

# Community Impact Assessment

Santa Cruz Route 1 HOV  
Tier I Corridor Analysis of  
High Occupancy Vehicle (HOV) Lanes and Transportation System  
Management (TSM) Alternatives  
(05 SCR-1-PM 7.24-16.13)  
and  
Tier II Build Project Analysis  
41<sup>st</sup> Avenue to Soquel Avenue/Drive  
Auxiliary Lanes and Chanticleer Avenue Pedestrian Overcrossing  
(05 SCR-1-PM 13.5-14.9)  
EA 0C7300



Prepared by the  
State of California Department of Transportation  
September 2015



U.S. Department  
of Transportation



# Community Impact Assessment

TIER I - CORRIDOR ANALYSIS OF  
HIGH OCCUPANCY VEHICLE (HOV) LANES  
AND TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVES  
AND

TIER II - BUILD PROJECT ANALYSIS OF  
41ST AVENUE TO SOQUEL AVENUE/DRIVE AUXILIARY LANES AND  
CHANTICLEER AVENUE PEDESTRIAN OVERCROSSING

San Andreas-Larkin Valley Road Interchange to Morrissey Boulevard  
Interchange in Santa Cruz County

05-SCR-1- PM R7.24/16.13 (KP R11.64/25.96)  
EA 05-0C7300


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# Summary

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This study assesses potential land use, community, social, economic, and environmental justice impacts that could result from various alternatives considered to meet the proposed project objective. The study was prepared using the guidance provided in Chapter 24 (Community Impacts) of the Caltrans Standard Environmental Reference.

## **S-1    *Summary of Findings***

### ***Land Use and Planning***

#### Tier I Project Alternatives

The improvements to the transportation facility proposed in the Tier I Corridor project alternatives are consistent with local planning goals and policies identified in regional plans and studies. Land use changes would be associated with the acquisition of property for modifications to and expansion of existing transportation facilities. Approximately, 11.59 acres of land would be acquired under the High-Occupancy Vehicle (HOV) Lane Alternative. Approximately, 1.8 acres would be acquired for transportation use under the Transportation System Management (TSM) Alternative. No agricultural land would be affected by the project.

#### Tier II Project Alternative

The improvements proposed under the Tier II project alternative are consistent with the Tier I alternatives in terms of consistency with planning and having no effect on agricultural land. The Tier II Auxiliary Lane Alternative would require the acquisition of .33 acres of land adjacent to the existing right of way.

### ***Growth Impacts***

The *Growth Inducement Analysis Report* (July 2007) examined the relationship of the proposed project to future economic and population growth and the potential need for additional housing in the project area. It focused on the potential for a project to facilitate or accelerate growth beyond what is anticipated in planned developments, or induce growth by shifting from elsewhere within the region. To assess the potential effects of the accessibility changes, the growth study used a three-step approach of analyzing the project-related changes in residential growth pressures for sample corridor neighborhoods: growth trends, local government plans and policies, articulated public attitudes regarding growth, and an expert panel to review the study conclusions. The study found that the proposed project would not stimulate unplanned residential or

commercial growth but would serve existing growth already planned and projected for the corridor.

### ***Neighborhoods and Community Cohesion***

The Tier I project would improve community cohesion with the addition of two pedestrian/bicycle overcrossings that would connect communities previously divided by State Route 1 (Route 1). Community cohesion also would be improved as traffic that is currently diverted to local streets would return to the freeway, affording safer access between communities. The Tier II alternative would have similar localized traffic benefits and community-cohesion benefits associated with the Chanticleer Avenue pedestrian overcrossing.

### ***Residential and Business Relocation***

Eight residential units and 11 businesses would require relocations as a result of the HOV Lane Alternative, affecting approximately 20 residents and 48 employees, respectively. Under the TSM Alternative, and the Tier II Auxiliary Lane Alternative, no residential units or businesses would be relocated.

### ***Environmental Justice Consideration***

Congestion relief and enhanced accessibility benefits would accrue to residents in the project area. The proposed project would not have disproportionate adverse effects on minority or low-income populations. In addition, the project would also benefit those individuals identified as low-income or minority who commute on transit to and from the City of Santa Cruz and points north.

### ***Public Services and Facilities***

The long-term beneficial community effects of the project would reduce congestion and enhance accessibility to public services and community facilities within the project area. No public facilities would be displaced by the Tier I and Tier II project alternatives. During construction, emergency vehicles may need to modify routes in response to short-term road closures and temporary construction. Emergency service providers would be notified in advance of road closures and also consulted in the selection of alternative detour routes.

### ***Economics***

The conversion of residential and business property to public right of way will have a minor tax revenue impact for the project. Although the project may result in an initial loss of property and sales tax revenues for Santa Cruz County and the cities of Santa Cruz and Capitola, this fiscal impact would be temporary while residents and businesses relocate

following acquisition of their property for highway right of way. It is anticipated that those affected would relocate within Santa Cruz County. During the various construction phases economic activity generated by the project is anticipated to benefit the region.

## **S-2    *Avoidance, Minimization, and Mitigation Measures***

To minimize impacts to community residents and the general public, the contractor would be required to initiate and continue a public information and notification program to keep area residents and business owners informed of the project construction schedule, traffic lane closure schedules, and the traffic detour plans. A Traffic Management Plan (TMP) would be developed to identify and provide alternate traffic detour routes, construction materials hauling routes, bus stops, transit routes and operation hours, pedestrian routes, and residential and commercial access routes to be used during the construction period. In addition, the construction contractor would be required to utilize the construction Best Management Practices (BMPs) to control noise and fugitive dust during project construction phase.

In accordance with Caltrans' Standard Environmental Reference, "Relocation assistance payments and counseling will be provided to persons and businesses in accordance with the Federal Uniform Relocation Assistance and Real Properties Acquisition Policies Act, as amended, to ensure adequate relocation and a decent, safe, and sanitary home for displaced residents. All eligible displacees will be entitled to moving expenses. All benefits and services will be provided equitably to all residential and business relocatees without regard to race, color, religion, age, national origins, and disability as specified under Title VI of the Civil Rights Act of 1964."





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# Chapter 1. Project Description

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## 1.1 PROJECT HISTORY

The California Department of Transportation (Caltrans), in cooperation with the Federal Highway Administration and the Santa Cruz County Regional Transportation Commission (SCCRTC), proposes to improve State Route 1 (Route 1) in Santa Cruz County for a distance of approximately 8.9 miles, from approximately 0.4 miles south of the San Andreas-Larkin Valley Road Interchange through the Morrissey Boulevard Interchange.

Route 1 is the primary route connecting communities in Santa Cruz County and is the only continuous commuter route linking Watsonville, Capitola, Aptos, Cabrillo College, Santa Cruz and the University of California at Santa Cruz. Approximately one quarter of commuters using Route 1 continue on State Route 17 to jobs in Santa Clara County. Route 1 also is the southern terminus for State Routes 9 and 17, which bring heavy tourist traffic to coastal destinations in Santa Cruz and Monterey Counties. Route 1 between San Andreas Road and the Route 1/State Route 17 interchange is a four-lane divided freeway with a median varying in width from 8.2 to 62.6 feet. Within the project limits there are nine interchanges, two overcrossings, and two Santa Cruz Branch Rail Line overpass bridge structures.

The population of Santa Cruz County has doubled in the last thirty years to approximately 270,000. During this time, operational improvements have been made to the route within the Project limits, but no capacity enhancements, and this segment of State Route 1 has become heavily congested during morning and evening commute times. Heavy congestion is now experienced on weekdays on Route 1 for three and a half hours in the morning from 6:30 am to 10 am and for four and a half hours in the evening from 2 pm to 6:30 pm. Traffic projections for the corridor under the Tier 1 No-Build scenario in design year 2035 show that from 6:00 am to 12 noon the corridor would operate at Level of Service (LOS) F in the northbound direction. From 2:00 pm to 8:00 pm, the corridor would operate at LOS F in both directions. The average northbound travel time in the AM peak hour would be as high as 59 minutes, up from 23 minutes under existing conditions. Travel time for the southbound direction during the PM peak hour would average 61 minutes, up from 27 minutes under existing conditions. In the peak commute direction in 2035 No-Build, the average travel speed would drop from 44 mph to 18 mph in the AM and from 39 mph to 15 mph in the PM (Traffic Operations Report, April 2012, Wilbur Smith Associates).

This project uses a "tiered" approach to its environmental documentation. Tiering is a staged approach that addresses broad programs and issues related to the entire corridor in the Tier I analysis. As specific projects within the corridor are ready for implementation, impacts of that action are evaluated in subsequent Tier II studies. The tiered process supports decision making on issues that are ripe for decision and provides a means to preserve those decisions. The Tier I portion of the project documentation provides fact-based analyses that supports informed decision making on the 8.9-mile corridor and discloses issues associated with the selection of a Tier I Corridor alternative. Identification of a Tier I Corridor alternative will not result directly in construction; however, it will provide the basis for decision makers to select a program of transportation improvements within the corridor.

The Tier II portion of the environmental documentation examines a project-level Auxiliary Lane Alternative and a No-Build Alternative. The Tier II corridor segment is within the project limits of the Tier I corridor and would represent the first implementation phase of transportation improvements for the 8.9-mile corridor. As mentioned above, all Tier II corridor projects will be subject to separate environmental review.

## **1.2 PROJECT DESCRIPTION**

### **Purpose**

The purpose of the proposed Tier I project on Route 1 within the project limits is to achieve the following:

- Reduce congestion.
- Promote the use of alternative transportation modes as means to increase transportation system capacity.
- Encourage carpooling and ridesharing.

The purpose of the Tier II project is to:

- Reduce congestion.
- Improve safety.
- Promote the use of alternative transportation modes as means to increase transportation system capacity.



The main distinction between the Tier I and Tier II project purposes is the Tier II project also addresses a congestion-related safety need within its limits but will not promote carpooling in the Route 1 corridor.

The Tier I and Tier II projects are intended to address specific deficiencies and needs on Route 1, as described in the following subsection.

### Need

The Tier I and Tier II projects address the following needs resulting from deficiencies on Route 1 within the project limits:

- Several bottlenecks along Route 1 in the southbound and northbound directions cause recurrent congestion during peak hours.
- Travel time delays due to congestion are experienced by commuters, commerce, and emergency vehicles.
- “Cut-through” traffic, or traffic on local streets, occurs and is increasing because drivers seek to avoid congestion on the highway.
- Limited opportunities exist for pedestrians and bicyclists to safely get across Route 1 within the project corridor.

Within the Tier I project limits, in addition to the common needs identified above there is a need to address the following corridor-wide deficiencies:

- Insufficient incentives to increase transit service in the Route 1 corridor because congestion threatens reliability and cost-effective transit service delivery.
- Inadequate facilities to support carpool and rideshare vehicles over single-occupant vehicles, reducing travel time savings and reliability.

The Tier II project, in addition to the common needs identified above, also addresses the following need:

- Improve operational safety to address accident rates in excess of the statewide average.

### **1.2.1 Tier I Alternatives**

The three Tier I alternatives currently under consideration are the HOV Lane Alternative, the Transportation System Management Alternative, and the No-Build Alternative.

## Common Design Features of the Build Alternatives

The Tier I HOV Lane and TSM Alternatives share many features, such as: the addition of auxiliary lanes, new pedestrian/bicycle overcrossings over Route 1, and Transportation Operations System elements. These common design features are described below.

### Auxiliary Lanes

Auxiliary lanes are designed to reduce conflicts between traffic entering and exiting the highway by connecting the on-ramp of one interchange to the off-ramp of the next; they are not designed to serve through traffic. Auxiliary lanes would be constructed to improve merging operations at the locations listed below:

- Freedom Boulevard and Rio Del Mar Boulevard – northbound and southbound
- Rio Del Mar Boulevard and State Park Drive – northbound and southbound
- State Park Drive and Park Avenue – both directions in the TSM Alternative; southbound only in the HOV Lane Alternative
- Park Avenue and Bay Avenue/Porter Street – northbound and southbound
- 41<sup>st</sup> Avenue and Soquel Avenue/Drive – northbound and southbound

### New Bicycle/Pedestrian Overcrossings

Both Tier I alternatives would construct new pedestrian/bicycle overcrossings of Route 1 at the following locations:

- Mar Vista Drive – The crossing would start on the north side of Route 1 and parallel the highway eastward for approximately 600 feet, doubling back westward as it climbs before crossing the highway and McGregor Drive at a right angle and then descending by switchbacks to and along Mar Vista Drive for approximately 550 feet; the final design will be determined as part of the Tier II design/environmental analysis of this facility.
- Chanticleer Avenue – The crossing would start at the Chanticleer Avenue cul-de-sac on the north side of Route 1 and run parallel the highway for approximately 400 feet to the west and then cross Route 1 and Soquel Avenue (frontage road) on a curved alignment, terminating just west of Chanticleer Avenue on the south side of the highway and Soquel Avenue (frontage road).
- Trevethan Avenue – The crossing would start on the north side of Route 1 at Trevethan Avenue and parallel the highway approximately 600 feet before crossing on an angle and continuing along the banks of the western tributary to Arana Gulch to terminate close to Harbor High School; multiple configurations are possible,

with the final design to be determined as part of the subsequent design/environmental analysis of this facility.

### Other Common Features of the Build Alternatives

The Tier I Corridor Alternatives would include reconstruction of the Santa Cruz Branch Rail Line bridges over Route 1 and the State Park Drive, Capitola Avenue, 41<sup>st</sup> Avenue, and Soquel Avenue overcrossings. The Santa Cruz Branch Line railroad underpass structures are proposed to be modified or replaced to accommodate highway widening to match the ultimate six-through-lane concept, including shoulder and sidewalk facilities to accommodate pedestrians and bicycles. These modifications will lower the highway profile to provide standard clearances. In addition the Aptos Creek Bridge would be widened.

Both build alternatives would include Transportation Operations System elements such as changeable message signs, closed-circuit television, microwave detection systems, and vehicle detection systems. In addition, ramp metering and HOV on-ramp bypass lanes with highway patrol enforcement areas would be constructed on the Route 1 ramps within the Tier I project limits; however, only the HOV Lane Alternative would include HOV lanes on the mainline.

Table 1-1 summarizes the major features of the Tier I Corridor Alternatives.

### **1.2.2 HOV Lane Alternative**

The Tier I Corridor HOV Lane Alternative includes the following main components, which are discussed in detail below and are shown in Figure 1-3 and in plan view in Appendix G of the EIR/EA:

- Highway mainline to include northbound and southbound HOV lanes throughout the project limits;
- Auxiliary lanes;
- Highway interchange reconfigurations and improvements such as ramp metering, on-ramp HOV bypass lanes and California Highway Patrol enforcement areas, and stormwater drainage/treatment facilities;
- Construction of three pedestrian/bicycle overcrossings;
- Reconstruction of two Santa Cruz Branch Rail Line overcrossings in Aptos;
- Widening of the Aptos Creek Bridge;
- Replacement of the Capitola Avenue overcrossing;

- Retaining walls;
- Soundwalls; and
- Traffic signal coordination and other transportation operation system improvements.

The Tier I Corridor HOV Lane Alternative would expand the existing four-lane highway to a six through-lane facility by adding HOV lanes in both the northbound and southbound directions. HOV lanes would be constructed entirely within the existing median where possible. In those areas where the median is not wide enough to accommodate additional lanes, widening would occur outside of the existing freeway footprint. The southernmost 1.5 miles of the freeway can accommodate an HOV lane inside the existing median. From approximately Freedom Boulevard to Soquel Drive, the existing median is not wide enough to accommodate an HOV lane, so the space needed for the additional lanes would be achieved through a combination of median conversion within existing right-of-way and acquisition of property adjacent to the freeway. Plan drawings depicting the Tier I Corridor HOV Lane Alternative are presented in Appendix G of the EIR/EA, Figures HOV-1 through HOV-20.

**Table 1-1: Major Projects Features – Tier I Project Alternatives**

<b>Project Features</b>	<b>HOV Lane Alternative</b>	<b>TSM Alternative</b>	<b>No Build Alternative</b>
<b>Highway Mainline Changes</b>			
HOV lanes	X		
Lower highway profile at Santa Cruz Branch Line bridge crossings <sup>1</sup>	X	X	
<b>Auxiliary Lane Improvements</b>			
Northbound and southbound between Freedom Boulevard and Rio Del Mar Boulevard	X	X	
Northbound and southbound between Rio Del Mar Boulevard and State Park Drive	X	X	
Northbound between State Park Drive and Park Avenue		X	
Southbound between State Park Drive and Park Avenue	X	X	
Northbound and southbound between Park Avenue and Bay Avenue/Porter Street	X	X	
Northbound and southbound from 41 <sup>st</sup> Avenue to Soquel Avenue/Drive	X	X	
<b>Highway Interchange Improvements</b>			
Reconfigure all nine interchanges within project limits	X		

**Table 1-1: Major Projects Features – Tier I Project Alternatives**

<b>Project Features</b>	<b>HOV Lane Alternative</b>	<b>TSM Alternative</b>	<b>No Build Alternative</b>
Reconstruct State Park Drive, 41st Avenue, and Soquel overcrossings		X	
Ramp metering	X	X	
On-ramp HOV bypass lanes	X	X	
On-ramp California Highway Patrol enforcement areas	X	X	
Stormwater drainage and treatment facilities	X	X	
<b>New Pedestrian/Bicycle Overcrossings</b>			
Mar Vista Drive Crossing	X	X	
Chanticleer Avenue Crossing	X	X	
Trevethan Avenue Crossing	X	X	
<b>Santa Cruz Branch Line Bridges Replacement</b>	X	X	
<b>Aptos Creek Bridge Widening</b>	X	X	
<b>Capitola Avenue Overcrossing Replacement</b>	X	X	
<b>Retaining Walls</b>	X	X	
<b>Soundwalls</b>	X	X	
<b>Traffic Signal Coordination</b>	X	X	X
<b>Transportation Operations System</b>	X	X	X
<b>Transit-Supportive Improvements</b>	X		
1 Existing highway profile does not meet vertical clearance standards for railroad bridge crossings.			

The Tier I Corridor HOV Lane Alternative would expand the existing four-lane highway to a six through-lane facility by adding HOV lanes in both the northbound and southbound directions. HOV lanes would be constructed entirely within the existing median where possible. In those areas where the median is not wide enough to accommodate additional lanes, widening would occur outside of the existing freeway footprint. The southernmost 1.5 miles of the freeway can accommodate an HOV lane inside the existing median. From approximately Freedom Boulevard to Soquel Drive, the existing median is not wide enough to accommodate an HOV lane, so the space needed for the additional lanes would be achieved through a combination of median conversion within existing right-of-way and acquisition of property adjacent to the freeway. Plan drawings depicting the Tier I Corridor HOV Lane Alternative are presented in Appendix G of the EIR/EA, Figures HOV-1 through HOV-20.

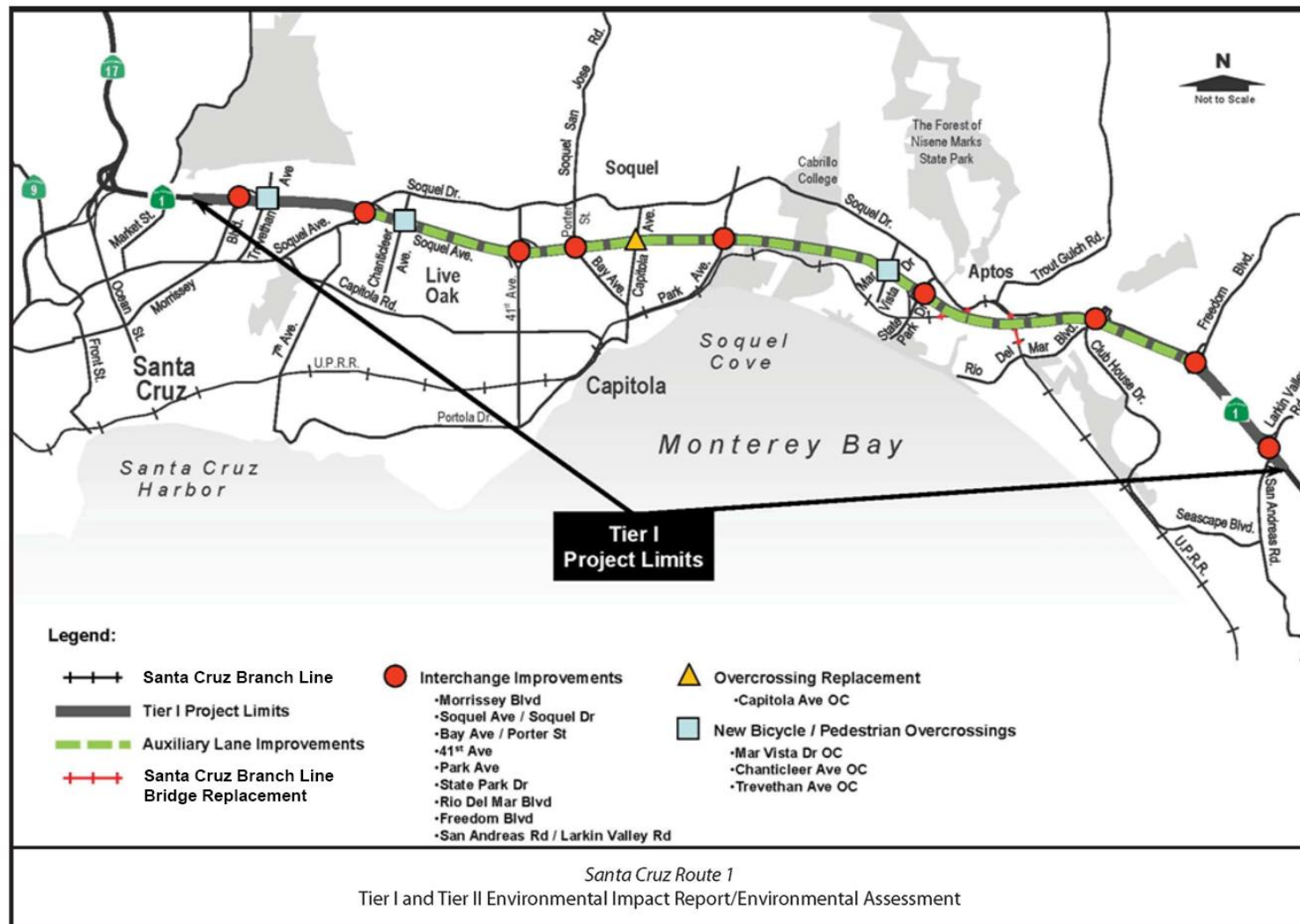


Figure 1-1: Tier I Corridor HOV Lane Alternative – Project Features

A mandatory standard median width (22 feet) set by Caltrans in its Highway Design Manual is proposed through most of the project corridor, north of Freedom Boulevard. The mandatory standard median width comprises two 10-foot-wide inside shoulders and a 2-foot-wide barrier. Where meeting the mandatory median width standard would result in acquiring property on the non-highway side of existing frontage roads, inside shoulder widths of 5 feet are proposed to reduce property requirements and impacts. Five feet is a nonstandard inside shoulder width for a Caltrans facility. This exception to shoulder-width design standards has received conceptual review in meetings between Caltrans and the project sponsor. All projects requiring design exceptions must ultimately be approved by Caltrans.

The Tier I Corridor HOV Lane Alternative would modify or reconstruct all nine interchanges within the project corridor to improve merging operations and ramp geometry by increasing the length of lanes for acceleration and deceleration, adding HOV bypass lanes and mixed-flow lanes to on-ramps, and improving sight distances. The Bay Avenue/Porter Street and 41<sup>st</sup> Avenue interchanges would be modified to operate as one interchange with frontage roads connecting the two interchanges. Where feasible, design deficiencies on existing ramps would be corrected to meet current design standards. Ramp metering and HOV bypass lanes would be provided on all Route 1 on-ramps. This alternative would include auxiliary lanes between all interchange ramps (with the exception of a northbound auxiliary lane between State Park Drive and Park Avenue) and Transportation Operations System elements, such as changeable message signs, microwave detection systems, and vehicle detection systems. Bridge structures and the Capitola Avenue overcrossing would be modified or replaced to accommodate the HOV lanes. New and widened highway crossing structures would include shoulder and sidewalk facilities to accommodate pedestrians and bicycles. The HOV Lane Alternative would include three new pedestrian/bicycle overcrossings of Route 1. The two existing Santa Cruz Branch Line structures over Route 1 in Aptos would be replaced with longer bridges at the same elevation, and the highway profile would be lowered to achieve standard vertical clearance under the bridges to make room for the HOV and auxiliary lanes. In addition, this design configuration would reduce environmental impacts. The existing Route 1 bridge over Aptos Creek would be widened on the outside to accommodate the HOV lanes in each direction. The existing Capitola Avenue overcrossing would be replaced with a longer structure.

Retaining walls would be constructed to minimize property acquisitions and reduce environmental impacts. At locations where frontage roads are adjacent to Route 1, concrete barriers would be constructed to separate the highway and frontage road.

### Changes to Highway Mainline with the Tier I Corridor HOV Lane Alternative

- Route 1 would be expanded to allow for two standard-width (12-foot) mixed-flow lanes, one standard-width (12-foot) HOV lane, and standard-width outside (10-foot) shoulders in each direction.
- The proposed lanes would be constructed within the existing 45-foot median. In locations where the existing median width is less than 45 feet, widening would occur both in the median and at the outside, generally within the existing Route 1 right-of-way.
- Where auxiliary lanes are proposed, widening by approximately 12 feet outside of the existing highway footprint would occur.
- A mandatory standard median width of 22 feet is proposed through most of the corridor.
- The highway centerline would be shifted northward in the vicinity of the Santa Cruz Branch Line crossings in Aptos to reduce impacts to wetlands. The bridge over Aptos Creek would be widened to allow for four new lanes: two HOV, two auxiliary, and pedestrian/bicycle facilities.
- Route 1 would be lowered to obtain vertical clearance at the Santa Cruz Branch Line crossings in Aptos (see Appendix G of the EIR/EA, Figures HOV-14 and HOV-15). A mandatory standard median width of 22 feet is proposed to minimize impact to the railroad bridge.
- At three locations, median and inside shoulder widths would be nonstandard to reduce impacts to adjacent streets. The three locations are: McGregor Drive, Cabrillo College Drive, and Kennedy Drive. At these three constrained locations, the inside shoulder in the constrained direction would be a nonstandard 5 feet, and the median would be a nonstandard 17 feet.

### Auxiliary Lane Improvements with the Tier I Corridor HOV Lane Alternative

The auxiliary lane improvements are discussed above in Section 1.5 Common Design Features of the Tier I Corridor HOV Lane and TSM Alternatives.

### Interchange Improvements with the Tier I Corridor HOV Lane Alternative

All nine interchanges within the project corridor would be modified under the Tier I Corridor HOV Lane Alternative, including overcrossing and undercrossing widening or replacement. These modifications would improve merging operations and ramp geometrics, and accessibility and safety for pedestrians and bicyclists. Major interchange improvements would include the following:



- Reconfiguration of intersections, including replacement or widening of highway overcrossings and undercrossings.
- Intersections of freeway ramps with local roads would be modified to shorten the pedestrian and bike crossing distances. Additionally, free right turns would be eliminated where feasible and traffic signals installed to improve traffic flow and slow vehicle traffic speeds through the bike and pedestrian crossing areas.
- Local roadways would be widened at the interchanges to accommodate the anticipated travel demand.
- Drainage and stormwater runoff treatment facilities would be provided.

Interchange improvements and design reconfigurations proposed for each interchange are listed in Table 1-2.

**Table 1-2: Interchange Improvements and Reconfigurations  
Tier I Corridor HOV Lane Alternative**

<b>Route 1 Interchange Location</b>	<b>Project Plan Sheet No.<sup>1</sup></b>	<b>Tier I Corridor HOV Lane Alternative Features</b>
San Andreas/ Larkin Valley Roads Interchange	HOV-20	The existing northbound cloverleaf off-ramp free right-turn onto Larkin Valley Road would be eliminated in favor of a signalized 90-degree intersection.
		A signalized intersection would be provided at the San Andreas Road ramps and the free right-turns would be eliminated.
		The existing on-ramps would be widened to accommodate HOV bypass lanes.
		The southbound Route 1 bridge over San Andreas/Larkin Valley Road would be widened into the median to accommodate the HOV lanes.
		San Andreas/Larkin Valley Roads would be widened within the Tier I project limits to add turn lanes.
		New sidewalks would be added along San Andreas/Larkin Valley Roads within the Tier I project limits.
Freedom Boulevard Interchange	HOV-18	The existing ramp termini at Freedom Boulevard would be modified to provide less-skewed intersections with Freedom Boulevard. These intersections would be signalized, and free right-turns would be eliminated.
		The southbound off-ramp would be widened to two exit lanes.
		The existing on-ramps would be widened to accommodate HOV bypass lanes.
		Freedom Boulevard would be widened within the Tier I project limits to add turn lanes.
		The Freedom Boulevard/Bonita Drive intersection would be enlarged to add turn lanes and achieve acceptable level of service.
		The Freedom Boulevard bridge would be replaced with a wider structure that would accommodate a new turn lane on Freedom Boulevard and the new HOV lanes on Route 1.
		New sidewalks would be added along Freedom Boulevard within the Tier I project limits.

**Table 1-2: Interchange Improvements and Reconfigurations  
Tier I Corridor HOV Lane Alternative**

Route 1 Interchange Location	Project Plan Sheet No. <sup>1</sup>	Tier I Corridor HOV Lane Alternative Features
Rio Del Mar Boulevard Interchange	HOV-16	The northbound on-ramp would be realigned to form the north leg of a four-way intersection with Rio Del Mar Boulevard and the northbound off-ramp. This intersection would be signalized, and free right turns would be eliminated
		The northbound off-ramp would be widened to two exit lanes.
		The southbound ramps would be widened, the intersection with Rio Del Mar Boulevard signalized, and free right-turns eliminated.
		The existing on-ramps would be widened to accommodate HOV bypass lanes.
		Soquel Drive would be shifted northward to accommodate the roadway widening along the northbound off-ramp.
		Rio Del Mar Boulevard would be widened within the Tier I project limits to add turn lanes and a through lane in each direction.
		The Rio Del Mar Boulevard bridge over Route 1 would be replaced with a longer, wider bridge to accommodate a new turn lane and a through lane in each direction on Rio Del Mar Boulevard and the new HOV lanes on Route 1.
		Sidewalk would be added along eastbound Rio Del Mar Boulevard within the Tier I project limits; the sidewalk on westbound Rio Del Mar Boulevard would be retained.
State Park Drive Interchange	HOV-13	The existing northbound cloverleaf on-ramp free-right turn would be changed to a signalized right turn.
		The existing northbound off-ramp terminus would be modified to form, together with the realigned northbound on-ramp terminus, the south leg of a signalized intersection with State Park Drive.
		The northbound and southbound off-ramps would be widened to two exit lanes.
		The existing on-ramps would be widened to accommodate HOV bypass lanes.
		State Park Drive would be widened within the Tier I project limits to add turn lanes and a through lane in each direction.
		The State Park Drive bridge over Route 1 would be replaced with a longer, wider bridge to accommodate a new through-lane in each direction on State Park Drive and the new HOV lanes on Route 1.
		Sidewalk would be added along eastbound State Park Drive within the Tier I project limits; the sidewalk along westbound State Park Drive would be retained.
Park Avenue Interchange	HOV-10	The existing diamond interchange ramp design would be retained and ramps would be widened.
		The northbound and southbound off-ramps would be widened to two exit lanes.
		The existing on-ramps would be widened to accommodate HOV bypass lanes.
		Park Avenue would be widened within the Tier I project limits to add turn lanes.
		The two Route 1 bridges over Park Avenue would be replaced with one, wider structure to accommodate the new HOV lanes on Route 1.

**Table 1-2: Interchange Improvements and Reconfigurations  
Tier I Corridor HOV Lane Alternative**

Route 1 Interchange Location	Project Plan Sheet No. <sup>1</sup>	Tier I Corridor HOV Lane Alternative Features
		Sidewalk would be added within the Tier I project limits along westbound Park Avenue; the sidewalk along eastbound Park Avenue would be retained.
Bay Avenue/ Porter Street and 41st Avenue Interchanges	HOV-7	Improvements at the Bay Avenue/Porter Street and 41 <sup>st</sup> Avenue interchanges would be designed so that these two interchanges would work as a single interchange connected by a collector/frontage road running between the interchanges.
		The freeway ramps would be reconstructed to form less-skewed intersections with Bay Avenue/Porter Street.
		The existing southbound Route 1 off-ramp to Bay Avenue/Porter Street would be eliminated. Southbound traffic bound for Bay Avenue/Porter Street would exit at the 41 <sup>st</sup> Avenue two-lane off-ramp and continue on a new southbound collector/frontage road to Bay Avenue/Porter Street.
		The existing two-lane on-ramp from Porter Street to northbound Route 1 would be modified to become a northbound collector/frontage road serving traffic bound for 41 <sup>st</sup> Avenue or northbound Route 1.
		Northbound traffic exiting Route 1 would either bear right to intersect with Porter Street and continue north, or stay left and continue on a new structure over Porter Street, join the northbound collector/frontage road, and end at a new signalized intersection at 41 <sup>st</sup> Avenue.
		At 41 <sup>st</sup> Avenue, southbound on- and off-ramps would be eliminated and replaced with a diagonal off-ramp and a collector/frontage road serving traffic bound for Bay Avenue/Porter Street or southbound Route 1. The new ramp and collector/frontage road would form a signalized intersection with 41 <sup>st</sup> Avenue.
		At 41 <sup>st</sup> Avenue, the northbound on-ramps would be realigned.
		New on-ramps would include HOV bypass lanes.
		41 <sup>st</sup> Avenue would be widened within the Tier I project limits to add turn lanes and eastbound through lanes over Route 1.
		Bay Avenue/Porter Street would be widened to add right-turn lanes at the on-ramps.
		A new bridge over Soquel Creek and Soquel Wharf Road would be constructed for the new southbound collector/frontage road from 41 <sup>st</sup> Avenue to Bay Avenue/Porter Street.
		The 41 <sup>st</sup> Avenue bridge over Route 1 would be replaced with a longer, wider bridge to accommodate the new eastbound through lane and turn lanes on 41 <sup>st</sup> Avenue, and the new HOV lanes on Route 1. Northbound and southbound Class I bike paths would be constructed between 41 <sup>st</sup> Avenue and Bay Avenue/Porter Street on either side of the new collector/frontage roads, respectively.
Soquel Avenue/ Drive Interchange	HOV-3	The northbound off-ramp would be realigned to a signalized 90-degree intersection with Soquel Drive. The existing access to Commercial Way would be eliminated.
		The westbound Soquel Drive on-ramp to northbound Route 1 would be modified to eliminate the free right-turn access.
		The existing northbound loop on-ramp from eastbound Soquel Avenue would be realigned and its free-right terminus would become a signalized 90-degree intersection.

**Table 1-2: Interchange Improvements and Reconfigurations  
Tier I Corridor HOV Lane Alternative**

Route 1 Interchange Location	Project Plan Sheet No. <sup>1</sup>	Tier I Corridor HOV Lane Alternative Features
		<p>A new, wider southbound diagonal off-ramp that adds turn lanes at its terminus and a new loop on-ramp would form the north leg of a signalized intersection at Soquel Avenue.</p> <p>The existing southbound hook on-ramp would be widened to add an HOV bypass lane and realigned to be made standard.</p> <p>The northbound and southbound off-ramps would be widened to two exit lanes.</p> <p>All new on-ramps would include HOV bypass lanes.</p> <p>Soquel Avenue within the Tier I project limits would be widened to add an eastbound through lane and turn lanes.</p> <p>Salisbury Lane would be shifted eastward to form an intersection with the realigned northbound off-ramp and loop on-ramp.</p> <p>The Soquel Drive bridge over Route 1 would be replaced with a longer, wider bridge to add an eastbound through lane and a turn lane to Soquel Drive and accommodate the new HOV lanes on Route 1.</p> <p>The culvert at Arana Gulch would be extended underneath the widened Route 1 and new southbound off-ramp.</p> <p>Sidewalk would be added along eastbound Soquel Drive within the Tier I (and Tier II) project limits; the sidewalk along westbound Soquel Drive would be retained.</p>
Morrissey Boulevard Interchange	HOV-1	<p>The southbound exit would be realigned to terminate at a new signalized intersection with Morrissey Boulevard.</p> <p>The existing southbound on-ramp would be eliminated and replaced with a new, wider diagonal ramp with a signalized terminus.</p> <p>The existing southbound off- and on-ramp at Elk Street would be eliminated.</p> <p>The existing northbound loop on-ramp would be eliminated, as would access to Rooney Street from this northbound loop.</p> <p>The northbound off-ramp would be widened to two exit lanes.</p> <p>New on-ramps would include HOV bypass lanes.</p> <p>Morrissey Boulevard is being replaced with a wider bridge to add an eastbound through lane and turn lanes, and realigned to form a straight line between its intersections with Fairmont Avenue and Rooney Street.</p> <p>The Morrissey Boulevard bridge is being replaced with a longer, wider bridge to accommodate a new eastbound through lane and turn lanes on Morrissey Boulevard and new HOV lanes on Route 1.</p> <p>Sidewalk would be added along eastbound Morrissey Boulevard within the Tier I project limits; the sidewalk along westbound Morrissey Boulevard would be retained.</p>
Transit- Related Facilities	NA	<p>Both on-ramps and both off-ramps at the reconfigured Park Avenue interchange include options for bus pads and bus shelters.</p> <p>Ramps and collectors at the Bay Avenue/Porter Street and 41<sup>st</sup> Avenue interchanges include options for bus pads and shelters.</p>

<sup>1</sup> Project plan sheets are provided in Appendix G of the EIR/EA.

