects related to traffic and transportation or to pedestrian or bicycle facilities.

### **2.4.3.2 Permanent Impacts**

#### ***Alternative 1 (Build Alternative)***

The Build Alternative consists of safety, drainage, utility, and shoulder widening to include bicycle lanes within the northern study limits, which would not affect the operation of SR-133 and are not capacity enhancing. Existing and future SR-133 traffic operations are anticipated to improve by implementation of the Build

Alternative. For the Opening Year 2023, peak-hour volumes are projected to be 2,500, and for the Horizon Year 2043, peak-hour volumes are projected to be 3,300. However, based on the need for the project and environmental constraints, no capacity expansion is proposed for the portion of SR-133 within the project limits. The proposed improvements are intended to reduce future traffic incidents by providing wider shoulders and travel lanes and a median, drainage modifications to reduce flooding of the roadway, removal of fixed objects by undergrounding aerial utilities/poles and provision of Class II bicycle lanes on SR 133 north of El Toro Road. As the project would not affect pedestrian or transit facilities, no permanent effects would occur. The Laguna Coast Wilderness Park and the Aliso Woods Canyon Wilderness Park are within the coastal recreation area and are accessible from the Willow Staging Area. During construction of the Build Alternative, access at the Willow Staging Area may be temporarily affected; however, these effects would be temporary and would not result in permanent effects related to access or recreational opportunities.

The adopted September 1, 2017 State Route 133 Safety Project IS/MND/CE discusses impacts pertaining to the safety component. In addition, the proposed safety component will extend the southbound merge lane and will widen the existing paved shoulders from four feet to eight feet past the park entrance in both directions. The merge lane will transition back to one lane south of the park entrance. The net result of the project will provide for a safety improvement of southbound traffic flow from El Toro Road intersection to just south of the Willow Canyon Staging Area. High traffic volumes at times provides for very few traffic gaps upon egress. However, three factors offset the egress issue. First, the traffic signal at El Toro Road intersection cycles traffic platoons from SR 133 southbound and southbound turning traffic from westbound El Toro Road. Cycles serve to clear the intersection and create gaps in traffic flow every few minutes. Second, left-turn egress to northbound SR-133 is aided by use of the two-way left-turn lane (TWLTL) as a refuge lane and to accelerate to merge speed into the northbound traffic stream. Third, “a keep clear zone” proposed in front of the Willow Staging area would enable the movement of vehicles exiting or entering the park during extreme congestion conditions.

### *Bicycle and Pedestrian Impacts*

SR-133 from SR-1 to I-405 was identified in the 2001 Orange County Commuter Bikeways Strategic Plan as a Class III Bikeway (on-road signed bicycle route) and bicyclists utilize SR-133 within the project limits. However, Caltrans prohibits bicycle traffic north of Laguna Canyon Road because SR-133 becomes a high-speed

expressway with a readily available route for bicycles (Laguna Canyon Road). The Build Alternative would provide eight ft shoulders in both the northbound and southbound directions along SR-133 and would stripe Class II bike lanes in both directions within the project limits between El Toro Road and SR-73. Provision of striped bicycle lanes and widened shoulders would facilitate use of SR-133 by bicyclists. There are no sidewalks, except for a discontinuous frontage section at Anneliese's School and curb ramps at El Toro Road, within the project limits. Otherwise, pedestrian access will not be affected by the Build Alternative.

**Alternative 2 (No Build Alternative)**

Under the No Build Alternative, the proposed improvements would not be built. As a result, the No Build Alternative would not result in permanent operational impacts related to traffic and circulation. However, the safety improvements and bike lanes proposed under the project would not be realized on this segment of SR-133.

**2.4.4 Avoidance, Minimization, and Mitigation Measures**

With incorporation of Project Feature PF-TR-1 described above, no avoidance, minimization, and/or mitigation measures are necessary.