### Transit Supportive Planning and Design

The Tier I Corridor HOV Lane Alternative would not preclude the development of the following features from being added in the future to facilitate freeway-oriented transit services and operations:

- The reconfigured Park Avenue and Bay Avenue/Porter Street/41<sup>st</sup> Avenue interchanges would allow for future bus pads and bus stop shelters to be constructed as part of a separate project.
- Future park-and-ride lots are under consideration by RTC at the Larkin Valley Road/San Andreas Road and 41<sup>st</sup> Avenue interchanges, to be coordinated with the bus facilities as part of a future project.

The aforementioned features are not part of the proposed project and would be subject to future environmental clearance. The proposed Tier I project is simply taking into consideration potential future transit projects as a collaborative planning effort.

### New Pedestrian/Bicycle Overcrossings

The proposed pedestrian/bicycle overcrossings are discussed above in Section 1.2.1 Common Design Features of the Tier I Corridor HOV Lane and TSM Alternatives.

### **1.2.3 Transportation System Management Alternative**

The Tier I Corridor TSM Alternative was formulated to provide Route 1 improvements that would partially address the purpose and need, and could be achieved at lower cost and with fewer impacts than the Tier I Corridor HOV Lane Alternative. TSM strategies typically consist of improvements that can benefit the operations of existing facilities without increasing the number of through lanes.

As discussed in Section 1.2.1 Common Design Features of the Tier I Corridor HOV Lane and TSM Alternatives, the Tier I Corridor TSM Alternative proposes to add auxiliary lanes, ramp metering and HOV on-ramp bypass lanes; improve existing nonstandard geometric elements at various ramps; and incorporate other TSM elements, such as changeable message signs, closed circuit television, microwave detection systems, and vehicle detection systems.). In short, the TSM Alternative shares many of the Tier I Corridor HOV Lane Alternative features, except HOV lanes would not be constructed along the mainline and the Soquel Drive interchange would be the only interchange reconfigured. Plan drawings depicting the TSM Alternative are presented in Appendix H of the EIR/EA, Figures TSM-1 through TSM-20. An overview of the major features of

the TSM Alternative is provided in Figure 1-2 and in plan view in Appendix H of the EIR/EA.

### Auxiliary Lanes

The majority of auxiliary lane improvements are discussed above in Section 1.2.1 Common Design Features of the Tier I Corridor HOV Lane and TSM Alternatives. In addition, the TSM Alternative would have both a southbound and northbound auxiliary lane between State Park Drive and Park Avenue — improvements that are not included in the HOV Lane Alternative.

### Interchange Improvements

Improvements to interchanges proposed under the Tier I Corridor TSM Alternative include the following:

- The Soquel Avenue northbound off-ramp from Route 1 would be realigned and widened from one to two exit lanes for a distance of approximately 1,300 feet, widening to four lanes at its intersection with Soquel Drive. The northbound off-ramp/Commercial Way connection would be eliminated, and Commercial Way would become a cul-de-sac north of the realigned ramp. The intersection of the northbound off-ramp with Soquel Drive would be enlarged to achieve an acceptable level of service for the anticipated traffic volume.
- Improve existing nonstandard geometric elements at various ramps.
- Provide HOV bypass lanes on all except northbound Morrissey Boulevard on-ramps.
- Add California Highway Patrol enforcement areas at on-ramps with HOV bypass lanes.

### New Pedestrian/Bicycle Overcrossings

The proposed pedestrian/bicycle overcrossings are discussed above in Section 1.2.1 Common Design Features of the Tier I Corridor HOV Lane and TSM Alternatives.

### Other Improvements

The details of the other improvements are included above in Section 1.2.1 Common Design Features of the Tier I Corridor HOV Lane and TSM Alternatives.

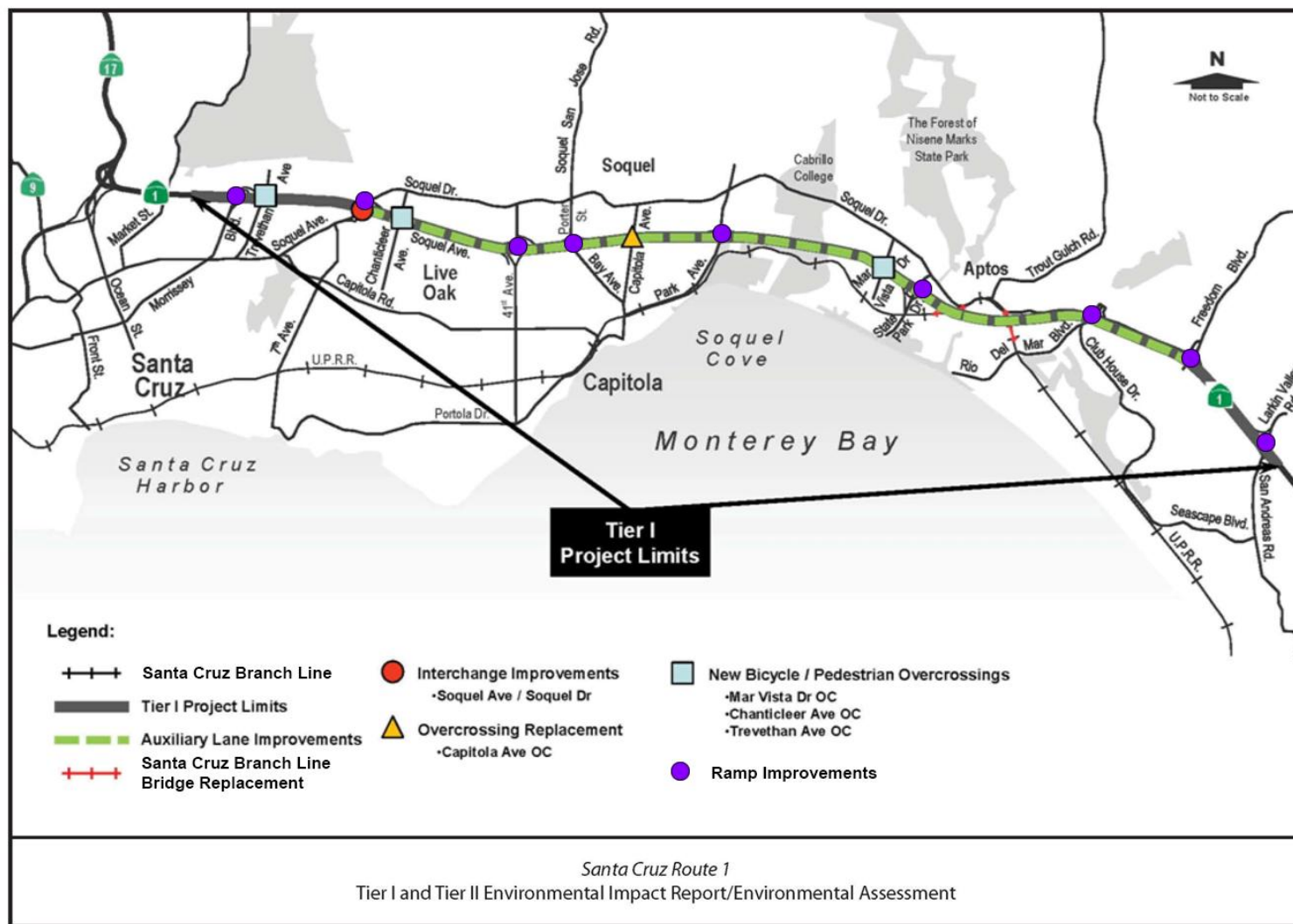


Figure 1-2: Tier I Corridor TSM Alternative – Project Features

#### **1.2.4 No-Build Alternative**

The No Build Alternative offers a basis for comparing the effects of the Tier I Corridor Alternatives and the Tier II Auxiliary Lane Alternative with doing none of the proposed improvements. The No Build Alternative assumes there would be no major construction on Route 1 through the Tier I project limits other than currently planned and programmed improvements and continued routine maintenance. The following planned and programmed improvements included in the No Build Alternative are contained in the 2010 Regional Transportation Plan:

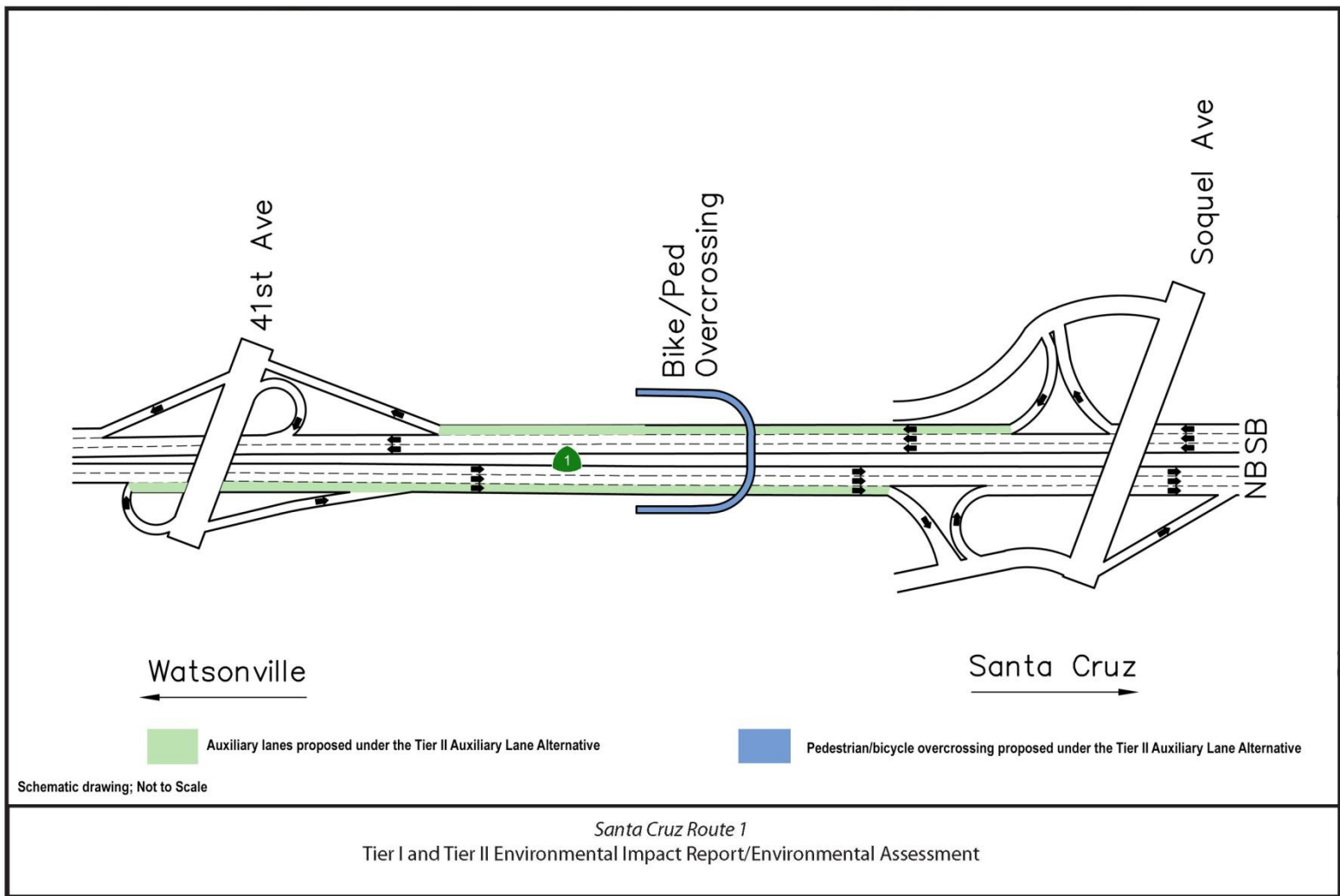
- Construction of auxiliary lanes between the Soquel Drive and Morrissey Boulevard interchanges for the Soquel to Morrissey Auxiliary Lanes Project; construction completed in December 2013.
- Replacement of the La Fonda Avenue overcrossing of Route 1, included as part of the Soquel to Morrissey Auxiliary Lanes project; construction completed in 2013.
- Reconstruction of bridges and addition of a merge lane in each direction between Highway 17 and the Morrissey/La Fonda area for the Highway 1/17 Merge Lanes Project; construction completed in 2008.
- Installation of median barrier on Route 1 from Freedom Boulevard to Rio Del Mar Boulevard.

Improvements of roadways and roadsides on Rio Del Mar Boulevard from Esplanade to Route 1, which includes the addition of bike lanes, transit turnouts, left-turn pockets, merge lanes, and intersection improvements. Roadwork includes major rehabilitation and ongoing maintenance. If the No Build Alternative is selected, it is highly likely that other improvements could be expected in the future.

### **1.3 TIER II ALTERNATIVE**

The Tier II Auxiliary Lane Alternative would construct northbound and southbound auxiliary lanes on Route 1 from 41<sup>st</sup> Avenue to Soquel Drive and make other improvements, as discussed below. Figure 1-3 shows features of the Auxiliary Lane Alternative, and Appendix I of the EIR/EA provides a plan view of the proposed Tier II project. To construct the Auxiliary Lane Alternative, right-of-way would be acquired along Soquel Avenue west of Chanticleer Avenue and at the Chanticleer Avenue cul-de-sac north of Route 1 to accommodate the bicycle/pedestrian overcrossing.





**Figure 1-3: Tier II Auxiliary Lane Alternative – Project Features**

### 1.3.1 Auxiliary Lanes

The Tier II Auxiliary Lane Alternative proposes to widen Route 1 by adding an auxiliary lane in both the northbound and southbound directions between the 41st Avenue and Soquel Avenue/Drive interchanges. The total roadway widening would be approximately 1.4 miles in length. Southbound, the auxiliary lane would begin at the existing Soquel Avenue on-ramp and end at the existing off-ramp to 41st Avenue. Northbound, the auxiliary lane would begin just south of the 41st Avenue overcrossing, at the existing loop on-ramp from northbound 41st Avenue. North of the overcrossing, the on-ramp from 41st Avenue to northbound Route 1 would merge with the new auxiliary lane, approximately 1,000 feet downstream from the loop ramp.

The new auxiliary lanes would be 12 feet wide. In the southbound direction, the width needed for the new lane would be added in the median, and the median barrier would be shifted approximately 5 feet toward the northbound side of the freeway to make room for the new lane and a standard 10-foot-wide shoulder. Where the new southbound lane meets the existing ramps, outside shoulder widening would occur to achieve standard 10-foot-wide shoulders. In the northbound direction, the Tier II project proposes to pave a 10-foot-wide median shoulder and widen to the outside to add the 12-foot-wide auxiliary lane and a new 10-foot-wide shoulder.

As part of the widening in the northbound direction, the Tier II project proposes to repair an existing pavement failure in the outside lane and shoulder by improving the pavement section, installing a retaining wall and, if necessary, replacing the underlying County-owned sanitary sewer line crossing Route 1. A new concrete median barrier would also be constructed.

#### Pedestrian/Bicycle Overcrossing

A new horseshoe-shaped pedestrian overcrossing is proposed over Route 1 at Chanticleer Avenue.<sup>1</sup> The overcrossing would vary in width from 14 feet along the ramps to 16 feet around the curves. Ramps from Chanticleer Avenue up to the overcrossing would be at approximately a 5 percent grade. Up to where the overcrossing exceeds approximately 10 feet in height, the ramp would be built on retained fill; beyond that point, the bridge would rest on columns along the north right-of-way of Route 1, in the Route 1 median, behind the curb between Route 1 and Soquel Avenue, and along the south side of Soquel

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<sup>1</sup> The overcrossing at Chanticleer is included in both the Tier I and Tier II Projects. The Tier I program of improvements encompasses the current Tier II Auxiliary Lane Project, which has been identified as the first phase of the overall program of improvements.

Avenue. The design of the ramps and bridge would include architectural texture or other aesthetic treatment. (See Section 2.16 for a visual simulation of the proposed Chanticleer Avenue pedestrian/bicycle overcrossing.)

In addition, a new 360-foot-long by 6-foot-wide sidewalk would be constructed along the south side of Soquel Avenue, starting at Chanticleer Avenue. The sidewalk would be separated from the street by a 4-foot-wide strip.

### Retaining Walls

Retaining walls would be constructed as part of the roadway widening, with four separate walls: three on the north side of Route 1 and one on the south side. One of the retaining walls would start after the 41<sup>st</sup> Avenue on-ramp and extend approximately 150 feet; two other retaining walls on the northbound side would be 375 and 408 feet. On the southbound side, a 350-foot-long wall would be constructed along the highway mainline and Soquel Avenue, over the Rodeo Gulch culvert.

Three of the walls would be located to allow widening for an additional mainline lane on Route 1 in each direction in the future. The wall proposed along the northbound on-ramp at 41<sup>st</sup> Avenue would have to be demolished and replaced if the highway were to be widened in the future. Two of the walls would span Rodeo Creek Gulch, where there is an existing 9-foot arch concrete culvert, and one would be constructed within a narrow jurisdictional wetland area on the northbound side of Route 1, adjacent to a 39-inch culvert crossing.

## **1.4 PROJECT DEVELOPMENT AND SCHEDULE**

The Santa Cruz County RTC, serving as implementing agency (with FHWA and Caltrans serving as Lead Agencies for environmental purposes), initiated preliminary engineering and environmental studies in late 2003. These studies are being conducted to comply with the requirements of the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The environmental review phase of the Tier I and Tier II projects is funded with a combination of state and federal funds, including funds from the region's share of State Transportation Improvement Program (STIP) funds. Current and projected state and federal funds do not cover project costs through construction. The Environmental Impact Report/Environmental Assessment will provide information to the public about the Tier I and Tier II project alternatives and the environmental impacts associated with each, which will in turn inform the decision making process. The Tier I and Tier II project study areas are relatively built-out. The

only major projects listed as in-progress by the City of Santa Cruz Planning and Community Development Department (January 2013) are the redevelopment of the Tannery Arts Center, the Pacific Station, and the National Marine Fisheries Visitor Center. At present, there is one residential project under construction within the study area. One roadway project, the Highway 9/Route 1 Intersection Project, is currently in the planning stage; it is located just outside the project study area.

## **1.5 STUDY AREA BOUNDARY FOR COMMUNITY IMPACT ASSESSMENT**

The geographical area evaluated by this study covers the area that would potentially be directly or indirectly affected by the Tier I and Tier II proposed project activities. The primary impact area consists of the area immediately adjacent to the Route 1 corridor that is subject to direct effects, such as property acquisition or disruption from construction activities. Secondary impact areas would be dispersed and include areas likely to experience increased vehicle movements associated with construction-driven detour traffic. The secondary impact zone varies among resources analyzed in this report.

### Tier I Study Area

The Tier I study area includes 18 census tracts that surround Route 1 within the project limits. They are as follows: 1001, 1002, 1211, 1212, 1213, 1214.01, 1214.02, 1214.03, 1217, 1218, 1220.01, 1220.02, 1220.03, 1221, 1222.01, 1222.02, 1222.03, and 1224. The study area is further broken down to include only those block groups within each census tract that are closest to the Route 1 corridor. There are a total of 47 census tract block groups included in this study, depicted in Figure 4-1 in Chapter 4 of this report.

### Tier II Study Area

The Tier II study area includes 5 census tracts that surround Route 1 within the project limits, from Soquel Drive to 41<sup>st</sup> Avenue. They are as follows: 1213, 1214.01, 1214.02, 1217, and 1220.03. The study area is further broken down to include only those block groups within each census tract that are closest to the Route 1 corridor. There are a total of 16 census tract block groups included in this study, depicted in Figure 4-1 in Chapter 4 of this report.

## Chapter 2. Land Use and Planning

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### 2.1 AFFECTED ENVIRONMENT

#### 2.1.1 Existing Land Use

##### Tier I Study Area

Residential land uses are predominant along most of the Route 1 corridor with some commercial and industrial property located primarily in the unincorporated areas. Major institutions and recreational facilities in the project area include the Dominican Santa Cruz Hospital and Cabrillo College, as well as state, regional, and local parks and coastal recreation areas. Existing land uses in the study area are shown in Figure 2-1 and described below.

Santa Cruz County, located just south of the San Francisco Bay Area, forms the northern coast of Monterey Bay. According to the U.S. Census Bureau, the county has a total area of 445 square miles. Within the study area, County of Santa Cruz jurisdiction includes Live Oak, Soquel, and Aptos, described from west to east below.

*The Village of Live Oak:* The Live Oak area is an unincorporated portion of Santa Cruz County located on the north and south of Route 1, between the cities of Santa Cruz and Capitola. The approximately 3 square mile area is roughly bounded by Arana Gulch and Paul Sweet Road to the west and 41<sup>st</sup> Avenue and Rodeo Gulch Road to the east, and extends northward from Monterey Bay to just north of Santa Cruz Gardens Park. Land uses are primarily residential, commercial and industrial. Major features include the Oak Wood Cemetery, Dominican Hospital, Holy Cross Cemetery, Live Oak Elementary School, and several shoreline and interior parks.

*Unincorporated Area of Soquel:* The Soquel area is an unincorporated portion of Santa Cruz County located north of Route 1 between Live Oak to the west and Aptos to the east. It has a total area of approximately 1 square mile, which is bounded by Rodeo Gulch Road to the west, Cabrillo College Drive and Porter Gulch Road to the east, open space and the Forest of Nisene Marks State Park to the north, and the City of Capitola to the south. Major community land use features include Anna Jean Cummings County Park, Soquel Village and Porter Library, located at the intersection of Soquel Drive and Soquel-San Jose Road; Soquel High School, Soquel Elementary School, Soquel Lions Park, Richard Vessey Park, Willowbrook Park, and residential and industrial areas. The 97-acre O'Neill Ranch is northwest of the Village and adjacent to the high school.

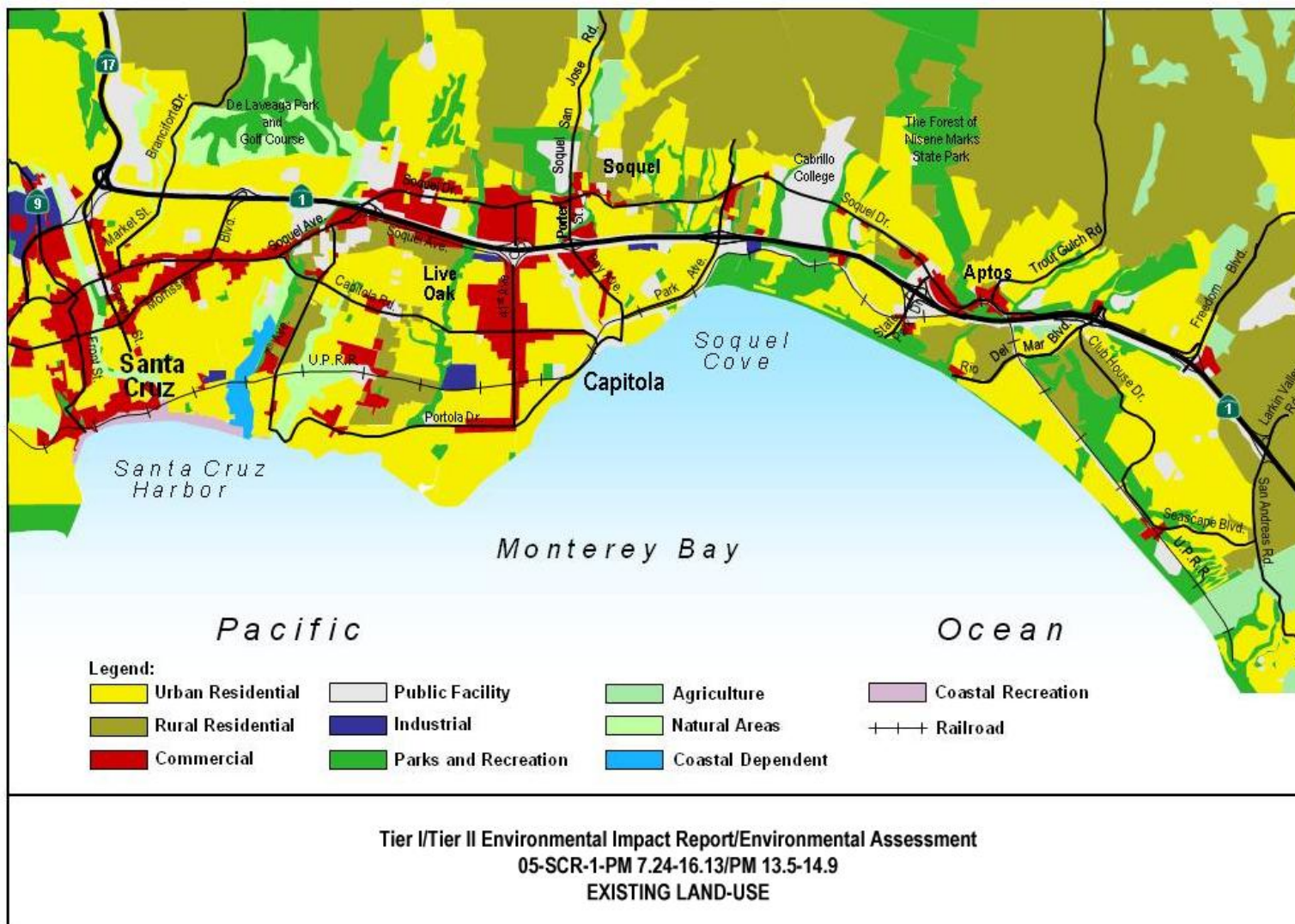


Figure 2.1: Existing Land-Use

*Unincorporated Area of Aptos:* Aptos is an unincorporated portion of Santa Cruz County located on both the north and south sides of Route 1, bounded by Soquel to the west, San Andreas Road and Freedom Boulevard to the east, open space and the Forest of Nisene Marks State Park to the north, and Monterey Bay to the south. Aptos has a total area of approximately 7 square miles, which is composed of commercial retail, office, industrial and residential uses. Aptos is home to Cabrillo College, Aptos High School, Aptos Village, Aptos Village County Park, Aptos Branch Library, Calvary Cemetery, Polo Grounds Regional Park, Aptos Seascape Golf Course, and several interior and shoreline parks.

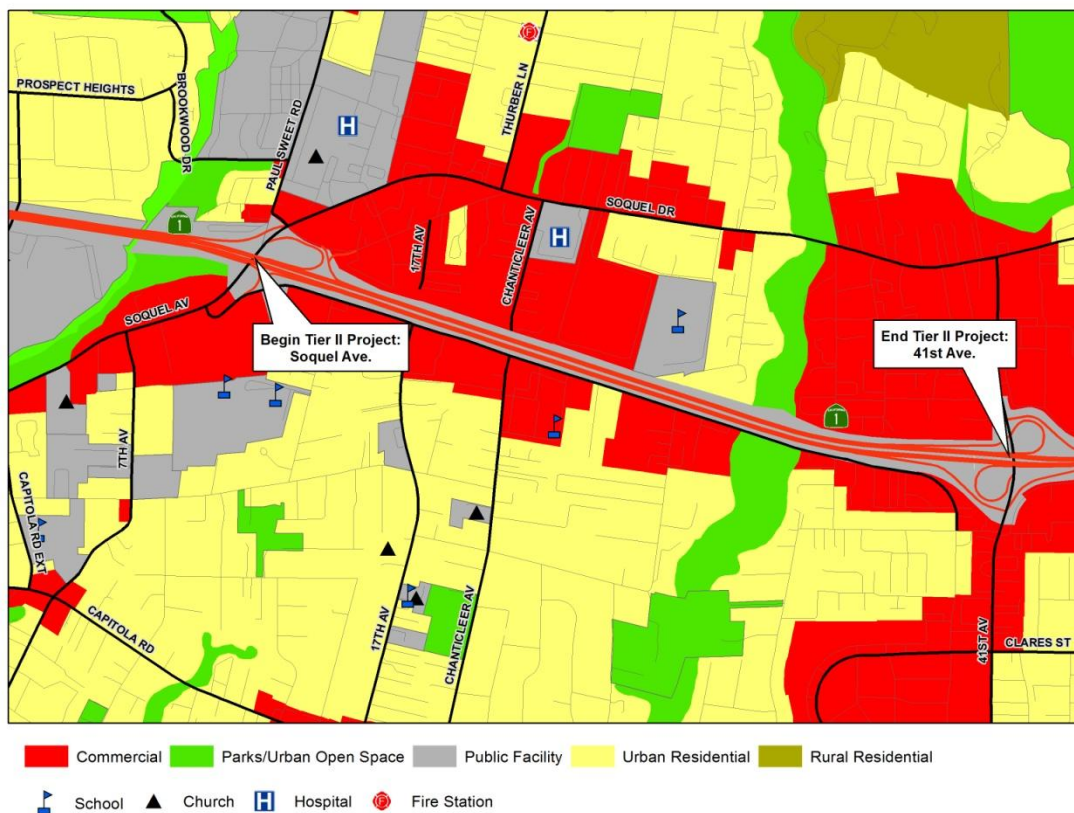
*City of Santa Cruz:* Santa Cruz, the county seat of Santa Cruz County and commercial capital of Santa Cruz County, is located on the northern edge of Monterey Bay, about 72 miles south of San Francisco. According to the U.S. Census Bureau, the city has a total area of 15.6 square miles, 80 percent of which is land with the remaining 20 percent water. Within the study area, land uses are a mix of residential, commercial, park, industrial and open space. North of Route 1, major land uses include De Laveaga Park and Golf Course, De Laveaga Elementary School, and residential areas. South of the highway, land uses include Harbor High School, Branciforte Elementary School, Gault Elementary School, the Yacht Harbor and Wharf, Arana Gulch Open Space, and Tyrell Park/Natural History Museum. Several interior parks within the study area in the City of Santa Cruz include Grant Park, East Side Park, and John Franks Park.

*City of Capitola:* Capitola, with a total area of 1.7 square miles, sits on the northeast shore of Monterey Bay between the unincorporated areas of Live Oak and Aptos. Land uses are a mix of residential, commercial, park, and open space, and include the 41<sup>st</sup> Avenue and Auto Plaza commercial area; Capitola Elementary School and New Brighton Junior High School; Capitola Wharf. Open space areas include Capitola City Beach, the Soquel Creek waterway, and New Brighton State Beach. Industrial uses account for a small percentage of the total land area; the only significant industrial land uses are located in the Kennedy Drive area, which fronts Route 1. Park and recreation facilities within the study area in the City of Capitola include Jade Street Park, Soquel Creek Park, Noble Gulch Park, and Cliffwood Park. Natural resource areas include the Monterey Bay and beach area, Soquel Creek and Lagoon, Rodeo Creek Gulch, and several riparian corridors and monarch butterfly groves. Industrial uses in Capitola account for a small percentage of total land area; the most prominent industrial area is along Kennedy Drive, which fronts Route 1. Capitola is basically built out, with very little vacant land and little opportunity for annexation. Growth is expected to focus on intensification of existing land uses and scattered infill development.



## Tier II Study Area

The Tier II study area includes the portions of the unincorporated areas of Live Oak, and Soquel, and the city of Capitola. Descriptions of land uses in these areas are provided above, in the Tier I Study Area section. Figure 2.2 below shows the Tier II study area and land uses, along with any parks, schools, churches, hospitals, or fire stations in the study area.



**Figure 2.2: Tier II Study Area**

### 2.1.2 Development Trends

Based on 2014 Association of Monterey Bay Area Government (AMBAG) population, housing, and employment forecasts, Santa Cruz County is expected to experience continued growth over the next 30 years, but at a slower rate than the state or nation. The region is expected to continue to see population and housing growth associated with job growth outside the region. In particular, job growth in Silicon Valley, combined with



high housing prices, is expected to lead to an increase in the number of commuters traveling to the San Francisco Bay Area. As a result of this projected growth, Santa Cruz County and its cities will share challenges in providing an adequate supply and range of housing opportunities; developing economic and employment opportunities; locating housing and jobs in proximity to one another; and maintaining the quality of life for residents.

*City of Santa Cruz:* The City of Santa Cruz currently is experiencing low- to moderate-population growth, but will experience a decline in the rate of growth in the future, as the City is relatively built out. Moreover, the average household size has declined from 2.44 in 2000 to 2.39 persons in 2010, which indicates that the average family size is shrinking. In addition, from 2000 to 2010, the City experienced a 15.4 percent decline in the number of residents aged 25 to 44. During this period, the number of residents aged 45 to 64 increased by 21.8 percent. This shift to an older population could require different housing options and increased social services for seniors.

Development in the City will be driven by the continuing demand for residential land. The limited supply of remaining residentially zoned vacant land will require the City to focus on infill development in the urban core and along major transportation corridors. Moreover, in reaction to the local housing shortage and rising residential land values, there has been a conversion of the commercial land inventory to residential in the City; however, a few vacant and underutilized parcels remain in the industrial land stock that could be used to accommodate future employment centers.

*City of Capitola:* As described in the current *General Plan*, adopted in June 2014, population growth is not expected to have a large impact on the City's well-established land-use patterns. The City is basically built-out, with a limited amount of vacant land to develop. As a result, the City's development is anticipated to focus on intensification of existing uses as well as scattered infill developments. Between 2000 and 2010, the City of Capitola experienced a one percent population decline.

### **2.1.3 Major Approved and Active Projects**

Major approved and active projects in Santa Cruz County and the cities of Santa Cruz and Capitola are listed in Table 2-1. Five of the projects are within the Tier I and Tier II study areas, defined as the 18 census tracts that surround Route 1 within the project limits under the Tier I Alternative, and the 5 census tracts that surround Route 1 within the project limits, from Soquel Drive to 41<sup>st</sup> Avenue under the Tier II Alternative. Please see Section 1.5 for the full description of each study area.

**Table 2-2: Major Projects within the Tier I and Tier II Study Area**

<b>Name</b>	<b>Jurisdiction</b>	<b>Proposed Uses</b>	<b>Status</b>
<b>Residential Projects</b>			
Redwood Commons*	City of Santa Cruz	A development of 36 single-room occupancy residential units to be constructed within Santa Cruz, at 1606 Soquel Avenue, approximately 0.47-mile from Route 1.	Completed
Canterbury Park	Aptos	A development of 19 new 2-, 3-, and 4-bedroom townhomes located at Canterbury Drive and Sea Ridge Road. The townhomes are priced to be affordable to moderate-income families and should open in April 2013.	Completed
Aptos Blue	Aptos	Development of a 40-unit complex for low-income individuals. Located on part of the original Aptos Ranch.	Completed
St. Stephen's Senior Housing	City of Santa Cruz	Development of up to 40 units of affordable housing for seniors, located on vacant lands on the site of St. Stephen's Church off of Soquel Avenue.	Permit application pending
Hyatt Place Hotel	City of Santa Cruz	A development for a 111-room hotel property to be constructed at 407 Broadway, approximately 1-mile from Route 1.	Permit application pending
Erlach Site on Cunnison Lane—MidPen Housing Project	Soquel	Development of a 102-unit affordable housing project at 3250 – 3420 Cunnison Lane, approximately 0.35-mile from Route 1.	Permit approved – project on hold
Nigh Property*	Soquel	A proposed 100-unit residential development to be constructed at 5940 Soquel Avenue, approximately 0.33-mile from Route 1.	Permit application pending
Tannery Arts Center	Santa Cruz County	<p>The project, which is located approximately 0.3-mile from Route 1, includes three phases:</p> <ul style="list-style-type: none"> <li>• The Tannery Artist Lofts, 100 units of affordable housing for artists (completed)</li> <li>• The Digital Media and Creative Arts Center, which includes rehabilitation of the historic buildings on the property to be used as studio space for artists (under construction)</li> <li>• The Performing Arts Center (fundraising stage)</li> </ul>	In operation
<b>Multi-Use Development Projects</b>			
The Farm Neighborhood Park and Community Center*	Santa Cruz County	Development of a 2-story community center, 39 units of housing, 0.75-mile of meandering pathways, a skate feature, 1/2 basketball court, children's play structures, a bocce ball court, nature interpretive signage, a pedestrian bridge, a dog enclosure, community and heritage gardens, oak woodland habitat restoration, turf and picnic areas, landscaping, a restroom, and parking areas. Located at 3120 Cunnison Lane, Soquel, CA 95073, approximately 0.5-mile from Route 1.	Permit application has been submitted

350 Ocean Street	City of Santa Cruz	A mixed-use project including 82 residential condominiums, 8,900 square feet of retail commercial space, and a 7,500-square-foot gymnasium and spa, located at 350 Ocean Street, approximately 0.98-mile from Route 1.	Completed
Heart of Soquel - Soquel Creek Linear Park and Parking Improvements	Santa Cruz County	A potential development of community facility projects such as pedestrian and vehicular safety and circulation improvements, environmental enhancement, and facility improvements for potential event hosting activities located at Soquel Drive and Porter Street, Soquel, CA 95073, approximately 0.32-mile from Route 1.	Unknown
Pacific Station	Santa Cruz County	The current conceptual plan is for a 5-story, mixed-use, transit-oriented development with the expanded METRO center on the ground floor, along with limited commercial uses; parking on the second floor; and affordable housing with limited office space on the remaining 3 floors, approximately 1-mile from Route 1.	In planning phase.
<b>Transportation Projects</b>			
Metrobase	City of Santa Cruz	A development that would consolidate all of METRO's Operations, Administration, Fueling, Maintenance, and ParaCruz facilities in the Harvey West area of Santa Cruz, to be constructed near the end of State Route 9, at the intersection of River Street and Route 1.	Under construction
Rio del Mar Boulevard Improvements	City of Santa Cruz	Roadway improvements.	Under construction
Deploy Intelligent Transportation System on Route 1*	City of Santa Cruz	Deploy Intelligent Transportation System technology on Route 1.	Under construction
Route 1 Soquel to Morrissey Auxiliary Lanes Project	City of Santa Cruz	Construction of auxiliary lanes between the Soquel Avenue/Drive and Morrissey Boulevard interchanges. Also includes replacement of the Route 1/La Fonda Avenue overcrossing.	Completed
Route 1 San Lorenzo Bridge Widening	City of Santa Cruz	Widen the Route 1 San Lorenzo River Bridge to improve flow from Highway 17 through the Junction of 1/9.	Planning phase
Route 1/9 Intersection Improvements	City of Santa Cruz	Improvements to the intersection of Route 1 and Highway 9 in the city of Santa Cruz.	Planning phase
Route 1/Harkins Slough Road Interchange – Santa Cruz	City of Santa Cruz	Reconstruct interchange on Route 1 at Harkins Slough Road in the city of Watsonville.	Planning Phase
Bicycle and Pedestrian (Class I)	City of Santa Cruz	Construction on Route 1 at Morrissey Boulevard	Under construction

Santa Cruz Branch Line	Santa Cruz County	Conversion of a 32-mile coastal freight rail corridor to a mix of passenger rail, transit, bicycle, and pedestrian uses.	Feasibility and planning phase
Source: Santa Cruz County Redevelopment Agency, September 2011; City of Santa Cruz Planning and Community Development Department, February 2008, March 2011, March 2013, and August 2014. City of Santa Cruz Economic Development Department, March 2013, August 2014. * Project located within the Tier II Study Area.			

## 2.1.4 Applicable Land-Use Plans and Policies

Future growth and development in the study area is guided by land-use policies and programs set forth in the *Santa Cruz County 1994 General Plan and Local Coastal Program*; the *City of Santa Cruz General Plan*, the *City of Capitola General Plan* and village design plans for the unincorporated areas of Soquel and Aptos (the Live Oak village plan is currently being developed). The relevant plans are summarized below.

***Santa Cruz County 1994 General Plan and Local Coastal Program.*** The 1994 *General Plan/Local Coastal Program Land Use Plan* (GP/LCP), which sets forth the guiding principles for development and quality of life within the County, and a set of Specific Plans for local jurisdictions within the County . Together, these documents follow a basic land-use policy of maintaining separation of urban and rural areas, encouraging new development to locate in urban areas, and protecting agricultural land and natural resources in the rural areas. The primary areas of concern as the County approaches build out are to: (1) provide adequate services — particularly water for current and future residents; (2) provide affordable housing; (3) preserve the County’s environmental quality; and, (4) prevent conversions of agricultural lands. The Circulation Element of the *1994 General Plan and Local Coastal Program* for Santa Cruz County promotes the need to make more efficient use of the existing transportation system through a TSM program. This approach supports capacity improvements and alternatives to driving alone during peak periods. Additionally, the Circulation Element places an emphasis on increasing the provision of transit, pedestrian, and bicycle facilities throughout Santa Cruz. The following goals are relevant to the proposed Tier I and Tier II projects:

- **Transportation System:** Provide a convenient, safe, economical transportation system for the movement of people and goods, promoting the wise use of resources, particularly energy and clean air, and the health and comfort of residents.

- Mode Choice: Provide the public with choices in transportation modes on a well-integrated system.
- Limit Increase in Automobile Use: Limit the increase in automobile usage to minimize adverse impacts. Increase transit ridership, carpooling, vanpooling, walking, bicycling, etc.
- Efficiency: Provide for more efficient use of existing transportation facilities.
- Access: Provide for the special transportation needs of the elderly and disabled.
- Bikeway System: Develop and implement a comprehensive bikeway system that promotes bicycle travel as a viable transportation mode and meets the recreation and travel needs of the citizens of Santa Cruz County.
- Safety: Reduce the number and severity of bicycle accidents.

**City of Santa Cruz General Plan and Local Coastal Program, 2030.** The *General Plan/Local Coastal Program* for the City of Santa Cruz, adopted in June 2012, includes policies and guidelines for land use for the City as a whole, as well as area and specific plans that refine and customize the policies of the *General Plan* for distinct areas to enhance their unique character.

Land-use goals for the study area are formulated to maintain and build upon the City's diverse natural and built environment. The *General Plan* stipulates that development and intensification of residential, commercial, and industrial lands should be focused within the City's existing boundaries. The Pacific Ocean, agricultural/grazing lands, publicly owned open space, and natural areas will also be preserved to create a boundary and contain urban developments. Objectives, programs, and policies related to the proposed project are to develop the following:

- Land-use patterns, street design, parking, and access solutions that facilitate multiple transportation alternatives;
- A safe, sustainable, efficient, adaptive, and accessible transportation system; and
- A safe, efficient, and adaptive road system by acknowledging and managing congestion, and ensuring road safety for all users.

The Mobility Chapter of the *City of Santa Cruz General Plan and Local Coastal Program* looks at ways to facilitate transportation alternatives, keep transportation and road systems safe and efficient, and systematically interconnect bicycle and pedestrian facilities. The proposals below aim to encourage greater use of alternative transportation modes and reduce automobile travel in concert with other parts of the Plan that foster

supportive land uses, building types, and activities. Goals, policies, and actions of the Mobility Chapter that are related to the proposed project are to:

- Reduce automobile dependence by encouraging appropriate neighborhood and activity center development by creating walkable, transit-oriented activity centers throughout the city; connect activity centers with pedestrian and bicycle paths, and implement pedestrian and bicycle improvements that support transit ridership.
- Ensure that sidewalks, transit centers, and major transit stops are conveniently located, usable, and accessible to all.
- Provide leadership on sustainable regional mobility.
- Increase the efficiency of the multi-modal transportation system to:
  - Design for and accommodate multiple transportation modes;
  - Promote alternative transportation improvements with TSM strategies, road improvements, and widening/expansion projects that can achieve an acceptable level of service; and
  - Incorporate pedestrian, bicycle, and mass transit facilities in the design of bridges and road projects.
- Acknowledge and manage congestion.
- Create a citywide interconnected system of safe, inviting, and accessible pedestrian ways and bikeways.

**City of Capitola General Plan.** The *General Plan* for the City of Capitola, updated and adopted in June 2014, provides a comprehensive overview of future development in Capitola. The Housing Element of the General Plan was updated in 2010. As explained in the current plan, the physical configuration of the community is not expected to substantially change in the coming years because the city is essentially built out and there is little available vacant land for developments. Policies and programs to guide future developments in a manner consistent with the goals and quality of life desired by Capitola's residents include maintaining its existing small-town scale, character, and flavor; provide year-round opportunities for residents of all ages to meet and gather in public places; protect and enhance the quality of life within residential neighborhoods; and provide a balanced transportation system. .

Specific objectives, policies, and programs of relevance to the proposed project are the following:

- Provide a balanced multi-modal transportation system that enhances mobility in a safe and sustainable manner;

- Support regional efforts to increase the capacity of Highway 1 to accommodate future forecasted traffic demands, including the proposed Highway 1 high-occupancy vehicle (HOV) project;
- Continue to maintain the established level of service C or better at intersections throughout Capitola, with the exception of the Village area, Bay Avenue, and 41st Avenue.;
- Support regional efforts to improve the availability, affordability, reliability, and convenience of public transportation service in Capitola; Provide a complete network of bikeways and bicycle facilities in Capitola; and
- Provide high quality pedestrian facilities that support walking and the enjoyment of the outdoors in Capitola.

**Soquel Village Plan, 1990.** Supplementing the countywide plan are area-specific plans for several of the county's composite villages, towns, and communities, including the unincorporated area of Soquel. Major land use objectives of the *Soquel Village Plan*, adopted May 1990, are to make the village more pedestrian-oriented and to limit traffic improvements to accommodate existing, not future, regional traffic. Specific goals of relevance to the proposed project are:

- Make the village more pedestrian-oriented.
- Accommodate regional traffic in a manner that does not compromise the goals of enhancing the pedestrian environment and cohesive village character.
- Provide adequate parking for existing and future needs.

**Aptos Village Plan.** The Aptos Village Plan, adopted in February 2010, identifies specific land use, circulation, and community design issues within the Aptos Village community that focuses on development and maintenance of the Village as a community focal point; encouragement of mixed-use development; achievement of an improved pedestrian environment; roadway and traffic improvements; preservation of architectural resources; and integration of the creek system, open space, and the Forest of Nisene Marks in maintaining Village character.

Of particular relevance to the proposed project are the goals of facilitating access to the Village for the Aptos community, minimizing regional automobile traffic through the Village, and promoting the prosperity of business and residential activities of distinctive "village" nature. Related policies are to support an update of the County Regional Transportation Plan that relieves the Village of through regional traffic, encouraging a

variety of transit modes serving the Village, and establishing a system of bicycle pathways connecting the Village to surrounding areas and activities.

## **2.2 PERMANENT IMPACTS**

Land-use impacts would occur if proposed project effects would either conflict with General Plan land use designations or zoning, or with applicable environmental plans and policies.

### Tier I Project Alternatives

#### **2.2.1 No-Build Alternative**

Implementation of the No-Build Alternative would have no direct effect on land uses in the project area, and location and the characteristics of corridor transportation facilities and uses generally would not change. The Route 1/Highway 17 Merge Lanes project and the Soquel-Morrissey Auxiliary Lanes project would be constructed, improving traffic operations at the north of the corridor. Traffic congestion elsewhere in the corridor would worsen, however, including increased diversion of freeway traffic to local arterials. This could adversely affect land uses abutting these arterials, as vehicles would make use of local streets rather than the Route 1 mainline.

Implementation of the No-Build Alternative would not support achievement of the local and regional goals aimed at improving the transportation system.

#### **2.2.2 TSM Alternative**

The TSM Alternative would convert 1.8 acres of land to transportation use, including approximately 0.27 acres of industrial land uses, 0.35 acres of commercial uses, and 0.34 acre of residential uses. The property acquisitions would not require the displacement of any residential units or commercial establishments. Because the project is aimed at reducing congestion, improving safety, encouraging carpooling, and alternative transportation modes to increase transportation system capacity, the project's objectives are consistent with adopted local planning goals and policies for improving the existing Route 1 corridor described in Section 2.1.

#### **2.2.3 HOV Lane Alternative**

Under HOV Lane Alternative, direct land use changes would result due to the acquisition of property needed for the transportation facility. Based on the engineering estimate, the HOV Lane Alternative would convert approximately 11.59 acres of land to transportation



use. There would be a total of 55 partial acquisitions and 9 full acquisitions required for the Tier I HOV Lane Alternative. During construction, 55 temporary acquisitions would also be required. A total of five residential parcels and four commercial parcels would be subject to full acquisition and would result in the displacement of eight residential units and 12 commercial establishments.

Similar to the TSM Alternative, implementation of the HOV Lane Alternative would be consistent with local jurisdictions' stated objectives for improving the existing Route 1 corridor.

### Tier II Project Alternatives

#### **2.2.4 Auxiliary Lane Alternative**

The Auxiliary Lane Alternative would require the acquisition of small portions of parcels adjacent to Route 1. There would be five permanent partial acquisitions, with acquisition amounts ranging from 100 square feet to 9,200 square feet. In addition, one temporary acquisition would be required during construction. In total, approximately 0.33 acres would be converted to transportation land uses. No displacements of residential units or commercial establishments would be required.

The Tier II Auxiliary Lane Alternative is consistent with local planning goals and policies and is identified in regional plans and studies. Because the project is aimed at reducing congestion and improving safety, the Tier II Auxiliary Lane Alternative objectives are consistent with adopted local planning goals and policies for improving the existing Route 1 corridor as described in Section 2.1.4.

#### **2.2.5 No-Build Alternative**

The No-Build Alternative would not require the acquisition of any land. Implementation of the No-Build Alternative would have no direct effect on land uses in the project area, and location and the characteristics of corridor transportation facilities and uses generally would not change. The Route 1/Highway 17 Merge Lanes project and the Soquel-Morrissey Auxiliary Lanes project would be constructed, improving traffic operations at the north of the corridor. Traffic congestion elsewhere in the corridor would worsen, however, including increased diversion of freeway traffic to local arterials. This could adversely affect land uses abutting these arterials, as vehicles would make use of local streets rather than the Route 1 mainline. Under the No-Build Alternative, congestion would continue to worsen along Route 1, safety would not be improved, and nothing would be done to encourage carpooling or alternative modes of transportation.

Therefore, implementation of the No-Build Alternative would not support achievement of the local and regional goals aimed at improving the transportation system as described in Section 2.1.4.

## **2.3 Avoidance, Minimization, and/or Mitigation Measures**

### **2.3.1 Tier I Corridor Alternatives**

Because no actual construction would take place as a result of selecting a Tier I Corridor Alternative, no avoidance, minimization, and/or mitigation measures are required at this time. As portions of the Tier I corridor are programmed as Tier II construction-level projects, they will be subject to separate environmental review. Based on the impacts that have been identified in this section, the following avoidance and minimization measures are provided to minimize impacts to right-of-way acquisition. These measures are subject to revision based on the changes in the setting, project design, or regulatory requirements in place when individual corridor projects undergo environmental review.

- Adjust project alignment to fit within existing right-of-way where feasible;
- Include retaining walls in the design instead of grading out vertical differentials where feasible;
- Propose exceptions to design standards that would impact the right-of-way.

In addition, the measures identified in Section 4.6 Avoidance, Minimization, and/or Mitigation measures also apply.

### **2.3.2 Tier II Auxiliary Lane Alternative**

The following avoidance measures apply to the Tier II Auxiliary Lane Alternative.

- The project alignment has been adjusted to fit within existing right-of-way where feasible;
- In the vicinity of Rodeo Gulch, retaining walls will be included on both sides of the roadway to minimize impacts;
- Exceptions to design standards are proposed to reduce right-of-way impact in the vicinity of the Chanticleer Avenue pedestrian overcrossing.

In addition, the measures identified in Section 4.6 Avoidance, Minimization, and/or Mitigation measures also apply.

## 2.4 COASTAL ZONE

The Coastal Zone Management Act of 1972 is the primary Federal law enacted to preserve and protect coastal resources. The Coastal Zone Management Act sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the Act are similar to those for the Coastal Zone Management Act; including the protection and expansion of public access and recreation, the protection, enhancement, and restoration of environmentally sensitive areas, the protection of agricultural lands, the protection of scenic beauty, and the protection of property and life from coastal hazards. The California Coastal Commission (CCC) is responsible for implementation and oversight under the California Coastal Act.

Just as the federal Coastal Zone Management Act delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments (15 coastal counties and 58 cities) to enact their own local coastal programs. Local coastal programs determine the short- and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals. As shown in Figure 2-3 below, the segment of Route 1 between the southern project limit near the Route 1/San Andreas Road — Larkin Valley Road Interchange and east of the Route 1/Bay Avenue — Porter Street Interchange lies within the Coastal Zone. Significant coastal resources within this area include Valencia Lagoon, Valencia Channel, freshwater marsh/riverine habitat and riparian forest. The Valencia Lagoon and Valencia Channel are located on the southern side of Route 1, between Freedom Boulevard and Rio Del Mar Boulevard. Valencia Channel is hydrologically connected to the Valencia Lagoon, and both contain riverine, freshwater marsh, scrub-shrub wetland, and riparian forest habitats. Freshwater marsh/riverine habitat is primarily located within the Valencia Channel and within Aptos Creek. Riparian forest is located between the Union Pacific railroad tracks and Spreckles Drive and in pockets surrounding Route 1 from Mar Vista Drive to the end of the coastal zone east of the Bay Avenue - Porter Street interchange.

The Tier II project limits are outside of the coastal zone boundary. The CCC defines the Local Coastal Program within Santa Cruz County as part of the Central Coast Area.

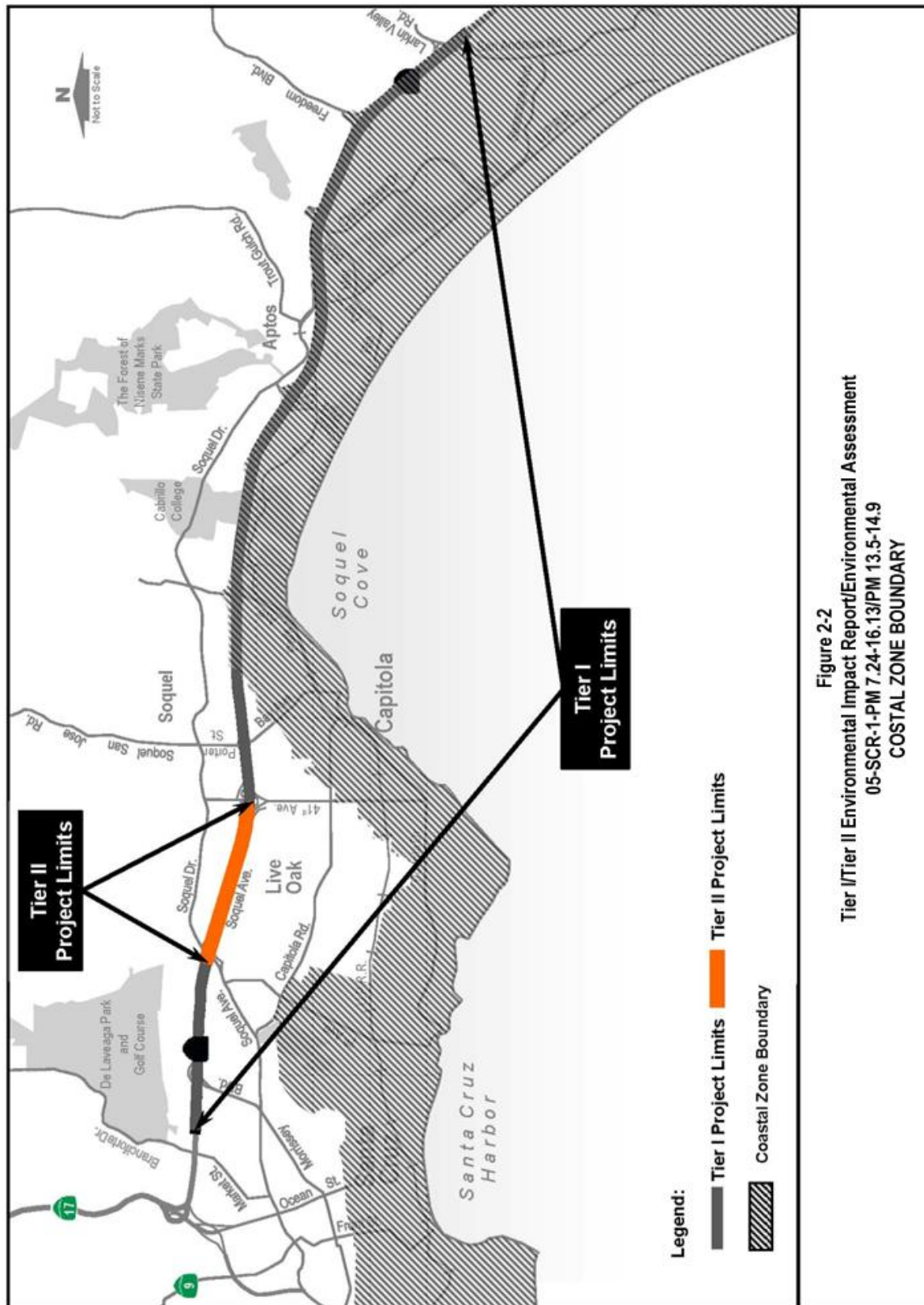


Figure 2-3: Coastal Zone Boundary

Figure 2-2  
Tier I/Tier II Environmental Impact Report/Environmental Assessment  
05-SCR-1-PM 7.24-16.13/PM 13.5-14.9  
COSTAL ZONE BOUNDARY

### 2.3.1 Permanent Impacts

#### Tier 1 Corridor Alternatives

Table 2-2 evaluates whether the Tier I Corridor Alternatives are consistent with relevant policies from the Local Coastal Programs of the city and county of Santa Cruz.

<b>Table 2-2: Potential Inconsistency with Local Coastal Programs</b>		
<b>Subject of Policy</b>	<b>Local Policies</b>	<b>Assessment</b>
Scenic and Visual Resources	County of Santa Cruz – Local Coastal Program: <ul style="list-style-type: none"> <li>• Policy 5.10.2 – Development within visual resources</li> <li>• Policy 5.10.4 – Preserving natural buffers</li> <li>• Policy 5.10.8 – Significant tree removal ordinance</li> </ul>	<b><i>Tier I Corridor Alternatives</i></b> The project would be potentially inconsistent with these policies because substantial visual changes would occur from the highway due to the addition of auxiliary lanes, bridge widening; installation of pedestrian/bicycle overcrossings; reconstruction of existing ramps; construction of new soundwalls and retaining walls; and removal of trees and mature vegetation. Avoidance, minimization, and/or mitigation measures to address these impacts include aesthetic treatments, vine plantings, and revegetation of disturbed areas.
		<b><i>No Build Alternative</i></b> The No Build Alternative would be consistent with these policies because it would not cause substantial visual changes to occur, nor would it require the removal of trees.
Biological Resources	County of Santa Cruz – Local Coastal Program: <ul style="list-style-type: none"> <li>• Policy 5.1.6 – Development within sensitive habitats</li> <li>• Policy 5.1.7 – Protection of sensitive habitats</li> <li>• City of Santa Cruz – Local Coastal Program – Environmental Quality Element Policies 4.5.3 – Protection of monarch butterfly</li> </ul>	<b><i>Tier I Corridor Alternatives</i></b> The Tier I Corridor Alternatives would affect sensitive habitats and is potentially inconsistent with policies that relate to protection of sensitive habitats. The project would have permanent and temporary effects on riverine/freshwater marsh, riparian forest, coast live oak woodland, mixed conifer woodland, coastal scrub, and annual grassland. Removal of this habitat could affect foothill yellow-legged frog, California red-legged frog, Santa Cruz long-toed salamander, California tiger salamander, western pond turtle, tidewater goby, central California coast steelhead, monarch butterfly, California linderella, Cooper's hawk, tricolored blackbird, great blue heron, short-eared owl, burrowing owl, white-tailed kite, least Bell's vireo, pallid bat, hoary bat, roosting bats, badger, and nesting birds. Avoidance, minimization, and/or mitigation measures, such as compensatory mitigation, monitoring, and revegetating, will be implemented to avoid and minimize impacts. Onsite and in-kind mitigation for temporary impacts would be provided at a 1:1 ratio, and permanent

Subject of Policy	Local Policies	Assessment
		<p>impacts would be mitigated at a 2:1 ratio, unless otherwise directed by regulatory agencies.</p> <p><b>No Build Alternative</b> The No Build Alternative would be consistent with these policies because it would not affect sensitive habitats.</p>
Wetland and Creek Protection	<p>County of Santa Cruz – Local Coastal Program:</p> <ul style="list-style-type: none"> <li>Policy 5.2.2 – Riparian corridor and wetland protection</li> <li>Policy 5.2.3 – Activities within riparian corridors and wetlands</li> <li>Policy 5.2.5 – Setbacks from wetlands</li> </ul> <p>City of Santa Cruz – Local Coastal Program – Environmental Quality Element Policies 4.2.2, 4.2.2.4 – Minimize the impact of development upon riparian and wetland areas</p>	<p><b>Tier I Corridor Alternatives</b> The project would be potentially inconsistent with these policies. The Tier I Corridor Alternatives would permanently affect 0.23 acre of U.S. Army Corps of Engineers wetlands, 0.10 acre of U.S. Army Corps of Engineers other waters, 2.20 acres under the jurisdiction of Local Coastal Plans approved by the California Coastal Commission, and 3.58 acres of California Department of Fish and Wildlife jurisdiction wetland area. Permanent impacts would result from changes in bank configuration, loss of riparian habitat associated with road widening and culvert extensions, realignment of existing roadways, and construction of new road sections. Onsite and in-kind mitigation for temporary impacts would be provided at a 1:1 ratio, and permanent impacts to wetlands would be mitigated at a 3:1 ratio.</p> <p><b>No Build Alternative</b> The No Build Alternative would be consistent with these policies because it would not affect wetlands or other waters.</p>
Historical Resources	<p>County of Santa Cruz – Local Coastal Program:</p> <ul style="list-style-type: none"> <li>Policy 5.19.3 – Development around archeological resources</li> </ul>	<p><b>Tier I Corridor Alternatives</b> The project would be potentially inconsistent with this policy. The Tier I Corridor Alternatives may adversely affect portions of three unevaluated archaeological sites and their potential buried archaeological deposits within the archaeological Area of Potential Effects. If discovered during ground disturbing activities, comply with 36 <i>Code of Federal Regulations</i> 800.13 (b)(3) and, if applicable, part (c), as stipulated in the 2004 Section 106 Programmatic Agreement for Federal-aid Highway Programs in California regarding post-review discoveries.</p> <p><b>No Build Alternative</b> The No Build Alternative would be consistent with these policies because it would not affect archaeological deposits.</p>
Traffic/Circulation	<p>County of Santa Cruz – Local Coastal Program:</p> <ul style="list-style-type: none"> <li>Policy 3.14.2 – Priority to road improvements that provide access to recreational resources</li> </ul>	<p><b>Tier I Corridor Alternatives</b> The Tier I Corridor Alternatives would be consistent with this policy by improving access to these resources by decreasing congestion and delay along Route 1.</p> <p><b>No Build Alternative</b> The No Build Alternative would be potentially</p>

Subject of Policy	Local Policies	Assessment
		inconsistent with these policies because it would not improve access to beaches or recreational land uses.

As shown in Table 2-2, the Tier I Corridor Alternatives are potentially inconsistent with policies from the Santa Cruz County and City of Santa Cruz Local Coastal Programs regarding visual resources, biological resources, wetland and creek protection, and historical resources. However, measures are identified in the respective sections of the EIR/EIS to address the potential inconsistencies, and the Tier I Corridor Alternatives would be consistent with other policies from the local coastal programs because they would preserve park and recreational land uses as stated in the Local Coastal Programs, and they would improve access to these resources by decreasing congestion and delay along Route 1. Because the Tier I Corridor Alternatives traverse a coastal zone, a Coastal Development Permit from Santa Cruz County would be required; in addition, consultation with California Coastal Commission regarding discharges into Critical Coastal Areas, and a federal consistency determination would be needed.

#### Tier II Auxiliary Lane Alternative

The Tier II Auxiliary Lane Alternative is located outside of coastal zone jurisdiction; therefore, no coastal zone determinations would be required.

#### No-Build Alternative

As shown in Table 2-2, the Tier I No Build Alternative would be consistent with some coastal zone policies. However, it would be inconsistent with policies that relate to improving access to coastal resources because, under this alternative, traffic conditions would continue to worsen along Route 1, which would not improve access to beaches or recreational land uses, as outline in the Local Coastal Programs.

### **2.3.2 Avoidance, Minimization, and/or Mitigation Measures**

#### Tier I Corridor Alternatives

Based on the impacts that have been identified in this section, the following avoidance, minimization, and mitigation measures are provided. These measures are subject to revision based on the changes in the setting, project design, or regulatory requirements in place when individual corridor projects undergo environmental review.

- Avoidance and minimization measures will employ sound resource conservation principles, such as minimizing and avoiding impacts to protected natural resources. Design approaches will also be employed to minimize impacts to the maximum extent feasible, such as widening to one or the other side of the highway, requesting design exceptions for reduced inside shoulder widths, and the placement of retaining walls to reduce right-of-way requirements.

Additional information regarding visual impacts will be included in Chapter 2 of the Draft Tier I/Tier II EIR/EA.

#### Tier II Auxiliary Lane Alternative

Because the Tier II Auxiliary Lane Alternative is located outside the coastal zone and will have no impact on the coastal zone, no avoidance, minimization, and/or mitigation measures are required.

## **2.4 CONSTRUCTION IMPACTS**

### Tier I Alternatives

#### **2.4.1 No-Build Alternative**

Under the No-Build Alternative, none of the considered Alternatives would be constructed, and as such, no land-use obstruction would occur.

#### **2.4.2 TSM Alternative**

During project construction, temporary lane closures on Route 1 are likely to occur. Adjacent streets may experience episodes of increased congestion as a result of construction. Roadway obstruction from construction activities may limit the use of some properties located within the project vicinity. This impact would be localized and temporary.

#### **2.4.3 HOV Lane Alternative**

Impacts during construction would be similar to that described under TSM Lane Alternative, but may be experienced for longer periods of time.



## Tier II Alternatives

### **2.4.4 Auxiliary-Lane Alternative**

During project construction, temporary lane closures on Route 1 are likely to occur, and adjacent streets may experience congestion as a result of construction. Additionally, the final asphalt pavement overlay would require a nighttime mainline closure. Construction activities may affect access to properties located within the project vicinity. This impact would be localized and temporary.

### **2.4.5 No-Build Alternatives**

Under the No-Build Alternative, there would be no construction and as such, no land use or traffic impacts will occur.

## **Avoidance, Minimization, and/or Mitigation Measures**

### Tier I Alternatives

1. A Transportation Management Plan would be developed and implemented as part of the project construction planning phase for future tiered projects under either of the Tier I Corridor Alternatives, as described above. The Transportation Management Plan would address potential impacts to circulation of all modes (transit, bicycles, pedestrians, and private vehicles).
2. The Transportation Management Plan would include a public outreach program to communicate any such closures and detours as described below under Section 2.4.4, Community Impacts.
3. Lane and ramp closure charts would be included in the final Transportation Management Plan and in the project specifications.
4. In the event of temporary obstruction of any pedestrian walkways or bicycle paths, the Transportation Management Plan would identify nearby alternate routes, including pedestrian routes that meet Americans with Disabilities Act requirements, as appropriate.
5. The Transportation Management Plan will include an evaluation of potential impacts as a result of diverting traffic to alternate routes. The Traffic Management Plan would include measures to minimize, avoid and/or mitigate impacts to alternate routes, such as agreements with local agencies to provide enhanced infrastructure on arterial roads or intersections to deal with detoured traffic. The Traffic Management Plan may also provide for contracting with local

agencies for traffic personnel, especially for special event traffic through or near the construction zone.

6. Coordination with Transit and private shuttle services to plan for any rerouting.
7. To minimize disruption to the traveling public during construction of the Tier II Auxiliary Lane Alternative, a comprehensive strategy would be developed to minimize disruption, and assure the safe movement of vehicles through and around the construction site.

#### Tier II Auxiliary Lane Alternative

1. Implementation of a Transportation Management Plan that addresses circulation for transit, bicycles, pedestrians, and private vehicles.
2. The Transportation Management Plan would include a public outreach program to communicate any such closures and detours as described below under Section 2.4.4, Community Impacts.
3. Lane and ramp closure charts would be included in the final Transportation Management Plan and in the project specifications.
4. In the event of temporary obstruction of any pedestrian walkways or bicycle paths, the Transportation Management Plan would identify nearby alternate routes, including pedestrian routes that meet Americans with Disabilities Act requirements, as appropriate.
5. The Transportation Management Plan will include an evaluation of potential impacts as a result of diverting traffic to alternate routes. The Traffic Management Plan would include measures to minimize, avoid and/or mitigate impacts to alternate routes, such as agreements with local agencies to provide enhanced infrastructure on arterial roads or intersections to deal with detoured traffic. The Traffic Management Plan may also provide for contracting with local agencies for traffic personnel, especially for special event traffic through or near the construction zone.
6. Coordination with Transit and private shuttle services to plan for any rerouting.
7. To minimize disruption to the traveling public during construction of the Tier II Auxiliary Lane Alternative, a comprehensive strategy would be developed to minimize disruption, and assure the safe movement of vehicles through and around the construction site.

## Chapter 3. Growth Impacts

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The growth impacts assessment examines the relationship of the proposed project to future economic and population growth. Growth can lead to the need for additional housing and supporting infrastructure and services in a project area. The assessment focuses on the potential for a project to facilitate or accelerate growth beyond those contemplated in local development plans, or identify if growth shifts from elsewhere in a region. In this analysis, the project's influence on area growth due to travel time savings is considered in relation to factors such as relative cost and availability of housing, local amenities, local and regional growth policies, and development constraints. The information presented in the following section is summarized from the technical report, *Highway 1 HOV Lane Project, Growth Inducement Study, Draft Report* (July 2007).

### 3.1 REGULATORY SETTING

The Council on Environmental Quality (CEQ) regulations, which implements the National Environmental Policy Act (NEPA) of 1969, requires evaluation of the potential environmental consequences of all proposed federal activities and programs. This provision includes a requirement to examine indirect consequences, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations, 40 Code of Federal Regulations (CFR) 1508.8, refer to these consequences as indirect impacts. Indirect impacts may include changes in land use, economic vitality, and population density, which are elements of growth.

The California Environmental Quality Act (CEQA) also requires the analysis of a project's potential to induce growth. CEQA guidelines, Section 15126.2(d), require that environmental documents “...*discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment...*”

The first-cut screening process presented in the Caltrans Standard Environmental Reference (SER) outlines a step-by-step procedure to determine whether a transportation project has the potential for growth-related impacts. The initial step of the screening process is to determine whether the project has the potential to change accessibility. If the project has such potential, then further analysis is warranted. The succeeding step calls for an analysis of factors, including project type, project location, and growth pressures in the project area. Based on this information, it is determined whether project-related growth is reasonably foreseeable. If growth is reasonably foreseeable, further analysis is conducted to

determine the effect of this additional growth on resources of concern. SER also suggests convening an expert panel to develop estimates of land-use changes due to the project.

### **3.2 AFFECTED ENVIRONMENT**

Route 1 is the major north-south transportation route for the residents of both Santa Cruz and Monterey Counties. Traffic on Route 1 is affected by a pronounced commute pattern between housing in southern Santa Cruz County to jobs in the Santa Cruz area and farther north in Silicon Valley. For example, according to 2008 projections by the Association of Monterey Bay Area Governments (AMBAG), the ratio of jobs to housing units in the City of Santa Cruz was about 2.1 in 2000 through 2005 but is expected to reach 2.56 by 2030. The trend in this ratio corresponds to the cities of Santa Cruz and Capitola increasing the number of jobs by 45 percent between 2000 and 2030 while increasing the number of housing units by only 17 percent.

This increased demand for workers in the Santa Cruz area plus commute trips to Silicon Valley is expected to increase peak-period highway delay in the project area. Motorists who used Route 1 in 2003 — the baseline year — to commute within the project area experienced peak-direction delays of 14 to 15 minutes during the peak hour. Traffic forecasts and simulations for 2035 indicate that such delays will increase to around 48 to 49 minutes through the nine-mile length of the project area. Depending on the alternative and affected mode, the proposed project could reduce these delays considerably, potentially changing accessibility to jobs and related growth pressures and trends.

Growth and development in the Route 1 corridor is guided by land-use policies and programs set forth in the general plans of Santa Cruz and Monterey counties; the cities of Santa Cruz, Capitola, Watsonville, and Marina; the area plans for Castroville and Fort Ord; the village or community design plans for the unincorporated areas of Soquel and Aptos; and the University of California at Santa Cruz *Long Range Development Plan*.

Residential growth in the Route 1 corridor in Santa Cruz County is projected by Association of Monterey Bay Area Governments (AMBAG) to be relatively slow. The cities of Santa Cruz and Capitola are relatively built out, as evidenced by a combined planned housing growth rate of only 17 percent over 30 years, with most of the growth taking place in the City of Santa Cruz. Santa Cruz County, which directs growth to unincorporated urban service areas such as Soquel, Aptos, and Freedom, has a projected housing growth rate of 12 percent between 2000 and 2030. The City of Watsonville has a projected housing growth rate of 56 percent between 2000 and 2030, which will be accomplished by infill and limited annexation of adjacent areas. Because Watsonville and

the unincorporated County have most of the remaining room to build housing, housing growth in the City of Watsonville and in the unincorporated areas of the County, including the urban service areas of Aptos and Freedom, will make up over 70 percent of the total housing growth in Santa Cruz County between 2000 and 2030.

To be comprehensive in its selection of potential growth areas that could be affected by the project, this study also includes the communities in northern part of Monterey County, even though they are located at some distance from the project area. Based on AMBAG's 2008 projections, the housing in Castroville area is expected to grow by about 33 percent between 2005 and 2035, while housing within the City of Marina is expected to grow by 57 percent. Fort Ord is projected to increase its population by a factor of about 30 as the vacated former U.S. Army post is redeveloped for civilian use. Unincorporated Monterey County is projected to increase its housing by 25 percent between 2005 and 2035 with most of the increase being funneled into urbanized areas adjacent to the County's incorporated areas.

The two counties and the communities included in this study have relatively restrictive residential growth policies and plans. In general, they plan for slow, controlled growth that relies mostly on infill or expansion contiguous to existing urbanized areas. The exception is the City of Marina, which also includes Fort Ord. While the general plan is currently being revised, Marina is planning large developments, including the redevelopment of Fort Ord and possible development of the Armstrong Ranch north of the City.

Most of the jurisdictions in the Route 1 corridor are projected to have somewhat higher job creation rates compared to their residential growth rates. Employment growth rates in Santa Cruz County and its incorporated cities are projected by AMBAG to be 27 percent between 2005 and 2035. These higher job growth rates will reinforce the south-to-north commute pattern. Because the relatively job rich Santa Cruz area will add jobs much faster than housing, drawing even more workers from the southern part of the county. As indicated by the increase in recurrent congestion on Route 1 in the project area, planned growth in Santa Cruz County will outstrip highway capacity. Factors that reinforce the south-to-north pattern include the following:

- Housing affordability and availability in the Watsonville area. Because many jobs in the Santa Cruz area are service jobs, lower income service workers and many moderate income households will likely choose housing well south of their employment locations.

- The Silicon Valley job market. Silicon Valley workers have long been attracted by the beauty and amenities of the Santa Cruz area and other coastal communities along Route 1. Highway 17 provides access over the Santa Cruz Mountains to job rich Santa Clara County.

Compared with Santa Cruz County, AMBAG projections for Monterey County show a slightly lower overall employment growth rate of approximately 22 percent between 2005 and 2035, but relatively few jobs will be added in the rural northern part of the County. There is substantial variation in the employment growth rates of the cities within the County. Castroville is not projected to develop a substantial job base, and while employment growth in Marina is projected to be 44 percent between 2005 and 2035, the growth will increase its jobs/housing ratio to only .34 by 2035. This low ratio suggests that Marina will remain a largely bedroom community.

### **3.3 GROWTH IMPACTS**

#### **3.3.1 Tier I Corridor Alternatives and Tier II Auxiliary Lane Alternative**

The fact that the proposed project is projected to improve accessibility in the Route 1 corridor is the main concern for growth-related impacts. The TSM Alternative would reduce 2035 AM delays in the northbound direction by 25 minutes through the 9-mile project corridor, but leave congestion well above 2003 levels. It would have no effect on the 2035 PM delays in the southbound direction; however, it will leave commuters with a round trip longer than that experienced in 2003. The HOV Lane Alternative would eliminate delay in 2035 for users of the HOV lane and would reduce delay in the mixed flow lanes to 19 minutes, or by 83 percent as compared to the No-Build Alternative. To assess the potential effects of the accessibility changes, this study used a three-step approach as listed below:

1. An analytical model was used to estimate the project-related changes in residential growth pressures for sample neighborhood in the corridor, with and without consideration of planned growth limits.
2. Factors such as growth trends, local government plans and policies, housing affordability and availability, supporting infrastructure, articulated public attitudes regarding growth, and land use were the major issues taken into consideration.
3. Review by a panel of experts, composed of local planning officials, a real estate developer and private sector planners. The panel provided input into the three-step study and reviewed of the results.

The study selected and analyzed four sample residential growth areas potentially affected by any growth that would result from Route 1 improvements.

Criteria for selecting study sample neighborhoods included the following:

- Proximity to the Route 1 corridor;
- A range of commute times representative of the proposed project; and
- Potential for future growth based on AMBAG projections, with consideration of projected build out of local projects.

Analysis of the changes in accessibility from these sample neighborhoods to jobs in the AMBAG planning area and the greater San Francisco Bay Area resulted in these findings:

- The TSM Alternative would have very little effect on residential growth; and
- The HOV Lane Alternative would increase relative growth somewhat in Aptos and but only slightly in north Watsonville while decreasing relative growth in two of the sample communities.

The study found that the proposed project is not likely to stimulate unplanned residential or related commercial growth, and would therefore have less than significant impacts on growth along the Route 1 corridor. The study identified the following major factors preventing unplanned growth:

- Lack of developable land in survey cities,
- Restrictive land-use policies within the corridor, and
- Public attitudes toward growth.

The expert panel agreed with the assessment the proposed project is not likely to stimulated unplanned growth and affirmed that the expansion of the highway would be insignificant, due to the constraints posed by land-use policies and zoning. Further, the expert panel felt that housing development was supply driven as opposed to demand driven. The panel stated that corridor residents do not favor substantial increases in residential development. Constraints to development include infrastructure and services such as water, sewer, transportation facilities, and schools, discourages decision makers from promoting pro-development policies. Residential study areas included in the growth analysis are shown in Figure 3-1.

Additional growth due the Tier II Auxiliary Lane Alternative is not reasonably foreseeable. Travel time improvements under the Tier II Auxiliary Lane Alternative would be less than the travel time improvements under the Tier I Corridor Alternatives, indicating greater benefits under the Tier I Corridor Alternatives with regards to traffic. Because there are fewer benefits under the Tier II Auxiliary Lane Alternative, there is a reduced potential to stimulate unplanned growth. Thus, the growth potential under the Tier II Auxiliary Lane Alternative is less than the growth potential under the Tier I Corridor Alternatives. Therefore, growth impacts under the Tier II Auxiliary Lane Alternative are not anticipated.

In conclusion, the results of the study show that the proposed project, for both Tier I and Tier II Alternatives, would not likely stimulate unplanned residential or related commercial growth but would serve planned growth within the corridor.

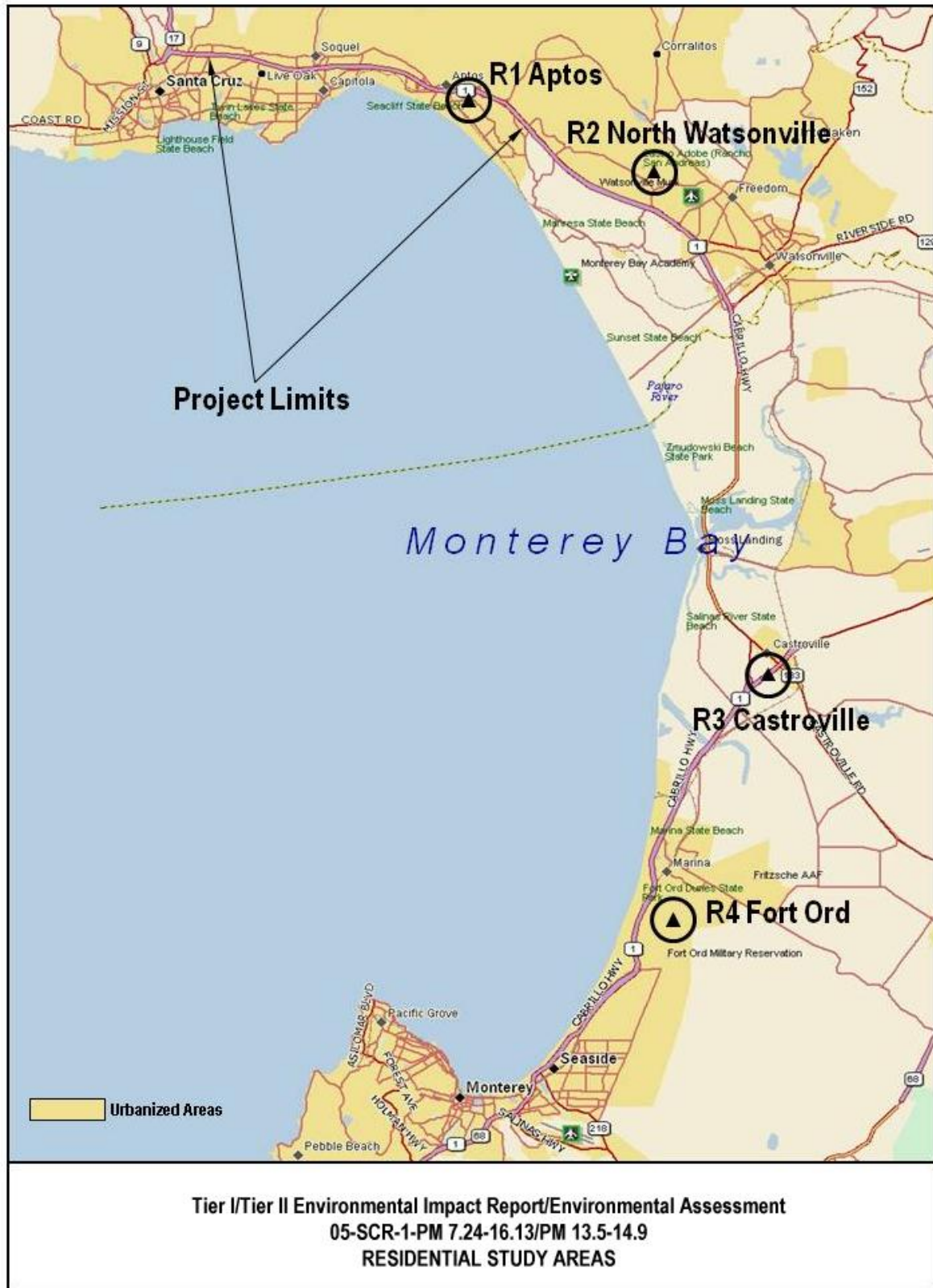
### **3.3.2 No Build Alternative**

Route 1 would not experience any improvements under the No Build Alternative; congestion and delay would continue to worsen. Thus, there would be no growth impacts under the No Build Alternative.

## **3.4 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES**

Because growth impacts are not anticipated, no avoidance, minimization, and/or mitigation measures are required under the Tier I Corridor Alternatives and Tier II Auxiliary Lane Alternative.





**Figure 3-1: Residential Study Areas**



# Chapter 4. Social Considerations

## 4.1 AFFECTED ENVIRONMENT

An area consisting of Census Tract Block Groups adjacent to Route 1 corridor encompassing the Tier I and Tier II project limits forms the boundary for the community impact study. Demographic characteristics of the study area — including population, housing, and employment growth; household size and composition; ethnic composition; and household income — were derived from the 2010 U.S. Census and 2008 *AMBAG Population, Housing Unit, and Employment Forecasts*; and, area planning documents. The Census Tract Block Groups that make up the study area are identified in Figure 4-1. Census Tract Block Group data was used when it was available to determine study area totals. However, not all 2010 U.S. Census data has been released at the block group level, such as for the categories of median household incomes and labor force characteristics. If Census Tract Block Group data was not available, data from the larger Census Tract level was used. Each table that follows states whether census tract data was used in place of block group data.

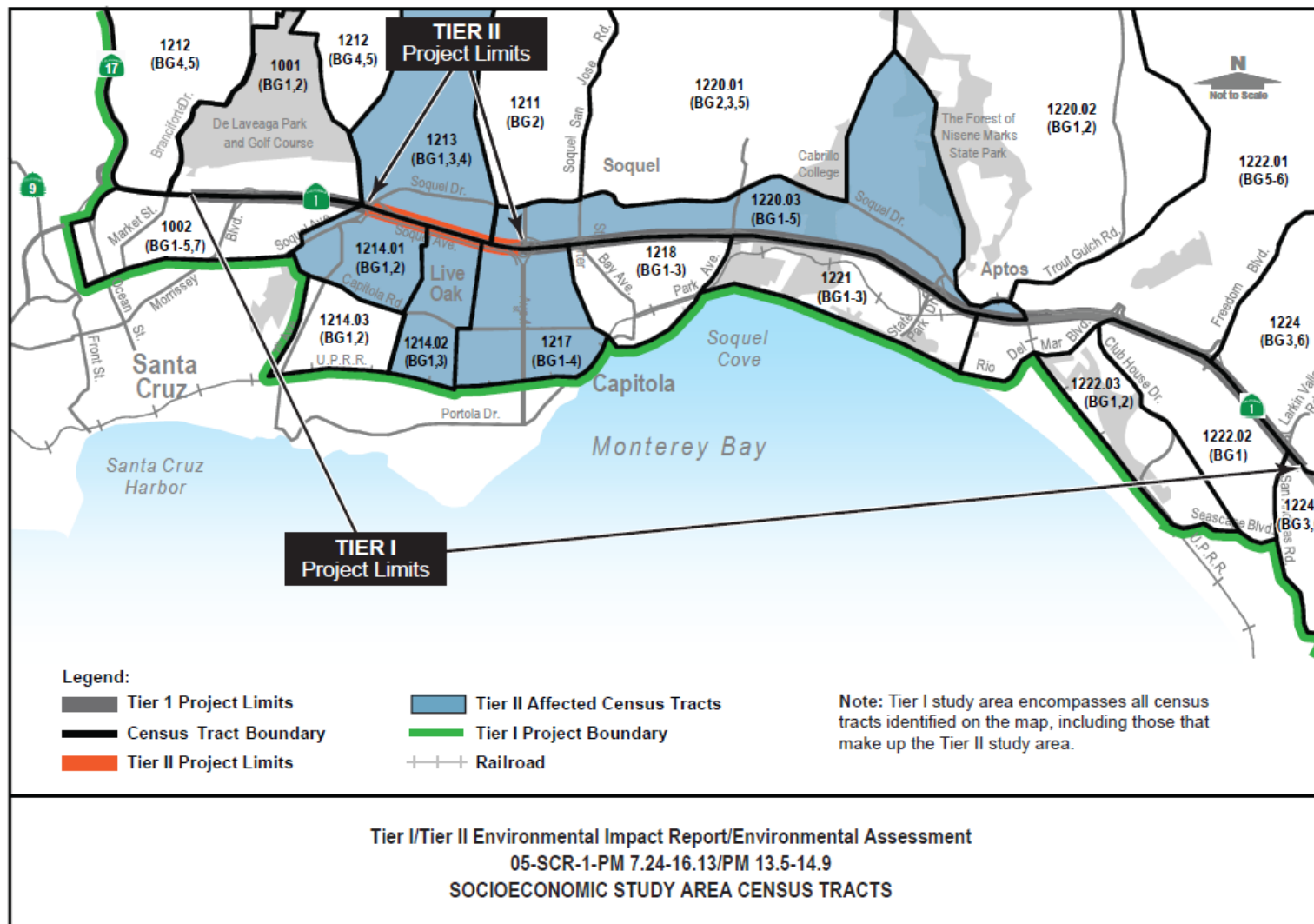
### 4.1.1 Population, Housing, and Employment Growth

Population, housing, and employment growth trends within Santa Cruz County and the cities of Santa Cruz and Capitola are discussed below and summarized in Table 4-1.

**Table 4-1: 2005-2035 Population, Housing Unit, and Employment Growth**

Location	Population			Housing Units			Employment		
	2005	2035	% Change	2005	2035	% Change	2005	2035	% Change
<b>Santa Cruz County</b>	260,092	295,621	13.6	102,872	115,590	12.4	116,320	147,460	26.8
<b>City of Santa Cruz</b>	56,421	67,807	20.2	23,133	26,610	15.0	34,016	43,818	28.8
<b>City of Capitola</b>	9,91	11,269	13.6	5,387	6,057	12.4	8,128	10,500	29.2

Source: Association of Monterey Bay Area Governments. 2008 AMBAG Population, Housing Unit, and Employment Forecasts, January 2012.



## **Population Growth**

According to AMBAG 2008 regional forecasts, the population of Santa Cruz County is expected to continue growing over the next 30 years, but at a slower pace than in the past. The population of the county in 2000 was 255,602 per the 2000 U.S. Census. The County's average annual growth in population is projected to be 1,178 persons, resulting in a total population of 295,621 persons by the year 2035. Population in the City of Capitola is projected to increase from 9,918 in 2005 to 11,269 in 2035. Within the City of Santa Cruz, the population is expected to rise from 56,421 to 67,807 during the same period. By 2020, changes in population density will occur along transportation corridors in particular, and in areas designated for significant new residential development. Santa Cruz County will increase density in portions of Watsonville and the City of Santa Cruz.

## **Housing Unit Growth**

Between 2005 and 2035, approximately 12,718 housing units are projected to be built in Santa Cruz County, based on AMBAG's 2008 projections. During the same forecast period, the total number of housing units is expected to increase from 5,387 to 6,057 in the City of Capitola, and from 23,133 to 26,610 in the City of Santa Cruz.

## **Employment Growth**

Based on AMBAG's 2008 projections, employment in Santa Cruz County is expected to increase from approximately 116,320 employees to 147,460 employees between 2005 and 2035. The average annual growth in employment is forecast to be 0.9 percent, greater than the rates of change for population or households. Within the cities of Capitola and Santa Cruz, employment also is projected to increase more rapidly than population. These projections indicate continued demand for travel along Route 1 to local and regional employment centers.

### **4.1.2 Socioeconomic Characteristics**

#### **Household Size and Composition**

##### Tier I Study Area

The U.S. Census Bureau defines a household as a group of people, related or not, living together in a dwelling unit. A family household is defined as two or more people (one of whom is the householder) related by birth, marriage, or adoption residing in the same housing unit. Table 4-2 compares household characteristics in the Route 1 HOV Lane Widening Project Tier I study area to those of the County and City of Santa Cruz and the City of Capitola.

In 2010, there were 24,480 households in the Tier I study area, with an average household size of 2.46 persons. Sixty percent of these were family households. Santa Cruz County had a higher average household size, with 2.66 persons, but the percentage of family households was comparable to the Tier I study area. The percentages of family households in the cities of Santa Cruz and Capitola were much lower, within the 50-percent range. Average household size in the City of Capitola is also smaller, at 2.11 persons per household.

**Table 4-2: Tier I Household Characteristics**

Geographic Area	Number of Households	Average Household Size	Total Number of Families	% of Family Households
<b>Tier I Study Area</b>	24,480	2.46	14,647	60
<b>Santa Cruz County</b>	94,335	2.66	57,770	61
<b>City of Santa Cruz</b>	21,657	2.39	10,005	46
<b>City of Capitola</b>	4,626	2.11	2,286	49

*Source: U.S. Census Bureau, 2010.*

#### Tier II Study Area

Table 4-3 below shows household characteristics in the Route1 HOV Lane Widening Project Tier II study area. In 2010, there were 8,245 households with an average size of 2.52 persons with 58.5 percent of these as family households. This is comparable to the percentage of family households in the Tier I study area and in Santa Cruz County. The percentages of family households in the cities of Santa Cruz and Capitola were lower, within the 50 percent range.

**Table 4-3: Tier II Household Characteristics**

Geographic Area	Number of Households	Average Household Size	Total Number of Families	% of Family Households
<b>Tier II Study Area</b>	8,245	2.52	4,735	58.5

*Source: U.S. Census Bureau, 2010.*

## **Ethnic Composition**

#### Tier I Study Area

Population growth in Santa Cruz County during the 1990s and 2000s was accompanied by a change in ethnic composition. Countywide, the percentage of White residents declined from approximately 75 percent to 60 percent, while the percentage of Hispanic residents increased to approximately 32 percent of the County's population, with other ethnic groups making up the remaining 8 percent.

In the City of Santa Cruz, the percentage of White residents also declined during the 1990s and 2000s. The trend was due to a significant increase in the percentage of Hispanic residents and the recording of some White under a new multi-ethnic category in the Census. Nonetheless, as of 2010, Whites were still the largest ethnic group, with ethnic minorities making up approximately 33 percent of the total population. Within the Tier I study area and the City of Capitola, the percentage of minority residents was lower, with ethnic minorities making up approximately 26 percent and 29 percent of the population, respectively.

The ethnic profile of the Tier I study area, shown in Table 4-4 below, is derived from the U.S. Census Bureau 2010 data. The ethnic categories used are White, Black or African American, American Indian and Alaska Native, Asian, Native Hawaiian and Other Pacific Islander, Some Other Race, Two or More Races, and Hispanic or Latino (of any race). The total percentage in Tables 4-4 and 4-5 does not add up to 100 percent because it is common for some people to count themselves more than once. For example, a person may self-identify as Hispanic or Latino and also self-identify as any of the races listed in the table. This double-counting leads to total percentages over 100 percent.

**Table 4-4: Ethnic Composition of the Tier I Study Area**

Residents, by Ethnicity	Tier I Study Area		Santa Cruz County		City of Santa Cruz		City of Capitola	
	Number of Residents	%	Number of Residents	%	Number of Residents	%	Number of Residents	%
<b>White</b>	44,161	74	156,397	60	39,985	67	7,075	71
<b>Black or African-American</b>	551	1	2,304	1	979	2	109	1
<b>American Indian and Alaska Native</b>	193	>0.5	978	>0.5	238	>0.5	30	>0.5
<b>Asian</b>	2,277	4	10,658	4	4,476	7	407	4
<b>Native Hawaiian and Other Pacific Islander</b>	81	>0.5	292	>0.5	97	>0.5	8	>0.5
<b>Some Other Race</b>	138	>0.5	612	>0.5	187	>0.5	21	>0.5
<b>Two or More Races</b>	1,837	3	7,049	3	2,360	4	311	3
<b>Hispanic or Latino (of any race)</b>	10,627	18	84,092	32	11,624	19	1,957	20
<b>Total</b>	<b>59,865</b>		<b>262,382</b>		<b>59,946</b>		<b>9,918</b>	

Source: U.S. Census Bureau, 2010.

## Tier II Study Area

Table 4-5 shows the ethnic composition of the Tier II study area. The percentage of White residents remains the highest, with minorities making up approximately 33 percent of the Tier II study area. This is comparable to the percentage of minorities in the City of Santa Cruz; however, it is higher than the percentage of minorities in the Tier I study area and in Capitola.

**Table 4-5: Ethnic Composition of the Tier II Study Area**

Residents, by Ethnicity	Tier II Study Area	
	Number of Residents	%
White	13,741	67
Black or African-American	238	1
American Indian and Alaska Native	66	>0.5
Asian	1,020	5
Native Hawaiian and Other Pacific Islander	36	>0.5
Some Other Race	43	>0.5
Two or More Races	644	9
Hispanic or Latino (of any race)	4,800	23
<b>Total</b>	<b>20,588</b>	<b>&lt;100</b>

Source: U.S. Census Bureau, 2010

## **Household Income**

### Tier I Study Area

Table 4-6 provides information on income and poverty status for the Tier I study area, Santa Cruz County and the cities of Capitola and Santa Cruz.

**Table 4-6: Tier I Household Income**

Geographic Area	Median Household Income	% Households Below Poverty Threshold
Tier I Study Area*	\$75,610	9.1
Santa Cruz County	\$66,030	12.0
City of Santa Cruz	\$63,110	10.4
City of Capitola	\$50,696	17.1

\*Block Group data not available; Census tract data used to determine study area totals. Source: U.S. Census Bureau, 2010.

The U.S. Census Bureau defines household income as the income of the householder and all other individuals 15 years or older in the household, whether they are related to the householder or not. According to U.S. Census 2010 income data and shown in Table 4-6, median household income was approximately \$66,030 in Santa Cruz County, \$50,696 in



the City of Capitola, and \$63,110 in the City of Santa Cruz. Approximately 9.1 percent of the Tier I study area households were below poverty level. In 2000, household incomes (based on 2000 Census data) indicate that the City fell behind the County, with median income in the City at \$50,605 compared to \$53,998 in the County. The gap between median incomes in the city and the county remained the same in 2010, with median income in the City of Santa Cruz increasing to \$63,110 compared to \$66,030 in the County.

### Tier II Study Area

Table 4-7 provides information on income and poverty status for the Tier II study area.

**Table 4-7: Tier II Household Income**

<b>Geographic Area</b>	<b>Median Household Income</b>	<b>% Households Below Poverty Threshold</b>
Tier II Study Area*	\$67,106	9.7

*\*Block Group data not available; Census tract data used to determine study area totals. Source: U.S. Census Bureau, 2010.*

According to 2010 U.S. Census data, median household income in the Tier II study area was \$67,106, compared to \$75,610 in the Tier I study area. The percentage of households below the poverty level in the Tier II study area was 9.7. This is lower than the City and County of Santa Cruz, and in Capitola, but slightly higher than the Tier I study area (9.1 percent).

### **Employment Patterns**

According to U.S. Census 2010 data, there were 139,645 people in the Santa Cruz County labor force, as compared to 32,773 in the City of Santa Cruz, 5,549 in the City of Capitola, 44,129 in the Tier I study area and 13,337 in the Tier II study area (census tract data used in lieu of block group data).

According to AMBAG's 2008 projections, overall employment is expected to increase in Santa Cruz County from 2005 to 2035. Service and government jobs are forecast to increase as a percentage of total employment, while agriculture and retail employment are projected to decrease.

Within the City of Santa Cruz, major changes in the employment base are related to weakened tourism, a decline in manufacturing production, and a loss of information technology jobs — this trend is expected to continue. Between 2000 and 2004, the City saw the closure or consolidation of 12 major companies, resulting in 1,216 lost jobs. Nonetheless, the overall employment picture for the City of Santa Cruz remains positive. Between 2000 thorough 2011, the City experienced a 116 percent increase in jobs, an upward trend

that has generally continued through 2012. Due to the recession that began in 2008, the unemployment rate increased to 8.9 percent in 2009, but decreased to 7.5 percent in 2011.

### **Labor Force Characteristics**

The Tier I and Tier II study area labor force is characterized by exceptionally high educational levels. Within the City of Santa Cruz, more than 57 percent of the labor force has a college degree or higher. The largest local private employers include a diverse array of manufacturing, business services, retail, hotel and food services, and biotechnology companies.

#### **Tier I Study Area**

According to U.S. Census Bureau 2010 data, of the 44,129 employed civilians aged 16 and over within the Tier I study area, the majority held positions in management, professional, and related fields. Of these, approximately 9,173 worked in the fields of education, health, and social services. Other large categories of occupations included retail; professional, scientific, management, administrative, and waste management; and, arts, entertainment, recreation, accommodation and food services. Each of these employed more than 4,000 residents. Occupational patterns were similar in the County of Santa Cruz and the cities of Santa Cruz and Capitola, as shown in Table 4-8.

**Table 4-8: Tier I Labor Force by Occupation, 2010 (Civilians, Aged 16+)**

Labor Force Sector	Tier I Study Area*		Santa Cruz County		City of Santa Cruz		City of Capitola	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Agriculture, forestry, fishing and hunting, and mining:	903	2.2	7,401	5.8	407	1.3	31	0.6
Construction	3,222	7.9	9,591	7.5	1,725	5.7	221	4.4
Manufacturing	3,598	8.8	11,591	9.1	2,307	7.6	515	10.3
Wholesale trade	1,465	3.6	3,784	3.0	727	2.4	90	1.8
Retail trade	4,706	11.5	13,612	10.6	3,110	10.3	711	14.2
Transportation and warehousing, and utilities:	975	2.4	3,115	2.4	636	2.1	65	1.3
Information	1,045	2.5	2,626	2.1	553	1.8	206	4.1
Finance, insurance, real estate and rental and leasing:	2,182	5.3	6,084	4.8	961	3.2	298	5.9
Professional, scientific, management, administrative, and waste management:	5,058	12.4	15,321	12.0	3,453	11.4	456	9.1
Educational, health and social services:	9,173	22.4	30,300	23.7	9,503	31.3	1,273	25.4
Arts, entertainment, recreation, accommodation and food services:	4,080	10.0	12,779	10.0	3,926	12.9	609	12.1
Other services (except Public Administration)	2,767	6.7	7,180	5.6	1,773	5.8	439	7.0
Public administration	1,698	4.1	4,563	3.6	1,240	4.1	193	3.8
Employed Labor Force	40,872	92.6	127,947	91.6	30,321	92.5	5,017	90.4
Unemployed Labor Force	3,242	7.4	11,698	8.4	2,452	7.5	532	9.6
<b>Total Labor Force</b>	<b>44,129</b>		<b>139,645</b>		<b>32,773</b>		<b>5,549</b>	

\*Block Group data not available; Census tract data used to determine study area totals.

Source: U.S. Census Bureau, 2010.

### Tier II Study Area

Labor characteristics for the Tier II study area are shown in Table 4-9. According to U.S. Census Bureau 2010 data, of the 13,337 employed civilians aged 16 and over within the Tier II study area, the majority worked in management, professional, and related occupations, as in the Tier I study area. Of these, approximately 2,768 worked in education, health, and social services fields. Other large categories of occupations included retail; professional, scientific, management, administrative, and waste management; and, arts, entertainment, recreation, accommodation and food services.

Each of these employed more than 1,300 residents. Occupational patterns were similar in the Tier I study area, County of Santa Cruz and the cities of Santa Cruz and Capitola.

**Table 4-9: Labor Force by Occupation, 2010 (Civilians, Aged 16+)**

Labor Force Sector	Tier II Study Area*	
	Number	Percent
Agriculture, forestry, fishing and hunting, and mining:	11	>0.1
Construction	950	7.1
Manufacturing	1,171	8.7
Wholesale trade	352	2.6
Retail trade	1,556	11.7
Transportation and warehousing, and utilities:	271	2.0
Information	349	2.6
Finance, insurance, real estate and rental and leasing:	468	3.5
Professional, scientific, management, administrative, and waste management:	1,593	11.9
Educational, health and social services:	2,768	20.8
Arts, entertainment, recreation, accommodation and food services:	1,344	10.1
Other services (except Public Administration)	998	7.4
Public administration	470	3.5
<b>Employed Labor Force</b>	<b>12,301</b>	<b>92.2</b>
Unemployed Labor Force	1,036	7.8
<b>Total Labor Force</b>	<b>13,337</b>	

\*Block Group data not available; Census tract data used to determine study area totals.

Source: U.S. Census Bureau, 2010.

### 4.1.3 Housing Demographics

This section focuses on housing needs and characteristics in the study area and highlights key trends that will affect housing growth and development in the future. Data sources include U.S. Census 2010 data; the City of Santa Cruz 2030 General Plan and Local Coastal Program; and the general plans for Santa Cruz County, and the City of Capitola.

### Housing Characteristics

#### Tier I Study Area

Housing characteristics, including housing types, costs, and occupancy rates in the Tier I study area are shown in Table 4-10. Approximately, 19 percent of the housing units in the Tier I study area are in multi-family buildings. This is on par with Santa Cruz County, but less than the cities of Santa Cruz and Capitola, where multi-family units make up 32 and 47 percent, respectively, of the total housing units.

**Table 4-10: Tier I Residential Characteristics\***

Geographic Area	Total Housing Units	Single-Family (#/%)		Multi-Family (#/%)		Other (#/%)		Mobile Home (#/%)		
Tier I Study Area*	36,062	26,652	73.9	6,697	18.6	28	>0.5	2,685	7.4	
Santa Cruz County	104,476	75,640	72.4	22,149	21.2	209	>0.5	6,707	6.4	
City of Santa Cruz	23,316	15,458	66.3	7,484	32.1	69	>0.5	309	1.3	
City of Capitola	5,534	2,208	39.9	2,584	46.7	0	0.0	805	14.3	
Geographic Area	Median Household Value (2000\$)	Median Gross Rent**	Owner Occupied (#/%)		Renter Occupied (#/%)		Total Vacant (#/%)		Vacant/for Rent/for Sale Only (#/%)	
Tier I Study Area*	\$658,055	\$1,517	21,458	59.5	11,246	31.2	3,358	9.3	894	2.4
Santa Cruz County	\$648,700	\$1,266	54,299	57.5	40,126	42.5	10,121	9.7	2,310	2.2
City of Santa Cruz	\$735,600	\$1,293	9,375	43.3	12,282	56.7	1,659	7.1	555	2.4
City of Capitola	\$531,900	\$1,372	2,152	46.5	2,474	53.5	908	16.4	175	3.2

\*Block Group data not available; Census tract data used to determine study area totals.

\*\*The Census Bureau defines median gross rent as the amount of rent, plus the estimated average monthly cost of fuel and utilities. The data are based on the sample of households responding to the long form.

Source: 2010 U.S. Census Data

### Tier II Study Area

Housing characteristics, including housing types, costs, and occupancy rates for the Tier II study area are shown in Table 4-11. Approximately 28.6 percent of the housing units in the Tier II study area are in multi-family buildings. This is higher than in the Tier I study area and Santa Cruz County, but less than the cities of Santa Cruz and Capitola.

**Table 4-11: Tier II Residential Characteristics\***

Total Housing Units	Single-Unit (#/%)		Multi-Unit (#/%)		Other (#/%)		Mobile Home (#/%)		
10,355	6,152	59.4	2,968	28.6	0	0.0	1,235	11.9	
Median Household Value (2010\$)	Median Gross Rent**	Owner Occupied (#/%)		Renter Occupied (#/%)		Total Vacant (#/%)		Vacant/for Rent/for Sale Only (#/%)	
\$532,920	\$1,417	6,084	58.7	3,704	35.8	567	5.5	171	1.6

**Table 4-11: Tier II Residential Characteristics\***

<b>Total Housing Units</b>	<b>Single-Unit (#/%)</b>	<b>Multi-Unit (#/%)</b>	<b>Other (#/%)</b>	<b>Mobile Home (#/%)</b>
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\*Block Group data not available; Census tract data used to determine study area totals.

\*\*The Census Bureau defines median gross rent as the amount of rent, plus the estimated average monthly cost of fuel and utilities.

Source: 2010 U.S. Census Data.

## **Housing Stock**

The number of housing units in Santa Cruz County in 2010 was 104,476 per the 2010 U.S. Census. According to AMBAG's 2008 regional forecasts (and shown in Table 4-10), this number is expected to grow to 115,590 (an increase of 11,114, or 0.42 percent per year) by 2035. Over the same forecast period, the number of housing units is projected to rise from 23,316 to 26,610 (an increase of 12.7 percent) in the City of Santa Cruz and from 5,534 to 6,057 (an increase 9.45 percent) in the City of Capitola.

Despite the increase in study area housing units, the County of Santa Cruz and the cities and communities therein continue to face common challenges in providing an adequate supply and range of housing. Because of the limited supply of remaining residentially zoned vacant land, housing production in the study area will likely occur in urbanized areas, particularly as infill development, and adjacent to major transportation corridors. In addition, alternative housing types such as live/work units, mixed-use developments, housing cooperatives, and comparable options will be important in fulfilling housing needs within the study area.

Within the City of Santa Cruz, the housing stock by type remained steady between 2000 and 2010, with a very slight decrease in the percentage of single-family detached homes. Since 2000, 670 housing units have been built and additional units have been approved and/or are under construction. In the 2000s, the City experienced a surge in the construction of multiple-family units, primarily due to the construction of two large apartment projects at 1280 Shaffer Road and 1010 Pacific Avenue. Together, these projects added more than 300 apartment units to the City's housing stock, with 40 percent of the units reserved for very low-, low-, or moderate-income households. These projects were completed in 2005. More recently, the Tannery Artists Lofts, which provides 100 affordable housing units for artists, has been completed and is fully occupied. In addition, the City is pursuing the goals of creating more affordable housing units, rehabilitating existing housing units, and improving at risk neighborhoods to create more livable communities.

The **City of Capitola's** housing stock contains a rich mixture of older and newer units. There are neighborhoods such as Depot Hill, the Village, and parts of the Jewel Box that have Victorian-era homes. In addition to these older homes, there are housing units such as in the Cliffwood Heights neighborhood, which represent a more suburban style of development and new homes scattered throughout the community. Because of the shortage of available vacant land in the city, the primary source of new housing opportunities is infill development on existing lots, or the construction of additional housing units on an existing developed piece of property. Given the limited opportunities for new construction, as well as an appreciation for historic preservation, the city has emphasized preservation and maintenance of existing housing stock, while encouraging new housing development where feasible.

The need for additional housing is indicated by the low vacancy rates in the cities of Capitola and Santa Cruz. A quantifiable measure of housing demand, vacancy rates, is defined as the percentage of total unoccupied housing units, which are available either for rent or for sale. An overall vacancy rate of four to five percent indicates a healthy balance of supply and demand in the housing market. According to 2010 U.S. Census Data, approximately 2.5 percent of the housing units in the Tier I study area were vacant and only 1.6 percent of the housing units in the Tier II study area were vacant. The vacancy rate for the City of Capitola was slightly higher at approximately 3.2 percent.

### **Housing Affordability and Availability**

Housing affordability and availability are critical issues throughout the study area, where median income levels are not sufficient to purchase median-priced homes. According to the National Association of Home Builder's *Housing Opportunity Index*, in the third quarter of 2012, Santa Cruz County was the sixth least affordable area of the nation, with 44 percent of families of median income able to afford a home. Countywide, between 2011 and 2012, the annual median home price increased by 22 percent. At the sub-county level, there were much more significant increases, particularly in areas where market rates were below the county averages, such as the study area jurisdiction of Live Oak, where home prices increased by more than 18 percent.

The overall trend is similar in the City of Santa Cruz, where housing prices have increased faster than household incomes, with the result that many households are paying a larger share of their income for housing. From 2002 to 2007, the median sales price of a single family residence increased 46 percent to \$799,000. As of 2009, only above moderate income households could afford to purchase town homes or single-family

homes. Even with the recent downturn in the housing market, finding affordable housing remains difficult for many area residents.

Rents are also high in the area. Between 2002 and 2007, rents in the City rose by 24 percent. By 2011, rents had increased an additional 12 percent. As a result, many moderate-income households face challenges when trying to find housing within their price range and, therefore, many are moving or will move out of Santa Cruz to more affordable areas.

Providing adequate housing that is affordable to a range of income groups has been difficult within the City of Capitola for several decades. Rising land and construction costs have resulted in increasingly high purchase and rental costs for both new and existing housing. Since the late 1980s, the cost of owning or renting a home in the city has exceeded what the lower income and median income household can afford. As a result, many Capitola households have been forced to move or live in a housing unit that is inadequate for their household needs.

The disparities between income and housing prices are expected to continue in the future, which will have ramifications for the study area as a whole. As families look outside the study area to purchase a home, enrollments in area schools can be expected to decline. Employers may have a harder time attracting or retaining workers concerned about the high cost of housing in the area. Employees moving to surrounding communities and commuting to work will compound traffic congestion in the region. However, cities within the region recognize the problem of lack of affordable housing; this issue is addressed in the Housing Element of the General Plan of each respective city.

#### **4.1.4 Neighborhoods and Community Cohesion**

Community cohesion is the degree to which residents have a “sense of belonging” to their neighborhood, a level of commitment to the community, or a strong attachment to neighbors, groups, and institutions, generally due to continued associations over time.

The proposed project would pass through portions of Santa Cruz County, a thriving region composed of a diverse mix of residential, commercial, and natural communities that includes the cities of Santa Cruz, Capitola, Scotts Valley, and Watsonville, and unincorporated areas. Planning areas, communities, and neighborhoods within the study area, which includes parts of the cities of Santa Cruz and Capitola and the unincorporated communities of Live Oak, Soquel, and Aptos, are described below.



## **City of Santa Cruz**

The City of Santa Cruz is known for its vibrant tourism, cultural amenities, diverse housing opportunities, and high quality of life. Among the characteristics that distinguish Santa Cruz from other jurisdictions in the County are the City's central business district and its growing connection with Silicon Valley. The City is home to the University of California, Santa Cruz (UCSC), numerous other educational and cultural institutions, important natural features and scenic resources that separate the City into visually distinctive communities and neighborhoods, several for which Area Plans or Specific Plans have been developed. For planning purposes, the City has been divided into six planning areas by the City of Santa Cruz Planning and Community Development Department: University of California at Santa Cruz, Upper Westside, Lower Westside, Central Core, and Harvey West are located west of the San Lorenzo River. Two of the planning areas, Upper Eastside and Lower Eastside, are located east of the San Lorenzo River within the study area where direct project impacts would occur. These two study areas are described below:

### Upper Eastside

The Upper Eastside Planning Area, which straddles Route 1, is bounded by Soquel Avenue to the south and extends to north of the northern Route 1 HOV Lane Project northern limits. The planning area is primarily residential and is served by several neighborhood and community parks and four school sites: De Laveaga Elementary, Costanoa Continuation School, Branciforte Junior High, and Harbor High. De Laveaga Park, which makes up more than a third of the area's total acreage, provides recreational opportunities for area residents. Upper Eastside neighborhoods and communities include the Carbonera, Branciforte Drive/Goss Street, De Laveaga, and Emeline/County Health Center areas.

### Lower Eastside

The Lower Eastside planning area, located to the south of the Upper Eastside planning area, is bounded by Soquel Avenue to the north and Monterey Bay to the south. The area is primarily residential, with some commercial and industrial areas, and is home to six neighborhood parks and two school sites (Gault Elementary and Branciforte Elementary). The Yacht Harbor, beaches, San Lorenzo Park, San Lorenzo River, and Arana Gulch provide recreational opportunities and neighborhood identity. Neighborhoods and communities in the planning area include the Mentel Avenue, South Park Way, and Seabright Avenue/Murray Street areas.

## **City of Capitola**

Capitola is a coastal village with a strong sense of community identity and a wide range of amenities, including the beach and adjacent village area, the wharf, the 41<sup>st</sup> Avenue commercial area, the Soquel Creek waterway, open space areas such as Capitola Beach and the New Brighton State Beach, and five residential neighborhoods. The location and characteristics of the City's communities and neighborhoods are described in detail in the *Capitola General Plan*, and also summarized below.

### **Residential Areas**

Capitola residential areas include neighborhoods such as Depot Hill, the Village, and parts of the Jewel Box, which have older, Victorian-era homes. More recent residential developments include the Venetian Court, Sunset-Riverview, Upper Village, and Cliffwood Heights areas. In addition, there are new homes scattered throughout the City, as infill development.

### **Commercial and Residential Areas**

The main commercial areas are the Village, with its collection of small stores and shops, the 41<sup>st</sup> Avenue commercial area and adjacent Auto Plaza, and the Capitola Mall area. The only significant industrial area is the Kennedy Drive area, which fronts Route 1.

### **Parks and Recreation Areas**

Scattered throughout the Capitola community are five neighborhood parks and one community park (Jade Street Community Center and Park). In addition to these parks, the City owns approximately 13 acres of undeveloped or underdeveloped potential park areas.

### **Natural Resources Areas**

Other natural resource areas in the City of Capitola include the Monterey Bay and beach area, Soquel Creek and Lagoon, Rodeo Gulch, and several riparian corridors and monarch butterfly groves.

## **Live Oak**

Live Oak, which straddles Route 1 between the cities of Santa Cruz and Capitola, is home to residential neighborhoods; interior parks, shoreline beaches, and open space; and commercial centers. North of the highway, the area is primarily residential and open space, with development concentrated to the east and west of Thurber Lane. South of the highway, the area is made up of diverse residential and commercial neighborhoods, the

boundaries of which are outlined by major roadways such as 7th and 17th Avenues, Capitola Road, and Brommer Street; natural features such as Twin Lakes State Beach, Leona Creek, and Rodeo Creek Gulch; neighborhood parks and schools. “Live Oak Neighbors,” a group of local residents and business owners dedicated to information sharing and public involvement in local and Santa Cruz County community planning, meets monthly at the Live Oak Grange.

## **Soquel**

Soquel is an unincorporated village located in mid-Santa Cruz County. Soquel Village has become a traffic node for east-west circulation avoiding Route 1 and for north-south circulation from the City of Capitola to the San Jose area. Soquel Village occupies a low valley site surrounded by hills that form a visual backdrop to the village. The 97-acre O’Neill Ranch is northwest of Soquel Village and adjacent to Soquel High School. For planning purposes, Soquel Village is divided into quadrants, defined by Soquel Drive in the east-west direction and Porter Street in the north-south direction. Soquel Village is home to Soquel High School, the historic Daubinbess House, Soquel Financial Center, Odd Fellows Hall, a mixture of old and new commercial buildings, and historic residential structures.

## **Aptos**

Aptos Village centers on an eight-acre area of mixed use and includes commercial retail, office, and residential, which are pedestrian oriented and served by a peripheral road system formed by Trout Gulch Road, Soquel Drive, Hopkins Road, and an extended Granite Way. The new post office and historic Hotel Bayview are important functional and visual nodes in this area. The physical scale of Aptos Village is established by existing one and two-story developments, represented by the Village Fair, and other historic buildings in the Valencia Street block, as well as the shops and offices along the Soquel Drive ridge. The natural setting of the Village formed by the riparian corridors of Aptos, Valencia, and Trout Creek are part of the Aptos community experience. Special use areas adjacent to the Village’s 8-acre activity center provide additional commercial and residential choices.

### **4.1.5 Environmental Justice Considerations**

The concept of environmental justice stems from federal laws and policies developed to ensure that the civil rights of minority and low-income populations are protected and that the decision-making process for federally funded projects is free from discrimination. This project has been developed in accordance with Title VI of the Civil Rights Act of

1964, as amended, and Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations. Title VI states that “No person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, denied the benefits of, or be subject to discrimination under any activity or program receiving federal financial assistance.” Executive Order 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address ‘disproportionately high and adverse’ effects of federal or federally funded projects on minority and low-income populations.

The Federal Highway Administration requires a determination be made as to whether environmental justice populations may be affected by a project. An environmental justice community is a minority or low-income population, as described above. The primary source for population data is the U.S. Census Bureau’s decennial census. To protect privacy, the Census Bureau does not publish detailed house-by-house data, but rather compiles the information into larger geographic units. The Census Bureau publishes demographic data (e.g., race, age) and socioeconomic data (e.g., income, poverty levels). Block groups are aggregated at different levels (e.g., census tract, block, block group). Data published at the block group level are generally the size of several city blocks; therefore, they are often useful for representing community characteristics and identifying environmental justice communities. The income data for project area are not currently available at the block group level, census-tract level data were used.

“Low income” is not officially defined by the Department of Health and Human Services or the U.S. Census Bureau. The U.S. Census Bureau annually updates poverty thresholds that are used for calculating all official poverty population statistics (the Department of Health and Human Services poverty guidelines are a simplified version of the poverty thresholds that is used for administrative purposes). The U.S. Census Bureau’s poverty threshold was used to obtain the “low income” statistics presented in Tables 4-12 and 4-13. The 2013 U.S. Census poverty threshold is \$23,707 for a family of four.

### **Environmental Justice Population within the Tier I and Tier II Project Areas**

There would be a potential for environmental justice impacts if the population in any Census Tract Block Group met or exceeded either of the following criteria as suggested by the Council on Environmental Quality:

- The Census Tract Block Group contained 50 percent or more minority or low-income population; or

- The percentage of minority or low-income population in any Census Tract Block Group was more than 10 percentage points greater than the average in the city and/or county in which the Census Tract Block Group is located.

Based on 2010 U.S. Census Data for the study area, one of the 16 census tracks located adjacent to Route 1 qualifies as an environmental justice community based on ethnicity or income level.

- **Census Tract 1213 Block Group 4** -Located north of Route 1, between Soquel Drive and South Rodeo Gulch Road, minorities represent approximately 75 percent of the population in the area. This tract is located in the northwest portion of the Tier I study area and the northern portion of the Tier II study area. Low-income residents represent slightly over 9 percent of the local population. Because of the high percentage of minority residents, this area is considered an environmental justice community.

The discussion above identified the tract that includes an environmental justice community. The following discussion analyzes minority and low-income populations for each of the study areas with reference to the environmental justice community contained in Census Tract 1213 Block Group 4.

Tier I Study Area. The project study area includes a variety of neighborhoods and a multi-ethnic population. The ethnic composition for the Tier I study area, as described in Section 4.1.1, Socioeconomic Conditions, and summarized in Table 4-12, is comparable to that of the City of Capitola. The City of Santa Cruz is slightly more diverse, with minorities representing approximately 33 percent of the population, while Santa Cruz County has a 40 percent minority population. The Census Tract 1203 Block Group 4, described above, has a minority population of 74 percent, substantially greater than the study area and local jurisdictions included in Table 4-12.

**Table 4-12: Minority and Low-Income Populations in the Tier I Study Area**

	<b>Tier I Study Area*</b>	<b>Santa Cruz County</b>	<b>City of Santa Cruz</b>	<b>City of Capitola</b>
Percent Minority	26	40	33	29
Percent Low-Income	9.9	13.7	20.2	10.4

*\*Census tract level data were used to determine study area low-income percentages because block group level data was not available. Block group level data was used to determine minority percentages.*

*Source: 2010 U.S. Census data*

Table 4-12 also shows that the percentage of persons living below the poverty level is lower in the Tier I study area (about 10 percent) than within the County and City of Santa Cruz (20.2 and 13.7 percent, respectively). The City of Capitola has the lowest percentage (10.4 percent) of persons under the poverty level Route 1 Tier II Study Area

The ethnic composition for the Tier II study area, as described in Section 4.1.2, Socioeconomic Conditions, and summarized in Table 4-13, is comparable to that of the City of Capitola. Minorities represent 33 percent of the Tier II population. The City of Santa Cruz is slightly more diverse, with minorities representing approximately 33 percent of the population, while Santa Cruz County has a 40 percent minority population. The Census Tract 1203 Block Group 4, described above, has a minority population of 74 percent, substantially greater than the study area and local jurisdictions included in Table 4-13.

**Table 4-13: Minority and Low-Income Populations in the Tier II Study Area**

	<b>Tier II Study Area*</b>
Percent Minority	33.2
Percent Low-Income	11.3

*\* Census tract data were used to determine study area totals.*

*Source: 2010 U.S. Census data*

Table 4-13 also shows that the percentage of persons living below the poverty level is lower in the Tier II study area (just over 11 percent) than within the City and County of Santa Cruz (20.2 and 13.7 percent, respectively). The City of Capitola has the lowest percentage (10.4 percent) of persons under poverty level

## **4.2 LONG-TERM IMPACTS**

Socioeconomic impact assessments consider how proposed projects are likely to affect the people, institutions, neighborhoods, service delivery organizations, and overall social and economic systems surrounding a proposed undertaking. Potential environmental justice impacts are defined as those adverse effects that would be predominantly borne by a minority population and/or low-income population or are greater in magnitude than the adverse effects that would be experienced by a non-minority and/or non-low-income population.

## **4.2.1 Neighborhoods and Community Cohesion**

### Tier I Alternatives

#### **No-Build Alternative**

There are a number of communities and neighborhoods adjacent to Route 1. Continued worsening of congestion under the No-Build Alternative leading to increased diversion of freeway traffic onto local streets could adversely affect the small-town feel of these local communities.

#### **TSM Alternative**

The TSM Alternative could provide incremental congestion relief and improve freeway on and off movements, which would reduce the existing barrier effect of Route 1. Pedestrian/bicycle overcrossings constructed with either the TSM Alternative or the HOV Lane Alternative would also decrease the barrier effect. None of the communities nearby Route 1 would experience a direct disruption in cohesion from the activities proposed under the TSM Alternative, including the environmental justice community identified in Census Tract 1213 Block Group.

Parcel Acquisition adjacent to Route 1 would have negligible impacts on community cohesion as no displacements would occur. The environmental justice population would not be disproportionately affected by land acquisitions.

There are 15 recommended soundwalls under the TSM Alternative, none of which would divide or introduce a new physical barrier to the communities and neighborhoods in the study area. These communities and neighborhoods along Route 1 are already divided by a multi-lane highway; therefore, the addition of soundwalls would not further divide any communities or neighborhoods. In addition, the character of existing communities and neighborhoods would not be altered, as soundwalls are already present along the Route 1 corridor.

#### **HOV Lane Alternative**

As with the TSM Alternative, incremental congestion relief could be provided. In addition, the HOV Lane Alternative would encourage more carpooling and transit use, further reducing diversion of freeway traffic to local streets and increasing the use of community-oriented commute options.

There are 20 recommended soundwalls under the HOV Lane Alternative, none of which would divide or introduce a new physical barrier to the communities and neighborhoods

in the study area described in the Affected Environment section. These communities and neighborhoods along Route 1 are already divided by a multi-lane highway; therefore, the addition of soundwalls would not further divide any communities or neighborhoods. In addition, the character of existing communities and neighborhoods would not be altered, as soundwalls are already present along the Route 1 corridor.

There would be approximately five single-family and three multi-family residential units and 12 businesses relocated with the Tier I Corridor HOV Lane Alternative. (See Section 2.1.3.2, Relocation and Real Property Acquisition, below for more information.) Seven of the residential units to be relocated are in the vicinity of the Morrissey Boulevard/Pacheco Avenue Interchange. Five are located east of Morrissey Boulevard along the alignment of the proposed widening of the southbound Route 1 on-ramp from Morrissey Boulevard. Two are located west of Morrissey Boulevard, at the location of the proposed redesigned off-ramp from southbound Route 1 to Morrissey Boulevard. The other residential unit to be relocated is in the vicinity of the Soquel Drive Interchange, located south of Route 1 and west of Soquel Avenue, on the same assessor's parcel as six commercial units to be relocated, as described below.

Eleven of the commercial units to be relocated are in the vicinity of the Soquel Drive/Route 1 Interchanges. Two are located immediately north of the Route 1 right of way, at the locations of the proposed reconfigured northbound Route 1 on- and off-ramps to Soquel Drive; one of these units is east of Soquel Drive and the other west of Soquel Drive. Nine of the units are located immediately south of the Route 1 right of way, west of Soquel Drive, at the location of the proposed on-ramp to southbound Route 1. Six of these nine commercial units are located on one assessor's parcel (which is shared with one residential unit, described above), and three are located on an adjacent assessor's parcel. The other commercial unit to be relocated is in the vicinity of the Porter Street/Bay Avenue Interchange, immediately north of Route 1 right of way at the location of the proposed widening of the northbound off ramp from Route 1 to Porter Street.

These relocations are not expected to cause a substantial adverse effect on community cohesion or character. The neighborhoods in which relocations would occur are adjacent to Route 1, and the relocation of these properties, which are all located along the existing right of way, would not alter the existing character. The settings of these neighborhoods currently include highway infrastructure. Additionally, the cohesion of the overall neighborhoods in which the relocations would occur would not be affected. Because all properties that would be relocated are along the existing Route 1 right of way, there would be no dividing of neighborhoods, and no separation of neighborhoods from



community facilities. No community facilities would be displaced. No growth or increase in urbanization is anticipated in these areas, as they are already fully developed. More information on the locations of property acquisitions is provided in Section 2.1.3.2. It is anticipated, based on market research, which includes research from internet real estate sites and local boards of realtors, that the affected residents and businesses can be relocated within the immediate area (Draft Relocation Impact Study 2013). In instances of partial property acquisitions, access would be maintained to avoid long-term effects on residents, businesses, and communities.

## Tier II Alternatives

### **No-Build Alternative**

There are a number of communities and neighborhoods adjacent to Route 1. Selecting the No-Build Alternative would perpetuate congestion on the freeway mainline and local streets in and around the Tier II project limits.

### **Auxiliary Lane Alternative**

None of the communities or neighborhoods adjacent to Route 1 would experience a direct disruption in neighborhood cohesion as a result of the Tier II Auxiliary Lane Alternative. Proposed modifications would not require substantial property or any community facilities.

There is one recommended soundwall under the Tier II Auxiliary Lane Alternative, which would not divide or introduce a new physical barrier to the community. The communities and neighborhoods along Route 1 are already divided by a multi-lane highway; therefore, the addition of soundwalls would not further divide any communities or neighborhoods. In addition, the character of existing communities and neighborhoods would not be altered, as soundwalls are already present along the Route 1 corridor.

There would be no relocations with the Tier II Auxiliary Lane Alternative. In instances of partial property acquisitions, access would be maintained to avoid long-term effects on residents, businesses, and communities. The partial acquisitions would have a negligible effect on community cohesion and would not disproportionately affect the one environmental justice population.

#### **4.2.2 Public Involvement Program**

The project has had extensive public outreach since its inception in 2004. The forums for public outreach activities include the following:

- **Scoping Meetings**  
Scoping meetings were held in 2004, at the initiation of the environmental review process, to introduce the general public to the project and elicit their comments.
- **Stakeholder Interviews**  
As part of the initial public outreach process, stakeholder interviews were held with representatives from communities affected by the project, including: Aptos, Capitola, Live Oak, the City of Santa Cruz, Scotts Valley, Soquel and Santa Cruz County. Representatives were asked a series of questions to assess their knowledge of the project and enable them to comment on what they viewed as key project issues, benefits and concerns.
- **Community Open Houses**  
Public outreach in the form of community open houses has been and continues to be an important forum for providing information about this project to the general public. Within the past year, the Santa Cruz Regional Transportation Commission (RTC) has met with a number of civic organizations, including: the Rotary Club, the Lion's Club, The Elks and the Sons of Italy. The RTC is planning to hold at least one open house in the summer of 2013 prior to the release of the Draft EIR/EA to explain the tiered concept being pursued for this project.
- **Tribal Coordination meetings**  
The Native American heritage Commission was contacted regarding this project. Consultation was conducted in 2005-2006, with quarterly meetings held with the Muwekma Ohlone Indian Tribe. Results of the draft Archaeological Survey Report were shared with the tribe in 2005. Additional consultation with Native Americans may be conducted following identification of a preferred alternative and prior to any subsurface investigations.
- **Public Hearings**  
Upon release of the environmental document there will be at least one public hearing to receive public comments and answer questions about the project alternatives and environmental impacts. During this public review period, members of the public can submit comments regarding the project.

- Media

Information about the project has been made available through press releases, newsletters and a project website <http://www.sccrtc.org/hov.html>.

#### **4.2.3 Route 1 Residential and Business Relocation**

The Uniform Relocation Assistance and Real Property Acquisition Act of 1970, as amended, mandates that certain relocation services and payments be made available to eligible residents, businesses and non-profit organizations displaced by construction and operation of transit-related projects. The Act establishes uniform and equitable procedures for land acquisition, and provides for uniform and equitable treatment of persons displaced from their homes, businesses, or farms by federally and federally assisted programs.

Owners of private property have federal and state constitutional guarantees that their property will not be taken or damaged for public use unless they first receive just compensation. Just compensation is measured by the “fair market value” of the property to be taken. Where acquisition and relocation are proposed, Caltrans would follow provisions of the Uniform Act, as amended, and in conformance with all applicable regulations. All real property to be acquired would be appraised to determine its fair market value. An offer of just compensation, not less than the approved appraisal, would be made to each property owner.

Each homeowner, renter or business displaced as a result of the project would be given advance written notice and would be informed of eligibility requirements for relocation assistance and payments.

#### **Tier I Alternatives**

##### **No-Build Alternative**

No residential or business displacement would occur under this alternative.

##### **TSM Alternative**

The TSM Alternative would convert 1.80 acres of land to transportation use. There would be 18 permanent partial acquisitions under the TSM Alternative, however the impacted properties would not be displaced, and therefore relocations are not anticipated at this point. These acquisitions would include partial acquisitions of parking or storage space for some parcels or a reduction in expansion area. The resulting final impacts will be

determined during the acquisition phase of the project, as some of the partially affected properties may request some sort of relocation assistance.

### **HOV Lane Alternative**

A total of five residential parcels, four commercial parcels, and one governmental parcel would be subject to full acquisition. In total, 119 parcels — including those parcels requiring full acquisition, and those requiring temporary construction easement — would be required for this alternative.

#### **Residential Displacement**

The HOV Lane Alternative would result in the relocation/displacement of 8 residential units, affecting approximately 20 residents. Recent Market data 2013 indicate that there are adequate resources in the cities of Santa Cruz and Capitola to accommodate relocation of the displaced residential units. On-site appraisals to determine actual market value will be conducted for each property to be relocated based on market conditions that exist prior to acquisition.

#### **Business Displacement**

The HOV Lane Alternative would result in the displacement of 12 commercial establishments. One of these establishments is vacant, and therefore only 11 commercial units would be subject to relocation, three units of which are located within the unincorporated area of Soquel at the northeast quadrant of the Route 1/Porter Street-Bay Avenue interchange. The 11 businesses to be relocated employ approximately 48 people, which represents approximately 0.04 percent of the labor force in Santa Cruz County.

Recent market data (2013) indicates that there are adequate resources in the cities of Santa Cruz and Capitola to accommodate relocation of the displaced commercial establishments. On-site appraisals to determine actual market value will be conducted for each property to be relocated based on market conditions that exist prior to acquisition.

#### **Tier II Alternatives**

### **No-Build Alternative**

There would be no use of land or displacements of residential or commercial properties associated with the No-Build Alternative.

### **Auxiliary Lane Alternative**

The Auxiliary Lane Alternative would require the acquisition of small portions of parcels adjacent to Route 1. There would be five permanent partial acquisitions and one temporary acquisition required during construction, with acquisition amounts ranging from 100 square feet to 9,200 square feet. In total, just over one third of an acre of land would be required. No residential or commercial displacements would occur under this alternative.

#### **4.2.4 Title VI and Environmental Justice Impacts**

Executive Order 12898 requires each federal agency (or its designee) to take the appropriate and necessary steps to identify and address “disproportionately high and adverse” effects of federal projects on the health and environment of minority and low-income populations to the greatest extent practicable and permitted by law. The discussion below analyzes the impact of business and residential displacements on environmental justice populations.

Based on the 2010 U. S. Census statistics, 1 out of the 16 census block groups located adjacent to Route 1 contains minority populations.

#### Tier I Alternatives

##### **No-Build Alternative**

No residential or business displacements would occur under this alternative; therefore, disproportionately high and adverse effects on minority and low-income populations within the project area would not occur.

##### **TSM Alternative**

No residential or business displacements would occur under this alternative and the minor land acquisitions would not affect the functionality of the residential or commercial land-uses; therefore, disproportionately high and adverse effects on minority and low-income populations would not occur.

##### **HOV Lane Alternative**

Relocation of eight residential units and 11 businesses establishments, affecting approximately 20 residents and 48 employees would occur under this alternative. Some sliver acquisitions of land associated with residential and commercial properties, primarily affecting parking, would also occur. These relocations and land acquisitions would be located at a various locations along the project, including census Tract 1213

Block Group 4 which was identified as an environmental justice population. The alternative would not have a disproportionate adverse impact on low income or minority residents.

#### Tier II Alternatives

##### **No-Build Alternative**

No residential or business displacements would occur under this alternative; the benefits of improved access for low income and minority populations as well as the general population would not be realized under this alternative.

##### **Auxiliary Lane Alternative**

Under the Auxiliary Lane Alternative, right-of-way requirements would be limited to the acquisition of small portions of parcels adjacent to Route 1. There would be six permanent partial acquisitions required; cumulatively one third of an acre would be required. No displacements would occur. There would be no disproportionate adverse effects on minority and low-income residents.

### **4.3 CONSTRUCTION IMPACTS**

#### Tier I Alternatives

##### **4.3.1 No-Build Alternative**

Under the No-Build Alternative, none of the alternatives under consideration would be constructed and as such, no impacts deriving from project construction would occur.

##### **4.3.2 TSM Alternative**

Because the Tier I project would be implemented in phases, the scope of the individual construction projects that would be implemented under Tier II is not currently known. There would be periods during which communities adjacent to individual Tier II construction projects would likely experience disconnectivity in the local transportation network. Community members would still be able to utilize community services and facilities during the construction period, with some degree of inconvenience due to construction activities and intermittent and temporary partial lane closures. With a continuing public outreach program to keep the area residents and businesses informed of the project construction schedule, adverse impacts can be reduced.

Construction impacts, including noise and fugitive dust from construction activities and short-term roadway closures requiring alternative traffic routing, would have greater effects on residents of the immediate project area than upon other Route 1 users. These effects would be experienced by ethnic minority and low-income individuals only to the extent that these populations are concentrated in the immediate project area. However, these effects would not fall disproportionately on ethnic minority and low-income individuals because all residents of the immediate project area would experience the same effects. There is no way to construct the corridor improvements without these temporary effects.

Construction phase impacts would be mitigated by adhering to Caltrans's standard specifications for noise control and dust abatement and/or construction BMPs for noise and fugitive dust control. Detour routes would be planned in coordination with Caltrans and the traffic departments of the County and City of Santa Cruz and the City of Capitola and would be noticed to emergency service providers, transit operators, and Route 1 users in advance. With these mitigation measures in place, there would be no disproportionate adverse effects on minority and low-income residents.

As discussed above, the Tier II projects would be implemented in phases, construction period rerouting, noise, dust and other related impacts would be generally limited to the specific segment under construction. Impacts on the freeway mainline may extend beyond the construction segment.

#### **4.3.3 HOV Lane Alternative**

Construction impacts occurring under the TSM Alternative such as temporary lane closures, rerouting of traffic, noise, dust and other inconveniences would also apply to the HOV Lane Alternative. However, the scope of the HOV Lane Alternative is more extensive, as such there will be a corresponding increase in duration and intensity of these adverse impacts.

Because the Tier II projects would be implemented in phases, construction period rerouting, noise, dust and other related impacts would be limited to the specific segment under construction at a given time. Impacts on the freeway mainline may extend beyond the construction segment.

## Tier II Alternatives

### **4.3.4 No-Build Alternative**

Under the No-Build Alternative no construction impacts would occur.

### **4.3.5 Auxiliary Lane Alternative**

There would be no disconnection of the communities within the project area during the construction period. Community members would still be able to utilize community services and facilities during the construction period, although with some degree of inconvenience due to construction activities and intermittent and temporary partial lane closures. With a continuing public outreach program to keep the area residents and businesses informed of the project construction schedule, adverse impacts can be reduced.

Construction impacts, including noise and fugitive dust from construction activities and short-term roadway closures requiring alternative traffic routing, would have greater effects on residents of the immediate project area than upon other Route 1 users. These effects would be experienced by ethnic minority and low-income individuals only to the extent that these populations are concentrated in the immediate project area. However, these effects would not fall disproportionately on ethnic minority and low-income individuals because all residents of the immediate project area would experience the same effects. There is no way to construct the corridor improvements without these temporary effects.

Construction phase impacts would be minimized and or mitigated by adhering to Caltrans's standard specifications for noise control and dust abatement and/or construction BMPs for noise and fugitive dust control. Detour routes would be planned in coordination with Caltrans and the traffic departments of the County and City of Santa Cruz and the City of Capitola and would be noticed to emergency service providers, transit operators, and Route 1 users in advance. With these mitigation measures in place, there would be no disproportionate adverse effects on minority and low-income residents.

## **4.4 CUMULATIVE IMPACTS**

### **4.4.1 Tier I and Tier II No-Build Alternatives**

There would be no construction activities under the No-Build Alternatives; therefore no cumulative impacts would be realized.



#### **4.4.2 Tier I and Tier II Build Alternatives**

Construction cumulative impacts could occur if two or more projects that have the potential to affect local streets or highway mainline operations in the vicinity of any of the Tier II construction projects are scheduled to undergo implementation at the same time. Santa Cruz RTC and Caltrans will work closely with the local agencies within the project area to either coordinate construction activities sponsored by others to avoid or minimize inconvenience to the communities.

#### **4.5 INDIRECT IMPACTS**

##### **4.5.1 Tier I and Tier II No-Build Alternatives**

As no construction would occur, there would be no indirect or secondary impacts resulting from the no-build alternatives

##### **4.5.2 Tier I and Tier II Build Alternatives**

No indirect or secondary impacts on community disruption would result from implementation of any of the proposed build alternatives.

#### **4.6 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES**

##### **All Tier I and Tier II Alternatives**

The following standard impact minimization measures would be implemented during construction of the Tier II Auxiliary Lane Alternative and are also expected to be implemented under future tiered projects part of either Tier I Corridor Alternative:

1. The Transportation Management Plan will include traffic rerouting, a detour plan, and public information procedures will be developed during the design phase with participation from local agencies, transit and shuttle services, local communities, business associations, and affected drivers. Early and well-publicized announcements and other public information measures will be implemented prior to and during construction to minimize confusion, inconvenience, and traffic congestion.
2. As part of the Transportation Management Plan, construction planning will minimize nighttime construction in residential areas and minimize daytime construction impacts on commercial areas.

3. During the construction phase of the project, some parking restrictions may be required on a temporary basis. A public outreach program would be implemented throughout the construction period to keep the public informed of the construction schedule and scheduled parking and roadway closures, including detour routes and if available, alternative parking.
4. The acquisition of temporary construction easements shall conform to the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended.

# **Chapter 5. Community Service Facilities**

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## **5.1 AFFECTED ENVIRONMENT**

This section describes existing community service facilities, utilities, and circulation and access facilities located within the proposed project study area.

### **5.1.1 Community Services and Facilities**

#### **5.1.1.1 Tier I Corridor Alternatives and Tier II Auxiliary Lane Alternative**

Community services and facilities in the study area include emergency and protective services, educational facilities, hospital and medical services, cultural amenities, and public infrastructure and services, as shown in Table 5-1 and Figure 5-1 respectively.

#### **Emergency and Protective Services**

Police protection and traffic enforcement in the study area are provided by the Santa Cruz Sheriff's Department, California Highway Patrol and the police departments for the cities of Santa Cruz and Capitola. A precinct station for the City of Capitola is located at 420 Capitola Avenue and a California Highway Patrol station is located at 10395 Soquel Avenue within the study area. Santa Cruz County has two prison facilities (a men's and women's jail) located at 259 Water Street and 144 Blaine Street in the City of Santa Cruz.

The Santa Cruz Fire Department, Aptos-La Selva Fire Protection District and the Central Fire Protection District provide fire protection and emergency rescue services to the study area. There are seven fire stations within the study area.

#### **Educational Facilities**

There are 26 public schools (high, middle, elementary, community, charter, and continuation schools); eight private schools; and, Cabrillo College in the study area. Public schools in the study area are within the jurisdiction of the Santa Cruz City, Live Oak, Soquel Union Elementary and Pajaro Unified school districts.

#### **Health and Medical Services**

There are two hospitals in the study area: Dominican Santa Cruz Hospital at 1555 Soquel Drive, Santa Cruz and Sutter Maternity and Surgery Center of Santa Cruz at 2900 Chanticleer Avenue, Santa Cruz.

**Table 5-1: Community Services and Facilities**

No.	Service or Facility	Address	No.	Service or Facility	Address
<b>EDUCATIONAL FACILITIES</b>					
<b>Public Schools (K-12)</b>					
<i>Santa Cruz City School District</i>			<i>Live Oak School District (cont'd)</i>		
S1	De Laveaga Elementary School	1145 Morrissey Blvd.	S15	Tierra Pacific Charter School	2008 17 <sup>th</sup> Avenue
S2	Gault Elementary School	1320 Seabright Avenue	S16	Shoreline Middle School	855 17 <sup>th</sup> Avenue
S3	Monarch Community School	840 N. Branciforte Ave.	S17	Cypress Charter High School	2039 Merrill Street
S4	Branciforte Middle School	315 Poplar Street	<i>Soquel Union Elementary School District</i>		
S5	Harbor High School	300 La Fonda Avenue	S18	Santa Cruz Gardens Elementary	8005 Winkle Avenue
S6	Soquel High School	401 Old San Jose Road	S19	Main Street Elementary School	3400 North Main Street
S7	Delta High School (Charter)	6500 Soquel Drive	S20	Soquel Elementary School	2700 Porter Street
S8	Ark Independent Study	840 N. Branciforte Ave.	S21	New Brighton Middle School	250 Washburn Avenue
S9	Costanoa Continuation School	840 N. Branciforte Ave.	<i>Pajaro Unified School District</i>		
S10	Alternative Family Education	840 N. Branciforte Ave.	S22	Mar Vista Elementary School	6860 Soquel Drive
<i>Live Oak School District</i>			S23	Rio del Mar Elementary School	819 Pinehurst Drive
S11	Del Mar Elementary School	1959 Merrill Street	S24	Valencia Elementary School	250 Aptos School Road
S12	Green Acres Elementary School	966 Bostwick Lane	S25	Aptos Junior High School	1001 Huntington Drive
S13	Live Oak Elementary School	1916 Capitola Road	S26	Aptos High School	100 Mariner Way
S14	Ocean Alternative Education	984-6 Bostwick Lane			
<b>Private Schools (K-12)</b>					
<i>City of Santa Cruz</i>			<i>Aptos</i>		
S27	Carden El Encanto School	319 La Fonda Avenue	S32	Orchard School	2288 Trout Gulch Road
S28	Good Shepherd Catholic School	2727 Mattison Lane	S33	Santa Cruz Montessori School	6230 Soquel Drive
S29	Santa Cruz Children's School	366 Gault Street	S34	Twin Lakes Christian School	2701 Cabrillo College Drive
S30	VHM Christian School	427 Capitola Road	<i>Soquel</i>		
			S31	Merit Academy	2392 Rodeo Gulch Road
<b>Colleges/Universities</b>					
S45	Cabrillo College	6500 Soquel Dr.			

**Table 5-1: Community Services and Facilities**

No.	Service or Facility	Address	No.	Service or Facility	Address
<b>EMERGENCY, MEDICAL, AND PROTECTIVE SERVICES</b>					
<b>Police Protection/Law Enforcement</b>			<b>Fire Protection</b>		
P1	California Highway Patrol	10395 Soquel Drive	F1	Santa Cruz Fire, Station #2	Santa Cruz
P2	Capitola Police Department	420 Capitola Avenue	F2	Central Fire District, Station #1	Live Oak
P3	Santa Cruz County Men's Jail	259 Water Street	F3	Central Fire District, Station #2	Live Oak
P4	Santa Cruz County Women's Jail	144 Blaine Street	F4	Central Fire District, Station #3	Soquel
<b>Military Facilities</b>			F5	Central Fire District, Station #4	Capitola
M1	National Guard Armory	310 Armory Road	F6	Aptos–La Selva District, Aptos Station	6934 Soquel Drive
<b>Hospitals and Clinics</b>			F7	Aptos-La Selva District, Rio del Mar Station	300 Bonita Drive
H1	Dominican Santa Cruz Hospital	1555 Soquel Drive			
H2	Sutter Maternity and Surgery Center of Santa Cruz	2900 Chanticleer Avenue			
<b>CULTURAL RESOURCES AND OTHER PUBLIC FACILITIES</b>					
<b>Libraries</b>			<b>Community Centers</b>		
L1	Branciforte Branch	230 Gault Street	C1	Live Oak Senior Center	1777 Capitola Road
L2	Live Oak Branch	2380 Portola Drive	C2	Capitola Community Center	4400 Jade Street
L3	Capitola Branch	2005 Wharf Road	C3	Mt. Toyon Camp and Conference Center	220 Cloister Lane
L4	Porter Memorial	3050 Porter Street	C4	Valencia Hall	2555 Valencia Road
L5	Aptos Branch	7695 Soquel Drive	C5	Mid-County Senior Center	829 Bay Street
<b>Museums</b>			C6	Senior Citizens' Opportunity Ctr.	222 Market Street
M1	Santa Cruz Natural History Museum	1305 East Cliff Drive	<b>Post Offices</b>		
M2	Capitola Historical Museum	410 Capitola Avenue	PO1	Santa Cruz, East Post Office	
M3	Aptos Historical Museum	7605 Old Dominion Ct.	PO2	Capitola Post Office	826 Bay Avenue
<b>Government Offices</b>			PO3	Soquel Post Office	4768 Soquel Drive
G1	County Governmental Offices		PO4	Aptos Post Office	500 Cathedral Drive
G2	Capitola City Hall	420 Capitola Avenue			
G3	Department of Motor Vehicles				

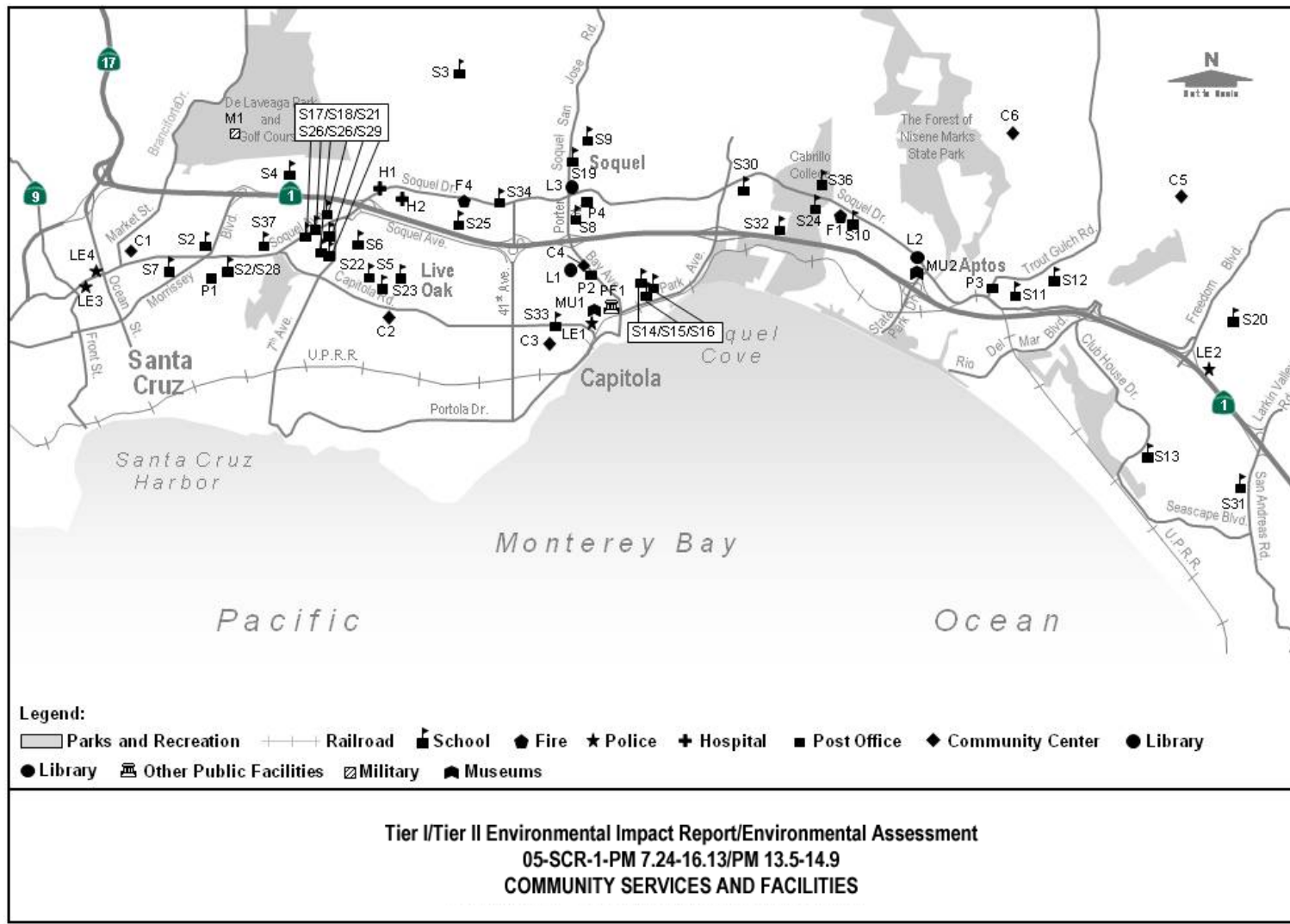


Figure 5-1: Community Services and Facilities

## Cultural Resources and Other Public Facilities

The Santa Cruz Public Library System has 10 branches serving the residents of Santa Cruz County, 4 of these are within the project's study area. The Porter Memorial Library, not affiliated with the Santa Cruz Public Library System, is also within the study area at 3050 Porter Street in Soquel. In addition, three museums are located within the study area: the Santa Cruz Natural History, Capitola Historical, and the Aptos Historical Museums.

Other public facilities within the study area include the Capitola City Hall, Department of Motor Vehicles, County Government Offices, six community centers, and four U.S. Post Offices.

## Parks and Recreation

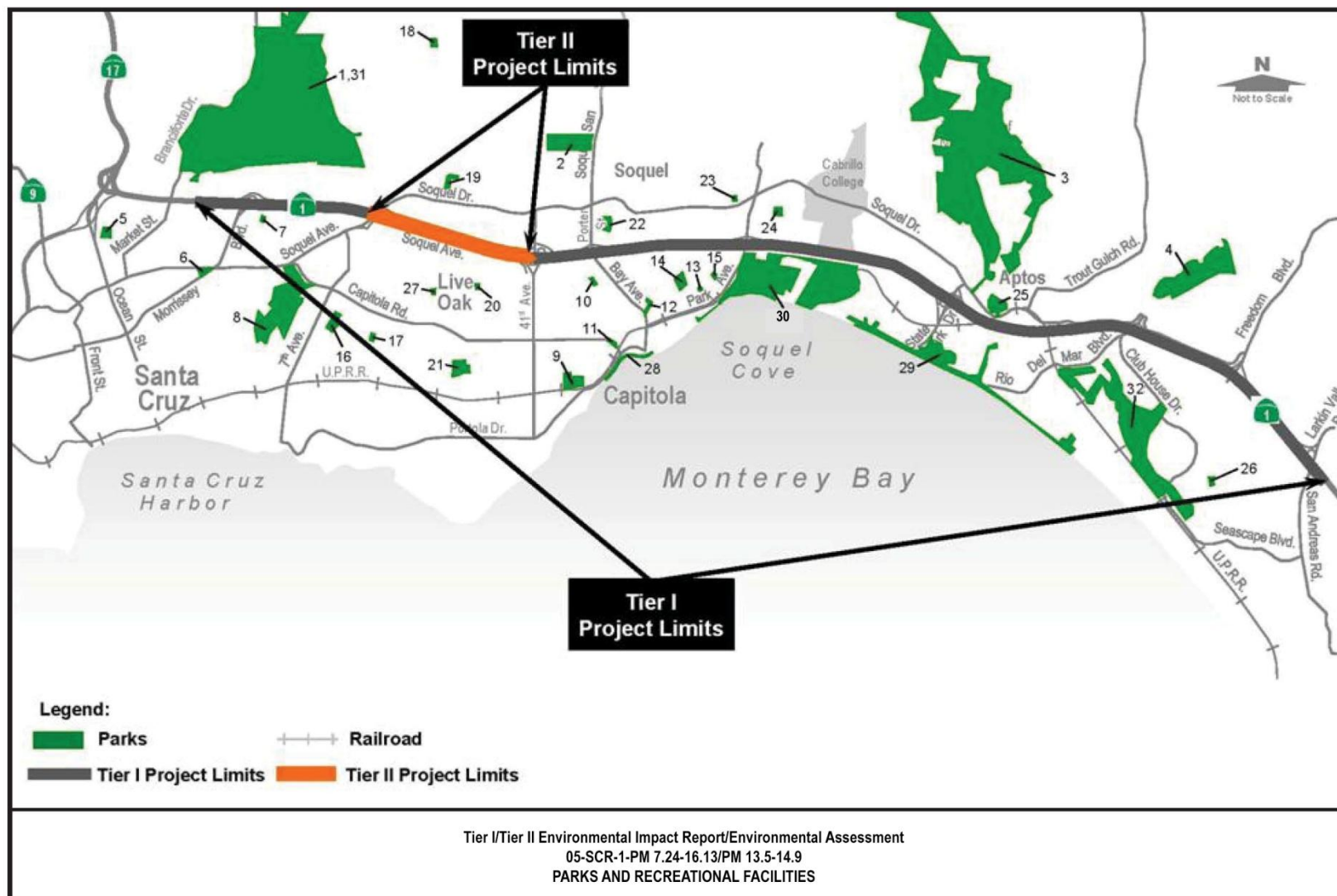
As listed in Table 5-2 and shown in Figure 5-2, there are 32 park and recreation facilities within the study area. Numbers on the table are keyed to locations shown in the figure. With the exception of the privately owned De Laveaga and Aptos Seascapes golf courses, depending on location, all of these facilities are operated by the State of California, Santa Cruz County, City of Santa Cruz or Capitola's park and recreation departments. More information on these parks is provided in Appendix C.

**Table 5-2: Parks and Recreational Facilities**

<b>STATE AND REGIONAL PARKS</b>		
<b>No.</b>	<b>Park Name</b>	<b>Address</b>
1.	De Laveaga Park	850 Branciforte Avenue, Santa Cruz
2.	Anna Jean Cummings County Park	461 Old San Jose Road, Soquel
3.	Forest of Nisene Marks State Park	Aptos Creek Road/Soquel Drive, Aptos
4.	Polo Grounds Park	2255 Huntington Avenue, Aptos
<b>CITY, COMMUNITY, AND NEIGHBORHOOD PARKS AND RECREATIONAL FACILITIES</b>		
<b>City of Santa Cruz</b>		
5.	Grant Park	150 Grant Street
6.	East Side Park	Water St./Soquel Ave
7.	John Franks Park	Marnell Street
8.	Arana Gulch Open Space	Agnes Street
<b>City of Capitola</b>		
9.	Jade Street Park	45th Avenue/Jade Street

10.	Perry Park	Bay Avenue/Center Street
11.	Soquel Creek Park	Wharf Road
12.	Noble Gulch Park	Bay Ave./Monterey Ave.
13.	Esplanade Park	Capitola Village
14.	Monterey Avenue Park	Monterey Avenue
15.	Cortez Park	Cortez Street
<b>Santa Cruz County</b>		
16.	Jose Avenue Park	Jose Avenue
17.	Hestwood Park	Harper Street
18.	Santa Cruz Gardens Park	Katherine Lane
19.	Winkle Farm Park	Winkle Avenue
20.	Coffee Lane Park	Coffee Lane
21.	Brommer Street Park	1451 30th Avenue
22.	Soquel Lions Park	Main Street
23.	Richard Vessey Park	Maplethorpe Lane
24.	Willowbrook Park	2950 Willowbrook Lane
25.	Aptos Village County Park	100 Aptos Creek Road
26.	Rio del Mar Park	Pinehurst Drive
27.	Chanticleer Avenue Park	Chanticleer Avenue
<b>BEACHES AND COASTAL AREAS</b>		
28.	Capitola City Beach	Monterey Avenue
29.	Seacliff State Beach	State Park Drive
30.	New Brighton State Beach	McGregor Drive
<b>GOLF COURSES (Privately Owned)</b>		
31.	De La Veaga Golf Course	401 Upper Park Road
32.	Aptos Seascape Golf Course	610 Clubhouse Drive





**Figure 5-2: Parks and Recreational Facilities**

## Houses of Worship and Cemeteries

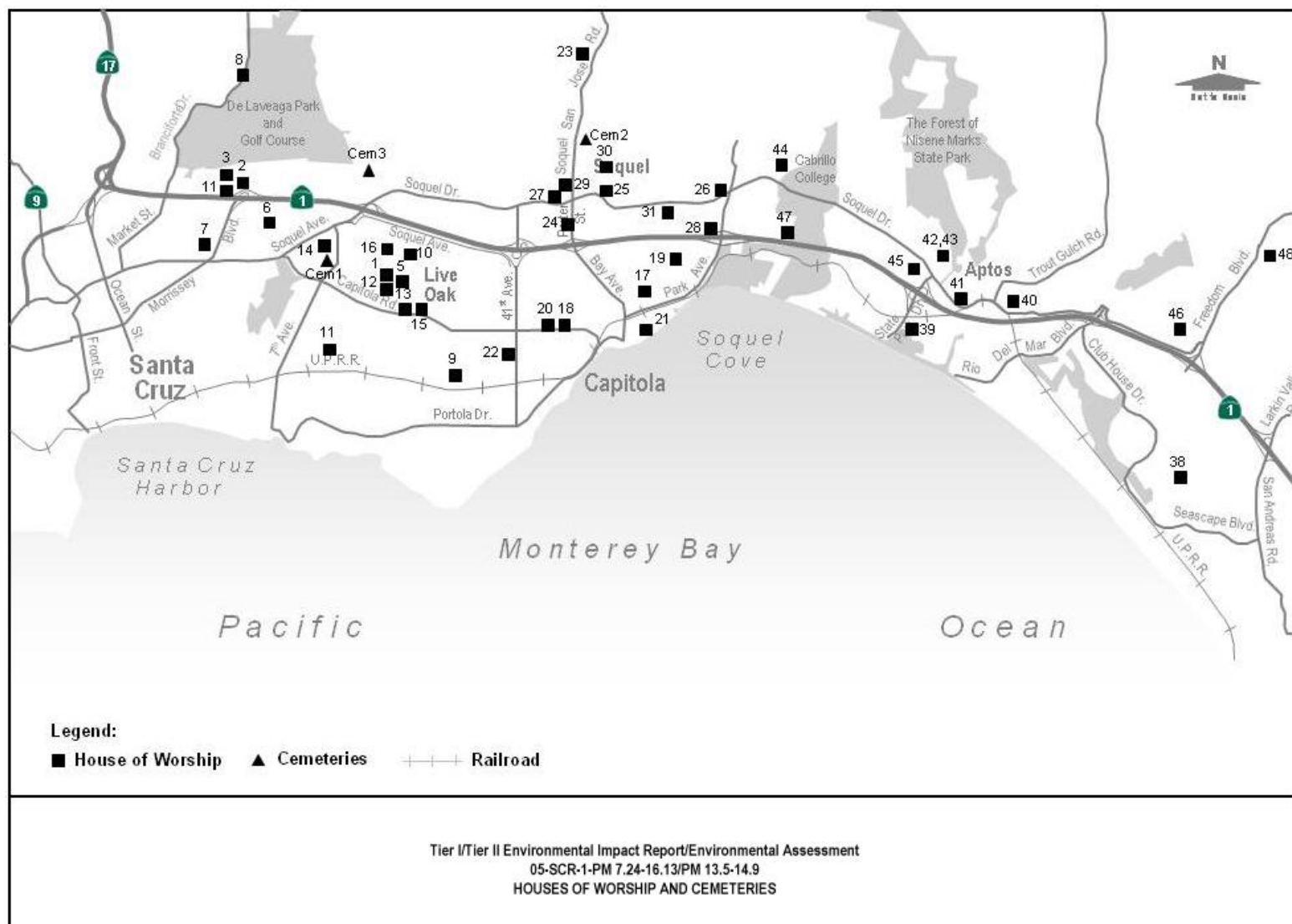
Houses of worship with various denominations are located in the study area. These facilities, which serve as community focal points, are listed in Table 5-3 and shown in Figure 5-3. Three cemeteries are located within the study area.

**Table 5-3: Houses of Worship and Cemeteries in the Study Area**

No.	Name	Address/Location	No.	Name	Address/Location
<b>HOUSES OF WORSHIP—CITY OF SANTA CRUZ</b>					
1	Harbor Light Gospel Tabernacle	2008 17th Avenue	12	Live Oak United Methodist Church	2091 17th Avenue
2	Church Of Christ	637 Pacheco Avenue	13	Living Hope Church	2245 Capitola Road
3	Church Of Jesus Christ-LDS	220 Elk Street	14	Lutheran Church St Stephens	2500 Soquel Avenue
4	Neighborhood Church Of Christ	225 Rooney Street	15	Pacific Christian Fellowship	2245 Capitola Road
5	Church In Santa Cruz	126 Doyle Street	16	Reorganized Church Of Jesus	2301 17th Avenue
6	Santa Cruz Community	411 Roxas Street	17	Santa Cruz Bible Church	440 Frederick Street
7	First Church Of The Nazarene	115 S Morrissey Boulevard	18	Santa Cruz Assembly Of God	1275 30th Avenue
8	American Catholic Christian	1611 Branciforte Drive	19	Seabright-Jehovah's Witnesses	170 Frederick Street
9	Landmark Missionary Baptist	1335 Seabright Avenue	20	Star Of The Sea Church	515 Frederick Street
10	Liberty Baptist Church	2155 Chanticleer Avenue	21	Trinity Presbyterian Church	420 Melrose Avenue
11	Light & Life Community Free	960 Brommer Street	22	Victory Faith Center	1900 17th Avenue
<b>HOUSES OF WORSHIP—CITY OF CAPITOLA</b>					
32	St Joseph's Catholic Community	435 Monterey Avenue	35	Islamic Center Of Santa Cruz	4401 Capitola Road
33	First Baptist Church-Capitola	4575 Capitola Road	36	St John The Baptist Church	216 Oakland Avenue
34	Grace Community Church	875 Monterey Avenue	37	Community Church Of God	1255 41st Avenue
<b>HOUSES OF WORSHIP—SOQUEL</b>					
23	Seventh-Day Adventists Conference Center	2143 Old San Jose Road	28	Mount Calvary Lutheran Church	2601 Park Avenue
24	Seventh-Day Adventist Church	2501 Porter Street	29	Christina Science Churches	3021 Porter Street
25	Congregational Church-Soquel	4951 Soquel Drive	30	Christian Science Church	3200 Center Street
26	Jehovah's Witnesses-Soquel	3125 Park Avenue	31	Soquel Church Of Grace	5630 Soquel Drive
27	Lighthouse Christian Fellowship	4525 Soquel Drive			

**Table 5-3: Houses of Worship and Cemeteries in the Study Area**

No.	Name	Address/Location	No.	Name	Address/Location
<b>HOUSES OF WORSHIP—APTOS</b>					
38	Aptos Community United Methodist	221 Thunderbird Drive	44	Temple Beth-El Jewish Community Center	3055 Porter Gulch Road
39	Aptos Foursquare Church	280 State Park Drive	45	Resurrection Catholic Church	7600 Soquel Drive
40	Calvary Chapel Aptos	8065 Valencia Street	46	St Andrew Presbyterian Church	9850 Monroe Avenue
41	Christ Lutheran Church	10707 Soquel Drive	47	Twin Lakes Baptist Church	2701 Cabrillo College Drive
42	First Baptist Church Of Aptos	7565 Sunset Way	48	Unitarian Universalist Church	6401 Freedom Boulevard
43	Outreach Of Christian Missions	7565 Sunset Way			
<b>CEMETERIES</b>					
C1	Holy Cross Cemetery	2271 Seventh Street	C3	Oakwood Memorial Park	3301 Paul Sweet Road
C2	Soquel Cemetery	550 Old San Jose Road			



## **5.1.2 Utilities**

There are over 300 utility lines within the project area including overhead electrical and transmission lines; underground electrical, gas, sanitary sewer, water, TV/cable, telephone, storm drain, and oil lines; water and gas line casings on existing bridge structures; and water, electric, telephone, and television lines on existing structures.

### **5.1.2.1 Tier I Corridor Alternatives**

#### **Water Service**

The Santa Cruz Water Department serves a geographic area that includes the entire City of Santa Cruz, the Live Oak area to the east, a small part of the City of Capitola, and UCSC as well as agricultural lands and unincorporated areas north and west of the City of Santa Cruz. The City's water supply is drawn primarily from the San Lorenzo River and North Coast Watershed.

The remainder of the study area is served by the Soquel Creek Water District, whose service area encompasses seven miles of shoreline and extends from one- to three-miles inland into the foothills of the Santa Cruz Mountains, including most of the City of Capitola and the unincorporated communities of Soquel and Aptos.

#### **Wastewater Treatment**

Wastewater collection and treatment within the study area are provided by the City of Santa Cruz Public Works Department and the Santa Cruz County Sanitation District, which includes Live Oak, Capitola, Soquel, and Aptos.

#### **Solid Waste Disposal and Recycling**

Solid waste collection, recycling, and yard waste disposals are provided by Waste Management of Santa Cruz County through franchise agreements with Santa Cruz County and the cities of Santa Cruz and Capitola. The County operates two solid-waste facilities: the Buena Vista Landfill west of Watsonville and the Ben Lomond Transfer Station near the town of Ben Lomond. In addition, the City of Santa Cruz operates a sanitary landfill located approximately three miles west of the City off Route 1.

#### **Other Utilities**

Pacific Gas & Electric Company provides gas and electricity services in the study area. AT&T maintains the local telephone service and Comcast is the main cable service provider.

### **5.1.2.2 Tier II Auxiliary Lane Alternative**

There are approximately 19 utility lines within the Tier II project area, including overhead electrical and transmission, underground gas, sanitary sewer, storm drain, television/cable, telephone, and fiber-optic lines. Service providers are identified above in the Tier I Corridor Alternatives section.

### **5.1.3 Circulation and Access**

The 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 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.

Caltrans and FHWA are committed to carrying out the 1990 Americans with Disabilities Act by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public will be provided to persons with disabilities.

This section describes the existing and planned transportation system within the study area, including the roadway network, transit services, and bicycle and pedestrian facilities, as discussed below and shown in Figures 5-4, 5-5, and 5-6, respectively. Information for this section of the report is excerpted from the Route 1 HOV Lane Widening Project Traffic Operations Report (WSA, April 2007).

### **Roadway Network**

#### State Routes

**Route 1.** Route 1 is the state route connecting the coastal communities on the northern and central California coast. It varies between a two-lane highway in rural areas of the coast to multiple lanes in urban areas. In the project area, it is a four-lane freeway with average annual daily traffic (AADT) from approximately 74,500 at the southern project limit near San Andreas-Larkin Valley Roads to approximately 111,400 at the northern limit near Morrissey Boulevard. North and west of the project area, it connects with Highway 17 and State Route 9 and traverses the City of Santa Cruz on city streets before becoming a two-lane highway along the coast north of Santa Cruz. South of the project

area, Route 1 is a six-lane freeway through Watsonville, returning to a two-lane highway in northern Monterey County.

**Highway 9.** Highway 9 is a two-lane highway running from its intersection with Route 1 in Santa Cruz north through the communities of Felton, Ben Lomond, and Boulder Creek before crossing the ridge of the coastal mountains to Saratoga. AADT varies from 4,700 to 21,000 along this route.

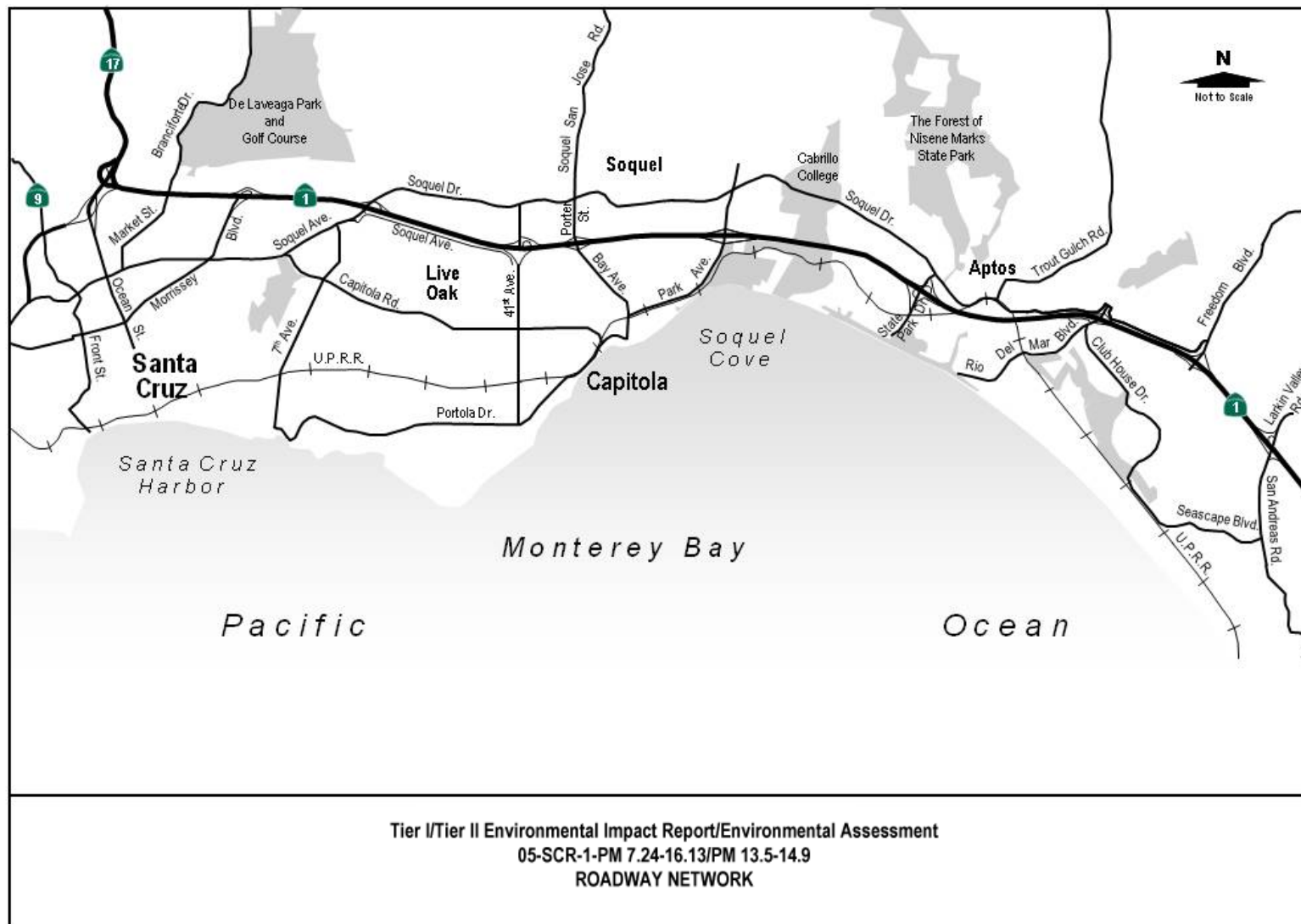


Figure 5-4: Roadway Network



**Highway 17.** Highway 17 is four-lane highway that provides the primary highway connection between Santa Cruz and the San Francisco Bay Area. AADT on Highway 17 varies from 54,000 to 192,000 between Santa Cruz and San Jose with the higher AADT generally in Santa Clara County.

### Arterials

**41<sup>st</sup> Avenue** is the most heavily traveled of all of the arterials in the study area and comprises Santa Cruz's main retail corridor. It traverses north and south for two miles between Soquel Drive and Cliff Drive on the waterfront. It is two lanes in most locations, but is six lanes in sections between Soquel Drive and Capitola Road.

**Porter Street and Bay Avenue** are the northern and southern segments of an alignment that runs from Monterey Avenue, across Route 1 to the foot of the Santa Cruz Mountains. North of Soquel Drive, Porter Street turns into Old San Jose Road. Together, the Porter Street and Bay Avenue segments create an alignment about one mile long. Very heavily traveled, Porter Street is two lanes wide and travels in two directions. Bay Avenue, with slightly lower volumes, is four lanes in two directions. Both provide access from Route 1 to Capitola Avenue, south of the Highway, and Soquel Drive to the north.

**Soquel Drive** is the main parallel route to Route 1 in the study area. It runs for about eight miles in two directions, starting in the east at its intersection with Soquel Avenue and ending at Freedom Boulevard at the western end of the study area. It is two lanes wide for most of its distance. East of State Park Drive it is primarily an access road for Route 1.

**Soquel Avenue** serves the southwestern part of the study area. To the east, it begins at Pacific Avenue and crosses over the San Lorenzo River. Just south of Route 1, Soquel Avenue turns right and continues along south of the Highway to Gross Road. Also at this junction, Soquel Avenue feeds into Soquel Drive, crossing over the highway and paralleling it on the north side. It is a three and a half mile, primarily two-lane road that widens in some sections.

**Rio Del Mar Boulevard** provides the primary access route from Route 1 to the community of Rio Del Mar. It runs north-south for 1.4 miles in two directions along two lanes from Beach Drive (private road) to Soquel Drive.

**State Park Drive**, less than one mile long, is a short two lane road providing access from Route 1 to Seacliff Beach State Park to the south and Soquel Drive to the north. Its heavy

volumes are a function of its connection with Soquel Drive and the Rancho Del Mar Shopping Center.

**Park Avenue** divides the City of Capitola to the west from the community of Aptos to the east. It runs in two directions along four lanes. It begins in the hilly northern side of Capitola and runs south to Monterey Avenue, turning west to parallel the ocean after Coronado Street. It is 1.8 miles long.

#### **5.1.4 Transit**

##### Santa Cruz Metropolitan Transit District (METRO)

METRO is the primary transit provider in Santa Cruz County. METRO operates a number of urban collector, express, and urban local bus feeder routes in the study area. Most routes serve local travel and few of these traverse the entire corridor. METRO operates two transit centers in the study area, in downtown Santa Cruz and Capitola Mall. In addition to its scheduled bus services, METRO also provides shuttle services within the study area. METRO's shuttles operate during the summer and provide access to beaches in Capitola and Santa Cruz. Coverage in the study area includes Cabrillo College, Capitola Mall, Dominican Hospital and Seacliff State Beach. Bus routes in the vicinity are shown on Figure 5-5.

METRO routes serving the Route 1 corridor are briefly described below:

**Highway 17 Express Service to Santa Clara County:** Highway 17 express bus service serves a San Jose-based transit market. Jointly operated by METRO, AMTRAK, and the Santa Clara Valley Transportation Authority (VTA), this service originates at the METRO Center in downtown Santa Cruz. The express service has seven northbound weekday trips originating at the Soquel Park and Ride Station and five southbound weekday trips terminating at this station. These northbound trips terminate near San Jose State University in San Jose. This line begins at Soquel Drive, continuing on Route 1 to Highway 17 and serves the Cavallaro Transit Center (earlier called Scotts Valley Transit Center) located in southwestern Scotts Valley.

Currently, congestion on Route 1 causes delays to the Highway 17 express service. METRO is considering the options of extending the Highway 17 service farther south to State Park, if travel conditions for express buses on Route 1 improve, or removing the service from the Route 1 corridor if travel conditions continue to degrade.

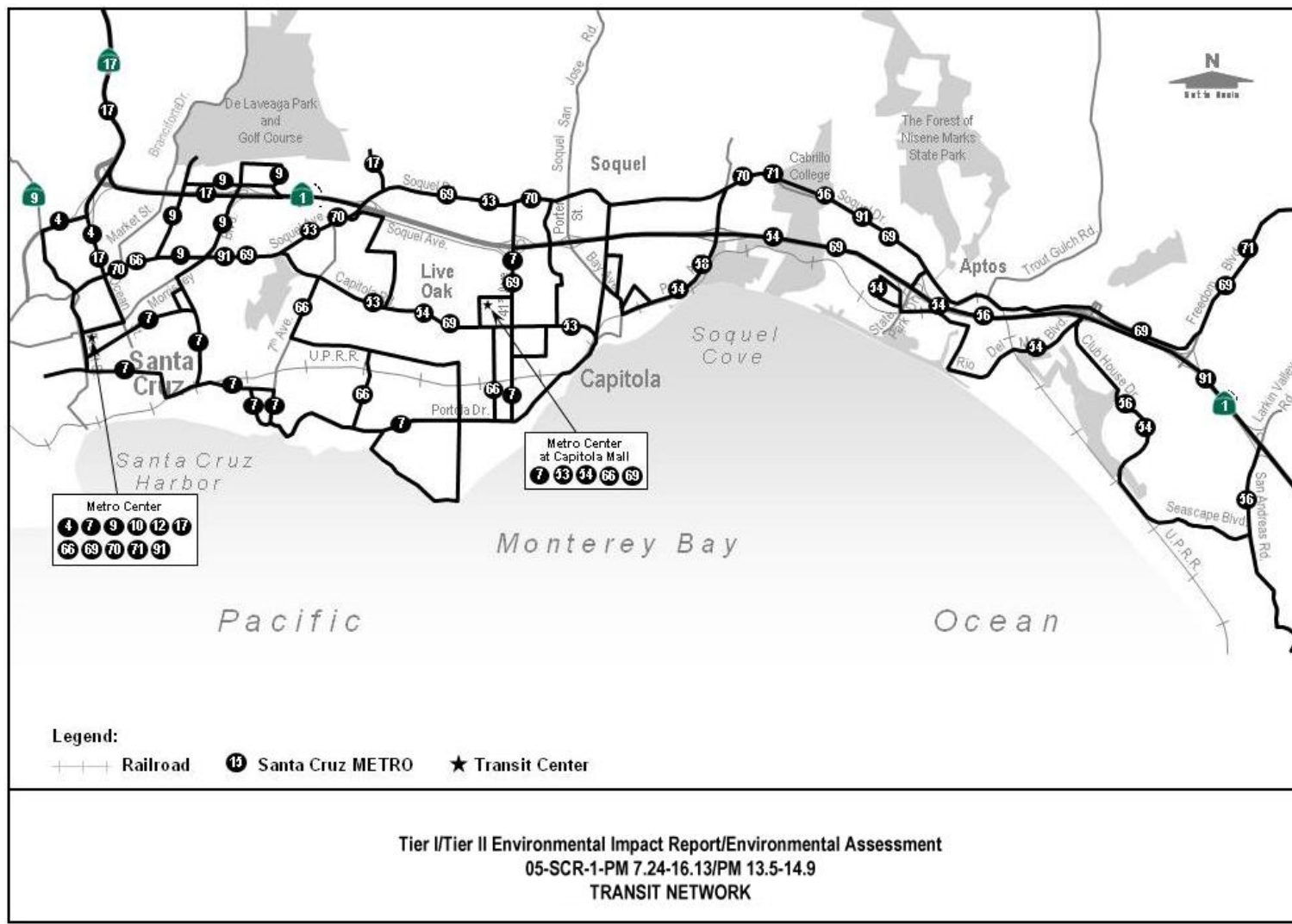


Figure 5-5: Transit Network

**Route 91 – Watsonville to Santa Cruz Commuter Express:** This limited-stop bus line, provided by METRO, originates at the Watsonville Center near downtown Watsonville and terminates at the METRO Center in downtown Santa Cruz. This line serves Cabrillo College, west side employment centers, downtown Watsonville, Capitola Mall, Dominican Hospital, the Soquel Drive Park-and-Ride lot, and the County Government Center. Route 91 uses Route 1 northbound and southbound between Santa Cruz and Watsonville. Route 91 runs northbound on Route 1 approximately every 25 minutes beginning at 6:00 through 7:30 AM with additional morning runs at 8:30 and 9:30 AM (seven runs total); with the runs stopping at the Soquel Drive Park-and-Ride lot. Afternoon runs on northbound Route 1 occur at 3:30, 4:30 and 5:30, and do not serve the Park-and-Ride lot. Runs heading southbound on Route 1 depart hourly from about 6:30 until 9:30 AM, with afternoon runs at 3:30 and 4:30 PM. Route 91 southbound does not serve the Soquel Drive Park-and-Ride lot.

**Routes 54, 55, and 56 – Mid-County Service:** These Metro bus routes serve the areas of Capitola, Aptos, and La Selva Beach. The bus lines originate in the Capitola Mall and terminate in the Seacliff area. Only Route 54 provides weekend and weekly evening services, as well as an expanded service area to La Selva Beach. Weekday services are provided by all three Mid-County bus lines. These routes do not serve any of the park-and-ride lots within the study corridor.

**Route 69A, 69W, and 71 – Capitola Avenue/Santa Cruz/ Watsonville:** This local METRO bus route originates at the Watsonville Center and terminates at the METRO Center in the city of Santa Cruz. Route 69A travels on Route 1 in both directions from 41<sup>st</sup> Avenue (within the study area) to Airport Boulevard. Both weekday and weekend services are provided. On weekdays, Route 69A runs hourly from 6:20 AM through 6:20 PM, while on weekends, this route runs hourly between 8:07 AM and 6:07 PM. This route does not serve any of the park-and-ride lots within the study corridor.

#### METRO ParaCruz

METRO also offers shared ride, door-to-door paratransit service as a complement to its regular fixed-route bus service, as outlined in the Americans with Disabilities Act (ADA). METRO ParaCruz service is available to anyone certified as unable to use regular fixed-route service as a result of a disability. Service is available from 6:00 AM to 10:30 PM seven days a week, except for New Year's Day, Thanksgiving Day, and Christmas Day. In addition, there are extended hours in certain areas of the county to coincide with fixed route service. METRO ParaCruz service is offered to any location

within three-quarters of a mile of any regular METRO bus route, other than Highway 17 express commuter service.

### Santa Clara Valley Transportation Authority (VTA)

VTA provides service throughout Santa Clara County and partners with other systems for bus and rail service between Santa Clara County and the counties of Alameda, Santa Cruz, San Mateo, and San Francisco. VTA's more than 520 vehicle bus fleet serves a 326-square mile urbanized area. The 28.6-mile light rail system is operated with a fleet of 50 cars.

Within the study area, VTA operates Highway 17 Express (Route 970) between downtown Santa Cruz and downtown San Jose. This intercounty express bus service is a joint effort of the VTA, Santa Cruz Metropolitan Transit District (METRO), Capitol Corridor Joint Powers Authority (CCJPA), Amtrak, and the Caltrans. Most morning and evening commute hour service begins at Dominican Hospital at Route 1 and Soquel Drive in Santa Cruz. All other trips begin and end at the Santa Cruz Metro Center. All buses stop at Pasatiempo Inn in Santa Cruz and the Cavallaro Transit Center in Scotts Valley. Weekday service for downtown San Jose serves key transfer points including the San Jose Diridon Transit Center, the downtown Transit Mall, and the San Jose University area. Weekend and holiday service begins and ends at the San Jose Diridon Transit Center. From the Transit Center, passengers can connect to Caltrain, Altamont Commuter Express (ACE), Amtrak, and the VTA Downtown Area Shuttle (DASH), which operates free weekday shuttle service from Transit Center to downtown San Jose.

### **Rail**

The Regional Transportation Commission recently acquired the 32-mile Santa Cruz Branch Rail corridor that spans the county from Watsonville to Davenport. The corridor location is within a one mile radius (Per 2010 census tract data) of 50% of the county's population, as well as over 80 parks and 25 schools. In the short term it will be used for seasonal or special event passenger train events and continued/expanded freight rail goods movement. In the medium term, it could form the spine of the bicycle and pedestrian Monterey Bay Sanctuary Scenic Trail (in addition to rail service and where there is sufficient right of way). In the longer term, expanded passenger rail and transit options within the corridor will be evaluated.

### 5.1.5 Bicycle and Pedestrian Facilities

#### Bicycle Facilities

Santa Cruz County Department of Public Works, in cooperation with the Santa Cruz County Regional Transportation Commission Bicycle Advisory Committee, prepared the *Santa Cruz County Bicycle Plan* (March 2011). The purpose of this plan is to consolidate into one document all bicycle-related County plans and projects that are currently identified in the County General Plan, the Santa Cruz County Regional Transportation Plan, and other local documents. This incorporates the Santa Cruz County Planning Department's Master Plan of Countywide Bikeways (MPCB), which defines goals.

Santa Cruz County Planning Department's *Master Plan of Countywide Bikeways* (MPCB) defines goals, objectives, policies, and implementation programs involved in the planning, design, and construction of an integrated system of Santa Cruz County bicycle facilities. Emphasis is on safe and convenient bicycle routes that complement other transportation modes (e.g., transit, carpool) to serve places of employment, commercial districts, schools, beaches, and parks. A secondary purpose of the MPCB is to serve recreational bicycling. The MPCB defines a countywide network of bikeways that coordinates with and complements the bikeway systems of local cities and adjacent counties. The bikeway network is made up of three types of facilities:

- 1 Class I bikeways (bike paths), which provide a separated right of way for the exclusive use of bicycles and pedestrians;
- 2 Class II bikeways (bike lanes), which provide a striped lane for one-way travel on a street or highway; and
- 3 Class III bikeways (bike routes), which provide for shared use with pedestrian or motor vehicle traffic.

Many of the County's major collector and arterial roadways have, over the years, been established as Class II bikeways (bike lanes) with a focus on developing bicycle facilities in the higher density urban areas and urban corridors of the County. There are few Class I bikeways (bike paths) in the County. Currently, the County of Santa Cruz has approximately 92 miles of bike lanes and eight miles of bike paths.

Within the City of Santa Cruz, most roadways provide for safe bicycle travel. Many local and collector streets carry such low traffic and bicycle volumes that little more than normal maintenance activities are needed to make bicycling safe. Class I bike paths exist along the San Lorenzo River levees, West Cliff Drive and at other locations, and Class II

bike lanes exist along many of the City's arterial streets, including Water Street, Market Street, Soquel Avenue, Soquel Drive, Broadway, Capitola Road, Brommer Street, Portola Drive, 7<sup>th</sup> Avenue, 17<sup>th</sup> Avenue, and other high activity corridors. The City has also prepared a Park Master Plan for the Arana Gulch, which includes a plan to develop the Broadway-Brommer Street Bike Path, a paved multi-use trail that would connect Frederick Street at Broadway to 7<sup>th</sup> Avenue at Brommer Street via the park. The multi-use trail would be designed as a Class I bike path and would comply with the ADA.

Capitola is home to many existing public pathways, trails, and bikeways. A number of the streets in the City are equipped with Class II bicycle lanes including Capitola Road, Portola Drive, Soquel Wharf Road, Bay Avenue, and Park Avenue. Although there are some gaps in the system, the City is progressing toward a more complete system for bicyclists using these bikeways for both commuting and recreational purposes.

Connecting the communities of Live Oak, Soquel, and Aptos to the cities of Santa Cruz and Capitola is a Class II bike lane that runs from the UC Santa Cruz campus to Watsonville along Empire Grade, High Street, Water Street, Soquel Avenue, Soquel Drive, and Freedom Boulevard. An alternate Class II route connects Soquel Drive to Watsonville along San Andreas Road. In the Live Oak area, another Class II bike lane runs along Thurber Lane between Soquel Drive and Helen Avenue. In Soquel, there are Class II bike lanes along Robertson Street, West Walnut Street, Soquel Wharf Road, Porter Street, and Park Avenue. In Aptos, Class II bike lanes run along State Park Drive and Trout Gulch Road. A Class I and II bike facility extends from Seacliff State Beach to Route 1 along Rio del Mar Boulevard.

## **Pedestrian Facilities**

Study area residents place a high value on maintaining and enhancing a pedestrian-friendly environment. One of the goals of the *Santa Cruz County General Plan* is to encourage pedestrian travel as a viable means of transportation, by itself and in combination with other modes, by increasing and improving pedestrian facilities, particularly in urban areas, and by reducing conflicts between pedestrians and other modes of travel. Policies to promote pedestrian activity focus on maintaining existing pathways, constructing new walkways, providing adequate lighting and other amenities, and ensuring safe and convenient pedestrian access to the transit system. Regional Park policies also promote pedestrian activity by implementing a system of hiking, biking, and equestrian trails providing access to and connecting various parks, riparian corridors, and beaches in the County. Table 5-4 provides a list of pedestrian activity centers within the project area. Bicycle routes and pedestrian activity centers are shown in Figure 5-6.

Within the **City of Santa Cruz**, sidewalks, promenades, and hiking trails currently provide residents with a system of pedestrian walkways. While many residential and business areas have access to these walkways, others do not. Moreover, not all of these walkways are accessible to persons with physical disabilities. One of the goals of the City's *General Plan* is to develop and promote pedestrian travel as a viable transportation mode by developing and maintaining the pedestrian system. The City of Santa Cruz Master Transportation Study Report identified six major pedestrian activity centers and several activity areas throughout the city. The analysis considered location, intensity and types of uses, the street and block pattern, and the natural features of the identified areas. The six major activity centers include Downtown Santa Cruz, Beach and Boardwalk, University of California at Santa Cruz, Harvey West Park, the Mission Street Commercial Area, and the Soquel Avenue Eastside Business District. These areas are considered hubs of the city's economic, educational, recreational, cultural, and social life.

**Capitola** residents also support the development of a safe and convenient pedestrian system of pathways and sideways along major streets and activity areas. The 2014 *General Plan* identified a number of corridors as critical elements for a comprehensive pedestrian system. The existing pedestrian network includes paths along the beach and cliff areas, as well as walkways through neighborhoods such as Depot Hill, the Village, and the Jewel Box. Pedestrians can walk from the lagoon area of Soquel Creek all the way to Peery Park following a footpath along the Creek and then walking along Riverview Drive for the rest of the way. Other existing pedestrian routes run along 41<sup>st</sup> Avenue, Portola Drive, Capitola Road, Brommer Street, Jade Street, Wharf Road, Bay Avenue, Monterey Avenue, and Park Avenue.

**Table 5-4: Pedestrian Activity Centers**

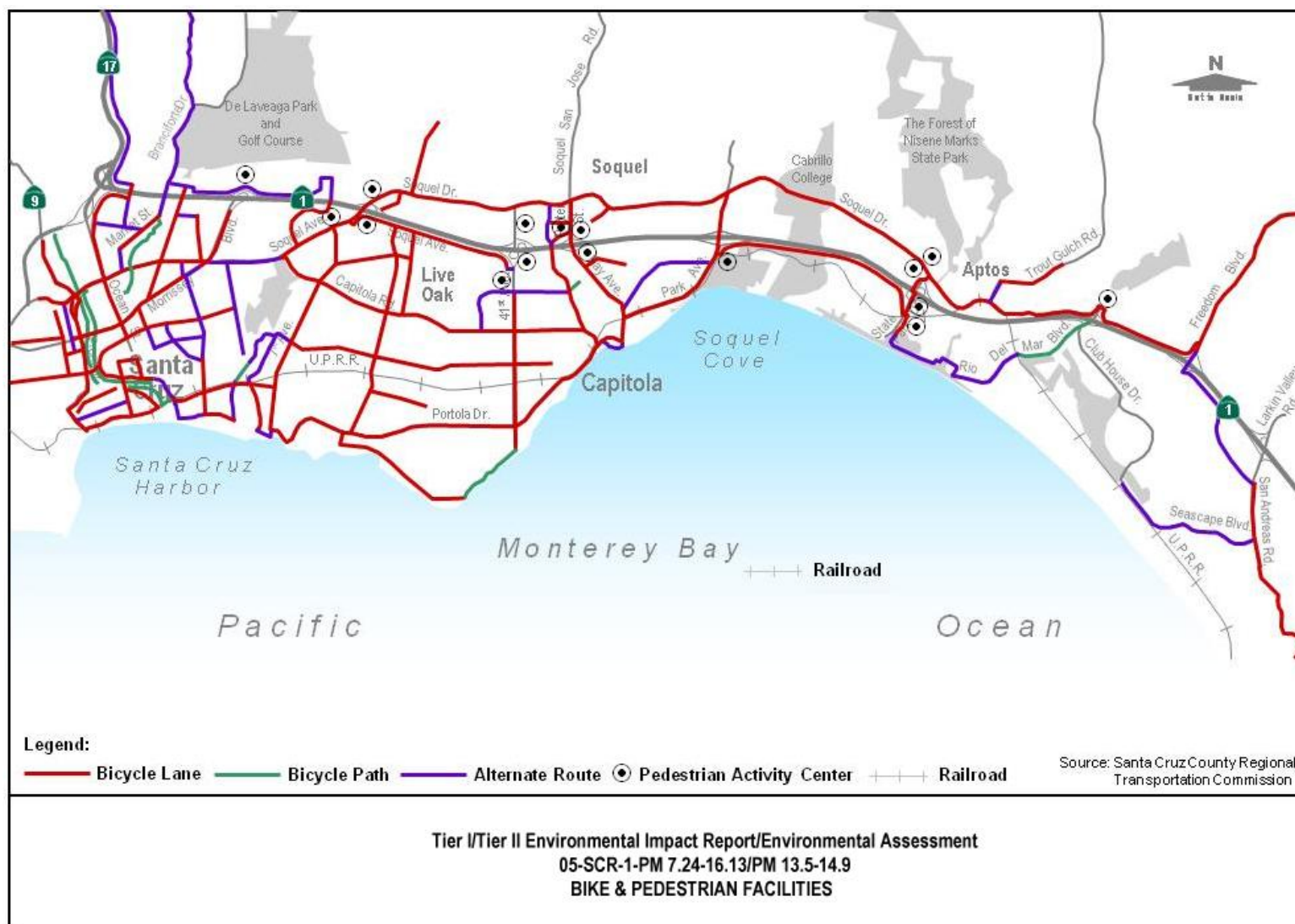
Interchange	Location	Nearby Pedestrian Activity Centers	Type of Center	Nearby Pedestrian Activity Centers	Type of Center
San Andreas Road	Rio Del Mar	N/A	N/A	N/A	N/A
Freedom Boulevard	Rio Del Mar	N/A	N/A	N/A	N/A
Rio Del Mar Boulevard	Rio Del Mar	Aptos Junior High School	Education		
State Park Drive	Aptos	First Baptist Church of Aptos	House of Worship	Capitola Historical Museum	Public Facility
		Best Western Seacliff Inn	Hotel	Seacliff State Beach	Recreation
Park Avenue	Aptos/Capitola	New Brighton State Beach	Recreation		



**Table 5-4: Pedestrian Activity Centers**

Interchange	Location	Nearby Pedestrian Activity Centers	Type of Center	Nearby Pedestrian Activity Centers	Type of Center
Porter Street/Bay Avenue	Soquel/Capitola	Seventh Day Adventist Church	House of Worship	Branciforte Branch Library	Public Facility
		Valencia Hall	Public Facility	Carpos Restaurant	Commercial
		Capitola Inn	Hotel		
41st Avenue	Soquel/Capitola	Capitola Mall	Commercial	Santa Cruz Auto Center	Commercial
		Kings Plaza Shopping Center	Commercial	4 Star Plaza Shopping Center	Commercial
Soquel Drive	Soquel	Dominican Hospital	Medical	Costanoa Continuation School	Educational
		Harbor High School	Educational	Santa Cruz Inn	Hotel
Morrissey Boulevard	Santa Cruz	Church of Christ	House of Worship	Church of Jesus Christ – LDS	House of Worship

Residents of **Soquel** and **Aptos** similarly put a high value on maintaining and enhancing a pedestrian-friendly environment. Soquel residents ranked walking and/or bicycling to town as their favorite experience, and identified improving pedestrian safety and amenities as one of the major goals of the Soquel Village Plan. Central to the design concept for Aptos Village is the creation and development of a pedestrian zone in the Village core that would connect residents with recreational opportunities in the region. Included in the *Aptos Village Community Design Framework* were proposals to construct a sea/mountain trail to run between the Forest of Nisene Marks and Seacliff State Beach along the Aptos Creek corridor, as part of the Santa Cruz Mountain Trail System, and to require a pedestrian orientation for development and revitalization within the Village.



**Figure 5-6: Bicycle Routes and Pedestrian Centers**

## 5.1.6 Parking

Table 5-5 provides an inventory of current off-street parking, which has some potential to be affected by the proposed project. Approximately 3,900 spaces are available along the corridor, including 435 spaces at six park-and-ride lots along Route 1.

**Table 5-5: Current Off-Street Parking Available in the Study Area**

Location	Total Parking Spaces	Location	Total Parking Spaces
<b>Private Off-Street Parking</b>			
Christ Lutheran Church	65	Aptos Animal Hospital	10
California Highway Patrol	10	Brando's Pizzeria	35
Branciforte Automotive Repair	15	Aptos Gateway Center	110
Organic Ingredients	20	Thorp and Associates, Inc.	5
Aptos Village Square	350	Rancho Del Mar Shopping Center	500
Seacliff Inn	260	Santa Cruz Doors and Windows	20
Sport About Team	25	Crossroads Center	150
United States Post Office	50	Office Park at 830 Bay Avenue	40
AJ's Chevron	20	The Pergola	40
Capitola Inn	75	Carpos Restaurant	25
Home Scapes Statutory Gardens	30	Wells Fargo	25
Business Park at 2425 Porter Street	155	Express Personnel Services	30
Advantage Homes	20	San Lorenzo Lumber Company	65
Redwood Square Shopping Center	550		
Office Park at Soquel and Chanticleer Avenues	350	Circuit City	230
Staples	70	Clean and Sober Homes	15
Toys R Us	100	Mercedes Centre Auto Repair	25
<b>Park-and-Ride Lots</b>			
Quaker Meeting House Church (225 Rooney)	12	Soquel Drive (Soquel/Route 1)	55
Resurrection Church (Seacliff/State Park/Route 1)	73	Pasatiempo, Santa Cruz	60
Scotts Valley Transit Center	223	Summit Road	12
		<b>Total</b>	<b>3,925</b>

## **5.2 PERMANENT IMPACTS**

### **5.2.1 Community Services and Facilities**

#### Tier I Alternatives

##### **No-Build Alternative**

There would be no impacts to community services and facilities under the No-Build Alternative.

##### **TSM Alternative**

The long-term effect of the proposed project would be to reduce congestion and thereby enhance accessibility to the greater Route 1 project area, which would benefit the community facilities identified in Section 5.1.1. None of these facilities would be displaced by either of the TSM or HOV lane alternatives. Some of the local and regional changes in circulation would have an effect on travel patterns to and from these facilities.

##### **HOV Lane Alternative**

Impacts would be similar to TSM Alternative described above. While the Tier I Corridor TSM Alternative would have minimal benefit, the Tier I Corridor HOV Lane Alternative would increase the capacity of Route 1, allowing emergency service providers to better respond to emergencies during peak traffic periods while using Route 1.

#### Tier II Alternatives

##### **No-Build Alternative**

Under the No Build Alternative, congestion on the roadway would continue to worsen in the area, further impacting service provider response times. This would result in an adverse impact on emergency services using Route 1.

##### **Auxiliary Lane Alternative**

The long-term effect of the proposed project would be to reduce congestion and thereby enhance accessibility to the greater Route 1 project area, which would benefit the community facilities identified in Section 5.1.1. None of these facilities would be displaced. The Tier II Auxiliary Lane Alternative would improve traffic operations (merging) in this section of Route 1, allowing emergency service providers to better respond to emergencies while using Route 1 in this area.

## 5.2.2 Utilities

### Tier I and Tier II Project Alternatives

There would be no long-term impacts to utilities under any of the Tier I and Tier II project alternatives.

## 5.2.3 Circulation and Access

A Traffic Operations Report was prepared as part of this project. Results of the analysis demonstrate that congestion on Route 1 has caused substantial numbers of vehicles to divert to local arterial streets, which in turn results in congestion on the local street system and compromising local access and circulation. This condition is expected to worsen as travel demand through the Route 1 corridor increases over time. Operations analysis was performed for 25 project area intersections (Table 5-6). Under current conditions 7 of the 25 intersections are operating at less than Level of Service (LOS) D during the morning peak and 5 are at less than LOS D during the evening peak. By 2035 without Route 1 improvements, all 25 intersections under study would operate below LOS D.

**Table 5-6: Traffic Study Intersections**

<ul style="list-style-type: none"><li>• Monterey Blvd./Rooney St./Pacheco Ave.</li><li>• Rooney St./Hwy-1 NB Ramps</li><li>• Fairmount Ave./Hwy-1 SB Ramps</li><li>• Morrissey Blvd./Fairmount Ave.</li><li>• Soquel Ave./Hwy-1 SB Ramps</li><li>• Soquel Dr./Paul Sweet Rd./Commercial Way</li><li>• 41st St./ Hwy-1 NB Off-Ramp</li><li>• 41st St./ Hwy-1 SB Ramps</li><li>• Porter St./S. Main St.</li><li>• Porter St./ Hwy-1 NB Ramps</li><li>• Bay Ave./ Hwy-1 SB Ramps</li><li>• Park Ave./ Hwy-1 NB Ramps</li><li>• Park Ave./ Hwy-1 SB Ramps</li></ul>	<ul style="list-style-type: none"><li>• Park Ave./Kennedy Dr./McGregor Dr.</li><li>• State Park Dr./Hwy-1 NB Ramps</li><li>• State Park Dr./ Hwy-1 SB Ramps</li><li>• State Park Dr./McGregor Dr.</li><li>• Rio Del Mar Blvd./ Hwy-1 NB Ramps</li><li>• Rio Del Mar Blvd./ Hwy-1 SB Ramps</li><li>• Rio Del Mar Blvd./Soquel Dr.</li><li>• Freedom Blvd./ Hwy-1 NB Ramps</li><li>• Freedom Blvd./ Hwy-1 SB Ramps</li><li>• Freedom Blvd./Bonita Dr.</li><li>• San Andreas Rd. Larkin Rd./ Hwy-1 NB Off-Ramp</li><li>• San Andreas Rd./ Hwy-1 SB Ramp</li></ul>
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Source: Traffic Operations Analysis, 2012

### Tier I Alternatives

#### **No-Build Alternative**

Twenty-five intersections were analyzed to determine operating conditions during the future year 2035. Under no-build conditions, by year 2035, access to various facilities within the study intersections would be adversely affected during both the morning and evening peak periods. Public schools, including Loma Prieta High, Harbor High, Union

School, Soquel Elementary, Aptos Junior High would be among those facilities adversely affected under no-build conditions.

### **TSM Alternative**

Results of the traffic operational analysis indicated that the TSM Alternative would not lead to substantial improvements in local intersection operations, by year 2035. This is because the TSM Alternative would not achieve sufficient congestion relief along Route 1 to attract a substantial number of vehicles that had diverted to the local street system back to the freeway. All 25 study intersections would be expected to operate at LOS E or F. That is, operations would worsen marginally under the TSM alternative compared with no-build conditions. Local access and circulation affecting the community facilities near these intersections would deteriorate accordingly.

### **HOV Lane Alternative**

Results of the traffic operational analysis indicated that under the HOV Lane Alternative, 16 of the 25 study intersections would operate at LOS D or better by year 2035 during the morning peak hour. This is because improved conditions along Route 1 would attract a substantial amount of traffic that had diverted to the local streets back to the freeway. Local streets however, would retain some congestion. Seven study intersections would be expected to operate at LOS E or F during the morning peak (Table 5-7), while 11 intersections would operate at LOS E or F (Table 5.-7) during the evening peak as listed in Table 5-7.

Under the HOV Lane Alternative, therefore, while access to the Dominican Hospital, Harbor High School, and Aptos Junior High School would improve compared to No-Build conditions or conditions with the TSM Alternative, access to Santa Cruz Auto Center and Best Western Seacliff Inn would still be difficult.

**Table 5-7: Year 2035 Intersections with LOS Below D**

<b>AM Peak Below LOS D</b>	<b>PM Peak Below LOS D</b>
<ul style="list-style-type: none"> <li>• 41st St./SR-1 NB Ramps</li> <li>• 41st St./SR-1 SB Ramps</li> <li>• Porter St./S. Main St.</li> <li>• Porter St./SR-1 NB Ramps</li> <li>• Bay Ave./SR-1 SB Ramps</li> <li>• Park Ave./SR-1 NB Ramps</li> <li>• Park Ave./Sr-1 SB Ramps</li> </ul>	<ul style="list-style-type: none"> <li>• Morrissey Blvd./Fairmount Ave.</li> <li>• 41st St./SR-1 NB Ramps</li> <li>• 41st St./SR-1 SB Ramps</li> <li>• Porter St./S. Main St.</li> <li>• Porter St./SR-1 NB Ramps</li> <li>• Bay Ave./SR-1 SB Ramps</li> <li>• Park Ave./SR-1 NB Ramps</li> <li>• Park Ave./Sr-1 SB Ramps</li> <li>• Park Ave./Kennedy Dr./McGregor Dr.</li> <li>• State Park Rd./SR-1 NB Ramps</li> <li>• State Park Rd./SR-1 SB Ramps</li> </ul>

## Tier II Alternatives

### **No-Build Alternative**

Existing circulation and access deficiencies would persist or worsen under this alternative.

### **Auxiliary Lane Alternative**

This Alternative would provide a negligible improvement of Route 1 corridor operations in the non-peak directions of travel: southbound in the AM peak hour and northbound in the PM peak hour. It would improve traffic operations along the northbound corridor in the AM peak hour and slightly worsen traffic operations along the southbound corridor in the PM peak hour. It would eliminate the existing bottleneck located between the Soquel Avenue and 41<sup>st</sup> Avenue interchanges in the northbound direction.

### **5.2.4 Pedestrian and Bicycle Facilities**

Route 1 currently poses a circulation barrier to some pedestrians and bicyclists. Facilities modified or provided under the TSM and HOV Lane Alternatives respond to the project purpose to encourage the use of alternative modes. This section reports on the impacts and benefits of the project alternatives to non-motorized travel.

## Tier I Alternatives

### **No-Build Alternative**

Under the No-Build Alternative, there would be some adverse impacts to pedestrian and bicycle circulation from congestion along local streets. Some pedestrian/bicycle improvements would also be constructed. The La Fonda Avenue Bridge will have been widened and replaced, and various local projects improving the local arterial network and constructing or improving bicycle lanes would be built.

### **TSM Alternative**

Under the TSM Alternative, three new pedestrian/bicycle overcrossings would be constructed, as follows:

- 1 Trevethan Avenue – Between Morrissey and Soquel, connects:
  - Parks and open spaces
  - Harbor High and De Leveaga Elementary schools
- 2 Mar Vista Drive – West of State Park Drive, connects:

- Soquel Drive and McGregor Drive (Class II) bike facilities
- Cabrillo College
- Mar Vista Elementary
- New Brighton State Beach
- Sea Cliff State Beach
- Nisene Marks State Park

### 3 Chanticleer Avenue –Route 1 at the Chanticleer cul-de-sac, connects:

- North and south sides of Route 1 at Chanticleer Avenue

These pedestrian/bike overcrossings would have a positive impact on the multimodal connectivity of the Route 1 corridor by helping to overcome the north-south barrier presented by the freeway.

According to the 2007 Santa Cruz County Bikeways Map and current aerial maps, Class II bike lanes exist at all the interchanges in the area within the project limits. These bike lanes would not be affected by the project except during construction — impacts would be temporary.

### **HOV Lane Alternative**

The HOV Lane Alternative would include the three new pedestrian/bicycle overcrossings described above. In addition, the HOV Lane Alternative would maintain or improve pedestrian facilities including 5-foot-wide sidewalks at all 9 interchanges within the project limits. Note that the Chanticleer Avenue overcrossing is also identified as a project element of the Tier II Auxiliary Lane Alternative project and would be constructed during that phase. Changes to existing pedestrian/bicycle conditions would occur at the following locations:

- Morrissey/Pacheco Intersection – The improved pedestrian network would include a 4-way pedestrian crosswalk at the intersection of Pacheco Avenue, Morrissey Boulevard (Rooney Street) and Route 1 westbound on-and off ramps north of the freeway. South of Route 1, a 4-way crosswalk is located at Fairmont Avenue and Morrissey Boulevard. Both of these intersections support METRO bus stops. Route 1 Soquel Avenue/Soquel Drive Interchange, at the existing three-sided crosswalk at the intersection of Soquel Drive and Commercial Avenue would be maintained. This is an important interchange from a transit perspective, as includes major bus stops connecting Soquel Drive to Dominican Hospital



Bay/Porter Interchange – The existing crosswalks will be maintained at the Bay/Porter Interchange.

- Park Avenue Interchange – The existing crosswalks will be maintained at the Park Avenue Interchange.
- State Park Drive Interchange – The existing crosswalks will be maintained at the State Park Drive Interchange.
- Rio Del Mar Interchange – The existing crosswalks will be maintained at the Rio Del Mar Interchange.
- Freedom Blvd Interchange – The improved pedestrian network would include two 4-way pedestrian crosswalks and one 3-way crosswalk:
  - A 4-way crosswalk at the intersection Freedom Blvd and Route 1 westbound on-and off ramps north of the freeway;
  - A 4-way crosswalk at the intersection of Freedom Blvd with the eastbound on and off-ramps; and
  - A 3-way intersection at Freedom Blvd and Bonita Drive.
- San Andreas Road/Larkin Valley Road Interchange – Along with sidewalk improvements the project plan would provide crosswalks on one side of San Andreas Road/Larkin Valley Road to aid in or improve pedestrian safety at the on and off-ramp locations. Similar to the TSM Alternative, Class II bike lanes at all the interchanges in the area within the project limits would not be affected by the project except during construction, which would be temporary.

## Tier II Alternatives

### **No-Build Alternative**

Under the No-Build Alternative, there would be some adverse impacts to pedestrian and bicycle circulation from congestion along local streets. The La Fonda Avenue Bridge will have been widened and replaced, and various local projects improving the local arterial network and constructing or improving bicycle lanes would be built.

### **Auxiliary Lane Alternative**

Under this alternative, the Chanticleer Avenue pedestrian overcrossing would be constructed. The La Fonda Avenue Bridge will have been widened and replaced, and various local projects improving the local arterial network and constructing or improving bicycle lanes would be built.

### **5.2.5 Transit**

The long-term impacts of the proposed project on bus travel would generally be positive because of the reduction of traffic delay along Route 1 and surrounding intersections within the project area.

#### **Tier I Alternatives**

##### **No-Build Alternative**

The No-Build Alternative assumes no major construction on Route 1 through the project limits other than planned and programmed improvements and continued routine maintenance. By 2035 without capacity or operational enhancements on Route 1 capacity, congestion and travel time on Route 1 would worsen considerably. Buses and carpools would be subjected to very congested travel conditions.

##### **TSM Alternative**

The TSM Alternative proposes ramp metering on existing interchange ramps with auxiliary lanes constructed between interchanges. The TSM Alternative would include Transportation Operations System (TOS) electronic equipment such as changeable message signs and vehicle detection systems. These enhancements would provide a slightly improved highway conditions for carpooling or transit use when compared to no-build conditions. Based on discussions with METRO, these facility improvements would not be sufficient to encourage increased transit service frequencies and ridership on Route 1.

##### **HOV Lane Alternative**

With the addition of HOV lanes, buses and other high-occupancy vehicles would receive a high level of service and would travel at free-flow speeds of about 60 to 65 mph through the project limits. Automobiles in the mixed-flow lanes also would experience some congestion relief but would still be traveling at 30 to 36 mph, well below free-flow speeds. This compares to speeds as low as 11 mph under the No-Build Alternative.

#### **Tier II Alternatives**

##### **No-Build Alternative**

The No-Build Alternative assumes no major construction on Route 1 through the project limits other than planned and programmed improvements and continued routine maintenance. By 2035 without capacity or operational enhancements on Route 1

capacity, congestion and travel time on Route 1 would worsen considerably. Buses and carpools would be subjected to very congested travel conditions.

### **Auxiliary Lane Alternative**

The Auxiliary Lane Alternative would improve traffic operations between Soquel Avenue/Drive and 41<sup>st</sup> Avenue. The operational benefit provided by the auxiliary lane would provide a localized benefit to transit.

## **5.2.6 Parking**

### Tier I Alternatives

#### **No-Build Alternative**

No private or public parking spaces would be removed under the No-Build Alternative.

#### **TSM Alternative**

No private or public parking spaces would be removed under the TSM Alternative.

#### **HOV Lane Alternative**

Under the Tier I Corridor HOV Lane Alternative, an estimated 186 existing parking spaces, including on-street and off-street parking, would be affected by the proposed project. A more detailed discussion of these parking impacts is described in the sections below. Additionally, Tables 5-8 and 5-9 list all estimated off-street parking impacts at various locations throughout the Tier I Corridor project limits. See *State Route 1 HOV Lane Widening Project Parking Impact Analysis Memorandum* (WSA April 2011) for more detailed information.

**On-Street Parking Impacts** – Within the Tier I Corridor HOV Lane Alternative project limits, there is only one location where on-street parking would be affected. An estimated 15 on-street parking spaces would be removed by improvements to the Morrissey Boulevard interchange area. Those parking spaces are located near the intersection of Pacheco Avenue and Roxas Street.

**Off-Street Parking Impacts** – The Tier I Corridor HOV Lane Alternative would result in off-street parking impact, which would occur at four of the nine highway interchanges located within the Tier I project corridor: Bay Avenue/ Porter Street, 41<sup>st</sup> Avenue, Soquel Avenue, and Morrissey Boulevard interchanges. The number of parking spaces that would be removed at each of these interchange areas are listed in Table 5-8.

**Table 5-8: Off-Street Parking Inventory Reductions  
by Highway 1 Interchange under the Tier I Corridor HOV Lane Alternative**

Highway 1 Interchange	Direct Parking Impact	Number of Spaces Removed
San Andreas Road/Larkin Valley Road	No	0
Freedom Boulevard	No	0
Rio Del Mar Boulevard	No	0
State Park Drive	No	0
Park Avenue	No	0
Bay Avenue/Porter Street	Yes	25
41 <sup>st</sup> Avenue	Yes	26
Soquel Avenue	Yes	109
Morrissey Boulevard	Yes	11
<b>Total</b>		<b>171</b>

Detailed information regarding the parking spaces identified above by land use category, ownership type, and whether sheltered is presented in Table 5-9.

**Table 5-9: Parking Inventory Reduction Details by Location  
under the Tier I Corridor HOV Lane Alternative**

SR 1 Interchange	Number of Spaces Removed	Land Use	Ownership	Sheltered
Bay Avenue/ Porter Street	8	Commercial/ Office	Private	No
Bay Avenue/ Porter Street	2	Office	Private	No
Bay Avenue/ Porter Street	15	United States Post Office	Public (federal government)	No
41 <sup>st</sup> Avenue	26	Lumber Company	Private	No
Soquel Avenue	25	Auto/Truck Repair	Private	No
Soquel Avenue	5	Multi-Use	Private	No
Soquel Avenue	33	Transit District Office	Public (County)	No
Soquel Avenue	7	Gas Station	Private	No
Soquel Avenue	28	Commercial	Private	No
Soquel Avenue	11	Commercial	Private	No
Morrissey Boulevard	2	Multi-Family Residential	Private	Yes
Morrissey Boulevard	1	Single-Family Residential	Private	Yes
Morrissey Boulevard	2	Single-Family Residential	Private	Yes
Morrissey Boulevard	2	Single-Family Residential	Private	Yes
Morrissey Boulevard	4	Single-Family Residential (2)	Private	Yes
<b>Total</b>	<b>171</b>			

## **5.3 CONSTRUCTION IMPACTS**

### **5.3.1 Community Services and Facilities**

#### Tier I Alternatives

##### **No-Build Alternative**

There would be no construction impacts to community services and facilities under the No-Build Alternative.

##### **TSM Alternative**

There are no fixed public facilities close enough to the project area to be directly affected by project construction. The primary effect would be the need for emergency vehicles to observe any short-term road closures and temporary construction detours.

##### **HOV Lane Alternative**

Impacts would be similar to TSM Alternative described above. However, roadway obstruction and lane closures under the HOV Lane Alternative would be more extensive than the TSM Alternative. The impact would be temporary and would cease after the construction is completed.

#### Tier II Alternatives

##### **No-Build Alternative**

There would be no impacts to community services and facilities under the No-Build Alternative.

##### **Auxiliary Lane Alternative**

There are no fixed public facilities close enough to the project area to be directly affected by project construction. The primary effect would be the need for emergency vehicles to observe any short-term road closures and temporary construction detours.

### **5.3.2 Utilities**

#### Tier I Alternatives

##### **No-Build Alternative**

There would be no impacts to utilities under the No-Build Alternative.

## **TSM Alternative**

Construction of TSM Alternative could result in temporary impacts to utilities, such as an increase in utility demand and solid waste volume. Construction activities for the TSM Alternative would not cause a substantial increase in the existing demand for electricity or require the development of new sources. Construction of the TSM Alternative is not expected to result in a large amount of solid waste. No impacts to local solid waste facilities are anticipated.

Utilities relocation would be required during the construction period. Close coordination with the utility service providers would minimize this impact. Under the TSM Alternative, 110 utility lines would likely require relocation. Precise field locations may vary for utilities such as PG&E's 21-kilovolt electrical lines, and relocation details would be worked out with the utility providers during the final design phase of the project in accordance with Caltrans procedures.

It is anticipated that most utility relocation work would be performed in advance of the highway work. Caltrans and RTC would coordinate with all utility providers during the design phase of the project so that effective design treatments and construction procedures are incorporated to avoid adverse impacts to existing utilities during construction and to ensure that work is in accordance with the appropriate requirements and criteria. Design, construction, and inspection of utilities relocated for the project would be done in accordance with Caltrans requirements.

Nonetheless, the potential exists for construction activities to encounter unexpected utilities within the area of roadway improvements. In addition, utility relocations may require short-term, limited interruptions of service. Any short-term, limited service interruptions of known utilities would be scheduled well in advance and appropriate notification provided to users. It is expected that local communities would not be adversely affected by temporary service interruptions during construction.

## **HOV Lane Alternative**

Impacts during construction would be similar to that described under the TSM Alternative. Under the HOV Lane Alternative, 142 utility lines would likely require relocation to avoid conflicts with the proposed improvements, such as placement of bridge columns, footings, and new pavement.

## Tier II Alternatives

### **No-Build Alternative**

There would be no impacts to utilities under the No-Build Alternative.

### **Auxiliary Lane Alternative**

Construction of the Auxiliary Lane Alternative could result in temporary impacts to utilities, such as an increase in utility demand and solid waste volume. Construction activities would not cause a substantial increase in the existing demand for electricity or require the development of new sources. No impacts to local solid waste facilities are anticipated.

Utilities relocation would be required during the construction period. Close coordination with the utility service providers would minimize this impact. The Design Team has determined that there is potential for utilities to be affected under the Auxiliary Lane Alternative. utility lines would likely require relocation to avoid conflicts with the proposed improvements. The affected utilities include:

- Five storm drain facilities, including 600 feet of reinforced concrete pipe (ranging from 9 to 18 inches in diameter) to be protected in place, and one storm drain manhole to be modified or extended.
- Three sewer facilities, comprising 500 linear feet of sanitary sewer lines to be protected in place.
- Nine electrical facilities, including eight PG&E poles to be relocated and 210 linear feet of 21-kilovolt electrical line.
- One gas facility with 90 linear feet of gas line to be protected in place.
- One cable facility with 80 linear feet of cable to be relocated.

Precise field locations may vary for utilities, such as the 21-kilovolt electrical lines, and relocation details would be worked out with the utility providers during the final design phase of the project in accordance with Caltrans procedures.

It is anticipated that most utility relocation work would be performed in advance of the highway work. Caltrans and RTC would coordinate with all utility providers during the design phase of the project so that effective design treatments and construction procedures are incorporated to avoid adverse impacts to existing utilities during construction and to ensure that work is in accordance with the appropriate requirements and criteria. Design, construction, and inspection of utilities relocated for the project would be done in accordance with Caltrans requirements.

Nonetheless, the potential exists for construction activities to encounter unexpected utilities within the area of roadway improvements. In addition, utility relocations may require short-term, limited interruptions of service. Any short-term, limited service interruptions of known utilities would be scheduled well in advance and appropriate notification provided to users. It is expected that local communities would not be adversely affected by temporary service interruptions during construction.

### **5.3.3 Circulation and Access**

#### Tier I Alternatives

##### **No-Build Alternative**

There would be no impacts to circulation and access under the No-Build Alternative.

##### **TSM Alternative**

Construction of TSM Alternative could result in temporary roadway obstruction by construction equipment and vehicles. Temporary lane closures may be required resulting in access restriction to some local residences and businesses. Any such effects would be localized, temporary, and of short duration. A TMP would be developed and implemented to minimize circulation and access impacts. The TMP would identify and provide alternate traffic detour routes, pedestrian routes, and residential and commercial access routes to be used during the construction period.

##### **HOV Lane Alternative**

Impacts during construction would be similar to that described under the TSM Alternative.

#### Tier II Alternatives

##### **No-Build Alternative**

There would be no impacts to circulation and access under the No-Build Alternative.

##### **Auxiliary Lane Alternative**

Construction of Auxiliary Lane Alternative could result in temporary roadway obstruction by construction equipment and vehicles. Temporary lane closures may be required resulting in access restriction to some local residences and businesses. Any such effects would be localized, temporary, and of short duration. A TMP would be developed and implemented to minimize circulation and access impacts. The TMP would identify



and provide alternate traffic detour routes, pedestrian routes, and residential and commercial access routes to be used during the construction period.

### **5.3.4 Bicycle and Pedestrian Facilities**

#### Tier I Alternatives

##### **No-Build Alternative**

There would be no impacts to bicycle and pedestrian facilities under the No-Build Alternative.

##### **TSM Alternative**

During the construction phase of the project, some bicycle and pedestrian facilities could be disrupted by construction equipment and vehicles. Alternative bicycle and pedestrian paths would be provided to the maximum extent possible to minimize impacts during project construction.

##### **HOV Lane Alternative**

Impacts during construction would be similar to that described under the TSM Alternative.

#### Tier II Alternatives

##### **No-Build Alternative**

There would be no impacts to the bicycle and pedestrian facilities under the No-Build Alternative.

##### **Auxiliary Lane Alternative**

During the construction phase of the project, some bicycle and pedestrian facilities could be disrupted by construction equipment and vehicles. Alternative bicycle and pedestrian paths would be provided to the maximum extent possible to minimize impacts during project construction.

### **5.3.5 Transit**

#### Tier I Alternatives

##### **No-Build Alternative**

There would be no impacts to the transit system under the No-Build Alternative.

### **TSM Alternative**

During the construction phase of the project, bus service in the vicinity of the Route 1 corridor could be disrupted by construction equipment and vehicles. Some detours would be required. A public outreach program would be implemented throughout the construction period to keep the public informed of the construction schedule and the scheduled roadway closures, including the detour routes.

### **HOV Lane Alternative**

Impacts during construction would be similar to that described under the TSM Alternative.

#### Tier II Alternatives

### **No-Build Alternative**

There would be no impacts to the transit system under the No-Build Alternative.

### **Auxiliary Lane Alternative**

During the construction phase of the project, bus service in the vicinity of the Route 1 corridor could be disrupted by construction equipment and vehicles. Some detours would be required. A public outreach program would be implemented throughout the construction period to keep the public informed of the construction schedule and the scheduled roadway closures, including the detour routes.

### **5.3.6 Parking**

#### Tier I Alternatives

### **No-Build Alternative**

There would be no impacts to public or private parking under the No-Build Alternative.

### **TSM Alternative**

During the construction phase of the project, some parking restriction may be required on a temporary basis. A public outreach program would be implemented throughout the construction period to keep the public informed of the construction schedule and the scheduled parking and roadway closures, including the detour routes and alternative parking if available.

### **HOV Lane Alternative**

Impacts during construction would be similar to that described under the TSM Alternative.

#### Tier II Alternatives

### **No-Build Alternative**

There would be no impacts to public or private parking under the No-Build Alternative.

### **Auxiliary Lane Alternative**

During the construction phase of the project, some parking restriction may be required on a temporary basis. A public outreach program would be implemented throughout the construction period to keep the public informed of the construction schedule and the scheduled parking and roadway closures, including the detour routes and alternative parking if available.

## **5.4 CUMULATIVE IMPACTS**

#### Tier I Alternatives

### **No-Build Alternative**

Because there would be no project implementation under the No-Build Alternative, there would be no short-term or long-term cumulative impacts.

### **TSM Alternative**

Because no major projects within the project area have been identified, no short-term or long-term cumulative impacts with the implementation with this alternative are anticipated.

### **HOV Lane Alternative**

Because no major projects within the project area have been identified, no short-term or long-term cumulative impacts with the implementation with this alternative are anticipated.

#### Tier II Alternatives

### **No-Build Alternative**

Because there would be no project implementation under the No-Build Alternative, there would be no short-term or long-term cumulative impacts.

### **Auxiliary Lane Alternative**

Because no major projects within the project area have been identified, no short-term or long-term cumulative impacts with the implementation with this alternative are anticipated.

## **5.5 INDIRECT IMPACTS**

### Tier I Alternatives

#### **No-Build Alternative**

No indirect or secondary impacts on community services and facilities would result from implementation of the No-Build Alternative.

#### **TSM Alternative**

Because no relocations of major service facilities and/or utility systems are required under this alternative, indirect or secondary impacts are not anticipated to occur.

#### **HOV Lane Alternative**

Because no relocation of major service facilities and/or utility systems are required under this alternative, no indirect or secondary impacts are not anticipated to occur.

### Tier II Alternatives

#### **No-Build Alternative**

No indirect or secondary impacts on community service and facilities would result from implementation of the No-Build Alternative.

#### **Auxiliary Lane Alternative**

Because no relocation of major service facilities and/or utility systems are required under this alternative, no indirect or secondary impacts are anticipated to occur

## **5.6 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES**

### Tier I Alternatives

#### **No-Build Alternative**

No avoidance, minimization, and mitigation measures would be required under the No-Build Alternative.

## **TSM Alternative**

The Tier I Corridor Alternatives would not result in actual construction; therefore, no avoidance, minimization, and/or mitigation measures are required. Project-specific impacts on utilities will be assessed after a Tier I corridor alternative is selected and Tier II construction-level projects are developed; these will be subject to separate environmental review.

In compliance with Caltrans policies, coordination with utility providers would be initiated during the preliminary engineering phase of future projects and would continue through final design and construction. There would be coordination with utility providers to plan utility relocations, to identify potential conflicts, to ensure that construction of the proposed project minimizes disruption to utility operations, and to formulate strategies for overcoming problems that may arise. Design, construction, and inspection of utilities relocated for the project would be done in accordance with Caltrans requirements.

Implementation of the Transportation Management Plan in compliance with Caltrans and local policies would involve planning with emergency service providers throughout the project construction to avoid emergency service delays. The following impact avoidance and minimization measures would be required for construction of the Tier II Auxiliary Lane Alternative and would apply to future tiered projects under the Tier I Corridor Alternatives:

1. Coordination with utility providers would be initiated during the preliminary engineering phase of the project and would continue through final design and construction.
2. Caltrans and RTC would coordinate with the affected service provider in each instance to ensure that work is in accordance with the appropriate requirements and criteria.
3. Design, construction, and inspection of utilities relocated for the project would be done in accordance with Caltrans requirements.
4. If unexpected underground utilities are encountered, the construction contractor will coordinate with the utility provider to develop plans to address the utility conflict, protect the utility if needed, and limit service interruptions.
5. A public outreach plan implemented in conjunction with project construction and the Transportation Management Plan will involve communication with the affected communities to plan any utility interruptions and keep the public informed of construction activities.

6. Caltrans and RTC will coordinate with emergency service providers and through the public information program to avoid emergency service delays by ensuring that all providers are aware well in advance of road closures or detours.

### **HOV Lane Alternative**

Avoidance, Minimization and Minimization Measures under the HOV Lane Alternative would be the same as those described under the TSM Alternative.

### **Tier II Alternatives**

#### **No-Build Alternative**

No avoidance, minimization, and mitigation measures would be required under the No-Build Alternative.

#### **Auxiliary Lane Alternative**

The impact avoidance and minimization measures described above for the Tier I Corridor Alternatives are also applicable to the Tier II Auxiliary Lane Alternative and are required to be implemented as part of the Tier II project.

The contractor would be required to initiate and continue a public information and notification program to keep area residents and business owners informed of the project construction schedule, traffic lane closure schedule, and the traffic detour plan. A TMP would be developed to identify and provide alternate traffic detour routes, construction materials hauling routes, bus stops, transit routes and operation hours, pedestrian routes, and residential and commercial access routes to be used during the construction period.

# Chapter 6. Economics

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## 6.1 AFFECTED ENVIRONMENT

Within the project area, most of the commercial establishments are small, with the number of employees ranging from 1 to 18, with an average of just over 5 employees. Of the 11 business to be relocated, five are in automotive services (i.e., auto sales, repair, tire and wheels and one gas station). In fiscal year 2011-12, collected secured and unsecured property taxes for Santa Cruz County were \$88,654,000. The sales tax revenue for the cities of Santa Cruz and Capitola were \$47,258,855 and \$5,200,303, respectively.

### 6.1.1 Local Tax Revenue

Each project alternative would have potential tax revenue impact from the conversion of private residences and business property to public right of way for transportation use. Estimates of the tax revenue impact include the loss of revenue from permanent encroachments and partial takes on residential and business property land. Although the project may result in an initial loss of property and sales tax revenues for the County and City of Santa Cruz and the City of Capitola, this potential impact would be temporary while residents and businesses relocate following acquisition of their property for highway right of way. Based on a Relocation Assistance analysis prepared for the Santa Cruz Regional Transportation Authority in 2011, it is anticipated that all displaced residents and businesses/employees be relocated within the general Santa Cruz area. Under the No-Build Alternative, revenue losses associated with property acquisitions would not occur.

### 6.1.2 Creation of Jobs and Economic Activity

Selection of the Tier II build alternative and subsequent construction projects stemming from the Tier I corridor alternative will have a beneficial impact on the local economy, due to demand for goods and services. It is anticipated that construction projects within the corridor would be phased in over a number of years. For this reason, it difficult to quantify the economic benefit in current dollars. In addition to direct construction jobs, employment opportunities are created off-site due to the demand for goods and services.

There are also monetary savings that the region would realize from improvement in operating efficiency, mobility, and safety of vehicular travel. Improvements in operating efficiency include such user benefits as savings in fuel, oil, tire, repair and maintenance, and depreciation; mobility savings include travel time savings; and safety savings include

reduction in property damage and fatal injury accidents. The economic benefits associated with improved operational efficiency and travel time savings would not be realized under the No-Build Alternative, and over time the increasing congestion would likely have economic impacts in terms of lost productivity; however, this cannot be quantified.

### **6.1.3 Property Values**

The HOV Lane Alternative of the proposed project would require a permanent relocation of 8 residences and 11 businesses adjacent to the existing corridors. These property acquisitions are not likely to create significant change in the area setting within the project locality. The fiscal impacts due to the loss of these revenues will be minor. Because an extremely small number of properties within the local area will be affected, it is anticipated that the impact on property values either locally or regionally will be negligible. Under the No-Build Alternative, the minor impact on property values would not occur.

## **6.2 AVOIDANCE, MINIMIZATION, AND MITIGATION MEASURES**

### Tier I Alternatives

#### **No-Build Alternative**

No impacts would occur; therefore, no avoidance, minimization, and mitigation measures would be required.

#### **TSM Alternative**

No avoidance, minimization and mitigation measures are required. Affected property owners will receive relocation assistance as prescribed by the Uniform Relocation Assistance and Real Property Acquisition Act.

#### **HOV Lane Alternative**

No avoidance, minimization and mitigation measures are required. Affected property owners will receive relocation assistance as prescribed by the Uniform Relocation Assistance and Real Property Acquisition Act.

### Tier II Alternatives

#### **No-Build Alternative**

No impacts would occur; therefore, no avoidance, minimization, and mitigation measures would be required.



**Auxiliary Lane Alternative**

No avoidance, minimization and mitigation measures are required. Affected property owners will receive relocation assistance as prescribed by the Uniform Relocation Assistance and Real Property Acquisition Act.



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## **Appendix A**

### **Summary of Relocation Benefits**





# Appendix A

## Summary of Relocation Benefits

### CALIFORNIA DEPARTMENT OF TRANSPORTATION RELOCATION ASSISTANCE PROGRAM

#### RELOCATION ASSISTANCE ADVISORY SERVICES

This Appendix is general in nature and is not intended to be a complete statement of federal and state relocation laws and regulations. Any questions concerning relocation should be addressed to Caltrans Right-of-Way. This section provides some general descriptive information on Public Law (PL) 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended. This is often referred to simply as the “Uniform Act.” The information in this Appendix is provided only as background and is not intended as a complete statement of all the state or federal laws and regulations; for specific details the environmental planner should contact the appropriate Caltrans District or Regional Right-of-Way Relocation Branch. After presenting an outline of the basic legal foundation for relocation policy, the Appendix looks at important relocation assistance information, including advisory services and the payment program. Refer to the Caltrans Right-of-Way Manual Chapter 10, for more detailed and specific information regarding relocation and housing programs.

#### DECLARATION OF POLICY

“The purpose of this title is to establish a uniform policy for fair and equitable treatment of persons displaced as a result of federal and federally assisted programs in order that such persons shall not suffer disproportionate injuries as a result of programs designed for the benefit of the public as a whole.”

The Fifth Amendment to the U.S. Constitution states, “No Person shall be deprived of life, liberty, or property, without due process of law, nor shall private property be taken for public use without just compensation.” The Uniform Act sets forth in statute the due process that must be followed in Real Property acquisitions involving federal funds. Supplementing the Uniform Act is the government-wide single rule for all agencies to follow, set forth in 49 Code of Federal Regulations (CFR) Part 24. Displaced individuals, families, businesses, farms, and nonprofit organizations may be eligible for relocation advisory services and payments, as discussed below.

## **FAIR HOUSING**

The Fair Housing Law (Title VIII of the Civil Rights Act of 1968) sets forth the policy of the United States to provide, within constitutional limitations, for fair housing. This Act, and as amended, makes discriminatory practices in the purchase and rental of most residential units illegal. Whenever possible, minority persons shall be given reasonable opportunities to relocate to any available housing regardless of neighborhood, as long as the replacement dwellings are decent, safe, and sanitary and are within their financial means. This policy, however, does not require the Department to provide a person a larger payment than is necessary to enable a person to relocate to a comparable replacement dwelling.

Any persons to be displaced will be assigned to a relocation advisor, who will work closely with each displacee in order to see that all payments and benefits are fully utilized, and that all regulations are observed, thereby avoiding the possibility of displacees jeopardizing or forfeiting any of their benefits or payments. At the time of the initiation of negotiations (usually the first written offer to purchase), owner-occupants are given a detailed explanation of the state's relocation services. Tenant occupants of properties to be acquired are contacted soon after the initiation of negotiations, and also are given a detailed explanation of the Caltrans Relocation Assistance Program. To avoid loss of possible benefits, no individual, family, business, farm, or nonprofit organization should commit to purchase or rent a replacement property without first contacting a Department relocation advisor.

## **RELOCATION ASSISTANCE ADVISORY SERVICES**

In accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended, the Department will provide relocation advisory assistance to any person, business, farm or nonprofit organization displaced as a result of the acquisition of real property for public use, so long as they are legally present in the United States. The Department will assist eligible displacees in obtaining comparable replacement housing by providing current and continuing information on the availability and prices of both houses for sale and rental units that are “decent, safe and sanitary.” Non-residential displacees will receive information on comparable properties for lease or purchase (For business, farm and nonprofit organization relocation services, see below).

Residential replacement dwellings will be in a location generally not less desirable than the displacement neighborhood at prices or rents within the financial ability of the individuals and families displaced, and reasonably accessible to their places of

employment. Before any displacement occurs, comparable replacement dwellings will be offered to displacees that are open to all persons regardless of race, color, religion, sex, national origin, and consistent with the requirements of Title VIII of the Civil Rights Act of 1968. This assistance will also include the supplying of information concerning federal and state assisted housing programs, and any other known services being offered by public and private agencies in the area.

Persons who are eligible for relocation payments and who are legally occupying the property required for the project will not be asked to move without first being given at least 90 days written notice. Residential occupants eligible for relocation payment(s) will not be required to move unless at least one comparable “decent, safe and sanitary” replacement dwelling, available on the market, is offered to them by the Department.

## **RESIDENTIAL RELOCATION PAYMENTS**

The Relocation Assistance Program will help eligible residential occupants by paying certain costs and expenses. These costs are limited to those necessary for or incidental to the purchase or rental of a replacement dwelling and actual reasonable moving expenses to a new location within 50 miles of the displacement property. Any actual moving costs in excess of the 50 miles are the responsibility of the displacee. The Residential Relocation Assistance Program can be summarized as follows:

### **Moving Costs**

Any displaced person, who lawfully occupied the acquired property, regardless of the length of occupancy in the property acquired, will be eligible for reimbursement of moving costs. Displacees will receive either the actual reasonable costs involved in moving themselves and personal property up to a maximum of 50 miles, or a fixed payment based on a fixed moving cost schedule. Lawful occupants who move into the displacement property after the initiation of negotiations must wait until the Department obtains control of the property in order to be eligible for relocation payments.

### **Purchase Differential**

In addition to moving and related expense payments, fully eligible homeowners may be entitled to payments for increased costs of replacement housing.

Homeowners who have owned and occupied their property for 180 days or more prior to the date of the initiation of negotiations (usually the first written offer to purchase the property), may qualify to receive a price differential payment and may qualify to receive

reimbursement for certain nonrecurring costs incidental to the purchase of the replacement property. An interest differential payment is also available if the interest rate for the loan on the replacement dwelling is higher than the loan rate on the displacement dwelling, subject to certain limitations on reimbursement based upon the replacement property interest rate. The maximum combination of these three supplemental payments that the owner-occupant can receive is \$22,500. If the total entitlement (without the moving payments) is in excess of \$22,500, the Last Resort Housing Program will be used (See the explanation of the Last Resort Housing Program below).

### **Rent Differential**

Tenants and certain owner-occupants (based on length of ownership) who have occupied the property to be acquired by the Department prior to the date of the initiation of negotiations may qualify to receive a rent differential payment. This payment is made when the Department determines that the cost to rent a comparable “decent, safe and sanitary” replacement dwelling will be more than the present rent of the displacement dwelling. As an alternative, the tenant may qualify for a down payment benefit designed to assist in the purchase of a replacement property and the payment of certain costs incidental to the purchase, subject to certain limitations noted under the Down Payment section below. The maximum amount payable to any eligible tenant and any owner-occupant of less than 180 days, in addition to moving expenses, is \$5,250. If the total entitlement for rent supplement exceeds \$5,250, the Last Resort Housing Program will be used.

In order to receive any relocation benefits, the displaced person must buy or rent and occupy a “decent, safe and sanitary” replacement dwelling within one year from the date the Department takes legal possession of the property, or from the date the displacee vacates the displacement property, whichever is later.

### **Down Payment**

The down payment option has been designed to aid owner-occupants of less than 180 days and tenants in legal occupancy prior to Caltrans' initiation of negotiations. The down payment and incidental expenses cannot exceed the maximum payment of \$5,250. The one-year eligibility period in which to purchase and occupy a “decent, safe and sanitary” replacement dwelling will apply.

## **Last Resort Housing**

Federal regulations (49 CFR 24) contain the policy and procedure for implementing the Last Resort Housing Program on federal-aid projects. Last Resort Housing benefits are, except for the amounts of payments and the methods in making them, the same as those benefits for standard residential relocation as explained above. Last Resort Housing has been designed primarily to cover situations where a displacee cannot be relocated because of lack of available comparable replacement housing, or when the anticipated replacement housing payments exceed the \$22,500 and \$5,250 limits of the standard relocation procedure, because either the displacee lacks the financial ability or other valid circumstances.

After the initiation of negotiations, the Department will within a reasonable length of time, personally contact the displacees to gather important information, including the following:

- Number of people to be displaced;
- Specific arrangements needed to accommodate any family member(s) with special needs;
- Financial ability to relocate into comparable replacement dwelling which will adequately house all members of the family;
- Preferences in area of relocation; and
- Location of employment or school.

## **NONRESIDENTIAL RELOCATION ASSISTANCE**

The Nonresidential Relocation Assistance Program provides assistance to businesses, farms and nonprofit organizations in locating suitable replacement property, and reimbursement for certain costs involved in relocation. The Relocation Advisory Assistance Program will provide current lists of properties offered for sale or rent, suitable for a particular business's specific relocation needs. The types of payments available to eligible businesses, farms and nonprofit organizations are: searching and moving expenses, and possibly reestablishment expenses; or a fixed in lieu payment instead of any moving, searching and reestablishment expenses. The payment types can be summarized as follows:

### **Moving Expenses**

Moving expenses may include the following actual, reasonable costs:

The moving of inventory, machinery, equipment and similar business-related property, including: dismantling, disconnecting, crating, packing, loading, insuring, transporting, unloading, unpacking, and reconnecting of personal property. Items acquired in the right-of-way contract may not be moved under the Relocation Assistance Program. If the displacee buys an Item Pertaining to the Realty back at salvage value, the cost to move that item is borne by the displacee.

Loss of tangible personal property provides payment for actual, direct loss of personal property that the owner is permitted not to move.

Expenses related to searching for a new business site, up to \$2,500, for reasonable expenses actually incurred.

### **Reestablishment Expenses**

Reestablishment expenses related to the operation of the business at the new location, up to \$10,000 for reasonable expenses actually incurred.

### **Fixed In Lieu Payment**

A fixed payment in lieu of moving, searching, and reestablishment payments may be available to businesses which meet certain eligibility requirements. This payment is an amount equal to half the average annual net earnings for the last two taxable years prior to the relocation and may not be less than \$1,000 nor more than \$20,000.

### **ADDITIONAL INFORMATION**

Reimbursement for moving costs and replacement housing payments are not considered income for the purpose of the Internal Revenue Code of 1954, or for the purpose of determining the extent of eligibility of a displacee for assistance under the Social Security Act, or any other law, except for any federal law providing local "Section 8" Housing Programs.

Any person, business, farm or nonprofit organization which has been refused a relocation payment by the Department relocation advisor or believes that the payment(s) offered by the agency are inadequate, may appeal for a special hearing of the complaint. No legal assistance is required. Information about the appeal procedure is available from the relocation advisor.

California law allows for the payment for lost goodwill that arises from the displacement for a public project. A list of ineligible expenses can be obtained from Caltrans Right-of-Way. California's law and the federal regulations covering relocation assistance provide that no payment shall be duplicated by other payments being made by the displacing agency.

## **RESIDENTIAL RELOCATION PAYMENTS PROGRAM**

The links below are to the Relocation Assistance for Residential Relocation Brochure. Print them and place them in the environmental document as applicable.

[http://www.dot.ca.gov/hq/row/pubs/residential\\_english.pdf](http://www.dot.ca.gov/hq/row/pubs/residential_english.pdf)

[http://www.dot.ca.gov/hq/row/pubs/residential\\_spanish.pdf](http://www.dot.ca.gov/hq/row/pubs/residential_spanish.pdf)

## **THE BUSINESS AND FARM RELOCATION ASSISTANCE PROGRAM**

If the project requires relocation of businesses and/or farms, print and include the following:

[http://www.dot.ca.gov/hq/row/pubs/business\\_farm.pdf](http://www.dot.ca.gov/hq/row/pubs/business_farm.pdf)

[http://www.dot.ca.gov/hq/row/pubs/business\\_sp.pdf](http://www.dot.ca.gov/hq/row/pubs/business_sp.pdf)





## **Appendix B**

### **Draft Relocation Impact Study (To be submitted under separate cover.)**

## **Appendix C**

### **SUMMARY DESCRIPTION OF PARKS AND RECREATION FACILITIES**

**Table C-1: Summary Description of Parks and Recreation Facilities within 0.5 Mile of the Tier I and Tier II Corridor Alternatives**

<b>No.</b>	<b>Park Name/ Agency of Jurisdiction</b>	<b>Address</b>	<b>Distance from Project (miles)</b>	<b>Description</b>
1	De Laveaga Park City of Santa Cruz Recreation and Parks Department	Branciforte Avenue, Santa Cruz	0.29	A 35-acre park that includes bocce ball courts, volleyball courts, a soccer area, softball diamonds, picnic areas, barbeque pits, trails, and horseshoe pits. Natural features in the park include Branciforte Creek, Meadow and George Washington Grove.
2	Forest of Nisene Marks State Park California Department of Parks and Recreation	Aptos Creek Road/ Soquel Drive, Aptos	0.22	A State park that contains more than 40 miles of hiking trails and fire roads through approximately 10,000 acres of variable terrain. It offers running, hiking, horseback riding, camping (backpacking), and mountain biking facilities. Picnic tables and barbecue pits are available.
3	Grant Park City of Santa Cruz Recreation and Parks Department	Grant Street, Santa Cruz	0.29	A 2.4-acre park with picnic tables and barbecues, playground equipment, youth baseball court, and children's play area.
4	East Side Park City of Santa Cruz Recreation and Parks Department	Water Street/Soquel Avenue, Santa Cruz	0.49	Small neighborhood park for passive recreation.
5	John Franks Park Santa Cruz County Parks Department	Marnell Street, Santa Cruz	0.12	A small park with playground, field, and picnic tables.
6	Arana Gulch Open Space City of Santa Cruz Recreation and Parks Department	Agnes Street, Santa Cruz	0.45	A landform and greenbelt area that includes open meadows, California oak woodland, and the riparian zone of Arana Creek. A set of trails is used to access the park, with accommodation to hikers and bicyclists. Arana Gulch supports a variety of vegetation and wildlife, and it provides habitat for Santa Cruz tarplant, endangered species, and other special-status species.
7	Perry Park The City of Capitola Parks Department	Bay Avenue/Center Street, Capitola	0.2	Perry Park is a 1-acre park with bicycle and pedestrian paths and picnic tables.
8	Nobel Gulch Park The City of Capitola Parks Department	Bay Avenue/ Monterey Avenue, Capitola	0.46	A 0.5-acre park with picnic tables and lawn area.

**Table C-1: Summary Description of Parks and Recreation Facilities within 0.5 Mile of the Tier I and Tier II Corridor Alternatives**

<b>No.</b>	<b>Park Name/ Agency of Jurisdiction</b>	<b>Address</b>	<b>Distance from Project (miles)</b>	<b>Description</b>
9	Monterey Avenue Park The City of Capitola Parks Department	Monterey Avenue, Capitola	0.28	A small community park with softball field, playground, picnic tables, and lawn areas.
10	Cortez Park The City of Capitola Parks Department	Cortez Street, Capitola	0.21	Cortez Park includes children's playground equipment and benches on 0.75-acre.
11	Winkle Farm Park Santa Cruz County Parks Department	Winkle Avenue, Santa Cruz	0.41	A 1.5-acre park with walking paths, a lawn area, picnic tables, playground equipment, barbeque, and horseshoe pits.
12	Coffee Lane Park Santa Cruz County Parks Department	Coffee Lane, Live Oak	0.31	A 2.7-acre park with a basketball court, picnic tables, a lawn area, and playground equipment.
13	Soquel Lions Park Santa Cruz County Parks Department	Main Street, Soquel	0.19	A 0.5-acre park with picnic tables, a barbeque pit, playground equipment, and a pedestrian bridge.
14	Richard Vessey Park Santa Cruz County Parks Department	Maplethorpe Lane, Soquel	0.41	A 1-acre park with a lawn area, playground equipment, picnic tables, and barbeque pits.
15	Willowbrook Park Santa Cruz County Parks Department	Willowbrook Lane, Soquel	0.27	A 6.3-acre neighborhood park with basketball and tennis courts, picnic areas with barbeque pits, and a playground.
16	Aptos Village Park Santa Cruz County Parks Department	Aptos Creek Road, Aptos	0.17	A 10.3-acre park tucked into old Aptos Village. It is the site of weekend music festivals, family picnics, weddings, company picnics, Renaissance Camp, and other special events. The park has a gazebo, picnic tables, and a lawn area that is open to the public.
17	Chanticleer Ave Park Santa Cruz County Redevelopment Agency	Chanticleer Avenue, Live Oak	0.48	Chanticleer Park is a 2.5-acre park consisting of lawn area, playground equipment, historical structure, picnic areas, tennis court, off-leash dog walking area, community garden, bicycle track area, walking path, skateboarding area, bocce ball court, benches, drinking fountain, and restrooms.

**Table C-1: Summary Description of Parks and Recreation Facilities within 0.5 Mile of the Tier I and Tier II Corridor Alternatives**

<b>No.</b>	<b>Park Name/ Agency of Jurisdiction</b>	<b>Address</b>	<b>Distance from Project (miles)</b>	<b>Description</b>
18	Seacliff State Beach California Department of Parks and Recreation	State Park Drive, Aptos	0.4	This public beach provides recreational vehicle facilities, picnic tables, and fire pits. It is also a popular place for surfing and fishing. The beach's most notable feature is the concrete ship SS <i>Palo Alto</i> lying at the end of a pier. The ship was hauled to Seacliff Beach in 1929 and sank and turned into an amusement center, complete with a dance floor, cafe, pool, and carnival booths. The ship is now permanently closed to the public.
19	New Brighton State Beach California Department of Parks and Recreation	McGregor Drive, Capitola	0.028	The beach features picnic areas, swimming, fishing, and a nearby forest of Monterey pine and Coastal live oak. The camping area is on a bluff overlooking northern Monterey Bay.
Source: Community Impact Assessment, 2015.				